Exploring the interrelationship between selected leadership styles, motivational stance and work engagement

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ABSTRACT

Orientation: In today's increasingly competitive and fast-changing world of business, organizations are under immense pressure to grow or even just to survive. Although it is important to have great products, brand and service, it is all for nothing if the employee does not execute in the field.

Research purpose: This study aimed to explore the interrelationship between selected leadership styles, motivational stance and work engagement, viewing motivational stance as potential mediating factor that facilitates the link between leadership and work engagement.

Motivation for the study: Sales professionals have long been remunerated by way of commission, mainly because previous studies have shown that the typical sales professional has a larger appetite for risk, and that such systems will potentially appeal to them. However, the SDT argues that although such commonly used extrinsic rewards can create short-term productivity increases, the resulting motivation is unsustainable.

Research design, approach and method: A quantitative research design with a convenience sample (*n = 128*) was used. Questionnaires were distributed electronically to potential participants across 28 countries. The target respondent group was sales professionals in an engineering organization. The Servant Leadership Survey, Empowering Leadership Questionnaire, Work Extrinsic and Intrinsic Motivational Scale, and the Utrecht Work Engagement Scale were administered. Leadership styles were measured from a follower perspective, and did not include a self-evaluation of the leader's own style.

Main findings: It was found that autonomous motivation correlates highly with work engagement among sales professionals. Moreover, mediation analysis revealed that autonomous motivation partially facilitates the influence of leadership on work engagement.

Practical/managerial implications: The findings provide possible directions for how leaders can design the sales environment, utilizing the self-determination theory in order to facilitate higher levels of work engagement.

Contribution/value-add: This study added value in that it investigated the influence of leadership on work engagement, viewing motivational stance as a potential mediating factor between the two constructs. This study further contributed to the literature in that it investigated the types of motivation that correlate highest to work engagement.

Keywords: Leadership, Motivational Stance, Self-determination theory, Work Engagement, Sales Professionals

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LIST OF ABBREVIATIONS

Abbreviation	Description
AMO	Amotivation
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
EL	Empowering Leadership
ELQ	Empowering Leadership Questionnaire
ER	External Regulation
IDEN	Identified Regulation
INTEG	Integrated Regulation
INTRIN	Intrinsic Motivation
INTRO	Introjected Regulation
KMO	Kaiser-Meyer-Olkin
SDT	Self-determination Theory
SL	Servant Leadership
SLS	Servant Leadership Survey
TFL	Transformational Leadership
UWES	Utrecht Work Engagement Scale
WE	Work Engagement
WEIMS	Work Extrinsic and Intrinsic Motivation Scale

CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

This study focused on perceived leadership styles, and how these perceptions in turn relate to the satisfaction of motivational needs, and ultimately influence the work engagement of the employee. In this chapter, the introduction to the chosen topic as well as the problem statement for this study is provided. The introduction provides a general orientation to the value of work engagement, followed by a brief overview and link to self-determination theory as well as the role of leadership. The chapter further provides details of the research objectives and significance of the study. The chapter continues by presenting the scope of the study, the proposed research methodology and possible limitations of the study. It concludes with an overview of the ensuing chapters.

1.2 BACKGROUND

In today's increasingly competitive and fast-changing world of business, organizations are under immense pressure to grow or even survive (Lu *et al.*, 2013:142). The most effective way to grow an organization is to grow the people in it. The inability to get things done through people is considered one of the most significant contributions to business failure (The John Maxwell Company, 2012). More than ever before, the future success of organizations depends on having a fully engaged workforce (Lu *et al.*, 2013:142).

Work engagement (WE) has recently received considerable attention from organizational behaviour researchers and practitioners due to its positive association with individual and organizational performance (Lu *et al.*, 2013:142). Rothmann (2017:318) also predicts that work engagement will receive even more attention in the future from organizations that strive for increased labour productivity in the rapidly changing global economy. Rothmann (2017:317-318) attributes the increasing interest in work engagement to the finding that engagement has a positive effect on the psychological well-being of employees as well as the need of business to maximize the inputs of employees.

Engaged employees are typically characterized by being energetic, dedicated, enthusiastic, inspired and proud of their work (Breevaart *et al.*, 2015:755). According to Dixon and Adamson (2011:47-51), the influence of the interaction with an organization's sales professionals contributes 53% to customer loyalty, followed by company brand (19%), product and service delivery (19%), and value-to-price ratio (9%). Dixon and Adamson argue that although it is important to have great products, brand and service, it is all for nothing if the employee does not execute in the field. Rothmann (2017:318-319) states that engaged employees will not only demonstrate innovative behaviours and initiative, but will also proactively seek opportunities to contribute and surpass what is expected in their roles.

In the modern organizational environment, more than 70% of all employees work in service and knowledge-related jobs, and their performances are driven by skills, attitudes, customer empathy, ability to innovate, and flexibility to drive change (Deloitte, 2014:45). Deloitte adds that the view that employees are only workers whose performance can be measured by output, number of hours worked or other numeric measures, is considered outdated. Traditional performance management, whereby employees are annually rated and ranked against their colleagues is also widely considered as broken.

Given the knowledge-related nature of modern jobs, money is considered a limited motivator for performance, innovation and adaptability. Knowledge workers are instead more driven by purpose (Benest, 2016:2). Benest (2016:2) contends that once an organization provides competitive compensation and benefits, purpose becomes the new currency. Congruent to the Self-determination Theory (SDT) of motivation, Benest (2016:2) further states that knowledge workers are greatly motivated through autonomy (the urge to have control over one’s own life) and mastery (the urge to become an expert at what one does). Although compensation experts generally maintain that incentive systems should link rewards to performance, the SDT argues that such contingent rewards can be detrimental to autonomous motivation (Gagne & Forest, 2011:3).

The SDT of motivation generally applies to activities that people find interesting, challenging, or visually attractive (Tremblay *et al.*, 2009:214). Activities such as work often fall outside of this framework and as such, it is unlikely to be performed without at least some level of extrinsic motivation. Consequently, Tremblay *et al.* (2009:214) describe the SDT as a continuum, viewing intrinsic motivation and amotivation as opposite poles of the continuum. Intrinsic motivation refers to taking part in an activity for its own sake, whereas amotivation refers to a lack of the intention to act or to act passively. In this continuum, extrinsic motivation refers to taking part in an activity for an instrumental reason. This self-determination continuum is known to be a useful predictor of work engagement, job performance and employee retention. Intrinsic motivation leads to the most positive consequences, while amotivation is associated with counterproductive performance and employee withdrawal (Tremblay *et al.*, 2009:214).

Leadership is believed to be of special importance in providing a sense of intrinsic motivation at the workplace. Leadership styles that involve qualities such as inspiration, empowerment, support, and positive role modelling are positively correlated with psychological need satisfaction, which in turn promotes work engagement (Hetland *et al.*, 2011:50; Rothmann, 2017:328). High quality leader-follower relationships may contribute towards intrinsic motivation, as the leader facilitates job performance, but also expects high job performance in return. It has also been found that followers in high quality leader-follower relationships are more optimistic and self-efficacious, which are important predictors of work engagement (Breevaart *et al.*, 2015:756).

It has been proclaimed that leaders cannot give motivation to anyone, and that leaders who think they possess the power to instil motivation in another person are somewhat arrogant and foolish. Leaders can merely tap into pre-existing motivation and channel it. A leader’s goal should not be to provide followers with enthusiasm to perform, but rather to discover the desires that naturally motivate followers to act (The John Maxwell Company, 2013). Leadership can thus drive employees to be intrinsically motivated towards realizing a common goal (Page & Wong, 2000).

Effective leadership is a never-ending task due to the constant changes of life. What is effective in motivating employees today will not necessarily be effective in motivating them later in their careers. This is because people’s values and needs change as their personal and professional lives progress. Furthermore, what motivates the leader does not necessarily motivate the team members. This necessitates leaders to take an interpersonal approach to motivation that caters for a variety of ambitions and interests (The John Maxwell Company, 2013).

Work engagement and developing appropriate leadership styles are regarded as the key people challenges across industrial sectors. It is also likely that retention of key employees and managing the different needs and expectations of a multi-generational workforce will continue to be some of the main people challenges organizations will face in the next five years (Lucy *et al.*, 2016:16-20). This study investigated the interrelationship between selected leadership styles from a follower perspective, motivation from a self-determination theory (SDT) perspective and work engagement in a global engineering organization, specifically from a sales perspective. In view of the introduction above, it seemed worthwhile to investigate whether the SDT can be viewed as a potential mediating factor that facilitates the link between leadership and work engagement.

1.3 PROBLEM STATEMENT

Human resource specialists currently popularly recommend variable pay systems due to the belief that it will provide a competitive advantage. This assumption relies on the expectancy theory of motivation, whereby employees are motivated to achieve goals with the highest expected outcomes or payoffs. Seeing that many organizations no longer guarantee secure employment, it is argued that the only way employee commitment can be solicited is through compensation (Gagne & Forest, 2011:6).

Compensation almost exclusively relies on the agency theory, where the work relationship is a transactional contract between employer and employee. The organization expects of the employee to align his behaviour such that it brings the organization closer to its goal fulfilment and that the organization must pay the employee for such behaviour. Under the agency theory, compensation is thus an instrument used to influence employee behaviour, without much regard for intervening elements such as employee motivation and performance. The agency theory thus relies solely on extrinsic motivation (Gagne & Forest, 2011:6).

Sales professionals have been remunerated by way of commission long before economists created the principle of the agency theory. Organizations followed this system because it makes short-term outputs easy to measure, it gives managers a certain level of control while not knowing if the employee is actually visiting customers, and because previous studies have shown that the typical sales professional has a larger appetite for risk and that such systems will potentially appeal to them (Chung, 2015).

When viewing the agency theory from the perspective of the SDT, the major problem is that agency theory assumes that employees could never internalize the employer’s goals. The only means available to employers to influence behaviour is thus through extrinsic methods such as linking pay to performance. SDT argues that such contingent rewards can in fact be detrimental to autonomous motivation. Guidelines for engaging employees through leadership and job design have already been provided by SDT research. What SDT research has not yet addressed is how to align reward systems with these guidelines (Gagne & Forest, 2011:3-13).

This study is intended to determine which leadership and motivational characteristics have the highest influence on work engagement, and to suggest a framework for organizations and leaders to operate within. The intended target respondents for this study are sales professionals in the engineering sector.

1.4 RESEARCH QUESTIONS

This study aimed to explore the interrelationship between selected leadership styles, motivational stance and work engagement, viewing motivation as interpreted by SDT as the potential mediating factor that facilitates the link between leadership and work engagement. It was against this background that the research questions for this study were formulated:

a) What are the relationships between the various measured constructs?

b) What is the intensity of work engagement among the sales professionals in the organization?

c) Are sales professionals more engaged through extrinsic or intrinsic motivational factors?

d) Is leadership a positive predictor of work engagement?

e) Is motivation a positive predictor of work engagement?

f) Can motivation serve as a mediating factor between leadership and work engagement?

1.5 EXPECTED CONTRIBUTION OF THE STUDY

Numerous studies demonstrate the positive relationship between leadership and organizational outcomes (Park *et al.*, 2017:352). Similarly, the importance of motivational stance is supported by considerable evidence throughout the literature (Stone *et al.*, 2009:77). This study added value in that it investigated the influence of leadership on work engagement and viewing motivational stance as a potential mediating factor between the two constructs.

Furthermore, Reijseger *et al.* (2017:118) state that work engagement is maintained best when originating from intrinsic motivation, but that the type of intrinsic motivation that may explain increased work engagement is still rather unknown. This study contributed in that it investigated the types of intrinsic motivation that correlate most highly with work engagement.

1.6 RESEARCH AIMS AND OBJECTIVES

The research objectives were divided into a general objective and specific objectives.

1.6.1 General objective

The primary objective of this study was to investigate the extent to which selected leadership styles and motivation, based on the self-determination theory, can predict the work engagement of employees.

1.6.2 Specific objectives

The specific objectives of this study were to:

1) Develop a conceptual understanding of the following key concepts through conducting a literature review:
    a. work engagement,
    b. self-determination theory of motivation, and
    c. Servant and Empowering leadership.
2) Empirically assess the levels of work engagement, motivation from an SDT perspective, and perceived leadership styles, using a combination of documented scales and subscales,
3) Determine the statistical relationship between the various constructs,
4) Make recommendations to management, based on the empirical research findings.

1.7 SCOPE OF THE STUDY

This study relates to the subject of business management, specifically organizational behaviour. It was aimed at the individual employee level and the empirical study thus measured the employees' feelings and perceptions. The study did not focus on organization-level outcomes, such as reward and recognition systems. The study measured only selected leadership styles from a follower perspective, and did not include a self-evaluation of the leader's own style. The study also focused on the continuum of self-determination theory, rather than including the various intrinsic dimensions of autonomy, relatedness and mastery.

1.8 RESEARCH METHODOLOGY

This section outlines the methodology followed during this study, and briefly describes the measuring instruments that were used.

1.8.1 Research approach

The two main approaches to research are qualitative or quantitative approaches. The quantitative approach aims to uncover general laws of relationships that apply to all people and at all times, while the qualitative approach is concerned with understanding human behaviour from the perspective of the people involved. Quantitative research is concerned with the description of phenomena, while qualitative research is concerned with the experiencing of the phenomena (Welman *et al.*, 2005:7). Consequently, Welman *et al.* (2005:7) define quantitative research as the study of observable human behaviour, while qualitative research is defined as the experiencing of human behaviour. Table 1-1 shows the main differences between the qualitative and quantitative research methodologies.

Table 1-1: Differences between quantitative and qualitative research (Welman *et al.*, 2005:8-9)

	Qualitative	Quantitative
Purpose	Evaluate subjective data that are produced by the minds of respondents or interviewees	To evaluate objective data consisting of numbers
Format	Presented in language	Presented in numbers
Process	Analysis that is based on understanding the significance which respondents attach to their environment	Analysis that is based on complex structured methods to confirm or disprove hypotheses
Flexibility	Flexible and explorative methods that enable the researcher to change the data progressively to gain a deeper understanding of what is being investigated	Limited flexibility to prevent any form of bias in presenting the results
Perspective	Try to achieve an insider's perspective by talking to subjects or observing their behaviour	Try to understand the facts of a research investigation from an outsider's perspective
Belief	First-hand experience of the object under investigation produces the best data	Must keep a detached, objective view of the facts so as to keep the research process, hypothetically, free from bias
Focus	Focus on validity. Data must be representative of what is being investigated	Focus on reliability. Consistent and stable measurement of data as well as replicability
Sample	Involves small samples of people, studied by means of in-depth methods	Involves larger numbers of cases and the analysis of results is usually based on statistical significance

This study followed a quantitative research approach, as it sought to confirm a hypothesis rather than to explore or understand a phenomenon. The research design comprises a structured questionnaire as the method to investigate research constructs. The questionnaire used a combination of validated scales and subscales in the public domain, and answers were quantified through use of a Likert Scale. This non-experimental study did not involve any intervention with respondents. The primary data were treated statistically and results are presented in numerical format. Data obtained from the questionnaires were tested for reliability and validity. The data analyses in this study are exploratory and correlational, and inferential statistics were performed as data allowed.

1.8.2 Literature review

A literature review conducted focused on motivation, leadership and its influence on work engagement, with the SDT as core theory of motivation. The cited literature was obtained through internet, journal, book and library searches. Specific databases used include Scopus, ScienceDirect, and Emerald Insight.

The relevant research was captured and summarized to form the literature study. Key search words included work engagement, leadership, motivation, self-determination theory, compensation, and rewards and recognition.

1.8.3 Sampling and sample size

Considering credibility and availability of resources, this study made use of convenience sampling to satisfy the research objectives. The research questionnaire was distributed to 300 potential respondents who work for one engineering organization. All target respondents were sales professionals. The organization operates globally, and the potential respondents were situated across 28 different countries. Questionnaires were distributed electronically using the Google Forms platform, and 128 completed questionnaires were returned. The period for sampling was planned for April to May 2017.

1.8.4 Measuring instruments

The measuring instruments that were used in this study are previously validated scales and subscales in the public domain. Since the present study was aimed at an organizational setting, the terms *employee engagement* and *work engagement* are used interchangeably for the purposes of this study. The various instruments that were used are shown in the list below:

1) The Servant Leadership Survey (SLS) was used to measure perceived servant leadership style,

2) The Empowering Leadership Questionnaire (ELQ) was used to measure perceived empowering leadership style,
3) The Work Extrinsic and Intrinsic Motivational Scale (WEIMS) was used to measure intrinsic and extrinsic motivation from a SDT perspective,
4) The Utrecht Work Engagement Scale (UWES) was used to measure employee engagement.

These chosen scales were considered appropriate for the scope and sample of this research project. According to van Dierendonck *et al.* (2017:9-10), the SLS is one of the best instruments available to researchers worldwide who are interested in using a valid and reliable measure of servant leadership. Van Dierendonck *et al.* (2017:9-10) studied the cross-cultural equivalence of the SLS, and were able to establish factorial validity, configural invariance and measurement equivalence across eight countries and languages. The SLS was thus considered a suitable instrument as it compares well to the cross-cultural and international context of the present study.

Arnold *et al.* (2000:266) found that the ELQ is most applicable for use in research with empowered teams (autonomous and self-managing), although the scale may also be useful for research in other team environments due to the make-up of the ELQ categories and its relation to the empowerment literature. In a validation study, ranging across five organizations and four different industries, and which included self-managing teams as well as task and cross-functional teams, Arnold *et al.* (2000:260-263) found satisfactory reliability for all five ELQ subscales (Cronbach-alpha ≥ 0.85). The sales environment, which was the target environment for the present study, was considered to be autonomous and self-managing in nature, and thus falls well into the framework of the ELQ.

The applicability of the WEIMS within different work environments was tested in (Tremblay *et al.*, 2009). It was found that the WEIMS has construct, content and criterion validity for use in organizational settings, and that the WEIMS has the ability to predict positive and negative organizational criteria based on one’s self-determined motivation. Tremblay *et al.* (2009:222) also found that results pertaining to the validation of the WEIMS were consistent with results obtained with similar SDT-based instruments used across other domains. They further determined that the WEIMS could be used across different populations with minimum concern for sample specificity. Since the present study was aimed at use in an organizational setting, and across different countries and cultures, the WEIMS was considered an appropriate instrument for the measuring of motivational stance.

According to Schaufeli *et al.* (2006:703), the UWES is an acceptable and unbiased instrument to measure work engagement across different racial groups. The UWES was also found to have high Cronbach's alpha for internal consistencies (typically ranging between .80 and .90). Rothmann (2014:170-171) found that the metaphors used in some of the UWES questions are problematic for use in different cultural groups, but continues to say that the UWES has been used in most cross-cultural studies of work engagement. The UWES was thus considered an appropriate instrument to measure work engagement for the scope and purpose of the present study.

The various research instruments are discussed in more detail in Chapter 3.

1.8.5 Empirical study

The research design was based on a quantitative approach, making use of a combination of validated scales and subscales in the public domain. The various scales and subscales were used to compile a single questionnaire for gathering data. The questionnaire measured perceived leadership styles, motivation (based on the SDT), as well as work engagement of employees. The target group for this study was sales professionals.

1.8.5.1 Statistical analysis

The empirical study involved analysing the data obtained through the questionnaires, as well as making certain statistical deductions about the relevant target group responses. Data were processed holistically in a statistical manner, and were not used to interrogate individual responses. Data were summarised descriptively and displayed graphically. Typical statistical techniques used include multiple regression and factor analysis.

1.8.6 Ethical considerations

This research project was evaluated and approved by the North-West University Ethics Committee (Ethics reference number **PBS16/11/25-01/20**). To ensure that good clinical practice principles were adhered to, an informed consent letter was attached to the questionnaire whereby respondents were invited to participate voluntarily. The respondents were duly informed of the nature of the study, the research process and their roles and responsibilities. Respondents were not coerced to take part, and participation was strictly anonymous. Assurance was given that personal information and study data would be handled confidentially at all times. The informed consent letter is shown in Appendix B.

Due to the international aim of the study, the global HR director of the organization used in this study also reviewed the research proposal and proposed questionnaire. Furthermore, prior to distributing the questionnaire to the target respondents, the questionnaire was shared with the respective managers globally, and the intent of the research was explained.

1.9 LIMITATIONS OF THE STUDY

Due to the global approach of the study, and the small size of some of the subsidiaries of the selected organization, some of the biographical questions of the questionnaire had to be removed or changed. This was done to ensure anonymity of both the participant and the manager in question. Removing or changing these questions may be seen as a limitation to the study in the sense that one cannot compare findings of other similar studies to this detailed level. This may also be seen as a limiting factor in the sense that one would not be able to pinpoint any potential issues that emanate from the research. The research is thus limited to a holistic and general view of the entire respondent group.

1.10 CHAPTER DIVISION

1.10.1 Chapter 2: Literature study

A thorough literature study was conducted to obtain insight on all aspects relating to this study. The following key aspects were researched comprehensively:

- Work Engagement
  - Conceptualization of work engagement
  - Importance of work engagement
- Motivation
  - Definition and types of motivation from an SDT perspective
  - Compensation systems and their effects on motivation
- Leadership
  - Leadership styles
    - Servant, and
    - Empowering leadership
  - Leadership as predictor of motivation and work engagement
- Interrelationship between the constructs

1.10.2 Chapter 3: Empirical research methodology

- Research approach
- Research design
- Description of target respondent group
- Measuring instruments
  - Servant Leadership Questionnaire (SLS)
  - Empowering Leadership Questionnaire (ELQ)
  - Work Extrinsic and Intrinsic Motivation Scale (WEIMS)
  - Utrecht Work Engagement Scale (UWES)
- Statistical analysis methods

1.10.3 Chapter 4: Empirical results and findings

- Biographical profile
- Evaluation of validity and reliability
- Descriptive statistics
- Inferential statistics

1.10.4 Chapter 5: Conclusions and recommendations

The findings of the study were concluded in this section. Based on the results, suggestions are provided regarding addressing any issues highlighted in the study.
The following topics are covered:

- Addressing of research questions,
- Recommendations, and
- Conclusion.

CHAPTER 2

LITERATURE STUDY

2.1 INTRODUCTION

In this chapter, a literature review of the three underlying topics to this study, namely Work engagement, Motivation and Leadership, is provided. The respective sections start with a short background and history, followed by the importance of the specific topic in the workplace. It continues by discussing different viewpoints found in the literature and ends with the conceptualization and operationalization of the specific topic. The chapter further discusses the interrelationships between the various topics, and provides a model that depicts their interrelationships. The chapter concludes with the hypotheses set for the study.

2.2 WORK ENGAGEMENT

Work engagement (WE) has recently been receiving considerable attention from organizational behaviour researchers and practitioners (Lu *et al.*, 2013:142). Truss *et al.* (2014:1) contribute to this view and attention to engagement to its dual potential of enhancing individual well-being as well as organizational performance and profitability. Scholars in the psychology field have been researching engagement for the past 20 years, but it is only in recent years that implications of engagement have been studied under the rubric of the discipline of human resource management (Truss *et al.*, 2014:2).

2.2.1 Background and history

The birth of the notion of WE, whereby individuals invest cognitive, physical and emotional energy into their work roles, is repeatedly traced to William Kahn in 1990 (Truss *et al.*, 2014:1; Guest, 2014:224; Rothmann, 2017:317). The concept of WE has since then seen a steadily growing stream of research, especially in the field of psychology. Schaufeli (2014:15) states that it is unclear when the term *engagement* was first used, but credits the Gallup Organization for inventing it in the 1990s. Guest (2014:228) maintains that it is the consultancy version of engagement that can be traced to the Gallup Organization, and that it originated in 2002.

Youssef-Morgan and Bockorny (2014:36) take a more historic view, and maintain that the need of psychological treatment after World War II led to the negatively orientated behavioural focuses such as poor performance, stress and burnout. It was only in 2002 that there came a call for a shift toward positive organizational behaviour (POB), under which the concept of WE resides (Youssef-Morgan & Bockorny, 2014:36). This is in agreement with Rothmann (2014:163), who states that WE emerged as a result of a shift of focus in psychology from weakness, malfunctioning and damage towards happiness, human strengths and optimal functioning. Rothmann (2014:163) adds that the need for business to maximize the inputs from employees further contributed to the interest in engagement. Schaufeli (2014:17) also speculates that the changes from the traditional to the modern workplace, the growing importance of human capital and the increased scientific interest in positive psychology created the background for the emergence of engagement.

2.2.2 Importance of work engagement

In today's increasingly competitive, multicultural and globalizing world of business, it is imperative for organizations to be mindful of how to stimulate a productive work environment through effective WE (Shantz *et al.*, 2014:268). Much of the appeal of WE stems from findings of positive association to superior employee performance and bottom-line results, thus underlining its competitive advantages for organizations (Crawford *et al.*, 2014:57). Lu *et al.* (2013:142) go as far as to say that the future success of organizations depends on having a fully engaged workforce.

In modern organizations, employers have to produce more outputs with fewer people, which necessitate employees to bring their minds and souls to the workplace, and not merely their bodies (Schaufeli, 2014:16). Furthermore, the nature of work life has changed as technology and constant connectivity created the expectation for employees to be available at any given time, thus also increasing the job demand (Youssef-Morgan & Bockorny, 2014:36). These changes from the traditional to the modern workplace increased the level of psychological capabilities required by employees in order to thrive and enable organizations to survive (Schaufeli, 2014:16). WE has thus become pertinent for many organizations over the past decade (Youssef-Morgan & Bockorny, 2014:36), and organizations have little choice but to try and engage the holistic person of every employee (Schaufeli, 2014:16).

Concerning individual well-being, Rothmann (2017:333) states that engaged employees are more likely to experience satisfaction with life and other positive emotions compared to actively disengaged employees. Rothmann (2017:333) continues to say that in some countries engaged employees are as much as five and a half times more likely to be thriving, and are half as likely to experience stress the previous day, compared to their disengaged counterparts.

Numerous studies have examined the link between WE and organizational performance, and such studies confirmed that highly-engaged employees expressed better task performance, took more initiative, were more creative and seemed to help their peers more, compared to less engaged employees (Reijseger *et al.*, 2017:118). Some studies found that departments with high levels of engagement achieved twice the sales results of departments with less engaged staff (Schaufeli, 2014:30). Other studies provide further convincing evidence through suggesting that WE is positively related to indicators such as customer satisfaction, customer loyalty, profitability, productivity, higher sales revenue, as well as faster business growth (Schaufeli, 2014:32; Youssef-Morgan & Bockorny, 2014:37; Rothmann, 2017:333). The statement from Youssef-Morgan and Bockorny (2014:37) that employers are increasingly interested in creating an environment that can be a catalyst for work engagement thus comes as no surprise. Schaufeli (2014:32) does, however, warn that although circumstantial evidence suggests that WE might be related to business success, this claim still requires further empirical investigation.

According to Purcell (2014:247), the evidence of positive business outcomes from enhanced WE is as strong as can be, even though it is never conclusive. Sparrow (2014:112) argues that WE by itself is not sufficient to promote performance and that the value of WE is only unlocked when applying it to other things. Sparrow (2014:102) explains that employees that are highly engaged but ill-equipped become a joyful nuisance to customers. Similarly, when employees are highly engaged but incompetent, customers may perceive them as well-intentioned but irrelevant. Purcell (2014:247) also states that WE should be pursued as a means of improving work life as well as organizational performance, and agrees that a high state of WE is worth pursuing.

2.2.3 Difference in viewpoints found in literature

Many practitioners and academics hold conflicting views about the utility of WE strategies (Sparrow, 2014:99). Academics view WE as a psychological state, while practitioners or consultants conceptualize it as a workforce strategy (Truss *et al.*, 2014:1). Sparrow (2014:112) maintains that if WE is to be a meaningful concept to HR Directors, it has to be designed to work at the level of strategic business units, rather than at the individual level. Sparrow (2014:112) continues to say that although a useful understanding of the workings of WE as a psychological process exists, the concept is void unless that which employees must engage with becomes known.

Despite the weaker analytical framework and poorer evidence base that the consultancy version of engagement provides, employers seem typically much more interested in this version of engagement (Guest, 2014:233). Guest (2014:233) flags the failure of developing a clear set of practices to enhance the consultancy version of engagement as a significant risk to the theory, as this may cause a loss of attraction to engagement among managers. The consultancy version of engagement has, however, experienced ten years of growth, and is expected to thrive for as long as it provides a basis for competitive advantage (Guest, 2014:228). That having been said, the consultancy version of engagement may have missed an opportunity by not paying more attention to WE of the sort that attracted the attention of academics (Guest, 2014:233).

Irrespective of the stance between the academia and consultancy versions of engagement, the view exists that engagement must be understood not only in universal terms, but also in different cultural terms (Rothmann, 2014:166). Although engagement is a relevant construct in western society, its relevance and meaning may vary across different cultures, and it is of less importance in different cultural contexts (Shantz *et al.*, 2014:267-268). Rothmann (2014:171) adds that as the workforce becomes more culturally diverse, it becomes increasingly difficult to determine the sources of engagement, and that a standard or universal approach will be destined to failure.

Multiple studies also cite the potential to raise the level of corporate performance in terms of metrics such as productivity, profitability and turnover because of increased WE (Rothmann, 2017:333; Truss *et al.*, 2014:1). Sparrow (2014:102) argues that it is also possible for employees to become engaged as a result of being in a well-performing unit, and not the other way round. Furthermore, Rothmann (2017:335) states that although employees might experience the psychological state of WE, it does not mean they will contribute to organizational goals. Sparrow (2014:112) and Guest (2014:226) thus argue that although engagement may be positively correlated to a range of performance indicators, it is inappropriate to make statements that WE categorically delivers increased levels of organizational or financial performance. Sparrow (2014:112) does, however, agree that engagement is an important component of delivering business performance, but argues that it should not be the goal itself. The value of engagement rather lies within its application to other things (Sparrow, 2014:112).

Further differences in viewpoints include that engagement occasionally refers to states, traits and behaviour, and even antecedents and outcomes thereof (Rothmann, 2017:318). Some authors have defined engagement as the antithesis to burnout (Truss *et al.*, 2014:3), while others show that burnout is only negatively correlated to WE (Rothmann, 2017:317). Youssef-Morgan and Bockorny (2014:36) argue that negatively-oriented research and practice, such as poor performance, stress and burnout, have limited ability to better understand strengths, optimal functioning and actualizing of human potential.

Engagement has consequently been criticized for being a combination of old concepts relabelled in new terms (Schaufeli, 2014:18). Some studies suggest that engagement is closely related to a combination of job satisfaction, job involvement, and affective organizational commitment (Schaufeli, 2014:21). Ghadi *et al.* (2013:534) agree with this notion, and add that the findings from the majority of practitioner studies do not convincingly provide evidence that WE is a distinct concept. In contradiction to this view, however, Rothmann (2017:317), points to studies that make the case of engagement being an independent and distinct concept, and that defining engagement more broadly will result in a loss of its uniqueness.

Although WE research has been plagued by inconsistent definitions, inconsistent measurement of construct and inconsistent views of antecedents and consequences, it has caught the attention of academics and practitioners and it is predicted that it will become increasingly important for organizations and countries that wish to increase labour productivity (Rothmann, 2017:318).

2.2.4 Conceptualization of work engagement

Despite the vast volume of material that has been written on the concept of WE, its meaning, antecedents and consequences, as well as theoretical foundation remain contested (Truss *et al.*, 2014:1). Truss *et al.* (2014:2-3) continue to say that there are more than 50 different versions of engagement found in the literature, which include work engagement, personal engagement, job engagement, employee engagement and organizational engagement and simply engagement.

In Schaufeli (2014:15), the author prefers the term work engagement as it is more specific, and refers to the relationship of the employee with his or her work. Schaufeli (2014:15) further argues that, although employee engagement and work engagement are typically used interchangeably, employee engagement may also refer to the employee's relationship with the organization, which causes the distinction between engagement and concepts such organizational commitment to become blurred. Consequently, the term work engagement is used to cover both work engagement and employee engagement in this chapter.

Further confusion exists about the definition of WE as it intermittently refers to states, traits, behaviour and also their antecedents and consequences (Rothmann, 2017:318). The two base theoretical models of WE are those of William Kahn (1990) and William Schaufeli and Arnold Bakker (2006) (Shantz *et al.*, 2014:253). William Kahn defined WE as the physical, cognitive, and emotional expression and employment of one's self during role performance (Crawford *et al.*, 2014:57).

According to Guest (2014:224), Schaufeli, Bakker and Salanova offered a more attitudinally focused variant on Kahn's definition. Schaufeli *et al.* (2006:702) defined work engagement as a positive, fulfilling work-related state of mind that is characterized by vigor[1], dedication and absorption. Although the Gallup approach is also popularly used by practitioners, Guest (2014:226) notes that the Gallup approach defines WE as the individual's involvement and satisfaction with as well as the enthusiasm for work. Guest (2014:226) thus argues that although this measure of engagement predicts job satisfaction, it is not the same as aligning it to motivation or performance.

2.2.4.1 Approaches to defining work engagement

Schaufeli (2014:18-19) highlights the four approaches to defining work engagement namely the needs-satisfaction approach, satisfaction-engagement approach, multidimensional approach, and the burnout-antithesis approach. The needs-satisfaction approach is conceptualized as employing and expressing of one's preferred self in task behaviours. This approach is, however, not often used in empirical research (Schaufeli, 2014:18).

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[1] This spelling of vigor (US English) is used throughout the study, as it is the spelling used in the instruments and in the literature about the topic.

The satisfaction-engagement approach was developed by Gallup and showed that work engagement enhances organizational performances such as profit and customer satisfaction (Rothmann, 2017:317). This approach follows the view that engagement refers to the involvement, satisfaction, and enthusiasm of an individual towards his or her work (Schaufeli, 2014:19). Schaufeli (2014:19) argues that the satisfaction-engagement conceptualization measures the antecedents of engagement in terms of perceived job resources, rather than the experience of engagement, and that it also overlaps with other traditional constructs such as job involvement and job satisfaction.

The multidimensional approach defines engagement as a distinct construct consisting of cognitive, emotional and behavioural components related to role performance (Schaufeli, 2014:19), and distinguishes between job engagement and organizational engagement (Rothmann, 2017:318). This approach is widely cited in literature, and is often used as a framework for emerging work engagement models (Shuck, 2011:316). This approach is, however, not often followed within the research community (Schaufeli, 2014:19).

The burnout-antithesis approach views engagement and burnout as two opposing poles of the same continuum (Schaufeli, 2014:18). Under this approach, burnout is operationalized as the erosion of work engagement, and work engagement is thus characterized as the opposite of exhaustion, cynicism and ineffectiveness (Shuck, 2011:309-310). In contradiction to this view, Schaufeli, Salanova, González−Romá and Bakker (2002) argue that although engagement is negatively related to burnout, it nevertheless seems to be an independent and distinct concept in its own right, characterized by vigor, dedication, and absorption (Rothmann, 2017:317). Schaufeli (2014:31) admits that this perspective of work engagement is rather narrow as it does not include its consequential behaviour, but when defining engagement more broadly it results in a loss of uniqueness. It subsequently becomes indistinct from concepts such as extra-role performance and organizational commitment (Schaufeli, 2014:31).

According to Shuck (2011:317), no single approach to work engagement currently dominates the field, but the multidimensional approach is most widely cited. Schaufeli (2014:22) upholds the view that most academic research on work engagement uses the second view of the burn-out-antithesis approach, whereby work engagement is viewed as a concept in its own right that is more strongly related to job performance.

2.2.4.2 Antecedents of work engagement

According to Rothmann (2014:171), there is a possibility that cultural differences may exist in specific antecedents of work engagement. Employee perceptions regarding their work experience differ by country (Rothmann, 2014:174). Rothmann (2014:171) therefore advises that antecedents of work engagement should be approached from models and theories. The two models that are mostly used regarding the antecedents of work engagement, and that have been tested cross-culturally, are the personal engagement model and the job demands-resources (JD-R) model (Rothmann, 2014:231).

The personal engagement model

The personal engagement model follows the view that various job-contextual factors influence work engagement through the experience of psychological meaningfulness, psychological availability, and psychological safety (Rothmann, 2017:324). Psychological meaningfulness refers to the feeling of an extended purpose of one’s self in terms of work goals compared to personal goals. Psychological safety refers to being able to act in coherence with one’s natural self, and use of one’s own skills and knowledge freely without fear of being ridiculed or other negative consequences to one’s status or career. Psychological availability refers to having the cognitive, emotional, and physical resources to be able to engage (Rothmann, 2014:172; Rothmann, 2017:324).

The job demand-resources model

The job demands-resources (JD-R) model assumes that work characteristics associated with well-being can be modelled under the two categories of either job demands or job resources (Rothmann, 2014:173). Job demands refer to all aspects of the job, be they physical, psychological, social, or organizational, that requires sustained physical or psychological effort and thus comes with costs such as work pressures and emotional demands (Rothmann, 2017:325). Job resources refer to all aspects of the job that may be functional in achieving work goals and reducing job demands. Such resources may include remuneration, career opportunities, supervisory and team support, participation in making decisions, perfromance feedback, and autonomy (Rothmann, 2017:325). According to the JD-R, availability of resources affects work engagement, but it allows for cultural differences in the sense that a specific resource might be more important in one culture compared to another (Rothmann, 2014:172). Various studies have shown that job resources are positively associated with employee engagement, while job demands reduce employee engagement (Rothmann, 2014:173).

2.2.4.3 Operationalization of work engagement

The personal engagement model has been developed to understand work engagement, whereas the JD-R has been developed to understand and predict work engagement (Rothmann, 2017:324). For the purposes of this study, the construct of WE thus follows the definition of the second alternative of the burnout-antithesis approach, thus being a positive fulfilling, work-related state of mind, characterized by vigor, dedication, and absorption, which can be explained by the job demands-resources model. The model in Figure 2-1**Error! Reference source not found.** shows a summary of the operationalization of work engagement used for this study.

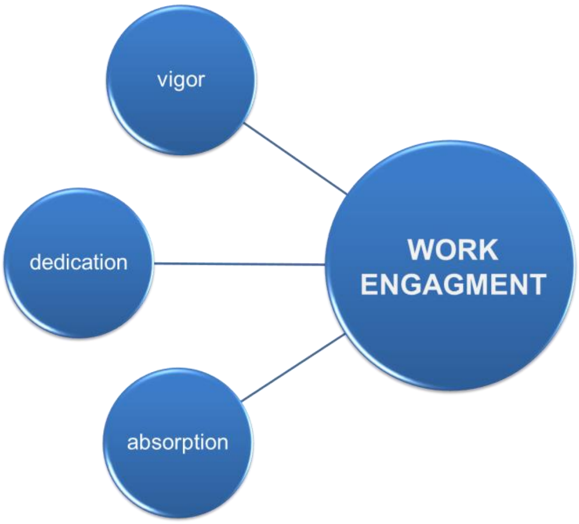


Figure 2-1: Operationalization of work engagement

In this model, Vigor refers to having high levels of energy and mental resilience at work, the willingness to make an effort in one’s work and persistence even when there are difficulties (Schaufeli *et al.*, 2006:702).

Dedication refers to being intensely involved in one’s work and experiencing a sense of significance, enthusiasm, inspiration, pride and challenge (Schaufeli *et al.*, 2006:702).

Absorption refers to being fully focused and immersed in one’s work, such that one has difficulties with detaching oneself from work (Schaufeli *et al.*, 2006:702).

2.3 MOTIVATION

The business environment of today is characterized by tough competition and resource constraints (Crawford *et al.*, 2014:62). A motivated workforce thus becomes a critical strategic asset that can provide a competitive advantage (Tremblay *et al.*, 2009:213). This is because a motivational work climate can change the extent to which employees internalise work goals and act creatively and proactively of their own will (Stone *et al.*, 2009:78). Motivational levels are thus among many attempts to understand why some employees do more, try more, explore more and live more (Nel, 2014:131).

2.3.1 Background and history

According to Tremblay *et al.* (2009:213), work motivation has been the subject of more organizational theories than any other topic. Tremblay *et al.* (2009:213) credit motivational research, typically guided by the expectancy-valance theory, goal-setting formulations, social exchange, and self-perspective (such as the SDT), for stimulating the development of organizational practices that promote positive worker attitudes and higher job performance.

Many of the positive concepts that are receiving increased attention today were already acknowledged in traditional motivational theories (Youssef-Morgan & Bockorny, 2014:37). As the SDT was selected as motivational theory for this study, the focus in the paragraphs below turns to the history of the SDT.

Nel (2014:132) dates the initial work of the SDT back to the 1970s, and credits Edward Deci and Richard Ryan for creating this theory of human motivation. Nel (2014:132) continues to say that it was only in the mid-1980s that the first comprehensive paper on the SDT appeared. Tremblay *et al.* (2009:214) describe the SDT as a continuum, viewing intrinsic motivation and amotivation as opposite poles of this same continuum. Nel (2014:132), states that it was already in the 1980s that the SDT began to differentiate among types of motivation rather than viewing motivation as a unitary concept.

Stone *et al.* (2009:76) assert that Deci and Ryan had not only created, but also developed the SDT over the past 30 years to ultimately identify the core principles underlying sustainable motivation. In this time, the relevance of the SDT to business, education, sports, medicine, entertainment and leadership was explored through extensive, well-crafted research (Stone *et al.*, 2009:76). Stone *et al.* (2009:76) further maintain that it is this strong evidence and support that made the SDT so popular for managers and scholars to adopt.

According to Gagne and Forest (2011:4), however, the SDT has only been used occasionally to understand organizational behaviour, even though it offers remarkable potential to explore and understand organizational processes and outcomes.

2.3.2 Importance of motivation

The importance of motivation and satisfying the needs for autonomy, competence and relatedness, is supported by considerable evidence throughout the literature (Stone *et al.*, 2009:77). According to Stone *et al.* (2009:77), the evidence suggests that motivation influences productivity, creativity and employee happiness. Howell and Hill (2009:512) state that psychological need satisfaction is also linked to greater intrinsic motivation, higher self-esteem, as well as improved psychological and physical well-being. Stone *et al.* (2009:77) add that in theory, sustainable motivation is called autonomous motivation, as it sprouts from one's sense of self and encompasses feelings of willingness and engagement. Stone *et al.* (2009:77) argue that organizations who support the satisfaction of motivational needs can create autonomous motivation that will realise productivity gains.

Rothmann *et al.* (2013:2) agree that autonomous motivation leads to positive outcomes for both the organization and employee. According to Rothmann *et al.* (2013:3), autonomous motivation leads to effective performance, as well as persistence when tasks demand creativity and innovative problem solving. Similarly, Gagne and Forest (2011:6) state that value-adding employees are those who manage themselves, do more complicated tasks, coordinate their work activates with co-workers, and provide suggestions for improvement. Gagne and Forest (2011:6) add that these competencies require not only abilities and resources, but also that employees are autonomously motivated to use them. Furthermore, Vansteenkiste *et al.* (2007:251) state that motivational work value orientations, be they positive or negative experiences, can carry-over to the employees' family life, thus emphasizing the importance of motivation for creating employee well-being.

According to Tremblay *et al.* (2009:215) employee retention is also an indicator of motivational stance. Tremblay *et al.* (2009:215) say that negative outcomes associated with low motivation include depression and turnover intentions. Congruently, Rothmann *et al.* (2013:1) state that effective talent retention requires organizations to create pleasant work environments and building effective employee relationships. Rothmann *et al.* (2013:1) further argue that intentions to leave as a result of manager relations could potentially be explained by the theoretical framework of the SDT.

In the effort to retain talent, Stone *et al.* (Stone *et al.*, 2009:88) maintain that leaders have the opportunity to leave a legacy through helping employees realise psychological needs while simultaneously improving organizational productivity. Rothmann *et al.* (2013:2) state that psychological need satisfaction promotes internalizing of extrinsic motivation, leads to higher organizational commitment, and contributes to staff retention. Stone *et al.* (2009:77) remind that the SDT's focus is on nurturing an interest in the intrinsic importance of work, and that the SDT identifies the underlying principles of creating long-term motivation (Stone *et al.*, 2009:87). Stone *et al.* (2009:88) thus argue that the strategic application of the SDT principles and practices to critical workforce segments builds long-term business value.

2.3.3 Difference in viewpoints found in literature

According to Tremblay *et al.* (2009:214), the SDT of motivation generally applies to activities that people find interesting, challenging, or visually attractive. Rothmann *et al.* (2013:2) state that extrinsic motivation is required when activities are not intrinsically motivating, but that people will engage in an activity voluntarily when they find the activity interesting. Tremblay *et al.* (2009:214) thus argue that activities such as work, which often fall outside of this framework, is unlikely to be performed without at least some level of extrinsic motivation. Frey and Osterloh (2005:100), however, state that people are indeed prepared to contribute to the common good of their organizations, and that there is a great wealth of empirical evidence which demonstrates it. Frey and Osterloh (2005:100) use examples such voluntary rule following and extra-role behaviour in support of this statement. Stone *et al.* (2009:77) also state that employees are inherently motivated to grow and achieve, and will commit and engage out of their own will in uninteresting tasks as long as the they understand its meaning and value.

Stone *et al.* (2009:77) acknowledge that employees often appear unmotivated, but argue that this attribute is learned through past or present work conditions that undermine intrinsic motivation. Similarly, Crawford *et al.* (2014:62) state that intrinsic motivation is damaged by the use of extrinsic rewards. Stone *et al.* (2009:77) argue that although commonly used extrinsic rewards can create short-term productivity increases, the resulting motivation is of poor quality, can create negative consequences and is unsustainable. Despite the SDT's argument that contingent rewards can have detrimental impact on intrinsic motivation, compensation experts generally maintain that incentive system should link rewards to performance (Gagne & Forest, 2011:3). Youssef-Morgan and Bockorny (2014:39) argue that positive contingent rewards can in fact promote positive work behaviour. According to Youssef-Morgan and Bockorny (2014:39), when desired behaviours are recognized through contingently administrating rewards such as money, recognition, and positive feedback, employees will habitually learn to behave in such desired ways.

Crawford *et al.* (2014:62) found that formal pay does not necessarily contribute to the willingness of employees to invest their energy into their work. Crawford *et al.* (2014:62) rather found that satisfaction with the work itself was the strongest predictor of overall job satisfaction, while satisfaction with pay was the weakest predictor. Howell and Hill (2009:512) state that once a person's basic needs are fulfilled, an increase in income does not significantly increase higher well-being. In fact, Vansteenkiste *et al.* (2007:256) state that the pursuit of extrinsic values negatively predicts job outcomes regardless of the level of income.

Variable pay systems are a very popular form of compensation and are generally recommended by human resource specialists (Gagne & Forest, 2011:6). Frey and Osterloh (2005:105) argue that incentive pay signals to employees that they should not do their work without extra pay. Frey and Osterloh (2005:96) also argue that linking compensation of managers to firm performance is a major contributor to corporate scandals, and that more importance should be attached to strengthening fixed pay systems and the legitimacy of authorities. On the other hand, Gagne and Forest (2011:6) found that employees reported much greater intrinsic job interest when under a pay-for-performance system compared to base pay systems. Frey and Osterloh (2005:104) found that monetary incentives do improve performance slightly, but that obligation-based intrinsic norms had three times higher impact on the measured variance in performance. The SDT shows that monetary incentives are rather costly compared to strengthening intrinsic motivation (Frey & Osterloh, 2005:104).

Vansteenkiste *et al.* (2007:251) suggest that different employees are motivated as per their individual work value orientation. For example, Vansteenkiste *et al.* (2007:255) state that employees with an extrinsic orientation are motivated by financial rewards, praise and extrinsic incentives, while employees with an intrinsic orientation are more concerned with developing their talents and potential. Vansteenkiste *et al.* (2007:255) also state that extrinsically oriented individuals have increased job satisfaction when they earn a high income, and decreased job satisfaction when they earn a low income. However, Vansteenkiste *et al.* (2007:256) found that, congruently to the SDT's position, pursuing extrinsic rewards is inconsistent with basic need satisfaction and is less likely to yield happiness. Vansteenkiste *et al.* (2007:270) resultantly argue that employees' psychological needs and work values are better defined separately.

A further argument in popular literature is that the various generations need to be managed differently (Wong *et al.*, 2008:878). Wong *et al.* (2008:881) note that the commonly-held perception is that Baby Boomers believed that working hard for an organization will pay off, while the Generation Xs have a lack of loyalty towards their organizations, and have a stronger focus on work-life balance. According to Wong *et al.* (2008:881), research exists that contradicts the notion of intrinsic generational differences in motivational drivers. Wong *et al.* (2008:881) state that the lack of motivation to work hard can rather be attributed to a certain phase in an employee's life, but that it is a common occurrence throughout all generations. Wong *et al.* (2008:887-888) thus summarise that motivational differences are better explained by age than generational differences, and that managers should rather focus on individual differences in motivation, irrespective of generations.

2.3.4 Conceptualization of motivation

Nel (2014:131) states that although people can be either active or passive, most people want to succeed and are willing to put in some effort. Nel (2014:131) thus states that motivation is concerned with what inspires people to develop, think, and act. Similarly, Tremblay *et al.* (2009:213) state that motivation is expressed by attention, effort and persistence.

The Self-determination theory (SDT) lays the foundation for the concept of self-motivation, and is an attempt to explain human psychological needs and inherent growth tendencies (Nel, 2014:132). The SDT focuses on the nature of motivational behaviour (Tremblay *et al.*, 2009:214), and is based on a set of assumptions about human nature and motivation (Stone *et al.*, 2009:77). The basic premises of the SDT are that people are intrinsically motivated to grow and achieve and that they will naturally engage in activities they find interesting; people can reach higher levels of psychological growth through activity, and growth and integration can be either supported or inhibited by the characteristics of the social context (Nel, 2014:132).

Rothmann *et al.* (2013:2) state that the SDT can explain motivation at work, and even the causality between motivation and its results. Within the workplace, the basic premise of the

SDT is the satisfaction of the psychological needs of autonomy, competence and relatedness (Rothmann, 2014:234). Rothmann (2017:328) defines the need for autonomy as the desire to experience freedom and choice during task performance, the need for competence as an intrinsic desire to feel effective and to master one's work, and the need of relatedness as an individual's need to feel connected to others. Rothmann *et al.* (2013:2) state that psychological need satisfaction is influenced by the experiences in the work environment, and satisfying these needs lead to higher motivation and better functioning (Rothmann *et al.*, 2013:2). According to Rothmann (2014:234), satisfying these three needs is also a pre-requisite for intrinsic motivation and internalization of work.

Since the SDT generally applies to activities that people find intrinsically interesting, challenging, or visually attractive (Nel, 2014:132), activities such as work often fall outside of this framework and are unlikely to be performed without at least some level of extrinsic motivation (Rothmann *et al.*, 2013:2). Consequently, the SDT distinguishes between intrinsic and extrinsic motivation (Tremblay *et al.*, 2009:214). Intrinsic motivation refers to participating in an activity because of positive feelings, enjoyment or inherent satisfaction resulting from the activity, while extrinsic motivation refers to participating in an activity because of contingent rewards, external pressure or punishment or for some other instrumental reason (Gagne & Forest, 2011:4; Nel, 2014:132; Rothmann, 2014:234).

2.3.4.1 Operationalization of motivation

Tremblay *et al.* (2009:214) describe the SDT as a continuum, viewing intrinsic motivation and amotivation as opposite poles of the continuum. Tremblay *et al.* (2009:214) explain that the SDT does not assume a developmental continuum whereby people progress through the various stages, but rather that factors such as organizational context and experiences can cause a person to internalize a new behaviour at any point along the continuum. Figure 2-2 shows the levels of differentiation along the SDT continuum, and is also the operationalization of motivation used for this study.

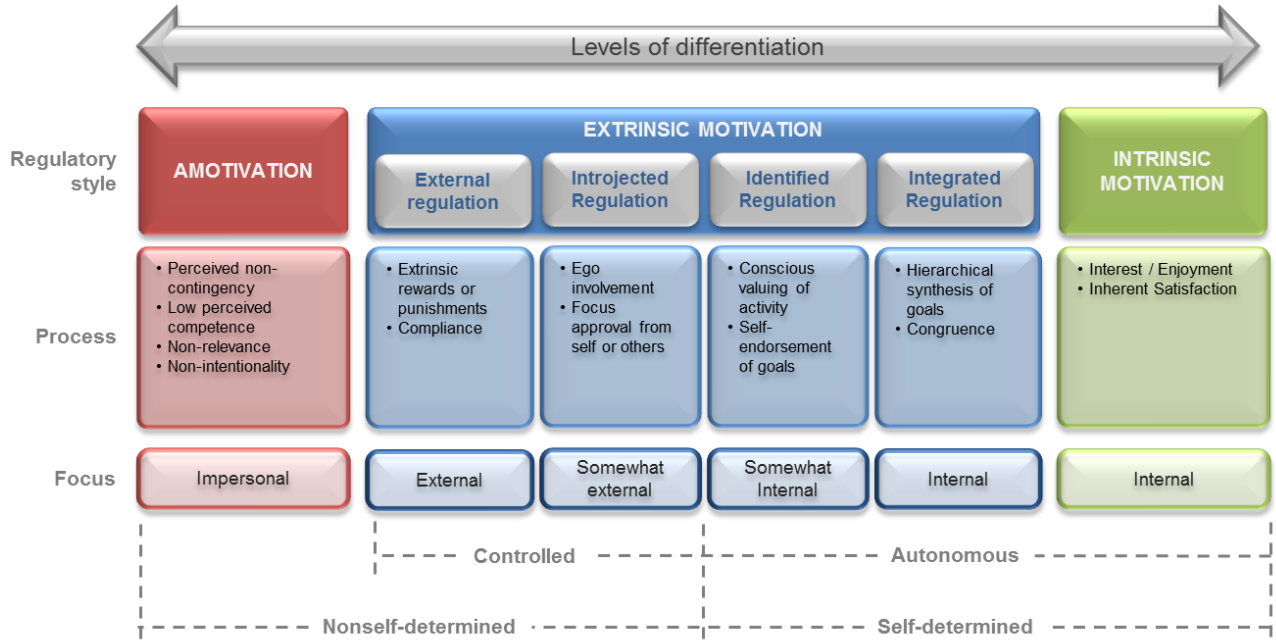

Levels of differentiation
Regulatory style
AMOTIVATION
EXTRINSIC MOTIVATION
External regulation
Introjected Regulation
Identified Regulation
Integrated Regulation
INTRINSIC MOTIVATION
Process
• Perceived non-contingency
• Low perceived competence
• Non-relevance
• Non-intentionality
• Extrinsic rewards or punishments
• Compliance
• Ego involvement
• Focus approval from self or others
• Conscious valuing of activity
• Self-endorsement of goals
• Hierarchical synthesis of goals
• Congruence
• Interest / Enjoyment
• Inherent Satisfaction
Focus
Impersonal
External
Somewhat external
Somewhat Internal
Internal
Internal
Controlled
Autonomous
Nonself-determined
Self-determined

Figure 2-2: Levels of differentiation along the continuum of the SDT (Gagne & Deci, 2005:336)

The SDT continuum, as described by Tremblay *et al.* (2009:214), starts at the low end with amotivation (AMO). Tremblay *et al.* (2009:214) define amotivation as an individual’s total lack of intention to act, or to act passively.

The next stage is External Regulation (ER), which is characterized by doing an activity purely to obtain a reward (Tremblay *et al.*, 2009:214).

The third stage along the continuum is Introjected Regulation (INTRO), and entails regulating behaviour though contingencies of self-worth such as guilt or self-esteem (Tremblay *et al.*, 2009:214).

Identified Regulation (IDEN) occurs when the underlying value of behaviour is recognized and accepted, and people start to accept it as their own (Tremblay *et al.*, 2009:214).

The next stage is Integrated regulation (INTEG), and refers to the state where employees identify with an activity to the extent that it forms part of their sense of self. Tremblay *et al.* (2009:214) add that this form of extrinsic motivation is the most fully internalized.

Finally, the continuum reaches Intrinsic Motivation (INTRIN), which is characterized by performing an activity because one finds it inherently interesting and satisfying (Tremblay *et al.*, 2009:214).

Tremblay *et al.* (2009:214) add that IDEN, INTEG and INTRIN are examples of self-determined motivations, whereas AMO, ER, and INTRO are non-self-determined motivation. Within this framework, the SDT also differentiates between autonomous and controlled motivation (Rothmann, 2017:327). Autonomous motivation includes INTRIN, as well as IDEN and INTEG, while controlled motivation consists of ER and INTRO (Nel, 2014:135). Nel (2014:135) adds that both autonomous and controlled forms of motivation contribute to directing behaviour and stand in contrast with amotivation.

According to Gagne and Deci (2005:336) the types of motivation follow a quasi-simplex pattern, which means that subscales correlate most positively with the ones closest to it. Tremblay *et al.* (2009:214) state that INTRIN yields the most positive outcomes, followed by INTEG and IDEN. Tremblay *et al.* (2009:214) continue to say that INTRO and ER yields negative outcomes, while AMO results in the most negative outcomes, and that such outcomes may include counterproductive performance and employee withdrawal.

2.4 LEADERSHIP

Leadership is widely considered as a key factor for a successful organization (Kovjanic *et al.*, 2012:1031). Wooten and Cameron (2013:54) explain that although organizational success depends on much more than the leader’s behaviour, leadership has the most important influence on organizational performance, and that few organizations succeed without capable leadership.

According to Van Dierendonck (2011:1229), leadership studies have moved away from the strong focus on transformational leadership, towards a stronger emphasis on a shared and relational perspective where leader and follower interactions are key elements. Sousa and van Dierendonck (2017:271) state that the servant leadership style is being adopted by a growing number of organizations. Both the empowering and servant leadership styles share the view of enabling follower performance, growth and learning through leaders being at the service of followers (De Sousa & Van Dierendonck, 2014:881). For these reasons, the empowering and servant leadership styles were selected for the purposes of the present study.

2.4.1 Background and history

According to Stone and Patterson (2005:1), people have studied the work environment, leaders, managers and leadership styles for almost two centuries. With the change in times, the views on leadership behaviour also changed (Van Dierendonck, 2011:1228). Stone and Patterson (2005:1) state that leadership in organizations has evolved over time from an authoritarian style to styles creating more comfortable work environments, and then to styles where people are empowered, encouraged, and supported in personal and professional growth. Stone and Patterson (2005:1) further assert that the organizational focus of the leader itself has also changed as time progressed. Authoritarian leaders believed employees were intrinsically lazy, but modern leadership focus has evolved to rather build work environments that are conducive to increased productivity (Stone & Patterson, 2005:1).

From inception, the primary focus for the field of leadership was to study the individual leader (Avolio *et al.*, 2009:422). According to Avolio *et al.* (2009:422), the stereotypical leader in these studies was most likely a male working for a large private sector organization in the United States. Avolio *et al.* (2009:422) add that today's field of leadership studies not only focuses on the leader, but also includes a much broader spectrum of diversity such as followers, peers, supervisors, culture and the work context. The definition of leadership has changed from simply being an individual's characteristics, to being depicted in various models as a shared, strategic, relational, and complex social dynamic (Avolio *et al.*, 2009:422).

Stone *et al.* (2004:356) state that the focus of leadership research shifted in the late 1970s from a situational perspective more towards a perspective of organizational performance. Stone *et al.* (2004:356) further note that despite this shift, some of the contemporary leadership literature still includes the task and relationship dimensions of leadership. According to Van Dierendonck and Nuijten (2011:249), the 21st century has seen a rocketing interest in leadership theories, and the focus has shifted to enhancing motivation, social responsibility, as well as to ensure success and profit in modern organizations. The complex relationship between leaders and followers is increasingly becoming the focus of leadership studies (Sousa & Van Dierendonck, 2017:270).

2.4.1.1 Empowering leadership

Park *et al.* (2017:352) assert that empowering leadership (EL) is based on the conceptualization of empowerment theorized by Conger and Kanungo in 1988. Amundsen and Martinsen (2014:487), also state the notion of empowerment was introduced in the 1980s. According to Amundsen and Martinsen (2014:487), the nature of work has significantly changed over the past decades and work has become more complex and cognitively demanding. Amundsen and Martinsen (2014:487) add that highly skilled and educated knowledge workers have become the core of key work segments. Amundsen and Martinsen (2014:487) consequently attribute this changing work landscape to the emergence of EL.

Park *et al.* (2017:351) state that the number of studies that has examined the premise of EL has increased in recent years. These studies have, however, largely focused on job performance, and very few studied the influence of empowering leadership on psychological state of mind (Park *et al.*, 2017:351).

2.4.1.2 Servant Leadership

Servant Leadership (SL) is positioned as a relatively new field of leadership research (Van Dierendonck, 2011:1228). Robert K. Greenleaf is widely credited for introducing the concept of SL in the late 1970s (Reed *et al.*, 2011:416; Stone *et al.*, 2004:349; van Dierendonck & Nuijten, 2011:249). Van Dierendonck (2011:1229) states that Greenleaf did not suggest an empirically validated definition for SL, which created the scenario where various writers and researches created their own models and definitions for SL. This consequently led to the many interpretations of SL that exemplify a wide range of behaviours (Van Dierendonck, 2011:1229).

SL has recently been rediscovered (Van Dierendonck & Nuijten, 2011:249) and is currently attracting renewed interest among researchers and managers (Reed *et al.*, 2011:416). According to Van Dierendonck (2011:1229), most of what has been written about SL has been prescriptive, in that it focusses on how SL should ideally be. Van Dierendonck (2011:1229) states that empirical research on SL only started in 1999, with the study by J. A. Laub. Since then, at least six more measures of SL have been developed, including the widely acknowledged one of Van Dierendonck and Nuijten in 2011 (Van Dierendonck, 2011:1240).

2.4.2 Importance of leadership

One of the most important organizational goals is the attainment and sustaining of effective leadership (Soane, 2014:150). According to Pretorius (2013:121), the quality of leadership represents the single most important advantage of any world-class organization. Quality leadership is also largely responsible for the political environment, social development, economic growth as well as business success (Pretorius, 2013:121).

Effective leadership can change weak points into strengths, stumbling blocks into opportunities, and despondency into hope (Pretorius, 2013:121). Effective leaders also have the capability to persuade others to take on ambitious goals together. This implies that leaders can only excel through the dedication and efforts of their people (Pretorius, 2013:124). Pretorius (2013:124) thus argues that the leader's greatest task is to optimize work engagement. Rothmann *et al.* (2013:1) also emphasize the importance of leader relations in the obtainment of optimal employee functioning. Rothmann (2017:328) states that the role of leaders has become essential in shaping the optimal work environment that is conducive to employee engagement in organizations.

Soane (2014:149) argues that leaders make the difference in experiencing work as either mundane and meaningless or enriching and fulfilling. Studies demonstrate the positive correlation between leadership and outcomes such as job satisfaction, commitment, and task performance (Park *et al.*, 2017:352). Because of this strong relationship between leadership and meaningfulness in the workplace, leader relations are an important determinant to employee commitment as well as intentions to leave (Rothmann *et al.*, 2013:3). In fact, Rothmann *et al.* (2013:1) argue that employees do not leave organizations, they leave their leaders or managers.

Leaders also influence the tendencies of the ethical behaviour of employees (Reed *et al.*, 2011:416). Leaders serve as role models to followers about the types of behaviour considered ethically acceptable, as well as how ethical problems and questions should be addressed (Reed *et al.*, 2011:415). Some studies even argue that the leader's behaviour can exert a stronger influence on ethical behaviour than that of the employee's internal ethical values (Reed *et al.*, 2011:417).

Because of the power that leaders possess, manipulation and corruption are always a possibility that all forms of leadership carry with them (Stone *et al.*, 2004:357). Stone *et al.* (2004:357) argue that this is especially problematic for leaders aspiring to become either transformational or servant leaders due to the sources of influence and motivation inherent to these leadership styles. If such leaders have poor ethical standards and motives, they will be able to manipulate and negatively influence their loyal followers (Stone *et al.*, 2004:357). According to Stone *et al.* (2004:357) leaders may ignore problems and misrepresent the rationality of their vision in an attempt to accomplish their visions. Stone *et al.* (2004:357) states, however, that such leaders with poor standards typically function outside of the ideal paradigm of transformational and servant leadership.

2.4.3 Differences in viewpoints found in literature

Allio (2012:4) states that there is disagreement among leading academics as to what constitutes leadership or which leadership practices can be successfully emulated. Allio (2012:4) argues that a unifying and tested theory that identifies the essence of leadership, as well as defined conditions that produce such leadership is still lacking.

2.4.3.1 Leadership styles

Relevant to the present study, Stone *et al.* (2004:353) state that servant leadership (SL) and transformational leadership (TFL) are often labelled as the same theory, but with different names. Stone *et al.* (2004:354) argue that this is possibly because SL and TFL have relatively similar characteristics, and that both theories are people-oriented leadership styles. Stone *et al.* (2004:354) state that SL and TFL do hold many similarities, and they are complimentary theories in many respects, but they ultimately form a distinctly separate theoretical framework of leadership because of one primary difference – the focus of the leader. Both styles show concern for followers, but SL's overriding focus is on service to their followers, whereas TFL has a greater concern for the strategic use of followers to reach organizational goals (Van Dierendonck & Nuijten, 2011:257). Stone *et al.* (2004:354) argue that this primary distinction influences other characteristics and outcomes, giving rise to secondary differences between the concepts. Pretorius (2015) even proffers the view that SL is the element that gives power to the TFL style.

SL has also been compared to ethical leadership, but Van Dierendonck and Nuijten (2011:257) state that the focus of ethical leadership is more on appropriate leader behaviour within organizations. According to Van Dierendonck and Nuijten (2011:257), SL and ethical leadership do share some characteristics such as being trustworthy, having integrity, and caring for people, but the emphasis of SL is on the developmental aspect of followers rather than on normative or directive behaviour.

SL and charismatic leadership have also been said to be similar theories in that both leaders have clear goals, show confidence in followers, and communicate high expectations (Van Dierendonck & Nuijten, 2011:258). Van Dierendonck and Nuijten (2011:258) state, however, that charismatic leadership also includes dominant and manipulative behaviour, as well as having disregard for the benefits of others, and this makes charismatic leaders very different form servant leaders.

2.4.3.2 Manager versus leader

There has been an attempt from some scholars to differentiate leadership from management, asserting that managers coerce, while leaders persuade (Allio, 2012:5). According to Lunenburg (2011:1), leadership and management are complementary but distinct functions. Lunenburg (2011:1) states that leadership entails developing a vision, as well as aligning and motivating people, while management entails planning, budgeting, controlling, and problem-solving. In response to this view, Allio (2012:5) maintains that in reality, managers must lead and leaders must manage. This study follows the view that both managers and leaders are in a leadership role and thus the terms are used interchangeably.

2.4.3.3 Idealization of prominent leaders

Allio (2012:5) states that society tends to label specific individuals as leaders based on actions taken or difficult decision they made. Many studies examine the behaviours of external leaders to establish an empirical basis for understanding their function in the modern organization (Arnold *et al.*, 2000:250). Allio (2012:5) warns that this simplified model is risky as time tends to change these idealizations of an individual. To illustrate this statement, Allio (2012:5) uses the examples of Jack Welch and Steve Jobs, both of whom received praise and criticism during different stages of their careers. Allio (2012:5) thus argues that the immediate certification of leadership depends on the perspective followers, flattering scribes and the marketplace, but that a leader’s reputation may either expand or diminish as time progresses and more history is generated. Allio (2012:5) further states that leadership does not appear at a specific instance, but rather develops over time.

2.4.3.4 Natural vs learned leadership

According to Avolio *et al.* (2009:425), relatively little attention has been given to substantiating whether leadership can actually be developed. Allio (2012:10) recognizes that many management-consulting firms offer training to help corporations develop long-term sustainable leadership capability, but argues that no coaching firm can make such a guarantee. Allio (2012:10) further states that little evidence exists that leadership academy graduates are uniquely equipped to lead. Allio (2012:11) does, however, argue that leadership improves with experience as leaders experiment with approaches to new challenges, and then slowly adopt successful approaches into their personal leadership styles.

Arvey *et al.* (2007:694) state that educational experiences are most frequently cited as the main contributor to successful leadership development. According to Arvey *et al.* (2007:704), only 30% of the variance in leadership role occupancy is accounted for by genetics. Arvey *et al.* (2007:704) argue that this should be a clear message that leaders are not only born, but that leadership can be learned.

2.4.4 Conceptualization of leadership

Leadership research is increasingly focusing on the complex relationship between leaders and followers (Sousa & Van Dierendonck, 2017:270). Leadership is also said to play an important role in enabling extraordinary performance (Wooten & Cameron, 2013:54). According to Wooten and Cameron (2013:54), leadership is linked to elevated individuals and systems, what goes right in organizations, as well as good and inspiring experiences.

2.4.4.1 Empowering leadership

Many companies have undergone structural changes in response to increasing global economic competition (Arnold *et al.*, 2000:249). According to Arnold *et al.* (2000:249), organizations attempt to improve their overall flexibility and efficiency through replacement of traditional hierarchical management structures with empowered work teams. This emphasis on empowered teams, however, is accompanied by different requirements for both workers and leaders. Empowered teams now perform tasks that were traditionally performed by managers, while managers now have the responsibility to lead these teams (Arnold *et al.*, 2000:250).

Park *et al.* (2017:351) define empowering leadership (EL) as leader behaviour that shares power with team members, thus enhancing the intrinsic motivational levels of the entire team. EL emphasizes the significance of work, makes use of participative decision-making, conveys confidence that performance will be outstanding and removes bureaucratic constraints (Park *et al.*, 2017:352).

Rather than having an influence over followers, EL is about giving influence to followers (Amundsen & Martinsen, 2014:488). EL demonstrates that empowerment is a motivational process and not merely the delegation of powers to followers (Park *et al.*, 2017:352). Amundsen and Martinsen (2014:489) also state that EL entails supporting subordinate motivation to work autonomously. EL encourages followers to control their own work behaviours (Park *et al.*, 2017:351).

Arnold *et al.* (2000:264) argue that the primary role of leaders in empowered teams is to lead others towards leading themselves. The fundamental difference between EL and traditional leadership is thus the shift in source control from leader to team members. The aim of EL behaviours is to assist team members to function as a self-managed unit.

2.4.4.1.1 Operationalization of empowering leadership

Arnold *et al.* (2000:264) acknowledge that some of the categories of EL are similar to those found in other leadership literature, but argues that the collective behavioural categories that form part of EL are characteristic of the roles and activities of leaders of empowered teams. This study follows the operationalization of EL as defined in Arnold *et al.* (2000), and is depicted by Figure 2-3.

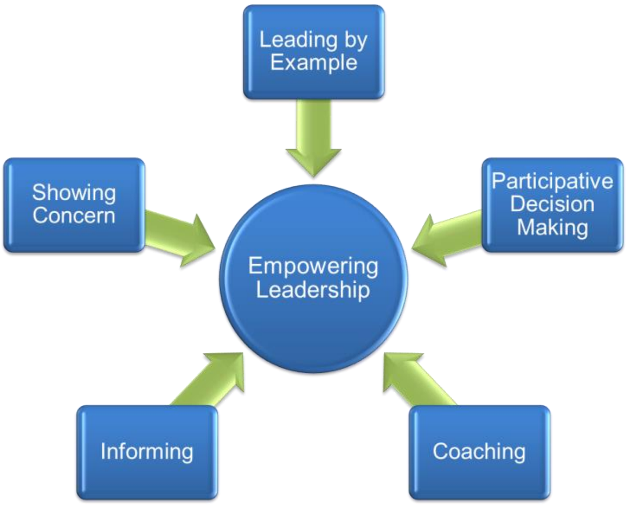


Figure 2-3: Operationalization of Empowering Leadership

Arnold *et al.* (2000:254) explain that in this model, Leading by Example refers to the leader showing commitment to his or her own work as well as that of the team. Leading by example includes leader behaviour of working as hard as he/she can, and working harder than the team.

Participative decision-making refers the leader using employee input and information to formulate decisions. Also under this category are behaviours such as encouraging members to express ideas and opinions (Arnold *et al.*, 2000:255).

The next behaviour is coaching, and refers to leaders who educate their followers and assist them in becoming self-reliant. Coaching also refers to making suggestions to followers about how they can improve their performance (Arnold *et al.*, 2000:255).

Informing refers to the leader's communicating important organizational information such as the mission and vision, as well as explaining company decisions to the team and providing insight about new developments or policies (Arnold *et al.*, 2000:255).

Showing concern refers to leaders demonstrating general regard for employee well-being, and includes behaviours such as taking time to discuss any concerns employees may have.

2.4.4.2 Servant leadership

In the midst of all the various leadership theories found in literature, SL is the one style that articulates the emotional, relational, and moral dimensions of leadership in an actual useful manner (Reed *et al.*, 2011:416). According to Stone *et al.* (2004:352), the primary objective of SL, and arguably the prime motivation behind leadership theory, is to meet the needs of others. The motivation of SL is to serve followers so that they can in turn also become servant leaders themselves (Reed *et al.*, 2011:421).

SL theory is characterized by an ethical and people-centred style, and places explicit emphasis on follower needs (Van Dierendonck & Nuijten, 2011:249). The primary difference between SL and other leadership theories is that SL is genuinely concerned with followers, whereas other styles are more concerned with organizational objectives (Van Dierendonck & Nuijten, 2011:249). Servant leaders achieve organizational objectives through making personal interests subservient to those of organizational stakeholders (Reed *et al.*, 2011:416). Servant leaders also believe that long-term organizational goals will only be achieved through first facilitating the development and well-being of the employees that comprise the organization (Stone *et al.*, 2004:355).

Van Dierendonck and Nuijten (2011:250) describe the servant leader as being 'primus inter pares' (first among equals), and state that SL is about creating opportunities for followers to help them grow. The servant leader does, however, hold people accountable for their own growth (Van Dierendonck & Nuijten, 2011:251). Furthermore, the servant leader portrays the role of a steward (Van Dierendonck & Nuijten, 2011:250), who trusts followers to act in the best interests of the organization, even though organizational objectives are not the primary focus of the leader (Stone *et al.*, 2004:355).

Servant leaders do not influence through directing followers, but rather following a humble means for influencing follower behaviour through facilitating service and stewardship by the followers themselves (Stone *et al.*, 2004:356). Servant leaders thus do not get things done through exercising their power, but rather through convincing employees through the use of persuasion (Van Dierendonck & Nuijten, 2011:250).

Van Dierendonck and Nuijten (2011:251) note that the term ‘servant’ in servant leadership can often result in an over-emphasis of the people aspect of SL. It is important to realize that equal attention must be given to the ‘leader’ part of SL as well, since SL is also about giving direction (Van Dierendonck & Nuijten, 2011:251). Van Dierendonck and Nuijten (2011:251) remind us that the servant leaders know very well where to take the organization.

SL can produce real change in organizations (Stone *et al.*, 2004:359). SL has been shown to positively influence employee effectiveness as well as general employee well-being (Van Dierendonck *et al.*, 2017:2). Van Dierendonck *et al.* (2017:2) state that SL has also shown increased validity, thus surpassing what other leadership theories (most notably TFL) have offered.

2.4.4.2.1 Operationalization of servant leadership

From a theoretical point of view, individuals need to display numerous characteristics in order to be labelled a servant leader (Van Dierendonck & Nuijten, 2011:250). Van Dierendonck and Nuijten (2011:250) also found that earlier SL research had much content overlap in its operationalisation of its various constructs. Based on the analysis of the SL literature, as well as interviews with servant leaders, Van Dierendonck and Nuijten (2011:252) selected eight aspects as indicators of SL. The aspects are shown in Figure 2-4, and also constitute the operationalization of SL followed in this study.

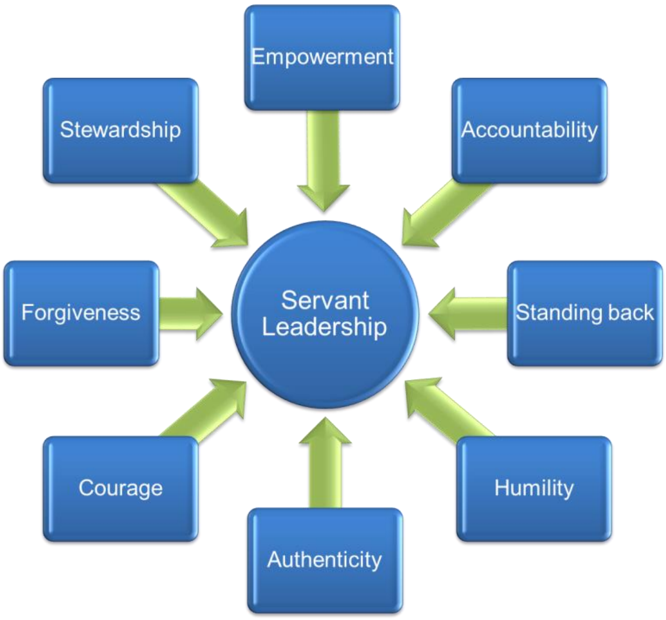


Figure 2-4: Operationalization of servant leadership

Van Dierendonck and Nuijten (2011:251) explain that empowerment is considered a motivational concept that focusses on enabling employees and encouraging personal development. The aim of empowerment is fostering a pro-active, self-confident attitude among followers.

Accountability refers to holding individuals accountable for performance of that which they control, thus being a mechanism through which responsibility is given to individuals (Van Dierendonck & Nuijten, 2011:251).

Standing back refers to the leader retreating into the background when praise is handed out for successful task accomplishment. It is also about the extent to which the leader first gives higher priority to the interest of others, and provides them with the support they need (Van Dierendonck & Nuijten, 2011:251).

Humility refers to possessing the ability to view one's own accomplishments and talents in proper perspective. Leaders who display humility are those who dare to admit that they are not infallible and that they can make mistakes. Humility is about understanding one's strengths and weaknesses, and actively seeking input from others to overcome any limitations (Van Dierendonck & Nuijten, 2011:251).

Authenticity refers to the leader expressing his or her true self whether in a professional or personal role. It is about leading and acting consistently with inner thoughts and feelings, and accurately representing internal states, intentions and commitments (Van Dierendonck & Nuijten, 2011:251).

Courage refers to leaders daring to take risks and attempting to solve problems with new approaches. Courage may also include challenging conventional work models and behaviours, being innovative and creative and creating new ways to approach problems and situations (Van Dierendonck & Nuijten, 2011:251).

Forgiveness is the ability of leaders to not carry resentments of perceived wrongdoings, as well as to understand the feelings of others and where they are coming from. Servant leaders create an environment where people feel free to make mistakes while knowing they will not be rejected. Servant leaders also do not seek revenge for misconduct (Van Dierendonck & Nuijten, 2011:251).

Stewardship refers to the leader's willingness to accept responsibility for the larger organization. Stewardship is also closely related to loyalty and social responsibility, and a sense of obligation to a common good. It also refers to leaders acting as both caretakers and role models (Van Dierendonck & Nuijten, 2011:251).

2.5 INTERRELATIONSHIP BETWEEN LEADERSHIP, MOTIVATIONAL STANCE AND WORK ENGAGEMENT

In this section, the interrelationships between leadership, motivation, and engagement are reviewed. The section discusses leadership relevant to work engagement, leadership relevant to motivation, as well as motivation relevant to work engagement. It concludes with the proposed model depicting the interrelationship of the concepts under consideration

2.5.1 Leadership and work engagement

It has been suggested that leadership is a key factor in improving WE (Park *et al.*, 2017:355). According to Rothmann (2017:328), leadership plays an essential role in forming an environment conducive to WE in the organization. Rothmann (2017:328) adds that WE is significantly influenced by leader behaviours that support, encourage and develop followers. In fact, Purcell (2014:244) states that WE is best viewed as an outcome of leadership activity.

The literature has abundant empirical evidence that demonstrates links between leadership and positive outcomes such as commitment, high performance and creativity (Soane, 2014:149). According to Rothmann (2017:329), leadership accounts for up to 70% of the variance in WE. Soane (2014:150) states that inspiring and motivating leadership can influence the experience of WE and thus enhance performance. Park *et al.* (2017:350) argue that leaders who believe that satisfied, capable and committed employees are their most valuable resource will design the work environment to enhance employee well-being and job performance.

2.5.2 Leadership and motivation

The influence of leadership on psychological need satisfaction, and thus autonomous motivation, of employees is acknowledged throughout the SDT literature (Rothmann, 2017:328). Kovjanic *et al.* (2012:1032) state that leadership is considered the central factor for employee psychological need satisfaction. Similarly, Trepanier *et al.* (2012:273) state that SDT research revealed positive correlations between leadership and autonomous motivation. According to Rothmann (2017:328), leadership behaviour and work environments that are supportive of psychological needs satisfaction are a catalyst for autonomous motivation. In fact, Kovjanic *et al.* (2012:1032) argue that the extent to which leaders can satisfy employee psychological needs is the essence of their power.

According to Rothmann *et al.* (2013:2), leadership behaviour also makes the value of the SDT evident in the workplace. Rothmann *et al.* (2013:3) state that employees who perceive their leaders as being supportive of autonomy displayed increased job satisfaction and improved well-being. Studies have also revealed that positive leadership relations unlocked greater employee performance, and decreased the levels of employee anxiety and depression (Stone *et al.*, 2009:77). Furthermore, leadership and the satisfaction of psychological needs directly influence employee intentions to leave (Rothmann *et al.*, 2013:3). According to the SDT, leadership behaviours thus directly influence follower motivation (Kovjanic *et al.*, 2012:1034).

2.5.3 Motivation and work engagement

According to Shuck (2011:308), work engagement was initially thought to be a motivational variable spanning the SDT continuum. It is then no surpise that Tremblay *et al.* (2009:215) state that the SDT continuum is a useful predictor of work engagement. Furthermore, Reijseger *et al.* (2017:118) state that WE is maintained best when originating from intrinsic motivation, but that the type of intrinsic motivation that may explain increased WE is still rather unknown.

Rothmann (2017:327) proffers the view that within the SDT framework, it is the satisfaction of the psychological needs that predict WE, rather than the strength of the motivational desire. Rothmann (2014:235) states that need satisfaction enhances intrinsic motivation, stimulates internalization of extrinsic motivation and ultimately leads to WE. In a similar vein, Soane (2014:157) states that motivational challenges together with developmental opportunities create an environment for engagement.

2.5.4 Model of interrelationship between selected leadership styles, motivational stance and work engagement

The purpose of the literature review was to obtain a conceptual understanding of all the aspects, definitions and key concepts under consideration. From the literature review, it is posited that the SDT can be viewed as a potential mediating factor that facilitates the link between leadership and work engagement. Figure 2-5 presents the proposed model for the present study, which depicts the interrelationship among leadership, motivational stance and work engagement.

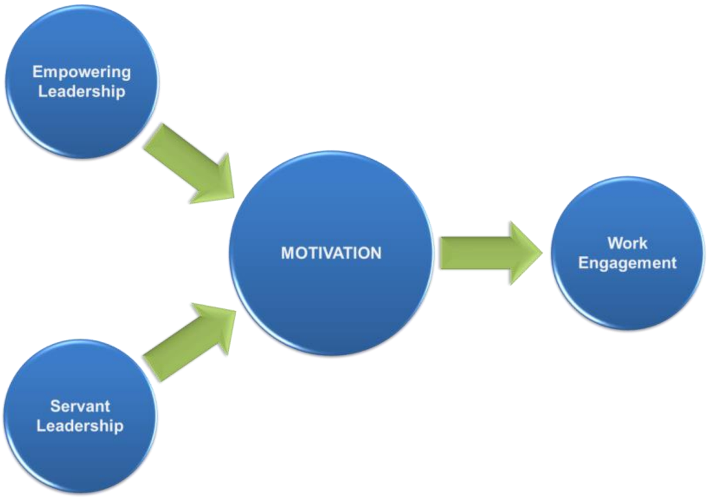


Figure 2-5: Proposed model depicting the interrelationship among leadership, motivational stance, and work engagement

2.6 HYPOTHESES OF THE STUDY

When leader behaviours stimulate the satisfaction of employee self-determination needs, it should generate more participation and autonomous motivation, which in turn promotes their work engagement (Rothmann, 2017:328). Based on the review of the literature, it is argued that the SDT can be viewed as a potential mediating factor that facilitates the relationship between leadership and work engagement.

The literature review provided a conceptual understanding of the concepts of Work engagement, Self-determination theory of motivation, Empowering leadership, and Servant leadership. Based on the findings from the literature review, the following hypotheses were set for the present study:

Hypothesis 1: Empowering leadership relates positively and statistically significantly to autonomous or self-determined motivation.

Hypothesis 2: Servant leadership relates positively and statistically significantly to autonomous or self-determined motivation.

Hypothesis 3: Empowering leadership is a predictor of work engagement.

Hypothesis 4: Servant leadership is a predictor of work engagement.

Hypothesis 5: Empowering leadership is a predictor of autonomous motivation

Hypothesis 6: Servant leadership is a predictor of autonomous motivation

Hypothesis 7: Autonomous motivation mediates the relationship between empowering leadership and work engagement.

Hypothesis 8: Autonomous motivation mediates the relationship between servant leadership and work engagement.

In addition, the correlation between the type of motivation and work engagement was also investigated.

CHAPTER 3

EMPIRICAL RESEARCH METHODOLOGY

3.1 INTRODUCTION

This study aimed to explore the interrelationship between selected leadership styles, motivational stance and work engagement, viewing motivational stance as the mediating factor that facilitates the link between leadership and work engagement. This chapter details the methodology followed during the empirical research of the study. The themes discussed in this chapter include the research approach, the research design as well as the methods of statistical analyses.

3.2 RESEARCH APPROACH

This study followed a quantitative research approach, as discussed in Chapter 1, and it sought to confirm hypotheses rather than to explore or understand a phenomenon. As a quantitative approach requires numerical measures of observation, a questionnaire was utilized and answers quantified using the Likert Scale. Data obtained from the questionnaires were tested for reliability and validity. The data analyses in this study were exploratory and correlational, and inferential statistics were performed as data allowed. The primary data were treated statistically and results are presented in numerical format.

3.3 RESEARCH DESIGN

According to Welman *et al.* (2005:52), the research design is a plan formulated to obtain research subjects and to elicit information from them. This study followed a non-experimental, observational design and did not involve any intervention with respondents. A structured questionnaire was designed as the valid method for the capturing of reliable data. The research design of the present study is detailed in the ensuing sections.

3.3.1 Research participants

The research questionnaire was distributed to 300 potential respondents who work for one engineering organization. The organization operates globally and the potential respondents were situated across 28 different countries. The target respondents were sales professionals of both genders and all races. The employer’s internal contact information and job descriptions served as a basis for profiling potential respondents. Within this framework, all respondents who willingly consented to participate voluntarily in the study were included in the sample.

The study was aimed at the individual employee level, and the empirical study thus measured the employees' feelings and perceptions. Only selected leadership styles from a follower perspective were measured, and a self-evaluation of the leader's own style was not included

3.3.2 Questionnaire

Questionnaires can assist in gathering data from a large respondent group in an inexpensive manner (Woollard, 2004:86). According to Woollard (2004:86), questionnaires are often the only feasible way in which researchers can reach enough respondents to allow statistical analysis of the results. Questionnaires are also very effective in gathering information from people over distances, and most respondents are familiar with this form of information gathering (Woollard, 2004:86).

The present study utilised a structured questionnaire design to collect data on perceived leadership styles, as well as intrinsic and extrinsic motivational factors, in order to investigate the extent to which the various constructs correlates and influence measured work engagement. The questionnaire used a combination of validated scales and sub-scales in the public domain.

3.3.2.1 Structure of the questionnaire

The opening page, or Part A, of the questionnaire served as a letter of informed consent. In this section of the questionnaire, the background of the study, as well as the procedures of the questionnaire, was explained. Respondents were informed of the intent of the study, and anonymity and confidentiality were ensured. Respondents were also informed that participation was voluntary, and that no intentional risks or harm were anticipated as a result of participation. Respondents were further required to agree to participation before continuing to the rest of the questionnaire.

The questionnaire was further divided into the following sections:

Part 1: Biographical information

Part 2: Measurement of servant leadership

Part 3: Measurement of empowering leadership

Part 4: Measurement of work extrinsic and intrinsic motivation

Part 5: Measurement of work engagement

A copy of the full questionnaire can be viewed in Appendix B.

3.3.3 Research procedure

Once the questionnaire design was complete, the researcher worked in close collaboration with the Statistical Consultation Services of the North-West University to finalize the questionnaire prior to distributing it to potential participants. This was done to guarantee a statistically adequate design, and to ensure optimum statistical reliability and validity of the design.

Questionnaires were distributed electronically via email to 300 potential participants across 28 countries, and data were captured using the Google Forms platform. The questionnaire was not translated into local languages, and only an English version was available. The period for sampling spanned from April to May 2017. Convenience sampling was used to satisfy the research objectives.

3.3.4 Measuring instruments

3.3.4.1 Biographical information

Due to global approach of the study, and the small size of some of the subsidiaries of the selected organization, some of the biographical questions of the questionnaire had to be removed or changed. This was done to ensure anonymity of both the participant and the manager or leader in question. Biographical questions that had to be removed due to threat of anonymity included respondent country, organizational level of employment, number of years in service and qualification level. Furthermore, biographical information such the respondent demographic group had to be removed due to concerns of sensitivity among certain cultural groups.

The remaining biographical information was designed to measure responses from different age groups and genders, as well as to the measure the influence of frequency of interaction with managers or leaders.

3.3.4.2 Servant Leadership Survey (SLS)

The central feature of SL that has been established in its recent history is that servant leaders focus on the development of followers and not on the glorification of the leader (Van Dierendonck *et al.*, 2017:2). Van Dierendonck *et al.* (2017:2) state that SL has shown incremental validity beyond what other leadership styles can offer, of which the most notably is the TFL style. SL has also been shown to positively influence follower effectiveness and well-being (Van Dierendonck *et al.*, 2017:2).

Several conceptualizations of SL have emerged in leadership research and practice over the past 15 years (Van Dierendonck *et al.*, 2017:2). According to van Dierendonck *et al.* (2017:9-10), the SLS is one of the best instruments available to researchers worldwide that are interested in using a valid and reliable measure of SL. Van Dierendonck and Nuijten (2011:250) developed the SLS in an effort to construct a valid and reliable instrument, which included the essential elements from the SL literature. With the development of the SLS, Dierendonck and Nuijten (2011:251) focused on measuring both the ‘servant’ and ‘leader’ part of SL. The focus of the SLS is also on transparent leader behaviour that influences followers’ performance and well-being (Van Dierendonck & Nuijten, 2011:263). The SLS emphasizes that servant leaders empower and develop followers, stand back when praise is handed out, are able to forgive, have a willingness to admit mistakes, hold followers accountable for their own work, and work towards the good of the whole (Van Dierendonck *et al.*, 2017:2).

Van Dierendonck and Nuijten (2011:255-257) studied the reliability and internal consistency of the SLS using three samples, totalling 775 participants across different professions and genders. The results indicated high reliability and internal consistency across all the dimensions of the instrument, and Van Dierendonck and Nuijten (2011:263) concluded that the SLS is a valid and reliable instrument to measure SL. Van Dierendonck *et al.* (2017:9-10) further studied the cross-cultural equivalence of the SLS, and were able to establish factorial validity, configural invariance and measurement equivalence across eight countries and languages. The SLS was thus considered a suitable instrument for the present study as it relates to the cross-cultural and international context.

The SLS is a 30-question scale, and includes eight dimensions of servant leader behaviours. The dimensions are Empowerment (7 items), Standing back (3 items), Accountability (3 items), Forgiveness (3 items), Courage (2 items), Authenticity (4 items), Humility (5 items), and Stewardship (3 items). The SLS is measured from the perspective of the follower, and concentrates on the leader-follower relationship. In the present study, respondents were asked to answer questions regarding the frequency of observed servant leader behaviours. Responses were evaluated using a 7-point Likert Scale ranging from 0 (Never) to 6 (Always).

3.3.4.3 Empowering Leadership Questionnaire (ELQ)

Empowering leadership research has emerged due to the changing nature of the work environment in the last decade, and the fact that work has become more complex and cognitively demanding (Amundsen & Martinsen, 2014:487). According to Amundsen and Martinsen (2014:487), only a few scale development studies have been published on the construct of EL itself, even though there is a growing interest in investigating the different implications of EL. Of these scales, the ELQ is one of the few of which the focus is characterized by external leadership of self-managing and empowered work teams (Amundsen & Martinsen, 2014:488).

Arnold *et al.* (2000:250) developed the ELQ to establish an empirical basis for understanding the functions of empowering leaders, and the skills necessary to lead empowered teams in the modern organization. Arnold *et al.* (2000:252) explain that the ELQ was developed through gathering information about leader behaviours required to effectively lead in empowered teams. From the information, leader behaviours were categorized, and the ELQ scale was constructed to measure each category. The ELQ emphasizes that empowering leaders lead by example, they encourage members to express ideas and opinions and use the information when making decision, they educate followers in becoming self-reliant, they communicate important organizational information, and they show concern regarding employee well-being (Arnold *et al.*, 2000:255).

Arnold *et al.* (2000:252) also studied the reliability, factor structures and cross-validity of the ELQ. In one study, ranging across five organizations and four different industries, and which included self-managing teams as well as task and cross-functional teams, Arnold *et al.* (2000:260-263) found satisfactory reliability for all five ELQ subscales (Cronbach’s alpha’s ≥ 0.85). Furthermore, Arnold *et al.* (2000:266) found that, although the ELQ is most applicable for research in empowered teams, it is also useful for research in various team environments due to the make-up of its categories and relation to the empowerment literature.

The sales environment, which was the target environment for the present study, was considered to be autonomous and self-managing in nature, and thus falls well into the framework of the ELQ. The ELQ was thus considered a suitable instrument to measure EL in the present study.

The ELQ scale consists of 38 questions, broken down into five dimensions of leader behaviours for empowered teams. These dimensions include Leading by Example (5 items), Participative Decision Making (6 items), Coaching (11 items), Informing (6 items), and showing concern (10 items). The ELQ is measured from the perspective of the follower. In the present study, respondents were asked to answer questions regarding the frequency of observed empowering leader behaviours. Responses were evaluated using a 5-point Likert Scale varying from 1 (Never) to 5 (Always).

3.3.4.4 Work Extrinsic and Intrinsic Motivation Scale (WEIMS)

Although motivation in the organizational setting is a complex topic, a motivated workforce is considered a competitive advantage and critical strategic asset in today's economy (Tremblay *et al.*, 2009:213). Tremblay *et al.* (2009:213) state that when capturing employee motivation for the purpose of developing interventions aimed at enhancing motivation, it is essential to have the ability to measure the different factors or types of motivation that energize, channel and sustain work behaviour over time.

The WEIMS consists of 18 items that measure work motivation (Tremblay *et al.*, 2009:213), and is divided into six sub-scales, which correspond to the six types of motivation suggested by the SDT (Tremblay *et al.*, 2009:216). These sub-scales include Intrinsic Motivation (3 items), Integrated Regulation (3 items), Identified Regulation (3 items), Introjected Regulation (3 items), External Regulation (3 items), and Amotivation (3 items). The SDT does not assume a developmental continuum whereby people progress through the various stages, but rather that a person can internalize a new behaviour at any point along the continuum. In the present study, participants were required to indicate the extent to which the items correspond to the reasons why they are at present involved in their work. Responses were evaluated using a 7-point Likert Scale ranging from 0 (Does not correspond at all) to 6 (Corresponds exactly).

Tremblay *et al.* (2009:217-222) tested the applicability of the WEIMS within different work environments, as well as its factorial structure, internal consistency and psychometric properties. It was found that the WEIMS has construct, content and criterion validity for use in organizational settings, and that the WEIMS has the ability to predict positive and negative organizational criteria based on one's self-determined motivation (Tremblay *et al.*, 2009:222). Tremblay *et al.* (2009:222) also found that results pertaining to the validation of the WEIMS were consistent with results obtained with similar SDT-based instruments used across other domains. It was further determined that the WEIMS can be used across different populations with minimum concern for sample specificity (Tremblay *et al.*, 2009:222).

Since the present study was aimed at use in an organizational setting, and across different countries and cultures, the WEIMS was considered an appropriate instrument for the measuring of motivational stance. The study also focused on the continuum of the self-determination theory, rather than including the various intrinsic dimensions of autonomy, relatedness, and mastery.

3.3.4.5 Utrecht Work Engagement Scale (UWES)

There are various measurement instruments available for measuring WE, which includes the Utrecht Work Engagement Scale (UWES), the Engagement Inventory (EI), the Intellectual, Social, Affective (ISA) Engagement Scale, and the Gallup Survey (Rothmann, 2017:321-322). As discussed in Chapter 2, the definition of WE used in this study follows the second alternative of the burnout-antithesis approach, thus being a positive fulfilling, work related state of mind, characterized by vigor, dedication, and absorption.

The UWES is a 17-item, self-report measure, and has been developed to include the three constituting dimensions of vigor (6 items), dedication (5 items), and absorption (6 items) (Schaufeli *et al.*, 2006:702). The UWES emphasizes that employees with energy, stamina, persistence and mental resilience will have high scores of vigor. High scores in dedication imply that employees are enthusiastic, inspired, proud of their work and find their work meaningful and purposeful. Employees with high scores of absorption tend to be captivated in their work to such an extent that they forget everything else around them, they are happy when they can work intensely, and they often have difficulty detaching themselves from their work. In the present study, participants were required to indicate the frequency of described feelings they experience at work. Responses were evaluated using a 7-point Likert Scale ranging from 0 (Never) to 6 (Every day).

Schaufeli *et al.* (2006:703) state that the UWES is an acceptable and unbiased instrument to measure work engagement across different racial groups. The UWES was also found to have high a Cronbach’s alpha for internal consistencies (typically ranging between .80 and .90). Rothmann (2014:170-171) found that the metaphors used in some of the UWES questions are problematic for use in different cultural groups, but continues to say that the UWES has been used in most cross-cultural studies of work engagement. Fletcher and Robinson (2014:274) also state that the UWES is currently the most widely used and validated measure for WE. The UWES was thus considered an appropriate instrument to measure WE for the scope and purpose of the present study.

3.4 STATISTICAL ANALYSIS

The statistical analysis in the present study was completed in collaboration with the Statistical Consultation Services of the North-West University. This was done in an attempt to maintain objectivity, as well as to conform to high statistical standards.

3.4.1 Data quality

When conducting research, one general aim is to study events that seem to be recurring, typical, or widespread (Prosser, 2004:138). Prosser (2004:138) states that it is imperative that the quality of data be tested when making statements regarding what the data represent. This need to feel confident about data can be addressed with reliability and validity, both of which are frameworks to make judgements regarding the quality of gathered data (Prosser, 2004:138).

3.4.1.1 Reliability of the data

According to Prosser (2004:138), reliability is a measure of the extent to which consistent results will be obtained when an instrument is repetitively applied to the same participant group under standard conditions. When research data show high reliability, it entails that conclusions reached from the data should be comparable to that from other researchers using the same events (Prosser, 2004:139). Prosser (2004:138) states that one of the main types of reliability is to measure internal consistency, which is typically used where tests are administered only once. Similarly, Ponterotto and Ruckdeschel (2007:997) state that internal consistency is considered the most important measure of reliability. Consequently, internal consistency reliability was emphasized in the present study.

Internal consistency refers to the interrelationship of items that is intended to measure the same construct on interest (Henson, 2001:180). According to Henson (2001:180), if items are highly correlated, the theoretical assumption is that some degree of consistency was measured for the construct of interest, and thus the scores are reliable. Cronbach's Alpha is the most commonly used measure of internal consistency reliability of a scale (Streiner, 2003:99). Streiner (2003:99) attributes this fact to the reason that Cronbach's alpha is the only reliability index that can be applied on a single administration of scale, and can thus be determined with far less effort compared to test-retest or interrater reliability. Gliem and Gliem (2003:87) argue that it is imperative to calculate and report Cronbach's alpha for any scales and subscales when using a Likert-type design. Consequently, the present study followed the Cronbach's alpha index to determine reliability of data.

Gliem and Gliem (2003:87) state that although there is no lower limit, Cronbach's alpha reliability coefficient typically ranges between .00 and 1.00. Gliem and Gliem (2003:87) continue by saying that the closer alpha scores tend towards 1.00, the higher internal consistency it represents. Furthermore, the widely accepted standard is that a Cronbach's alpha greater or equal to .70 represents acceptable internal consistency, and that an alpha of .80 is a reasonable goal (Gliem & Gliem, 2003:87). Moreover, Streiner (2003:103) states that alpha can also be too high, and that a coefficient of greater that .90 may point to redundant items.

3.4.1.2 Validity of the data

According to Zohrabi (2013:258), validity is concerned with whether research is believable and true. Validity is a measure of the extent to which an item measures or describes what it is intended to measure or describe (Prosser, 2004:139). Factor analysis is commonly used for providing construct validity evidence of self-reporting questionnaires in the fields of psychology (Williams *et al.*, 2012:2). Williams *et al.* (2012:3) continue by explaining that the two types of factor analysis include exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). As the name suggests, EFA is exploratory in nature and is used when the researcher has no expectations of the number of variables obtained from the results, whereas CFA is used to test a proposed model based on expectations from prior theory (Williams *et al.*, 2012:3). In the present study, validity was measured using principal component exploratory factor analyses with oblimin rotation to explore the underlying factors. The resulting factors were then compared to that of the original models proposed in theory, in order to establish validity.

Prior to factor extraction, the suitability of the data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure, as well as the Bartlett's Test of Sphericity. The KMO measures the sample adequacy, while the Bartlett's Test indicates the strength of the relationship among variables. According to Williams *et al.* (2012:5), a suitable KMO index (≥ .50), and a Bartlett's Test indicating statistical significance (p < .05) are preconditions for factor analysis.

In order to produce scale unidimensionality, the cumulative percentage of variance was extracted for the various scales. Williams *et al.* (2012:6) state that the explained variance is commonly as low as 50-60% for humanities studies.

Finally, factors were extracted using a principal component analysis. A component matrix was utilized that contained component loadings, which represents the correlations between the measured variables and the selected component. Variables with correlations of greater or equal to .30 are generally considered as significant and included in the factor analysis (UCLA: Statistical Consulting Group, 2017).

3.4.2 Descriptive statistics

Descriptive statistics were used to summarize information about the variables in the data. The frequencies and percentages of all responses were calculated and reported for all questions. Furthermore, the mean and standard deviation for each question, scale and subscale was calculated and reported to sketch the central tendency and dispersion of the data.

3.4.3 Inferential statistics

Inferential statistics were used to draw conclusions from the obtained data, as well as to test the hypotheses about the relationships among the variables as described in Chapter 2. Spearman's rho correlations were calculated to report the statistical significant relationships between constructs. A correlation of .10 was considered to have a small effect, 0.30 a medium effect, and .50 a large effect (Cohen, 1992:157). Relationships between constructs and biographical data were reported and considered significant.

3.4.4 Statistical mediation analysis

Psychology research is often conducted to establish the extent of the affect that one variable has on another (Preacher & Hayes, 2004:717). According to Preacher and Hayes (2004:717), this discovery of the effect of the relationship between two variables is only a small part of the aim of psychology. Preacher and Hayes (2004:717) argue that a deeper understanding can be gained when the process that produces these effects is comprehended. MacKinnon *et al.* (2012:1) state that mediating variables that affects the outcome variable has long been the interest in business theories. Figure 3-1 illustrates the framework for a simple mediation model.

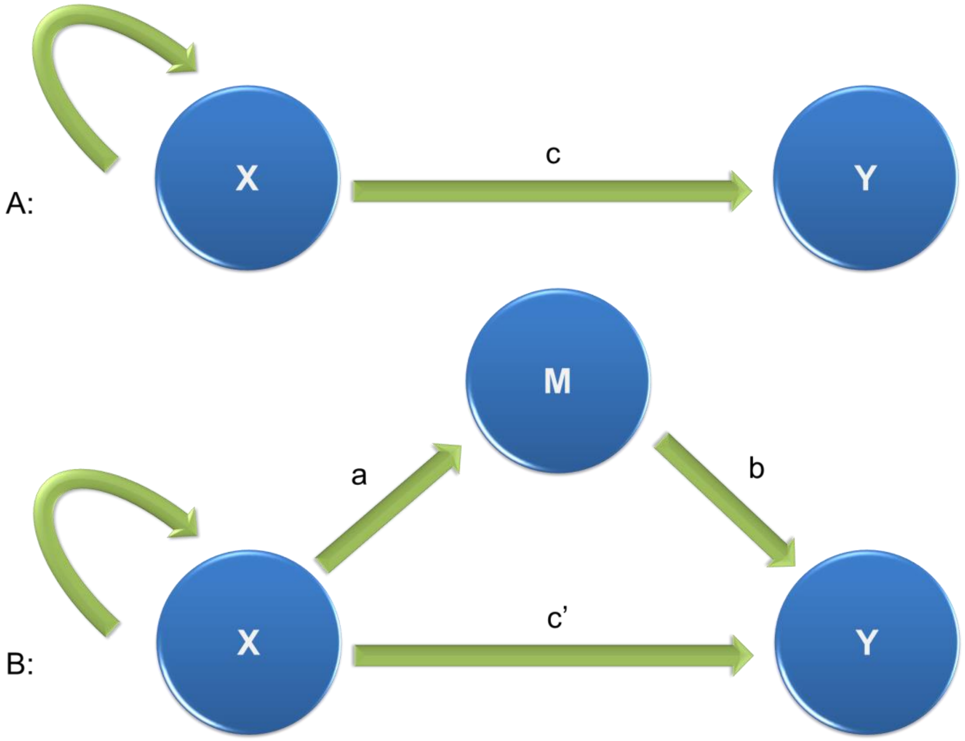


Figure 3-1: Schematic of a simple mediation model (Rucker *et al.*, 2011:360)

In section A of Figure 3-1, c represents the effect of a proposed cause *X*, on some outcome *Y*. This relationship, c, between *X* and *Y* is referred to as the total effect of *X* on *Y*. Section B represent a simple form of mediation, where variable M mediates the effect of *X* of *Y*. For variable *M* to be statistically considered a mediator, (1) X must significantly predict *Y*, (2) *X* must significantly predict *M*, and (3) M must significantly predict *Y* controlling for X (Preacher & Hayes, 2004:717).

These criteria can be assessed by estimating the equations below:

1) $Y = i_1 + cX$ (where c ≠ 0; *i* is an intercept coefficient)

2) $M = i_2 + aX$ (where a ≠ 0; *i* is an intercept coefficient)

3) $Y = i_3 + c'X + bM$ (where b ≠ 0; *i* is an intercept coefficient)

Preacher and Hayes (2004:717) explain that when the effect of *X* on *Y* decreases to zero with the inclusion of M, complete mediation has occurred. When the effect of *X* of *Y* decreases by a nontrivial amount (although ≠ zero), partial mediation has occurred.

The mediating effect of motivation between leadership and work engagement in the present study was evaluated using this methodology.

3.4.4.1 Suppression effects in mediation analysis

When evaluating mediation analysis in social psychology, Rucker *et al.* (2011:360) highlight the important of considering suppression effects. This is specifically important as opposing indirect effects can obscure the total effect between a measured cause and outcome, as well as influence partial or complete mediation (Rucker *et al.*, 2011:366). Rucker *et al.* (2011:366) explain that when the inclusion of a variable in a regression equation increases the predictive validity of another variable, it is considered a suppressor of the second variable. Rucker *et al.* (2011:366) continue by saying that suppression thus occurs when one variable undermines the total effect by its omission, and enhances the predictive utility of the other variables in the regression equation when it is accounted for.

In the present study, the model created to depict the interrelationship among leadership, motivational stance and work engagement included both the empowering and servant leadership styles as causative effects. Considering that both the empowering and servant leadership styles share similar views of enabling follower performance, growth and learning through leaders being at the service of followers, the suppression effect of the one leadership style on the other was also evaluated in the mediation analysis.

CHAPTER 4

EMPIRICAL RESULTS AND FINDINGS

4.1 INTRODUCTION

In this chapter, the results and findings from the empirical research are presented. Results are summarized under the themes of the biographical profile, evaluation of data quality, descriptive and inferential statistics. The biographical profile takes an overview of the information of the entire respondent group and includes gender, age and the frequency of interaction with management. Data quality was evaluated using the frameworks of reliability and validity techniques. Descriptive statistics were used to summarize information about the variables in the data, while inferential statistics were used to draw conclusions from the obtained data, as well as to test the hypotheses about the relationships between the variables set out for the present study.

4.2 BIOGRAPHICAL PROFILE

4.2.1 Response rate

Out of the 300 questionnaires that were distributed, 128 completed questionnaires were returned, translating into a response rate of 42.67%. Anseel *et al.* (2010:346) state that expected response rates for organizational respondents is 35.7% when using mailed questionnaires, thus signifying a decent response rate for a study of this nature. The reasons for not participating in the study were not recorded.

4.2.2 Gender and age groups

Of the 128 respondents, 109 (85.2%) were male and 19 (14.8%) were female. The small sample size of women meant that no statistically relevant analysis could be made pertaining to responses received from males compared to females. The gender percentages are shown in Figure 4-1

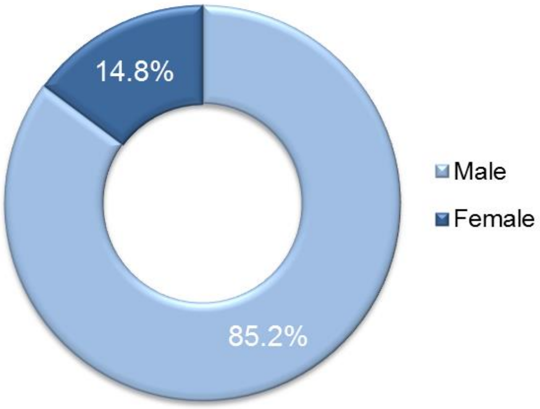


Figure 4-1: Respondents by gender

The respondent age group distribution is shown in Figure 4-2. The age groups also signify different generation groups. Of the 128 respondents, 22 (17.2%) were aged between 21 and 35, while 71 (55.5%) of the respondents were aged between 36 and 50. There were 35 (27.3%) of respondents aged above 50, and zero younger than 21.

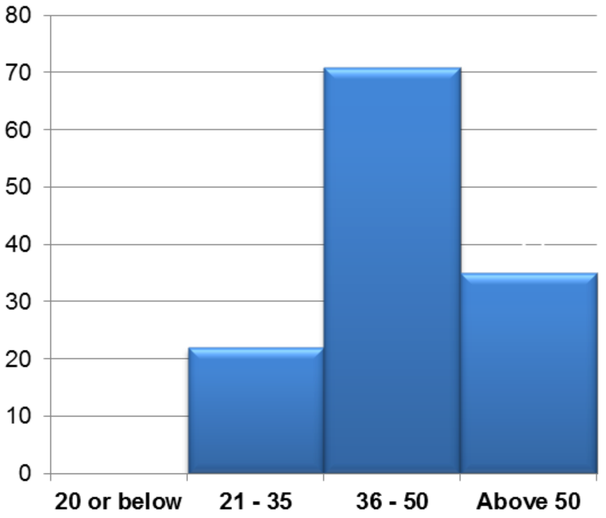


Figure 4-2: Respondents by age group

4.2.3 Frequency of interaction with management

Data regarding the frequency of interaction with management were collected to ultimately determine its influence on perceived leadership styles, motivation, as well as work engagement. Of the 128 respondents, 93 (72.7%) reported interaction with management or leaders at least once a week, and 32 (25.0%) interacted with management every day. There was 7 (5.5%) of respondents that reported interaction with management on only a few occasions in a year. The respondent frequency of interaction is shown in Figure 4-3.

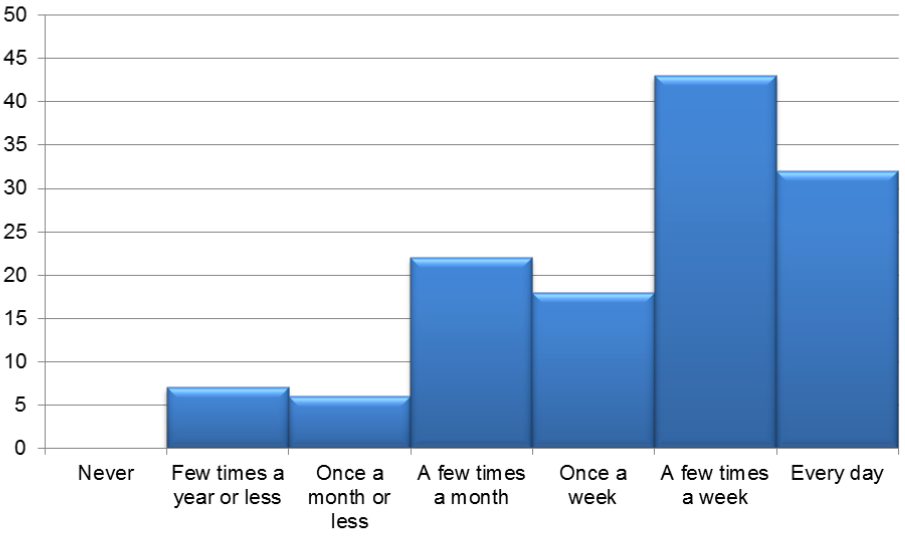


Figure 4-3: Respondent frequency of interaction with management

4.3 EVALUATION OF DATA QUALITY

4.3.1 Evaluation of reliability

The present study followed the Cronbach's alpha index to determine internal consistency reliability of data. Consequently, Cronbach's alpha was applied to all the scales and sub-scales utilized in the study. The resulting reliability analysis is indicated in Table 4-1.

Table 4-1: Cronbach's alpha analysis

Scales and subscales	Number of Items	Cronbach's alpha
SLS: Servant Leadership Survey	**30**	**.872**
Empowerment	7	.918
Standing Back	3	.740
Accountability	3	.851
Forgiveness	3	.700
Courage	2	.680
Authenticity	4	.764
Humility	5	.920
Stewardship	3	.870
ELQ: Empowering Leadership Questionnaire	**38**	**.775**
Leading by example	5	.930
Participative Decision-Making	6	.770
Coaching	11	.957
Informing	6	.948
Showing Concern / Interacting with the Team	10	.945
WEIMS: Work Extrinsic and Intrinsic Motivation Scale	**18**	**.673**
Intrinsic Motivation	3	.787
Integrated Regulation	3	.787
Identified Regulation	3	.745
Introjected Regulation	3	.778
External Regulation	3	.685
Amotivation	3	.778
UWES: Utrecht Work Engagement Scale	**17**	**.924**
Vigor	6	.843
Dedication	5	.909
Absorption	6	.839

An alpha coefficient greater or equal to .70 represents acceptable internal consistency. Although SLS – Courage (.680), WEIMS – External Regulation (.685), and the overall WEIMS (.673) measured marginally below .70, these values were considered close enough to the benchmark to represent acceptable reliability for the purpose of this study. Furthermore, although some coefficients of greater than .90 were measured, no corrective steps were considered necessary to remove potentially redundant items, seeing that all scales and sub-scales were validated questionnaires in the open domain, specifically developed for psychometric measurement, the results obtained from the Cronbach's alpha analysis were deemed acceptable, and consequently, the data were considered reliable for the use of statistical analysis.

4.3.2 Evaluation of validity

Validity was measured using principal component exploratory factor analyses with oblimin rotation to explore the underlying factors. Prior to factor extraction, the suitability of the data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure, as well as Bartlett's Test of Sphericity. All scales and subscales measured a KMO of greater or equal to .50, indicating sample adequacy across for the entire questionnaire. Furthermore, all scales and subscales measured a p-value of .000 using the Bartlett's Test, thusly indicating strong relationships among all variables. This confirmed that the dataset was suitable to perform exploratory factor analyses (EFA).

The cumulative percentage of variance explained measured in excess of 60% for all variables except SLS – Authenticity (57.84%), UWES – Vigor (56.28%), and UWES – Absorption (55.05%). As discussed in Chapter 3, the benchmark for humanities studies for this measure is greater or equal to 50%. All scales and subscales thus tested adequately to produce scale unidimensionality.

Finally, factors were extracted using a principal component analysis. A component matrix was utilized that contained component loadings, which represent the correlations between the measured variables and the selected component. Variables with correlations of greater or equal to .30 were considered as significant and included in the analysis. For all sub-scales, the principal component analysis included every suggested question, and extracted singular factors from the included questions. This confirmed that all factors extracted from the data corresponded exactly to that of the original models proposed in theory, thus establishing construct validity for the entire dataset.

Considering the relatively small sample size and computation difficulties it presents, the results from the principal component analysis were deemed very successful. Details of the EFA are presented in Appendix C.

4.4 DESCRIPTIVE STATISTICS

Descriptive statistics were calculated using the frequencies and percentages of recorded responses with the intent to summarize and report information about the variables in the data. To sketch the central trend and dispersion of the data, the mean and standard deviations for all questions, scales and subscales were also calculated and reported. The results are detailed in the ensuing sections.

4.4.1 Servant leadership

Table 4-2 summarizes the descriptive findings pertaining to perceived servant leadership, as measured using the SLS.

Table 4-2: Descriptive statistics for servant leadership

		Never	Almost Never	Rarely	Some times	Often	Very Often	Always	Mean	Standard deviation
		0	1	2	3	4	5	6		
	Empowerment									
1	My manager gives me the information I need to do my work well.	1.60%	1.60%	3.40%	18.80%	22.70%	34.40%	18.00%	4.34	1.289
2	My manager encourages me to use my talents	1.60%	3.10%	7.00%	14.80%	16.40%	23.40%	33.60%	4.46	1.531
3	My manager helps me to further develop myself.	2.30%	5.50%	3.90%	18.80%	20.30%	28.10%	21.10%	4.18	1.524
4	My manager encourages his/her staff to come up with new ideas.	4.00%	1.60%	7.10%	13.50%	22.20%	26.20%	25.40%	4.29	1.554
12	My manager gives me the authority to take decisions which make work easier for me.	0.80%	1.60%	3.90%	10.90%	16.40%	37.50%	28.90%	4.69	1.266
20	My manager enables me to solve problems myself instead of just telling me what to do.	1.60%	3.10%	1.60%	10.20%	22.00%	39.40%	22.00%	4.54	1.302
27	My manager offers me abundant opportunities to learn new skills.	3.90%	7.80%	6.30%	8.60%	26.60%	28.90%	18.00%	4.05	1.640
					Mean	4.36	Standard deviation	1.196	Reliability	0.918
	Standing back									
5	My manager keeps himself/herself in the background and gives credits to others	3.10%	5.50%	3.90%	19.70%	24.40%	28.30%	15.00%	4.02	1.501
13	My manager is not chasing recognition or rewards for the things he/she does for others	4.70%	9.40%	12.60%	14.20%	19.70%	28.30%	11.00%	3.64	1.693
21	My manager appears to enjoy his/her colleagues' success more than his/her own.	3.90%	3.10%	7.00%	22.70%	19.50%	30.50%	13.30%	3.95	1.505
					Mean	3.87	Standard deviation	1.271	Reliability	0.740
	Accountability									
6	My manager holds me responsible for the work I carry out.	0.00%	1.60%	0.00%	9.40%	11.70%	45.30%	32.00%	4.95	1.034
14	I am held accountable for my performance by my manager.	0.80%	0.00%	1.60%	11.70%	21.90%	41.40%	22.70%	4.69	1.078
22	My manager holds me and my colleagues responsible for the way we handle a job.	0.80%	1.50%	3.10%	12.50%	23.40%	43.00%	15.60%	4.48	1.164
					Mean	4.71	Standard deviation	0.959	Reliability	0.851
	Forgiveness									
7	My manager keeps criticizing people for the mistakes they have made in their work (r).	11.70%	23.40%	21.10%	21.10%	11.70%	7.80%	3.10%	2.34	1.579
15	My manager maintains a hard attitude towards people who have offended him/her at work (r).	7.00%	9.40%	18.80%	28.10%	18.00%	13.30%	5.50%	3.02	1.555
23	My manager finds it difficult to forget things that went wrong in the past (r).	6.30%	17.20%	18.80%	28.90%	17.20%	8.60%	3.10%	2.72	1.474
					Mean	2.69	Standard deviation	1.215	Reliability	0.700

		Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always	Mean	Standard deviation
		0	1	2	3	4	5	6		
	Courage									
8	My manager takes risks even when he/she is not certain of the support from his/her own manager	3.20%	7.10%	11.90%	30.20%	18.30%	22.20%	7.10%	3.48	1.479
16	My manager takes risks and does what needs to be done in his/her view.	0.80%	0.80%	8.60%	20.30%	25.80%	32.00%	11.70%	4.13	1.236
					Mean	3.81	Standard deviation	1.197	Reliability	0.680
	Authenticity									
9	My manager is open about his/her limitations and weaknesses.	6.30%	5.50%	10.20%	32.00%	20.30%	21.10%	4.70%	3.37	1.495
17	My manager is often touched by the things he/she sees happening around him/her.	0.00%	5.60%	10.30%	29.40%	24.60%	22.20%	7.90%	3.71	1.295
24	My manager is prepared to express his/her feelings even if this might have undesirable consequences	0.80%	0.80%	9.40%	31.50%	25.20%	24.40%	7.90%	3.84	1.198
28	My manager shows his/her true feelings to his/her staff.	3.10%	5.50%	11.00%	21.30%	22.80%	18.90%	17.30%	3.81	1.587
					Mean	3.68	Standard deviation	1.069	Reliability	0.764
	Humility									
10	My manager learns from criticism.	4.70%	3.90%	10.20%	30.50%	2.30%	18.00%	5.50%	3.48	1.397
18	My manager tries to learn from the criticism he/she gets from his/her superior.	1.60%	1.60%	6.30%	30.70%	30.70%	21.30%	7.90%	3.83	1.209
25	My manager admits his/her mistakes to his/her superior.	3.20%	5.60%	10.50%	36.30%	15.30%	20.20%	8.90%	3.51	1.462
29	My manager learns from the different views and opinions of others.	2.40%	6.30%	7.90%	22.00%	22.00%	30.70%	8.70%	3.82	1.455
30	If people express criticism, my manager tries to learn from it.	3.10%	4.70%	9.40%	29.70%	19.50%	26.60%	7.00%	3.66	1.428
					Mean	3.65	Standard deviation	1.230	Reliability	0.920
	Stewardship									
11	My manager emphasizes the importance of focusing on the good of the whole	1.60%	3.10%	1.60%	14.80%	25.80%	28.90%	24.20%	4.44	1.350
19	My manager has a long-term vision.	3.10%	3.90%	2.30%	14.10%	15.60%	28.90%	32.00%	4.50	1.557
26	My manager emphasizes the societal responsibility of our work.	3.90%	6.30%	3.90%	24.40%	20.50%	29.10%	11.80%	3.86	1.536
					Mean	4.27	Standard deviation	1.322	Reliability	0.870

The first noticeable finding from the data is that Forgiveness measured on the low end of the scale. It should be observed that all the questions from the forgiveness construct are reversed questions, and the results are thus in fact indicating positive results.

From the data obtained, it can be seen that followers experienced servant leadership characteristics from leaders “Often”, with a total mean of 3.96 (compensating for the reversed effect of Forgiveness). Followers experienced a sense of Empowerment (4.36) on average slightly more than “Often”, with the standard deviation (1.196) indicating that the frequency of this experience ranged from “Sometimes” to “Very Often”.

Followers reported that their leaders “Sometimes” retreat into the background when praise is handed out for successful task accomplishment, with a mean score of 3.87 for Standing Back. The standard deviation of 1.271 indicates that followers experienced the frequency of leaders Standing Back between “Rarely” and “Often”. Followers reported that, on average, leaders “Often” (3.95) appear to enjoy the success of colleagues more than their own.

Followers perceived their leaders to have high accountability expectations of them, with a mean score (4.71) trending towards “Very Often” for Accountability. The factor contributing highest towards this rating is the perception that leaders hold their followers responsible for the work they have to carry out (4.95) as well as for their own performance (4.69).

In terms of Forgiveness, followers reported that their leaders “Rarely” keep criticizing people for mistakes (2.34) and that they are at least “Sometimes” (3.28 reversed) able to forget past mistakes. Followers reported characteristics of leader Forgiveness on a frequency rate of “Sometimes” (3.31 reversed).

Considering the standard deviation (1.197), followers perceived their leaders to show characteristics of Courage (mean 3.81) on a frequency ranging from “Sometimes” to “Very Often”. Of all 128 responses 43.70% reported that their leaders either “Very Often” or “Always” take risks and does what needs to be done in their view. Similarly, 29.30% of respondents reported that their leaders would have the Courage to take on risk “Very Often” or “Always”, even without the direct support of his/her own superiors.

It was further reported that followers on average experience their leaders to “Sometimes” display Authenticity (3.68), trending towards “Often”. It was reported that followers perceive their leaders to be prepared to “Sometimes” (trending towards “Often”) express their feelings regardless of undesirable consequences (3.84), while leaders are slightly less frequently open about their own limitations and weaknesses (3.37).

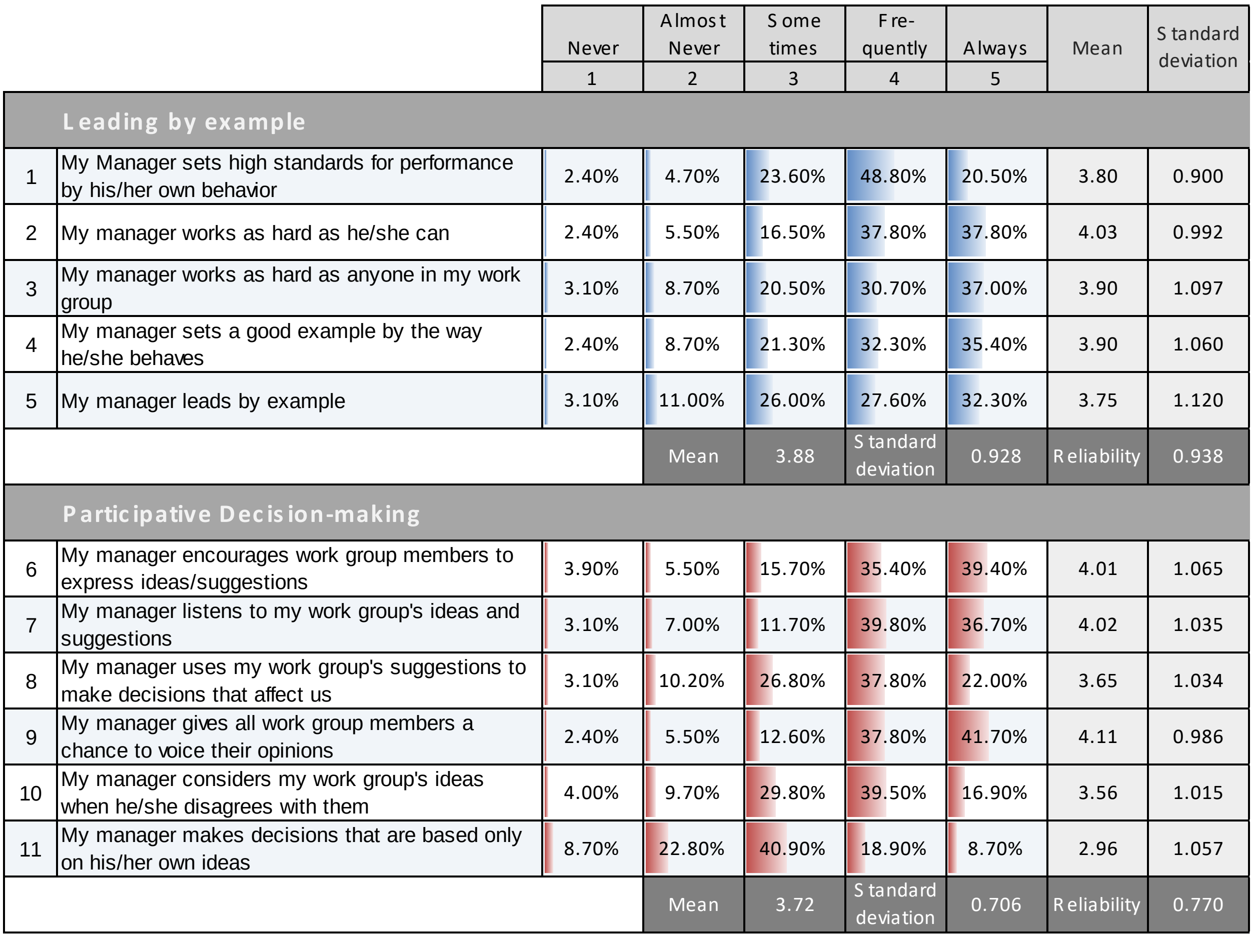
Of all the responses collected reporting on the perceived characteristic of Humility, the most notable is that 61,4% of respondents perceive their leaders to at least “Often” learn from the views and opinions of others. Furthermore, 59.9% of respondents perceived their leaders to at least “Often” learn from criticism they receive from their own superiors. In general, followers reported that leaders display Humility on a mean frequency of 3.65 (“Sometimes” trending towards “Often”).

Lastly, it was reported that 60.9% of respondents perceive their leaders to either “Very Often” or “Always” display long-term vision. Similarly, 53.1% of respondents perceive their leaders to either “Very Often” or “Always” emphasize the importance of focusing on the good of the whole. It was further reported that respondents on average experience the characteristic of Stewardship “Often” (4.27) from their leaders.

4.4.2 Empowering leadership

Table 4-3 summarizes the descriptive findings pertaining to perceived empowering leadership, as measured using the ELQ.

Table 4-3: Descriptive statistics for empowering leadership



		Never 1	Almost Never 2	Sometimes 3	Fre-quently 4	Always 5	Mean	Standard deviation
Leading by example								
1	My Manager sets high standards for performance by his/her own behavior	2.40%	4.70%	23.60%	48.80%	20.50%	3.80	0.900
2	My manager works as hard as he/she can	2.40%	5.50%	16.50%	37.80%	37.80%	4.03	0.992
3	My manager works as hard as anyone in my work group	3.10%	8.70%	20.50%	30.70%	37.00%	3.90	1.097
4	My manager sets a good example by the way he/she behaves	2.40%	8.70%	21.30%	32.30%	35.40%	3.90	1.060
5	My manager leads by example	3.10%	11.00%	26.00%	27.60%	32.30%	3.75	1.120
			Mean	3.88	Standard deviation	0.928	Reliability	0.938
Participative Decision-making								
6	My manager encourages work group members to express ideas/suggestions	3.90%	5.50%	15.70%	35.40%	39.40%	4.01	1.065
7	My manager listens to my work group's ideas and suggestions	3.10%	7.00%	11.70%	39.80%	36.70%	4.02	1.035
8	My manager uses my work group's suggestions to make decisions that affect us	3.10%	10.20%	26.80%	37.80%	22.00%	3.65	1.034
9	My manager gives all work group members a chance to voice their opinions	2.40%	5.50%	12.60%	37.80%	41.70%	4.11	0.986
10	My manager considers my work group's ideas when he/she disagrees with them	4.00%	9.70%	29.80%	39.50%	16.90%	3.56	1.015
11	My manager makes decisions that are based only on his/her own ideas	8.70%	22.80%	40.90%	18.90%	8.70%	2.96	1.057
			Mean	3.72	Standard deviation	0.706	Reliability	0.770

		Never	Almost Never	Some times	Frequently	Always	Mean	Standard deviation
		1	2	3	4	5		
Coaching								
12	My manager helps my work group see areas in which we need more training	2.40%	8.70%	25.20%	40.90%	22.80%	3.73	0.988
13	My manager suggests ways to improve my work group's performance	1.60%	6.50%	20.20%	50.00%	21.80%	3.84	0.896
14	My manager encourages work group members to solve problems together	2.40%	6.30%	14.20%	50.40%	26.80%	3.93	0.936
15	My manager encourages work group members to exchange information with one another	1.60%	4.70%	18.90%	33.90%	40.90%	4.08	0.964
16	My manager provides help to work group members	3.20%	8.10%	24.20%	41.10%	23.40%	3.73	1.013
17	My manager teaches work group members how to solve problems on their own	3.10%	17.30%	25.20%	35.40%	18.90%	3.50	1.083
18	My manager pays attention to my work group's efforts	2.40%	7.10%	25.20%	44.10%	21.30%	3.75	0.951
19	My manager tells my work group when we perform well	4.70%	7.90%	21.30%	40.20%	26.00%	3.75	1.076
20	My manager supports my work group's efforts	2.40%	4.70%	21.30%	44.10%	27.60%	3.90	0.941
21	My manager helps my work group focus on our goals	2.40%	5.50%	22.80%	41.70%	27.60%	3.87	0.962
22	My manager helps develop good relations among work group members	3.90%	10.20%	19.70%	34.60%	31.50%	3.80	1.115
			Mean	3.81	Standard deviation	0.829	Reliability	0.957
Informing								
23	My manager explains company decisions	3.20%	10.40%	23.20%	28.80%	34.40%	3.81	1.119
24	My manager explains company goals	1.60%	7.30%	16.30%	30.10%	44.70%	4.09	1.024
25	My manager explains how my work group fits into the company	3.90%	7.90%	25.20%	37.00%	26.00%	3.73	1.057
26	My manager explains the purpose of the company's policies to my work group	3.10%	11.00%	20.50%	39.40%	26.00%	3.74	1.063
27	My manager explains rules and expectations to my work group	1.60%	7.90%	21.40%	42.10%	27.00%	3.85	0.964
28	My manager explains his/her decisions and actions to my work group	3.90%	6.30%	24.40%	28.60%	26.80%	3.78	1.038
			Mean	3.83	Standard deviation	0.928	Reliability	0.948
Showing concern /Interacting with the team								
29	My manager cares about work group members' personal problems	2.40%	12.70%	17.50%	38.10%	29.40%	3.79	1.076
30	My manager shows concern for work group members' well-being	4.00%	8.00%	14.40%	38.40%	35.20%	3.93	1.086
31	My manager treats work group members as equals	3.90%	8.70%	21.30%	36.20%	29.90%	3.80	1.086
32	My manager takes the time to discuss work group members' concerns patiently	3.20%	8.70%	23.00%	41.30%	23.80%	3.74	1.021
33	My manager shows concern for work group members' success	3.10%	3.90%	29.10%	39.40%	24.40%	3.78	0.967
34	My manager stays in touch with my work group	1.60%	10.20%	18.90%	41.70%	27.60%	3.83	0.998
35	My manager gets along with my work group members	1.60%	4.70%	18.90%	46.50%	28.30%	3.95	0.898
36	My manager gives work group members honest and fair answers	2.40%	6.30%	20.60%	42.90%	27.80%	3.87	0.971
37	My manager knows what work is being done in my work group	1.60%	11.00%	23.60%	39.40%	24.40%	3.74	1.002
38	My manager finds time to chat with work group members	1.60%	11.00%	25.20%	33.10%	29.10%	3.77	1.040
			Mean	3.82	Standard deviation	0.832	Reliability	0.945

The data obtained from the ELQ indicate that characteristics of empowering leadership were experienced on a mean frequency of 3.81 (“Sometimes”, trending towards “Frequently”). Of all 128 responses, 69.3% of the respondents considered their leaders to “Frequently” or “Always” set high standards through their own behaviour, 75.6% reported that their leaders “Frequently” or “Always” worked as hard as they could, and 67.7% reported that their leaders “Frequently” or “Always” set a good example through their behaviour. In general, a mean score of 3.88 (“Sometimes”, trending towards “Frequently”) was measured for the characteristic of Leading by Example.

In terms of Participative Decision-making, respondents reported that their leader “Frequently” encouraged work group members to express their ideas (4.01), and also “Frequently” listened to the ideas and suggestions from the work group (4.02). It was also reported that leaders “Frequently” give work group members the opportunity to voice their opinions (4.11). Despite this seemingly high input from followers, 27.6% of respondents reported that their leaders “Frequently” or “Always” made decisions based on their own ideas, while a further 40.90% reported that their leader “Sometimes” made decisions in this fashion.

Outstanding items in the category of Coaching are that 71.80% of respondents reported that their leaders “Frequently” or “Always” suggested ways in which to improve the work group’s performance. Furthermore, 77.20% reported that their leaders “Frequently” or “Always” encouraged work groups to solve problems together, and 74.80% reported that their leaders “Frequently” or “Always” encouraged them to exchange information amongst each other. Alarmingly, 20.40% of respondents reported that their leaders “Never” or “Almost Never” taught work group members how to solve problems on their own. A further 25.20% reported that their leaders only “Sometimes” taught this skill. In general, however, the data indicate a mean frequency of 3.81 (“Sometimes” trending towards “Frequently”) for Coaching.

The construct of Informing measured a mean frequency of 3.83, indicating that respondents felt an experience of being informed marginally under “Frequently”. The main notable factor in this category is that 74.80% of respondents reported that company goals were explained to them. A potentially worrying factor is that 34.60% of respondents reported that their leaders “Never”, “Almost Never”, or only “Sometimes” explained the purpose of company policies to the work group.

A mean frequency of 3.82 (“Sometimes” trending towards “Frequently”) was measured for leaders showing concern or interacting with the team. It was reported by 74.80% that their leaders “Frequently” or “Always” got along with work group members, and 70.70% reported that their leaders “Frequently” or “Always” gave honest and fair answers. It is also notable that 73.60% of respondents reported that their leaders either “Frequently” or “Always” showed concern for the well-being of the work group members.

4.4.3 Motivational stance

Table 4-4 summarizes the descriptive findings pertaining to motivational stance as measured using the WEIMS.

Table 4-4: Descriptive statistics for motivational stance

Reasons why you are presently involved in your work...		Does not correspond at all			Correspond moderately			Correspond exactly	Mean	Standard deviation
		0	1	2	3	4	5	6		
Intrinsic Motivation										
4	Because I derive much pleasure from learning new things.	0.80%	2.40%	1.60%	8.70%	20.60%	39.70%	26.20%	4.7	1.208
8	For the satisfaction I experience from taking on interesting challenges	0.00%	0.80%	2.40%	5.60%	15.10%	46.80%	29.40%	4.93	1.005
15	For the satisfaction I experience when I am successful at doing difficult tasks.	0.00%	0.00%	0.00%	10.20%	22.00%	46.50%	21.30%	4.79	0.896
					Mean	4.80	Standard deviation	0.876	Reliability	0.787
Integrated Regulation										
5	Because it has become a fundamental part of who I am.	0.80%	2.40%	2.40%	17.50%	22.20%	38.90%	15.90%	4.38	1.225
10	Because it is part of the way in which I have chosen to live my life.	2.40%	1.60%	7.10%	16.50%	24.40%	40.90%	7.10%	4.1	1.29
18	Because this job is a part of my life.	0.80%	0.80%	1.60%	13.40%	33.90%	35.40%	14.20%	4.42	1.072
					Mean	4.30	Standard deviation	0.989	Reliability	0.767
Identified Regulation										
1	Because this is the type of work I chose to do to attain a certain lifestyle.	1.60%	6.30%	8.70%	14.20%	27.60%	33.90%	7.90%	3.93	1.404
7	Because I chose this type of work to attain my career goals.	1.60%	3.10%	4.70%	17.30%	21.30%	33.90%	18.10%	4.28	1.378
14	Because it is the type of work I have chosen to attain certain important objectives.	1.60%	1.60%	5.60%	23.00%	19.00%	38.90%	10.30%	4.14	1.282
					Mean	4.11	Standard deviation	1.103	Reliability	0.745
Introjected Regulation										
6	Because I want to succeed at this job, if not I would be very ashamed of myself.	3.90%	4.70%	3.90%	7.10%	18.10%	40.20%	22.00%	4.39	1.559
11	Because I want to be very good at this work, otherwise I would be very disappointed.	3.10%	1.60%	11.00%	22.00%	37.00%	8.00%	24.40%	4.63	1.194
13	Because I want to be a “winner” in life.	3.10%	4.70%	4.70%	11.00%	19.70%	35.40%	21.30%	4.31	1.535
					Mean	4.44	Standard deviation	1.197	Reliability	0.778

Reasons why you are presently involved in your work...		Does not correspond at all			Correspond moderately			Correspond exactly	Mean	Standard deviation
		0	1	2	3	4	5	6		
	External Regulation									
2	For the income it provides me.	0.00%	1.60%	10.30%	13.50%	37.30%	31.00%	6.30%	4.05	1.123
9	Because it allows me to earn money.	1.60%	3.90%	7.10%	18.90%	21.30%	31.50%	15.70%	4.12	1.423
16	Because this type of work provides me with security.	2.40%	1.60%	8.70%	20.50%	29.90%	34.50%	5.50%	3.91	1.269
					Mean	4.02	Standard deviation	0.997	Reliability	0.685
	Amotivation									
3	I ask myself this question, I don't seem to be able to manage the important tasks related to this work.	27.60%	31.50%	14.20%	9.40%	10.20%	6.30%	0.80%	1.65	1.586
12	I don't know why, we are provided with unrealistic working conditions.	29.10%	17.30%	12.60%	21.30%	10.20%	7.10%	2.40%	1.97	1.732
17	I don't know, too much is expected of us.	22.80%	15.00%	24.40%	22.00%	10.20%	4.70%	0.80%	1.99	1.504
					Mean	1.87	Standard deviation	1.339	Reliability	0.778

At first glance, one interesting factor to note is that both autonomous and controlled motivation factors seemingly bear an approximately equal weight. It is also notable that Amotivation measured as an opposite of all extrinsic or intrinsic types of motivation. The motivational type that measured the highest mean correspondence as to why respondents were at present involved in their work was Intrinsic Motivation (4.80) suggesting that the respondent group was first and foremost motivated to perform their activities because they found them inherently interesting and satisfying.

The next highest measured motivational types were Introjected Regulation (4.44), followed by Integrated Regulation (4.30). This suggests that the respondent group is also highly motivated though contingencies of self-worth such as guilt or self-esteem, and that respondents identified with an activity to the extent that it formed part of their sense of self.

To a slightly lower extent, but still significantly, respondents reported Identified Regulation (4.11) and External Regulation somewhat corresponded to the reasons why they were at present involved in their work. This suggests that respondents were also somewhat motivated because of the underlying value of their work, but also to some extent purely because of the reward they obtained for doing their work.

4.4.4 Work engagement

Table 4-5 summarizes the descriptive findings pertaining to work engagement as measured using the UWES.

Table 4-5: Descriptive statistics for work engagement

		Never	A few times a year or	Once a month or less	A few times a month	Once a week	A few times a week	Everyday	Mean	Standard deviation
		0	1	2	3	4	5	6		
	Vigor									
1	At my work, I feel bursting with energy.	0.00%	2.40%	6.30%	12.60%	22.80%	47.20%	8.70%	4.32	1.147
4	At my job, I feel strong and vigorous.	0.00%	2.40%	3.90%	11.00%	18.90%	51.20%	12.60%	4.50	1.119
8	When I get up in the morning, I feel like going to work.	3.20%	4.00%	6.30%	9.50%	14.30%	46.80%	15.90%	4.32	1.495
12	I can continue working for very long periods at a time.	1.60%	0.80%	6.30%	7.10%	11.80%	46.50%	26.00%	4.70	1.293
15	At my job, I am very resilient, mentally.	0.80%	1.60%	4.80%	13.50%	23.00%	39.70%	16.70%	4.42	1.222
17	At my work, I always persevere, even when things do not go well.	0.00%	1.60%	2.40%	7.90%	18.90%	44.10%	25.20%	4.77	1.085
					Mean	4.51	Standard deviation	0.918	Reliability	0.843
	Dedication									
2	I find the work that I do full of meaning and purpose.	1.60%	2.40%	3.90%	11.00%	22.00%	38.60%	20.50%	4.47	1.314
5	I am enthusiastic about my job.	0.80%	0.80%	3.90%	7.10%	14.20%	41.70%	31.50%	4.84	1.185
7	My job inspires me.	2.40%	0.00%	6.30%	11.10%	22.20%	37.30%	20.60%	4.45	1.324
10	I am proud of the work that I do.	0.80%	0.80%	1.60%	4.80%	16.00%	38.40%	37.60%	5.00	1.100
13	To me, my job is challenging.	1.60%	0.00%	5.50%	11.80%	17.30%	35.40%	28.30%	4.63	1.302
					Mean	4.68	Standard deviation	1.071	Reliability	0.909
	Absorption									
3	Time flies when I am working.	1.60%	2.40%	0.80%	5.50%	12.60%	37.80%	39.40%	4.96	1.262
6	When I am working, I forget everything else around me.	1.60%	3.10%	9.40%	15.70%	28.30%	28.30%	13.40%	4.05	1.379
9	I feel happy when I am working intensely.	0.80%	2.40%	3.10%	10.20%	22.00%	40.20%	21.30%	4.56	1.232
11	I am immersed in my work.	0.80%	3.20%	2.40%	9.70%	21.80%	36.30%	25.80%	4.60	1.287
14	I get carried away when I am working.	2.40%	4.70%	8.70%	19.70%	25.20%	31.50%	7.90%	3.87	1.405
16	It is difficult to detach myself from my job.	6.30%	3.90%	12.60%	20.50%	22.00%	27.60%	7.10%	3.59	1.575
					Mean	4.27	Standard deviation	1.001	Reliability	0.839

The data obtained from the UWES indicate that 60.42% of respondents on average reported feelings of work engagement at least “A few times a week”. Of these respondents, 21.09% reported feelings of work engagement “Every day”. On average, an astonishing 80.02% of the respondent group reported feelings of work engagement at least “Once a week”.

When evaluating the respective constructs individually, the data show a mean frequency of 4.51 for Vigor, 4.68 for Dedication, and 4.27 for Absorption, suggesting that respondents experienced these respective feelings on average between “Once a week” and “A few times a week”. The feelings of Absorption are notably the only construct that scores more towards “Once a week”. Factors that influence this lower rating is that 29.80%% of respondents reported that they tended to forget everything else around them when they worked “A few times a month” or less. Similarly, 35.50% of respondents reported getting carried away when they were working “A few times a month” or less. The biggest influencing factor on the lower mean of Absorption was that 43.30% of respondents reported that they only found difficulty in detaching themselves from their work “A few times a month” or less.

4.4.5 Summary of descriptive statistics

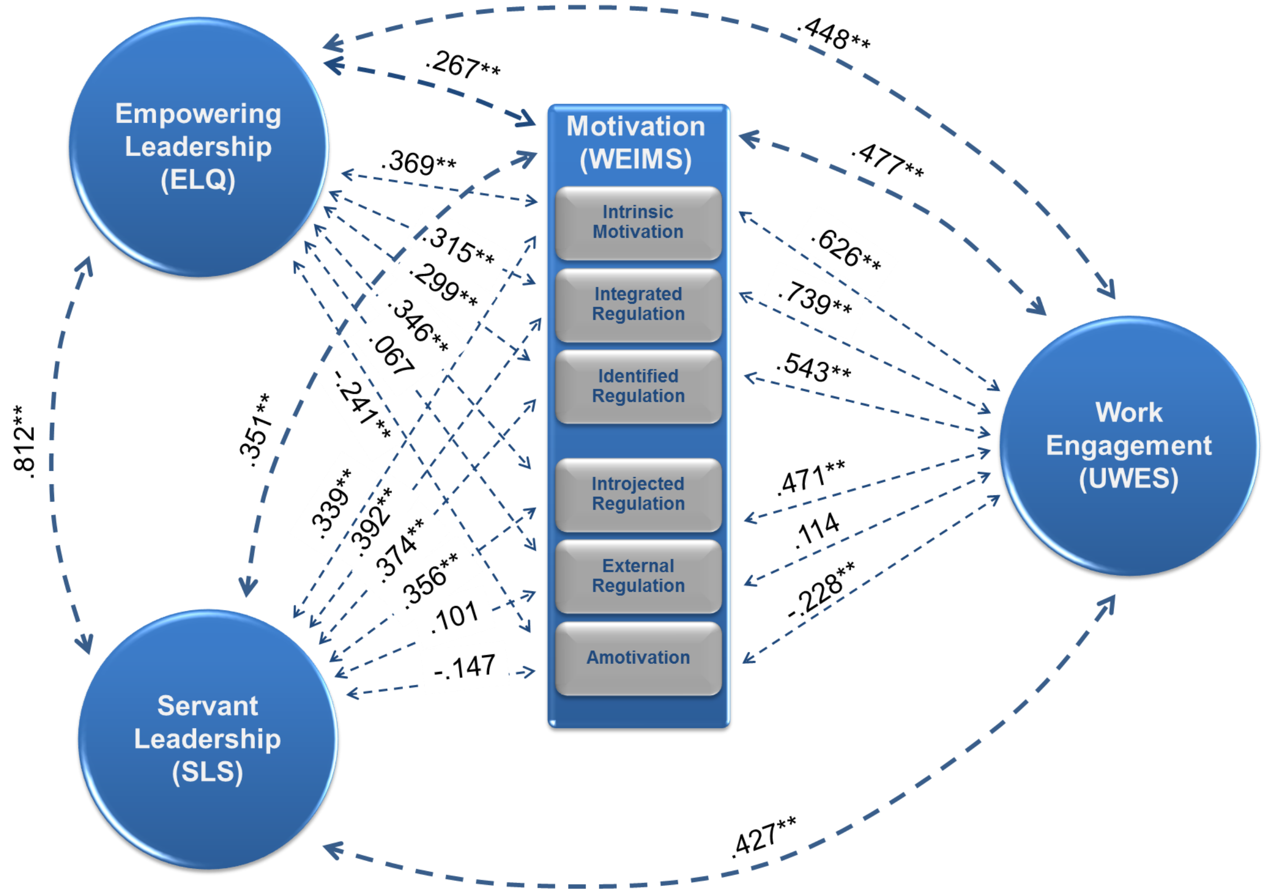
Of the 128 respondents, 63.60% experienced servant leadership characteristics at least “Often” from their leaders. Of these respondents, 43.11% experienced servant leadership characteristics either “Very Often” or “Always”. Similarly, 66.52% of the respondent group “Frequently” experienced characteristics of empowering leadership, of which 28.47% “Always” experienced such characteristics from their leaders.

The respondent group was motivated seemingly equally by all the types of controlled and autonomous motivation, with intrinsic motivation corresponding the most to why respondents were at present involved in their work. The Respondent group was also highly motivated though a sense of self-worth, and respondents typically wanted to be able to identify with an activity to the extent that it formed part of their sense of self. The data show that the respondent group was not significantly amotivated.

The data further indicate that the respondent group could on average be considered actively engaged in their work, with 80.02% of the respondent group reporting feelings of work engagement at least “Once a week”.

4.5 INFERENTIAL STATISTICS

For the purposes of evaluating statistical inference, Spearman’s rho correlations were calculated to measure the statistical significance of relationships between constructs. Figure 4-4 shows the Spearman’s rho correlations that fell into the framework of the hypotheses defined for the present study. The full Spearman’s rho matrix is detailed in Appendix D.


Empowering Leadership (ELQ)
Motivation (WEIMS)
Intrinsic Motivation
Integrated Regulation
Identified Regulation
Introjected Regulation
External Regulation
Amotivation
Work Engagement (UWES)
Servant Leadership (SLS)
.448**
.267**
.477**
.369**
.315**
.299**
.346**
.067
-.241**
.626**
.739**
.543**
.471**
.114
-.228**
.812**
.351**
.339**
.392**
.374**
.356**
.101
-.147
.427**

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 4-4: Spearman's rho correlations for relevant relationships

Correlations of .10 were considered to have a small effect, 0.30 a medium effect, and .50 a large effect.

Hypothesis 1: Empowering leadership relates positively and statistically significantly to autonomous or self-determined motivation.

Autonomous motivation includes Intrinsic motivation, Integrated regulation as well as Identified regulation. The Spearman's rho correlations among these three variables and the construct of Empowering leadership was calculated as .369, .315, and .299 respectively. This indicates that Empowering leadership has a medium effect on autonomous motivation. Although these relationships are not overwhelmingly strong, they are positive and statistically significant.

Hypothesis 1 was therefore accepted.

Hypothesis 2: Servant leadership relates positively and statistically significantly to autonomous or self-determined motivation.

The Spearman's rho correlations for relationship between Servant leadership and Intrinsic Motivation, Integrated regulation and Identified Regulation were calculated as .339, .392, .374 respectively. This indicates that Servant leadership also had a medium effect on autonomous motivation. Similar to Empowering leadership, the relationships are positive and statistically significant, although not overwhelmingly strong.

Hypothesis 2 was therefore accepted.

4.6 STATISTICAL MEDIATION ANALYSIS

One of the core focus points of the present study was to evaluate whether motivational stance could act as a potential mediating factor that facilitated the link between leadership and work engagement. In Chapter 2, a model was proposed which depicts this interrelationship among leadership, motivational stance and work engagement. The statistical mediation analysis in this section was conducted by way of this proposed model, using the methodology as set out in Chapter 3. Figure 4-5 shows the default model used for the mediation analysis in the present study.

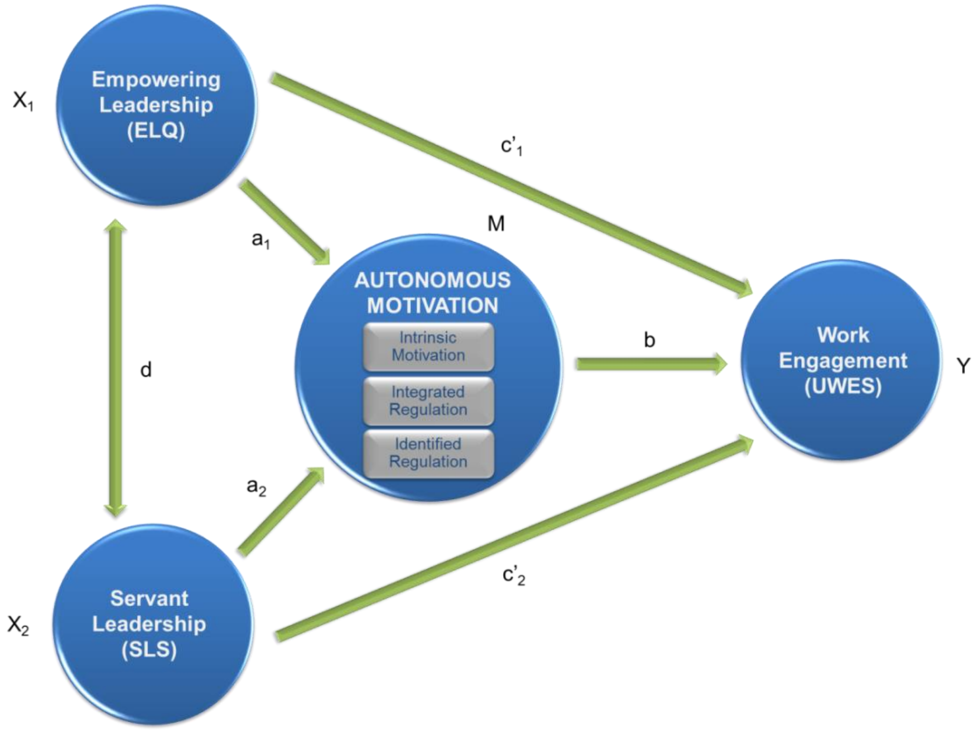

X1
Empowering Leadership (ELQ)
c'1
M
a1
AUTONOMOUS MOTIVATION
Intrinsic Motivation
Integrated Regulation
Identified Regulation
d
b
Work Engagement (UWES)
Y
a2
c'2
X2
Servant Leadership (SLS)

Figure 4-5: Default model for mediation analysis

In this model, for variable *M* to be statistically considered a mediator,

1) X_1 must significantly predict *Y*,

2) X_2 must significantly predict Y,

3) X_1 must significantly predict M,

4) X_2 must significantly predict M, and

5) M must significantly predict Y controlling for X_1 and X_2.

To evaluate these statements, the regression weights for the default model were calculated. Table 4-6 shows a summary of the results. The full statistical mediation analysis is detailed in Appendix E.

Table 4-6: Summary of regression weights for default model

			Estimate *Standardized weights	C.R.	P
Autonomous Motivation	<--- a_1	ELQ	-.299	-.860	.390
Autonomous Motivation	<--- a_2	SLS	.815	2.312	.021
UWES	<--- c'_1	ELQ	.151	.665	.506
UWES	<--- c'_2	SLS	.086	.355	.723
UWES	<--- b	Autonomous Motivation	.754	7.260	***

A p-value of ≤.05 indicates that values are statistically significant and should be kept in the regression model. With a p-value of .390, and considering the criteria for a mediation variable, it appears that autonomous motivation is not a mediator for empowering leadership. The standardized weight of -.299, however, indicates that there is a suppression effect present. When investigating the correlation between servant leadership and empowering leadership (see Appendix E), a correlation coefficient of .942 was calculated. This extremely high correlation confirms that the ELQ and SLS are almost measuring the same construct within the model, and this is most likely the reason why it appears that empowering leadership is not being mediated.

Hypothesis 3: Empowering leadership is a predictor of work engagement.

Hypothesis 5: Empowering leadership is a predictor of autonomous motivation

Hypothesis 7: Autonomous motivation mediates the relationship between empowering leadership and work engagement.

To investigate the suppression effect, the model for the ELQ and SLS was evaluated separately. The new mediation model for the ELQ is shown in Figure 4-6.

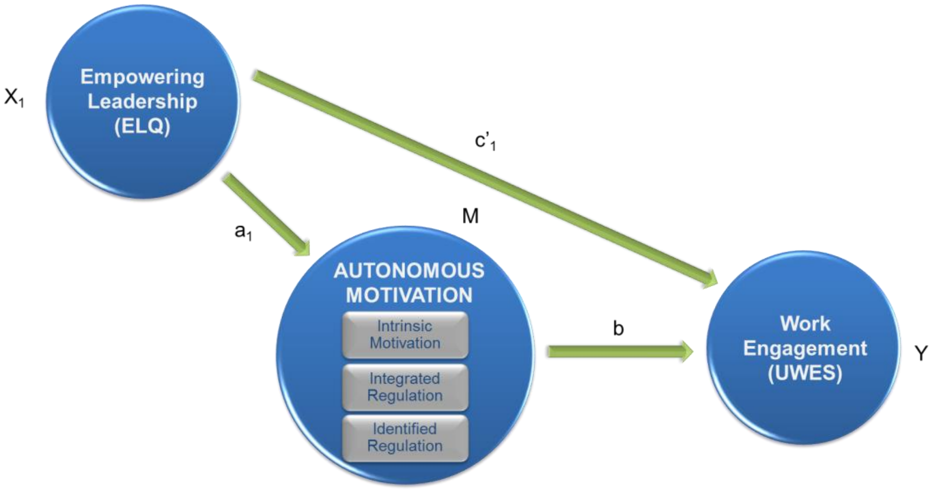

X1
Empowering Leadership (ELQ)
c'1
a1
M
AUTONOMOUS MOTIVATION
Intrinsic Motivation
Integrated Regulation
Identified Regulation
b
Work Engagement (UWES)
Y

Figure 4-6: Mediation model for ELQ

Calculating the regression weights for the new ELQ model yields the results in Table 4-7.

Table 4-7: Summary of regression weights for the ELQ

			Estimate *Standardized weights	C.R.	P
Autonomous Motivation	<--- a_1	ELQ	.465	4.746	***
UWES	<--- c'_1	ELQ	.219	3.052	.002
UWES	<--- b	Autonomous Motivation	.769	7.815	***

The positive standardized weight of .465 confirms that the ELQ was in fact suppressed. From the p-values obtained, it can be deduced that,

1) Empowering leadership significantly predicts work engagement,
2) Empowering leadership significantly predicts autonomous motivation, and
3) Autonomous motivation significantly predicts work engagement, controlling for empowering leadership.

Furthermore, the p value of .002 indicates that the relationship between empowering leadership and work engagement remained statistically significant in this model, and its effect did thus not decrease to zero. This signifies that autonomous motivation is a partial mediator between empowering leadership and work engagement.

When evaluating the standardized complete effect (.577), as well as the standardized indirect effect (.358) of the UWES within the ELQ model, the percentage mediation can be calculated as follows (See Appendix E):

$$\textit{Percentage Mediation}_{ELQ} = .358 / .577 * 100 = 62.05\%$$

Hypothesis 3, Hypothesis 5 and Hypothesis 7 were therefore accepted.

Hypothesis 4: Servant leadership is a predictor of work engagement.

Hypothesis 6: Servant leadership is a predictor of autonomous motivation

Hypothesis 8: Autonomous motivation mediates the relationship between servant leadership and work engagement.

Similarly, the SLS was evaluated separately. The new mediation model for the SLS is shown in Figure 4-7.

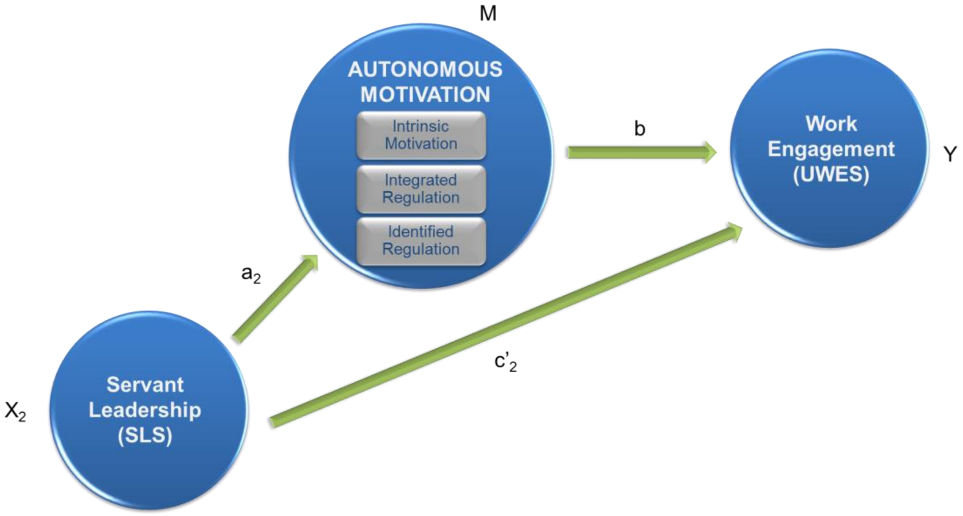

M
AUTONOMOUS MOTIVATION
Intrinsic Motivation
Integrated Regulation
Identified Regulation
b
Work Engagement (UWES)
Y
a2
c'2
X2
Servant Leadership (SLS)

Figure 4-7: Mediation model for SLS

Calculating the regression weights for the new ELQ model yields the results in Table 4-8.

Table 4-8: Summary of regression weights for the SLS

			Estimate *Standardized weights	C.R.	P
Autonomous Motivation	<--- a_2	SLS	.537	5.528	***
UWES	<--- c'_2	SLS	.232	3.012	.003
UWES	<--- b	Autonomous Motivation	.747	7.333	***

From the p-values obtained, it can be deducted that,

1) Servant leadership significantly predicts work engagement,
2) Servant leadership significantly predicts autonomous motivation, and
3) Autonomous motivation significantly predicts work engagement, controlling for Servant leadership.

Once again, the p value of .003 indicate that the relationship between servant leadership and work engagement remained statistically significant in this model, signifying that autonomous motivation is a partial mediator between servant leadership and work engagement.

When evaluating the standardized complete effect (.633), as well as the standardized indirect effect (.401) of the UWES within the SLS model, the percentage mediation can be calculated as follows (See Appendix E):

$$\textit{Percentage Mediation}_{SLS} = .401 / .633 * 100 = 63.35\%$$

Hypothesis 4, Hypothesis 6, and Hypothesis 8, was therefore accepted.

4.7 MOTIVATIONAL TYPES AND WORK ENGAGEMENT

In addition to the formal hypotheses, the correlation between the type of motivation and work engagement was also investigated. The Spearman’s rho correlations between the various types of motivation and the construct of work engagement were calculated to evaluate their respective effects. The autonomous motivational types of Intrinsic Motivation (.626), Integrated Regulation (.739), and Identified Regulation (.543) were indicated to all have large effects on work engagement. In the controlled motivational types, Introjected Regulation (.471) indicated a medium effect, while External Regulation (.114) indicated a small effect on work engagement. The .114 calculated for External Regulation was also found to be not statistically significant at the 0.05 level. Amotivation (-.228) was shown to have a negative correlation with work engagement.

4.8 BIOGRAPHICAL STATISTICS

This section reports on relationships between the various constructs and the biographical data. The small sample size of women meant that no statistically relevant analysis could be made pertaining to responses received between genders. This section thus discusses only the findings between age groups, and between frequencies of interaction with leaders. Appendix F details the calculations for the biographical statistics.

4.8.1 Age groups

Within the respondent group, the three age groups that participated in the study are “21-35”, “36 – 50”, and “Above 50”. There were no major differences observed that suggest different levels of work engagement between age or generation groups. Similarly, there were no significant central tendency differences found in terms of the types of motivation that influence behaviour between generations. The only noticeable differences observed were that respondents in the “21 – 35” category tend to be slightly (on average .45 points on the scale) less motivated by External Regulation, which is characterized by doing an activity purely to obtain a reward. This difference was not considered significant.

4.8.2 Frequency of interaction with leaders

For the purposes of evaluating the influence of the frequency with leaders, the collected data were grouped to form a new scale consisting only of “Less than once a week”, Once a week or more”, and “Every day”. This was done because the frequencies of data collected under the original scale were too dispersed, and the data would not have any statistical value.

There were no major differences observed in perceived Servant leadership style due to different frequencies of interaction with leaders. The only noticeable differences observed were that followers experienced the characteristic of Standing Back to a lesser extent (on average .45 points on the scale) when followers interacted with leaders less than once a week. Similarly, followers also reported slightly less frequent experiences of leader Courage, and Stewardship (on average .52 and .0.61 points on the scale respectively). Followers further reported slightly less experience of Empowerment when they interacted with leaders less than once a week (on average .79 points on the scale).

Similarly, there were no major differences observed in perceived Empowering leadership style due to different frequencies of interaction with leaders. In this instance, the only noticeable differences were that followers reported slightly fewer experiences of leaders Showing Concern, as well as less frequent Coaching (on average .61 and .68 points on the scale respectively).

These differences were not considered significant.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This study focused on perceived leadership styles, and how these perceptions in turn relate to the satisfaction of motivational needs, and ultimately influence the work engagement of the employee. In Chapter 2, a literature review of the three underlying topics to this study, namely Work engagement, Motivation, and Leadership, was provided. The chapter explored the interrelationships among the various topics, and proposed a model depicting their interrelationships. Chapter 3 detailed the methodology followed to empirically evaluate the proposed model, and in Chapter 4, the results and findings from the empirical research were presented.

In this Chapter, all the theoretical and empirical data from the preceding chapters are considered in order to address the research questions set for the study, draw conclusions and make recommendations.

5.2 RESEARCH QUESTIONS ADDRESSED

Sales professionals had been remunerated with commission long before economists created the principle of the agency theory. Organizations followed this system mainly because previous studies showed that the typical sales professional has a larger appetite for risk and that such systems would potentially appeal to them (Chung, 2015).

Compensation almost exclusively relies on the agency theory, where an organization expects of the employee to align his behaviour such that it would bring the organization closer to its goal fulfilment, and that the organization had to pay the employee for such behaviour. Under this theory, compensation is thus an instrument used to influence employee behaviour, such that employees would be motivated to achieve goals with the highest expected outcomes or payoffs.

When viewing the agency theory from the perspective of the SDT, the major problem is that agency theory assumes that employees could never internalize the employer’s goals. The only means available to employers to influence behaviour is thus through extrinsic methods such as linking pay to performance. SDT argues that such contingent rewards can in fact be detrimental to autonomous motivation.

This study aimed to explore the interrelationship between selected leadership styles, motivational stance and work engagement, viewing motivation as interpreted by SDT as the potential mediating factor that facilitates the link between leadership and work engagement. It was against this background that the research questions for this study were formulated.

What are the relationships between the various measured constructs?

The questionnaire used in the present study was designed to measure Servant Leadership, Empowering Leadership, Motivational Stance, and Work Engagement. Spearman's rho correlations were calculated to measure the statistical significance of relationships between constructs. It was observed that Servant Leadership and Empowering Leadership were highly correlated (.812), almost to the extent that that it could be assumed that they are measuring the same construct. This was again apparent while conducting the mediation analysis, which indicated that Servant Leadership was a suppressor of Empowering Leadership in the model that was proposed.

Both Empowering (.267) and Servant (.351) leadership was considered to have a medium effect on Motivation. It was further observed that both styles also have a medium effect on Work Engagement (.448 and .427). The data also revealed that Motivational Stance had a correlation of .477 with Work Engagement, which was considered a large effect.

What is the intensity of work engagement among the sales professionals in the organization?

The data revealed that 80.02% of respondents had feelings of Work Engagement at least once a week. Of these respondents, 60.42% reported feelings of Work Engagement more than once a week and 21.09% felt engaged at work every day.

A previous study in a Contract Research Organization which serves the pharmaceutical industry in South Africa found that 65% of its respondents experienced feelings of Work Engagement at least once a week (De Wet, 2015:71). Rothmann (2017:323) states that 24% of employees across 142 countries were actively disengaged in their work, while 63% are not engaged, and only 13% were engaged. In comparison with these findings, the intensity of work engagement among the sales professionals in the organization was considered to be exceptionally high.

Are sales professionals more engaged through extrinsic or intrinsic motivational factors?

The influence of the various types of motivation was evaluated against the extent to which they correlated to engagement at work. Spearman's rho correlations were again calculated to measure the statistical significance of relationships among the constructs. It was observed that Integrated Regulation (.739) represented the highest motivational type to influence work engagement, followed by Intrinsic Motivation (.626). Identified Regulation (.543) was also found to have a large effect on Work Engagement. The only controlled motivational type that was found to have a statistically significant effect on work engagement was Introjected Regulation (.471).

Contrary to the belief that commission and pay for performance systems strongly appeal to sales professionals, it was observed that autonomous motivational types were more highly correlated to work engagement for this respondent group. These sales professionals seem to be firstly driven through identifying with an activity to the extent that it formed part of the sense of self, and secondly because they found their activities inherently interesting and satisfying. It was further observed that the respondent group was motivated when they recognized and accepted the underlying value of their activities, to such an extent that they accepted it as their own. Regulating behaviour through contingencies of self-worth such as guilt or self-esteem also significantly correlated to the work engagement of the group. External Regulation (.114), which is characterized as doing an activity purely to obtain a reward, did not indicate any statistically significant correlation to work engagement among the respondent group.

It was thus concluded that sales professionals in this organization were more engaged through intrinsic motivational factors compared to extrinsic motivational factors.

Is leadership a positive predictor of work engagement?

To evaluate whether leadership positively predicted work engagement, regression weights were calculated at the hand of mediation analysis. In both the cases of Empowering and Servant leadership, it was observed that leadership positively and statistically significantly predicted work engagement.

Is motivation a positive predictor of work engagement?

Similar to the above, regression weights were calculated to evaluate whether motivation positively predicted work engagement. It was again observed, using both the empowering and servant leadership models, that motivation positively and statistically significantly predicted work engagement.

Can motivation serve as a mediating factor between leadership and work engagement?

Through conducting a statistical mediation analysis using both the Empowering and Servant leadership models, it was observed that autonomous motivation can in fact act as a partial mediating factor that facilitates the link between leadership and work engagement. It was calculated that the percentage mediation of motivation is approximately 62%.

5.3 RECOMMENDATIONS

5.3.1 Theoretical implication

The empirical evidence in this study suggests that leadership significantly predicts both motivational stance and work engagement. Furthermore, the data suggest that motivation also significantly predicts work engagement. Finally, it was observed that autonomous motivation acts as a partial mediator between leadership and work engagement.

These findings are supported by prior research which suggests that inspiring and motivating leadership can influence the experience of work engagement (Rothmann, 2014:235), and that the SDT continuum is a useful predictor of work engagement (Tremblay *et al.*, 2009:215). In accordance with the statement in Reijseger *et al.* (2017:118), it was observed that work engagement is best maintained when originating from intrinsic motivation.

According to Rothmann (2017:329), leadership accounts for up to 70% of the variance in work engagement. Although the percentage variance explained was not calculated in this study, it was found that the mediating percentage of motivation between leadership and work engagement is approximately 62%, thus suggesting that the direct influence of leadership on work engagement is an estimated 38%.

5.3.2 Practical implications

Research suggests that a work climate which supports autonomous motivation influences the extent to which employees internalize their work, as well the standards and procedures of the organization (Stone *et al.*, 2009:78). In the present study, sales professionals reported that the reasons they were at present involved in their work were overwhelmingly driven by autonomous motivational factors. This is thus suggestive of an organizational work climate that supports autonomous motivation. Stone *et al.* (2009:78) state that this result occurs because employees have come to value the work itself, and will thus pay little attention to the rewards or punishment that management adds to the work.

The current implemented policies, procedures and work culture seem to be working exceptionally well for the organization used in this study, and thus few recommendations or changes can be suggested. The autonomous motivational levels are suggestive of a sustainably motivated workforce, and the work engagement scores well exceed those of international standards. According to Stone *et al.* (2009:79), the above principles are not easy to implement in organizations, which again emphasizes the magnitude of the measured results.

5.3.3 Future research

The present research was specifically targeted to obtain responses from sales professionals. Virtually no prior studies could be found that had been conducted in the sales environment in order to compare work engagement levels, or the main types of motivation which regulate behaviour in the sales profession. In order to infer that highly engaged employees, who are driven mostly by autonomously motivational factors, characterize the sales profession, the results need to be compared and verified against more examples of sales professionals. This will create a framework that will assist leaders to confidently design policies and procedures specifically for their sales departments.

5.4 CONCLUSION

This study provides increased knowledge on how perceived leadership styles relate to the satisfaction of motivational needs, and ultimately influences the work engagement of the employee. The results from the study confirm the mediating value of the SDT between leadership and work engagement. The study also confirms that a work environment that is conducive to autonomous motivation will enhance work engagement.

It is critical to note that leaders play an essential role in creating an environment that is favourable to work engagement. Leadership behaviour that supports autonomous motivation is confirmed to be a catalyst for an engaged work force. Although it is proclaimed that leaders cannot give motivation to anyone, it is clear that leaders can shape the work environment such that it channels pre-existing motivation, and ultimately enhance employee well-being and job performance.

It is said that work engagement is the barometer against which leaders can determine whether they are effective in their leadership methods (Pretorius, 2015). It is thus advisable that management maintains a focus on work engagement through the periodical use of surveys among employees.

LIST OF REFERENCES

Allio, R. J. 2012. Leaders and leadership - many theories, but what advice is reliable? *Strategy & Leadership*, 41(1):4-14.

Amundsen, S. & Martinsen, O. L. 2014. Empowering leadership: Construct clarification, conceptualization, and validation of a new scale. *The Leadership quarterly*, 25:487-511.

Anseel, F., Lievens, F., Schollaert, Eveline. & Choragwicka, Beata. 2010. Response Rates in Organizational Science: A Meta-analytical Review and Guidelines for Survey Researchers. *Journal of Business Psychology*, 25:335-349.

Arnold, J. A., Arad, Sharon., Rhoades, J. & Drasgow, F. 2000. The empowering leadership questionnaire: the construct and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior*, 21:249 - 269.

Arvey, R. D., Avolio, B. J., Zhang, Z. & Krueger, R. F. 2007. Developmental and Genetic Determinats of Leadership Role Occupancy Among Women. *Journal of Applied Psychology*, 92(3):693-706.

Avolio, B. J., Walumbwa, F. O. & Weber, T. J. 2009. Leadership: Current Theories, Research, and Future Directions. *The Annual Review of Psychology*, 60:421-449.

Benest, F. 2016. Leadership Myths Debunked. *Career Compass*, 1(47):1-3. 5 January 2016.

Breevaart, Kimberley., Bakker, A. B., Demerouti, Evangelia. & van den Heuvel, Machteld. 2015. Leader-member exchange, work engagement, and job performance. *Journal of Managerial Psychology*, 30(7):754-770.

Chung, D. J. 2015. How to Really Motivate Salespeople. https://hbr.org/2015/04/how-to-really-motivate-salespeople Date of access: 5 April. 2017.

Cohen, Jacob. 1992. A Power Primer. *Quantatitve methods in psychology*, 112(3):155-159.

Crawford, Eean. R., Rich, Bruce. Louis., Buckman, Brooke. & Bergeron, Jenny. 2014. The antecedents and drivers of employee engagement. (*In*: Employee enagement in theory and practice. Routledge. p. 57-81).

De Sousa, M. J.C. & Van Dierendonck, D. 2014. Servant leadership and engagement in a merge process under high uncertainty. *Journal of Organizational Change Management*, 27(6):877-899.

De Wet, Elsa. H. 2015. Employee engagement and satisfaction of self-determination needs: An exploratory study in the contract research sector. Potchefstroom: North West University. (MBA Mini-dissertation).

Deloitte. 2014. Global Human Capital Trends: Engaging the 21st-century workforce.

Dixon, M. & Adamson, B. 2011. The Challenger Sale. The Corporate Executive Board Company.

Fletcher, L. & Robinson, Dilys. 2014. Measuring and understanding employee engagement. (*In*: Employee engagement in theory and practice. Routledge. p. 273-290).

Frey, B. S. & Osterloh, Margit. 2005. Yes, Managers Should Be Paid Like Bureaucrats. *Journal of management inquiry*, 14(1):96-111.

Gagne, Marylene. & Deci, E. L. 2005. Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26:331-362.

Gagne, Marylene. & Forest, J. 2011. The Study of Compensation Systems Through the Lens of Self-Determination Theory: Reconciling 35 Years of Debate.

Ghadi, Mohammed. Yasin., Fernando, M. & Caputi, P. 2013. Transformational leadership and work engagement: The mediating effect of meaning in work. *Leadership & Organization Development Journal*, 43(6):532-550.

Gliem, J. A. & Gliem, Rosemary. R. 2003. Calculating, Interpreting, and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. (*In* Midwest Research to

Practice Conference in Adult, Continuing, and Community Education. The Ohio State University. p. 82-88.)

Guest, D. E. 2014. Employee engagement: Fashionable fad or long-term fixture? (*In*: Employee engagement in theory and practice. Routledge. p. 221-235).

Henson, Robin. H. 2001. Understanding Internal Consistency Reliability Estimates: A Conceptual Primer on Coefficient Alpha. *Measurement and Evaluation in Counceling and Development*, 34(3):177-189.

Howell, R. T. & Hill, G. 2009. The mediators of experiential purchases: Determining the impact of psychological needs satisfaction and social comparison. *Journal of Positive Psychology*, 4(6):511-522.

Kovjanic, Snjezana., Schuh, S. C., Jonas, K., van Dick, Rolf. & Van Dick, R. 2012. How do transformational leaders foster positive employee outcomes? A self-determination-based analysis of employees'needs as mediating links. *Journal of Organizational Behavior*, 33:1031-1052. 9 January.

Lucy, D., Poorkavoos, Meysam., Sinclair, Annette. & Hatcher, Carol. 2016. The Management Agenda.

Lunenburg, F. C. 2011. Leadership versus Management. *International Journalof Management, Business, and Administration*, 14(1):1-4.

Lu, C., Wang, H., Lu, Jing-Jing., Du, D. & Bakker, A. B. 2013. Does work engagement increase person-job fit? The role of job crafting and job insecurity. *Journal of Vocational Behavior*, 84:142-152. 21 December.

MacKinnin, D. P., Coxe, Stefany. & Baraldi, Amanda. N. 2012. Guidelines for the Investigation of Mediating Variables in Business Research. *Journal of Business Psychology*, 27:1-14.

Nel, Lindi. 2014. Theories on character strengths, resilience, hope and self-determination. (*In*: Towards Flourishing: Contextualising positive psychology. Pretoria: Van Schaik. p. 115-140).

Page, D. & Wong, P. 2000. A Conceptual Framework for Measuring Servant-Leadership. (*In*: The human factor in shaping the course of history and development. American University Press.).

Park, J. G., Kim, J. S., Yoon, S. W. & Joo, B. 2017. The effects of empowering leadership on psychological well-being and job engagement: The mediating role of psychological capital. *Leadership & Organization Development Journal*, 38(3):350-367.

Ponterotto, J. & Ruckdeschel, D. E. 2007. An Overview of Coefficient Alpha and a reliability matrix for estimating adequacy of internal consistency coefficients with psychological research measures. *Perceptual and Motor Skills*, 105:997-1014.

Preacher, K. J. & Hayes, A. F. 2004. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4):717-731.

Pretorius, B. 2013. Aan die stuur. NB Publishers.

Pretorius, B. 2015. Transformational Leadership. 8 April., Johannesburg.

Prosser, J. 2004. Ensuring quality in qualitative data. (*In*: Research Methods. p. 126-152).

Purcell, J. 2014. Employee voice and engagement. (*In*: Employee engagement in theory and practice. Routledge. p. 236-249).

Reed, Lora. L., Vidaver-Cohen, Deborah. & Colwell, Scott. R. 2011. A New Scale to Measure Executive Servant Leadership: Development, Analysis, and Implications for Research. *Journal of Business Ethics*, 101:415-434.

Reijseger, Gaby., Peeters, Maria. C. W., Taris, T. W. & Schaufeli, W. B. 2017. From Motivation to Activation: Why Engaged Workers are Better Performers. *Journal of Business Psychology*, 32:117-130.

Rothmann, S. 2014. Employee engagement in a cultural context. (*In*: Employee Engagement in Theory and Practice. Routledge. p. 163 - 179).

Rothmann, S. 2014. Positive institutions. (*In*: Towards Flourishing. Van Schaik Publishers. p. 221-262).

Rothmann, S. 2017. Employee Engagement. (*In*: Oades, Linsay. G., Steger, Michael. F., Delle Fave, Antonella. & Passmore, Jonathan. *eds.* The Wiley Blackwell Handbook of the Psychology of Positivity and Strengths-Based Approaches at Work. John Wiley & Sons, Ltd. p. 317-341).

Rothmann, S., Diedericks, Elsabé. & Swart, J. P. 2013. Manager relations, psychological need satisfaction and intention to leave in the agricultural sector. *SA Journal of Industrial Psychology*, 39(2):1-11. 28 August.

Rucker, D. D., Preacher, K. J., Tormala, Z. & Petty, R. E. 2011. Mediation Analysis in Social Psychology: Current Practices and New Recommendations. *Social and Personality Psychology Compass*, 5(6):359-371.

Schaufeli, W. B. 2014. What is engagement? (*In*: Employee engagement in theory and practice. Routledge. p. 15-34).

Schaufeli, W. B., Bakker, A. B. & Salanova, Marisa. 2006. The Measurement of Work Engagement With a Short Questionnaire: A Cross-National Study. *Educational and Psychological Measurement*, 66(4):701-716. August.

Shantz, Amanda., Schoenberg, J. & Chan, C. 2014. Relevance of employee engagement across cultures from the perspective of HR professional associations. (*In*: Employee engagement in theory and practice. Routledge. p. 253-272).

Shuck, B. 2011. Four Emerging Perspectives of Employee Engagement: An Integrative Literature REview. *Human Resource Development Review*:304-328.

Soane, Emma. 2014. Leadership and employee engagement. (*In*: Employee engagement in theory and practice. Routledge. p. 149-162).

Sousa, M. & Van Dierendonck, D. 2017. Servant leaders as underestimator: theoretical and practical implications. *Leadership & Organization Development Journal*, 38(2):270-283.

Sparrow, P. 2014. Strategic HRM and employee engagement. (*In*: Employee engagement in theory and practice. Routledge. p. 99-115).

Stone, D., Deci, E. L. & Ryan, R. M. 2009. Beyond talk: creating autonomous motivation through self-determination theory. *Journal of General Management*, 34(3):75-91.

Stone, G. A. & Patterson, Kathleen. 2005. The History of Leadership Focus.

Stone, G. A., Russel, R. F. & Patterson, Kathleen. 2004. Transformational versus servant leadership: a difference in leader focus. *The Leadership & Organization Development Journal*, 25(4):349-361.

Streiner, D. L. 2003. Starting at the Beginning: An Introduction to Coefficient Alpha and Internal Consistency. *Journal of personality assessment*, 80(1):99-103.

The John Maxwell Company. 2012. Effective ways of growing people in organizations. http://www.johnmaxwell.com/blog/effective-ways-of-growing-people-in-organizations Date of access: 10 January. 2016.

The John Maxwell Company. 2013. The myth of motivation. http://www.johnmaxwell.com/blog/the-myth-of-motivation Date of access: 10 January. 2016.

Tremblay, M. A., Blanchard, Celine. M., Taylor, Sara., Pelletier, L. G. & Villeneuve, M. 2009. Work Extrinsic and Intrinsic Motivation Scale: Its Value for Organizational Psychology Research. *Canadian Journal of Behavioural Science*, 41(4):213-226.

Trepanier, Sarah-Genevieve., Fernet, C. & Austin, Stephanie. 2012. Social and Motivational Antecedents of Perceptions of Transformational Leadership: A Self-Determination Theory Perspective. *Canadian Journal of Behavioural Science*, 44(4):272-277.

Truss, Catherine., Delbridge, R., Alfes, Kerstin., Shantz, Amanda. & Soane, Emma. 2014. Introduction. (*In*: Employee Engagement in theory and practice. Routledge. p. 1-11).

UCLA: Statistical Consulting Group. 2017. Introduction to SAS. https://stats.idre.ucla.edu/spss/output/principal_components/ Date of access: 22 September. 2017.

Van Dierendonck, D. 2011. Servant Leadership: A Review and Synthesis. *Journal of Management*, 37(4):1228-1261. July.

Van Dierendonck, D. & Nuijten, Inge. 2011. The Servant Leadership Survey: Development and Validation of a Multidimensional Measure. *Journal of Business Psycology*, 26:249-267.

Van Dierendonck, D., Sousa, M., Gunnarsdottir, Sigrun., Bibbio, Andrea., Hakanen, J., Verdorfer, A. P., Duyan, E. C. & Rodriquez-Carvajal, Raquel. 2017. The Cross-Cultural Invariance of the Servant Leadership Survey: A Comparative study accros Eight Countriess. *Administrative Sciences*:1-11. 17 April.

Vansteenkiste, M., Neyrinck, B., Niemiec, C. P., Soenens, B., De Witte, H. & Van den Broeck, Anja. 2007. On the relations among work value orientations, psychological need satisfaction and job outcomes: A self-detemination theory approach. *Journal of Occupational and Organizational Psychology*, 80:251-277.

Welman, J. C., Kruger, F. & Mitchell, B. 2005. Research Methodology. 3 ed. Cape Town: Oxford University Press Southern Africa.

Williams, B., Brown, T. & Onsman, A. 2012. Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3):1-13.

Wong, Melissa., Gardiner, Ellliroma., Lang, Whitney. & Coulon, Leah. 2008. Generational differences in personality and motivation: Do they exist and what are the implications for the workplace? *Journal of Managerial Psychology*, 23(8):878-890.

Woollard, J. 2004. Questionnaire Design. (*In*: Swan, Jennie. *ed.* Research Methods. University of Southampton. p. 86-96).

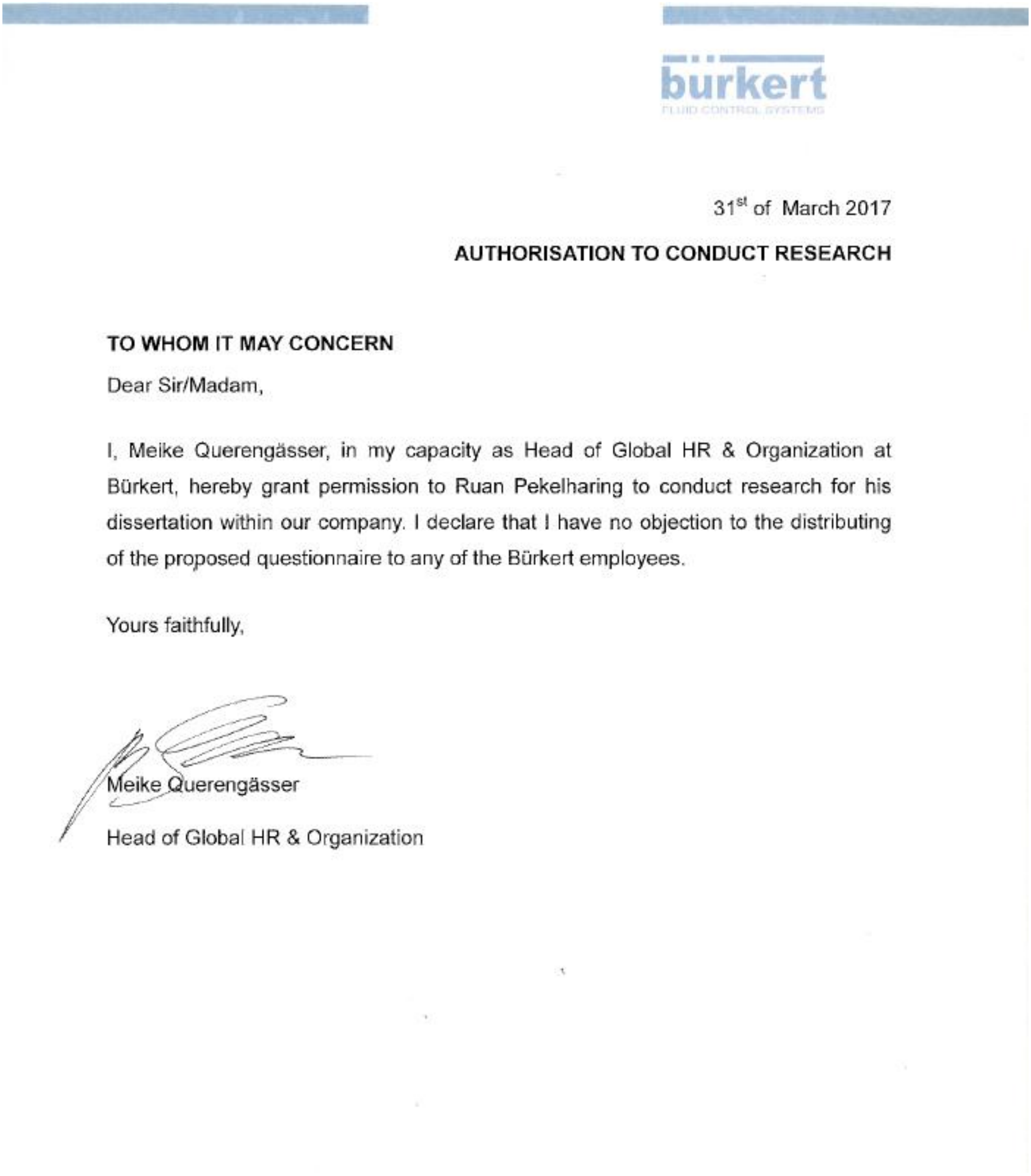
Wooten, Lynn. Perry. & Cameron, Kim. S. 2013. Enablers of a Positive Strategy: Positively Deviant Leadership. (*In*: The Oxford Handbook of Positive Psychology and Work. Oxford University Press. p. 53-65).

Youssef-Morgan, Carloyn. M. & Bockorny, Kristi. M. 2014. Engagement in the context of positive psychology. (*In*: Employee engagement in theory and practice. London: Routledge. p. 36-56).

Zohrabi, M. 2013. Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory and Practice in Language Studies*, 3(2):254-262.

APPENDICES

APPENDIX A: COMPANY AUTHORIZATION LETTER



bürkert
FLUID CONTROL SYSTEMS

31st of March 2017

AUTHORISATION TO CONDUCT RESEARCH

TO WHOM IT MAY CONCERN

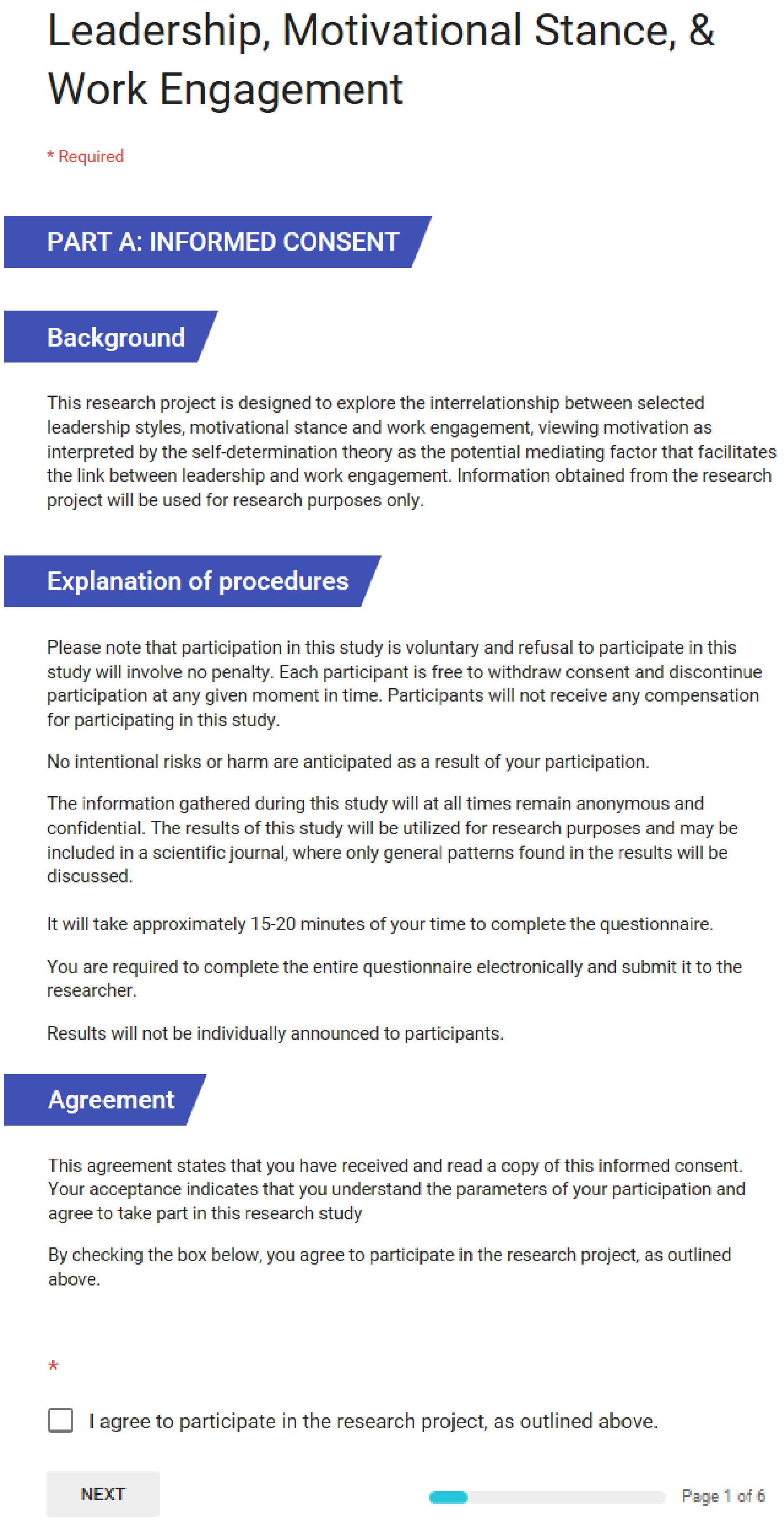
Dear Sir/Madam,

I, Meike Querengässer, in my capacity as Head of Global HR & Organization at Bürkert, hereby grant permission to Ruan Pekelharing to conduct research for his dissertation within our company. I declare that I have no objection to the distributing of the proposed questionnaire to any of the Bürkert employees.

Yours faithfully,

Meike Querengässer
Head of Global HR & Organization

APPENDIX B: QUESTIONNAIRE



Leadership, Motivational Stance, & Work Engagement

* Required

PART A: INFORMED CONSENT

Background

This research project is designed to explore the interrelationship between selected leadership styles, motivational stance and work engagement, viewing motivation as interpreted by the self-determination theory as the potential mediating factor that facilitates the link between leadership and work engagement. Information obtained from the research project will be used for research purposes only.

Explanation of procedures

Please note that participation in this study is voluntary and refusal to participate in this study will involve no penalty. Each participant is free to withdraw consent and discontinue participation at any given moment in time. Participants will not receive any compensation for participating in this study.

No intentional risks or harm are anticipated as a result of your participation.

The information gathered during this study will at all times remain anonymous and confidential. The results of this study will be utilized for research purposes and may be included in a scientific journal, where only general patterns found in the results will be discussed.

It will take approximately 15-20 minutes of your time to complete the questionnaire.

You are required to complete the entire questionnaire electronically and submit it to the researcher.

Results will not be individually announced to participants.

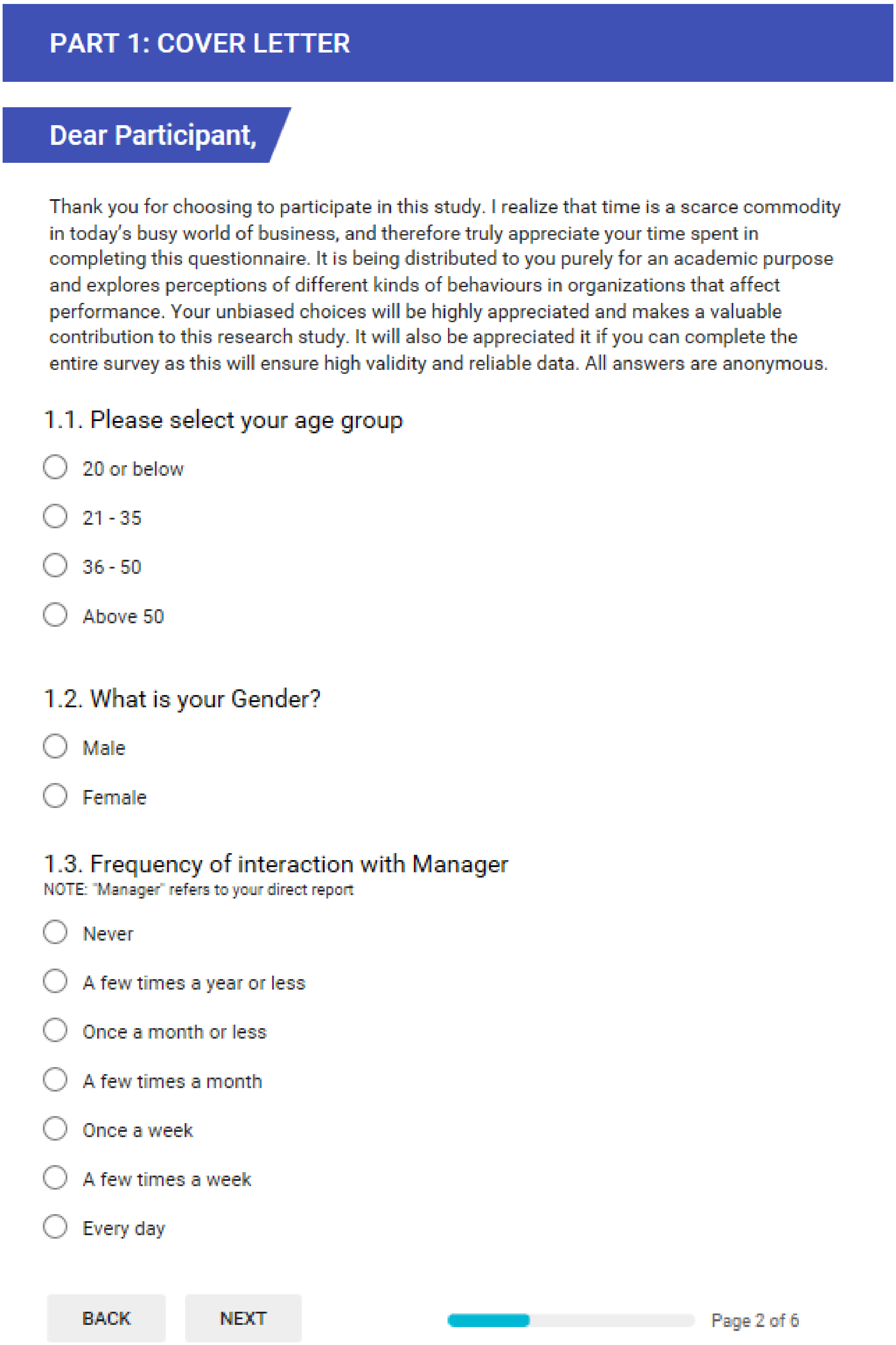
Agreement

This agreement states that you have received and read a copy of this informed consent. Your acceptance indicates that you understand the parameters of your participation and agree to take part in this research study

By checking the box below, you agree to participate in the research project, as outlined above.

*

☐ I agree to participate in the research project, as outlined above.



PART 1: COVER LETTER

Dear Participant,

Thank you for choosing to participate in this study. I realize that time is a scarce commodity in today's busy world of business, and therefore truly appreciate your time spent in completing this questionnaire. It is being distributed to you purely for an academic purpose and explores perceptions of different kinds of behaviours in organizations that affect performance. Your unbiased choices will be highly appreciated and makes a valuable contribution to this research study. It will also be appreciated it if you can complete the entire survey as this will ensure high validity and reliable data. All answers are anonymous.

1.1. Please select your age group

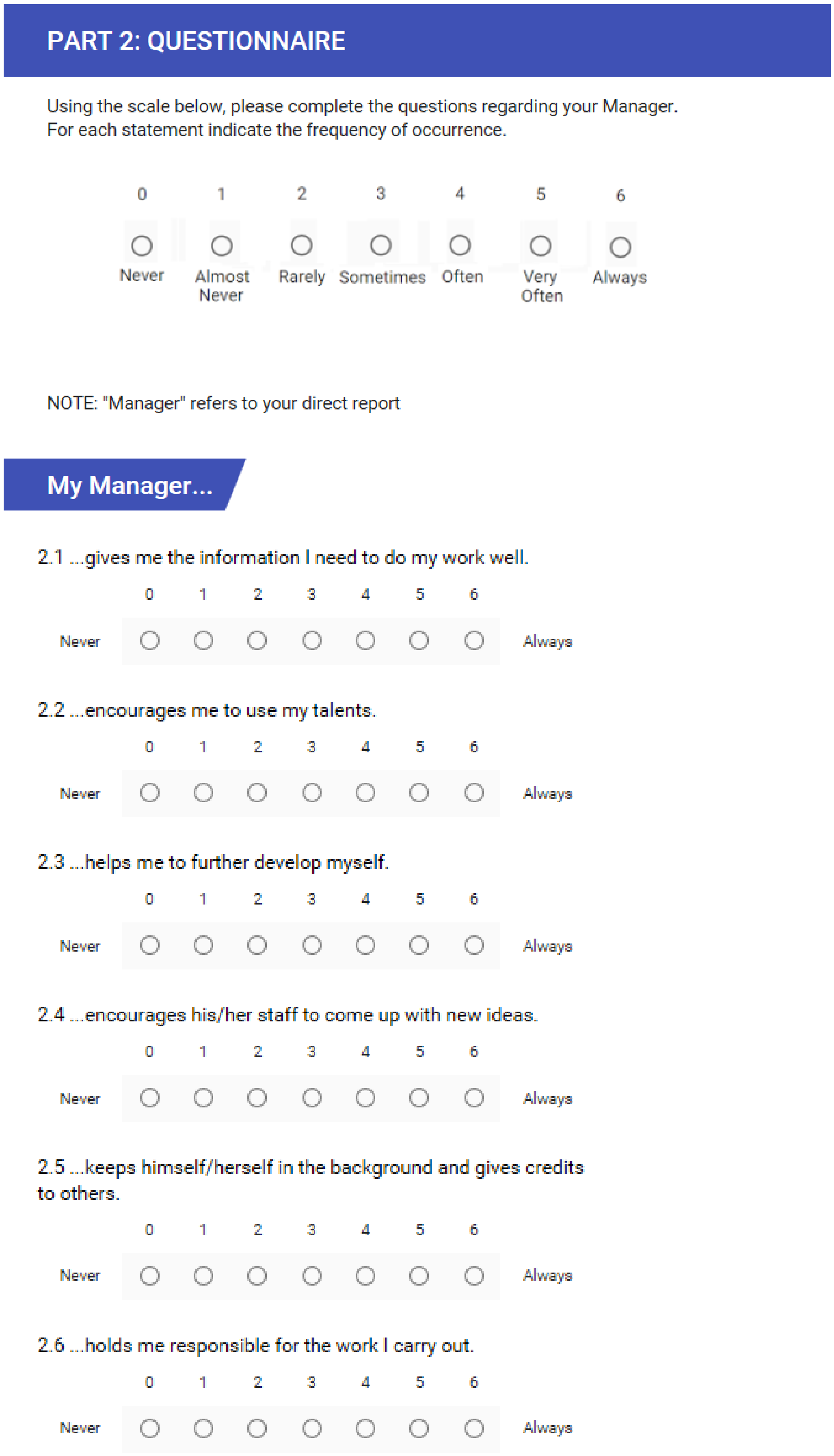
○ 20 or below
○ 21 - 35
○ 36 - 50
○ Above 50

1.2. What is your Gender?

○ Male
○ Female

1.3. Frequency of interaction with Manager
NOTE: "Manager" refers to your direct report

○ Never
○ A few times a year or less
○ Once a month or less
○ A few times a month
○ Once a week
○ A few times a week
○ Every day



PART 2: QUESTIONNAIRE

Using the scale below, please complete the questions regarding your Manager.
For each statement indicate the frequency of occurrence.

0	1	2	3	4	5	6
○	○	○	○	○	○	○
Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always

NOTE: "Manager" refers to your direct report

My Manager...

2.1 ...gives me the information I need to do my work well.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.2 ...encourages me to use my talents.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.3 ...helps me to further develop myself.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.4 ...encourages his/her staff to come up with new ideas.

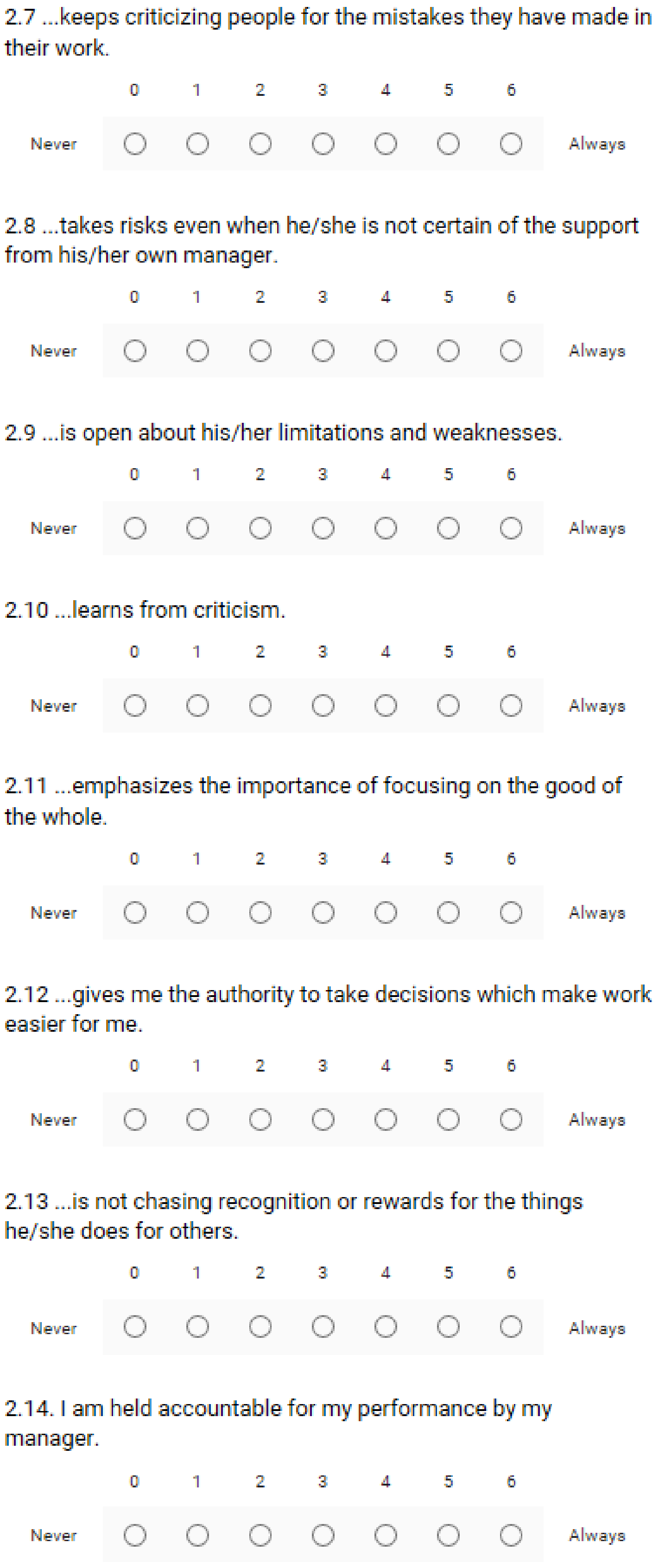
	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.5 ...keeps himself/herself in the background and gives credits to others.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.6 ...holds me responsible for the work I carry out.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always



2.7 ...keeps criticizing people for the mistakes they have made in their work.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.8 ...takes risks even when he/she is not certain of the support from his/her own manager.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.9 ...is open about his/her limitations and weaknesses.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.10 ...learns from criticism.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.11 ...emphasizes the importance of focusing on the good of the whole.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.12 ...gives me the authority to take decisions which make work easier for me.

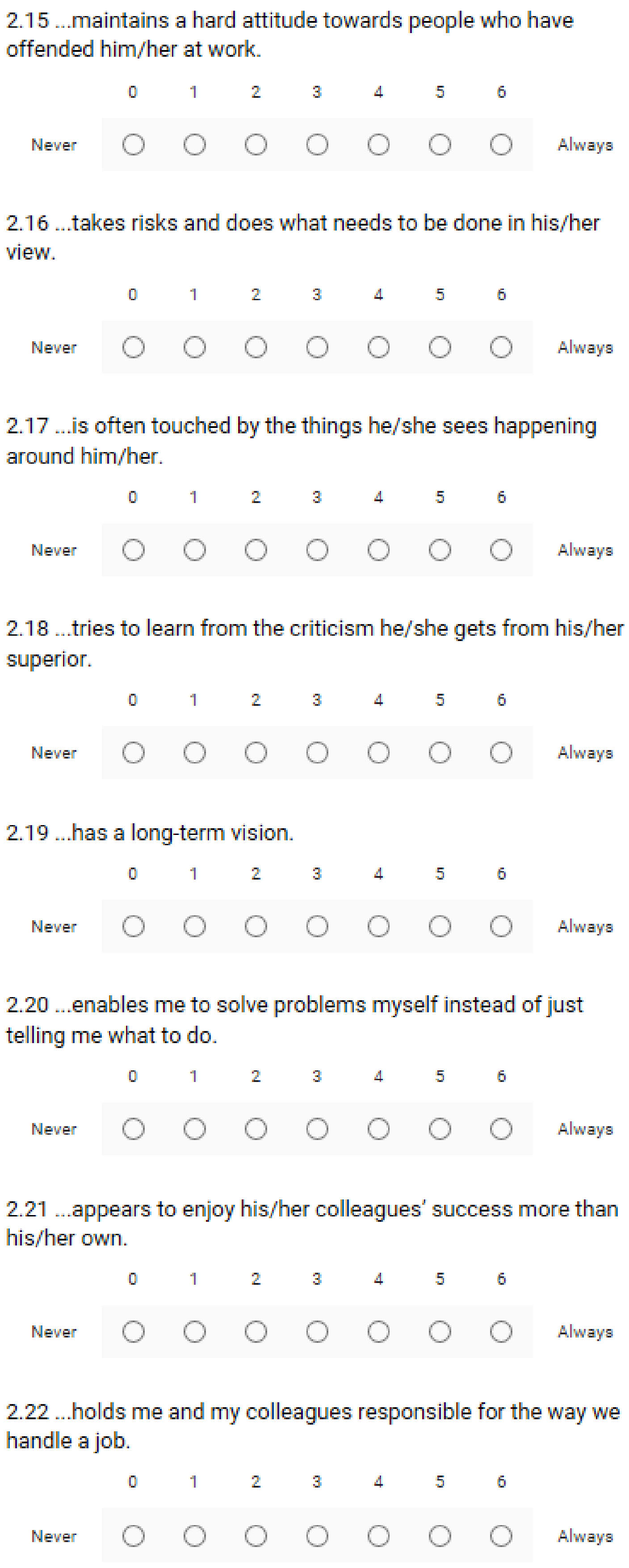
	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.13 ...is not chasing recognition or rewards for the things he/she does for others.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.14. I am held accountable for my performance by my manager.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always



2.15 ...maintains a hard attitude towards people who have offended him/her at work.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.16 ...takes risks and does what needs to be done in his/her view.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.17 ...is often touched by the things he/she sees happening around him/her.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.18 ...tries to learn from the criticism he/she gets from his/her superior.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.19 ...has a long-term vision.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.20 ...enables me to solve problems myself instead of just telling me what to do.

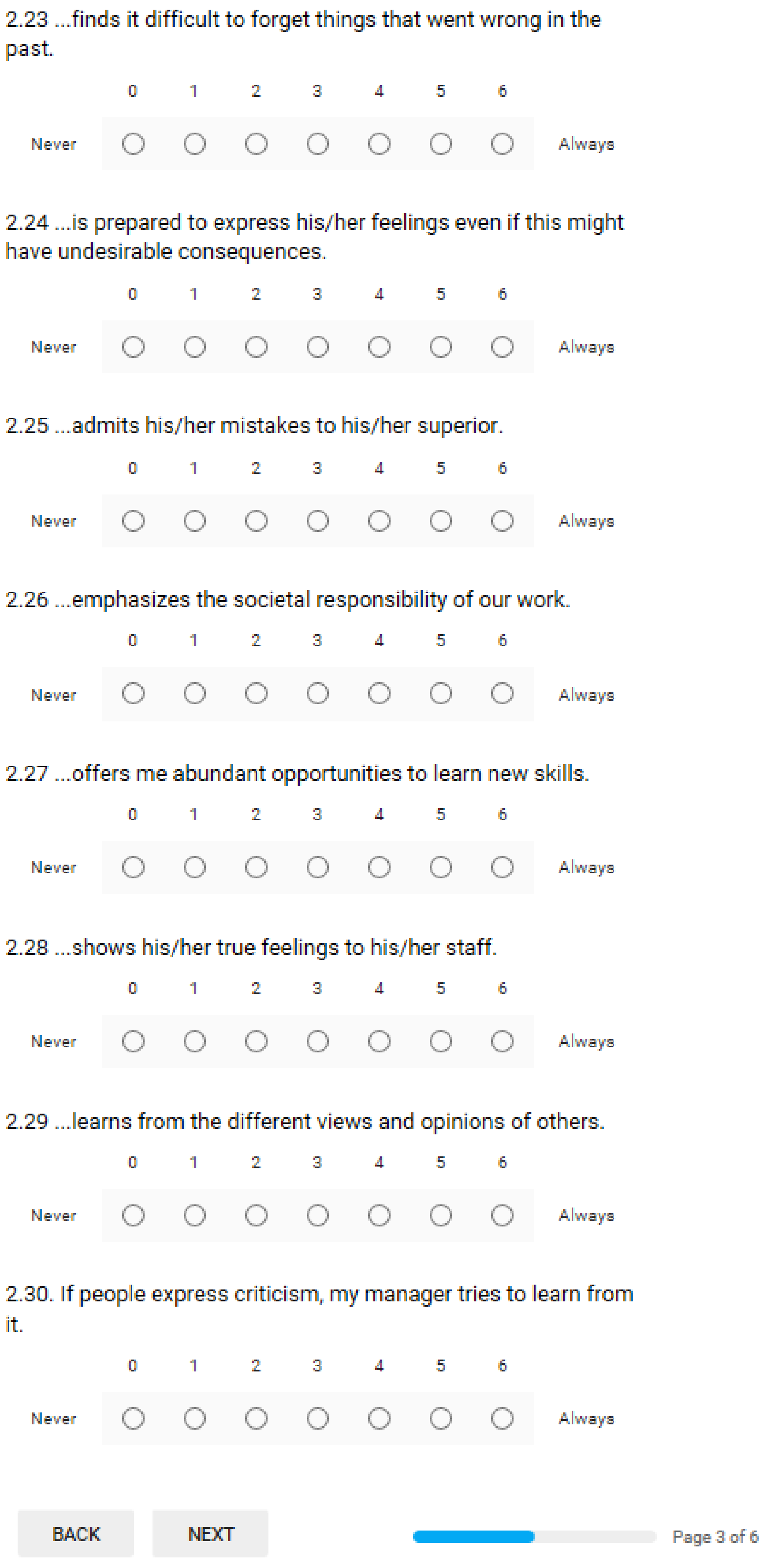
	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.21 ...appears to enjoy his/her colleagues' success more than his/her own.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.22 ...holds me and my colleagues responsible for the way we handle a job.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always



2.23 ...finds it difficult to forget things that went wrong in the past.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.24 ...is prepared to express his/her feelings even if this might have undesirable consequences.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.25 ...admits his/her mistakes to his/her superior.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.26 ...emphasizes the societal responsibility of our work.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.27 ...offers me abundant opportunities to learn new skills.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.28 ...shows his/her true feelings to his/her staff.

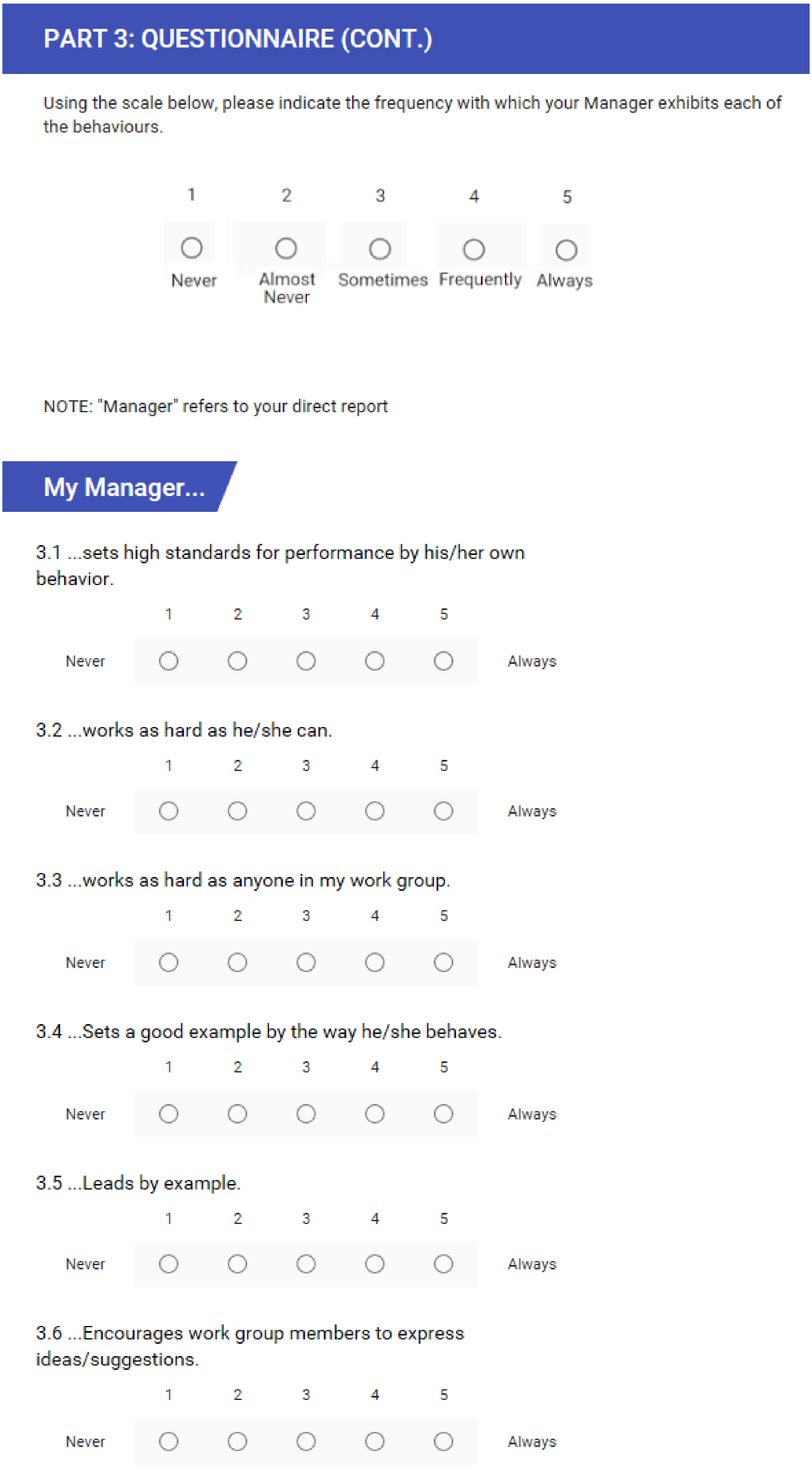
	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.29 ...learns from the different views and opinions of others.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always

2.30. If people express criticism, my manager tries to learn from it.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Always



PART 3: QUESTIONNAIRE (CONT.)

Using the scale below, please indicate the frequency with which your Manager exhibits each of the behaviours.

1	2	3	4	5
○	○	○	○	○
Never	Almost Never	Sometimes	Frequently	Always

NOTE: "Manager" refers to your direct report

My Manager...

3.1 ...sets high standards for performance by his/her own behavior.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.2 ...works as hard as he/she can.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.3 ...works as hard as anyone in my work group.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.4 ...Sets a good example by the way he/she behaves.

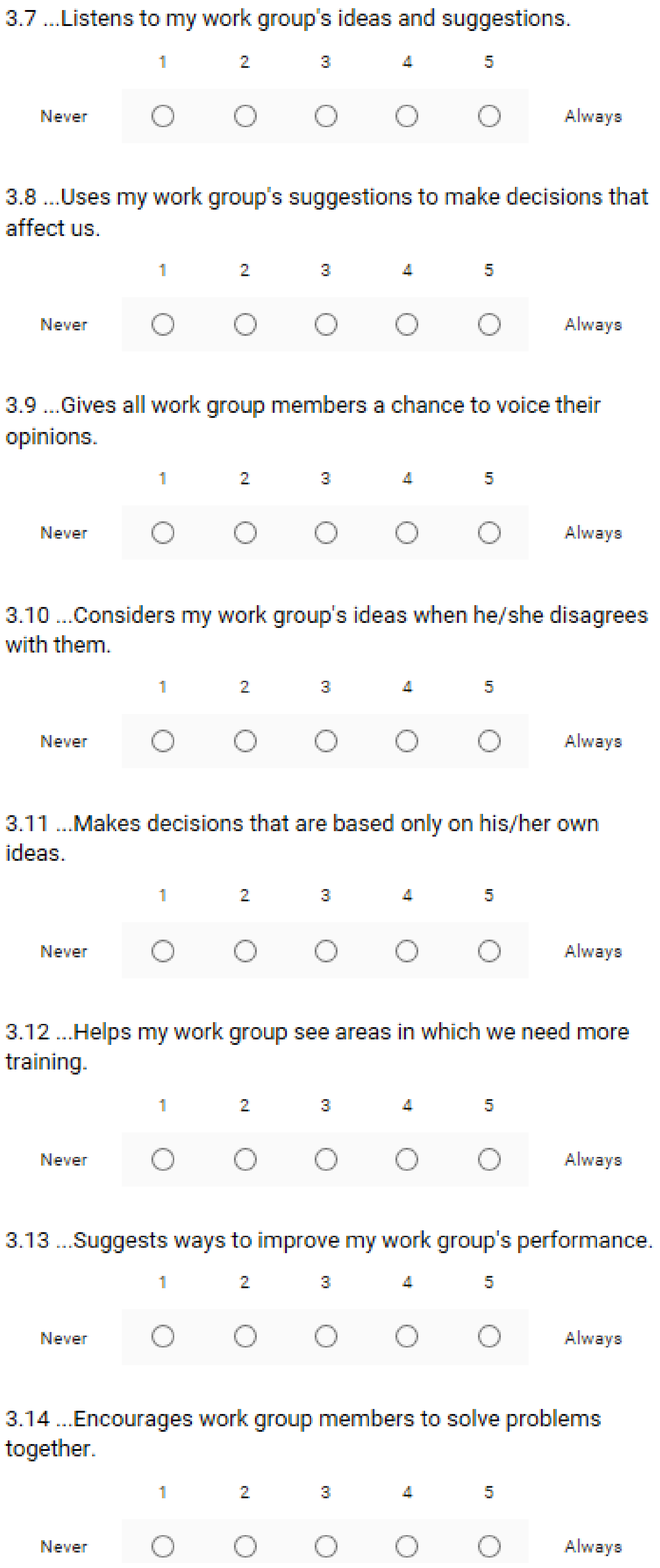
	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.5 ...Leads by example.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.6 ...Encourages work group members to express ideas/suggestions.

	1	2	3	4	5	
Never	○	○	○	○	○	Always



3.7 ...Listens to my work group's ideas and suggestions.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.8 ...Uses my work group's suggestions to make decisions that affect us.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.9 ...Gives all work group members a chance to voice their opinions.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.10 ...Considers my work group's ideas when he/she disagrees with them.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.11 ...Makes decisions that are based only on his/her own ideas.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.12 ...Helps my work group see areas in which we need more training.

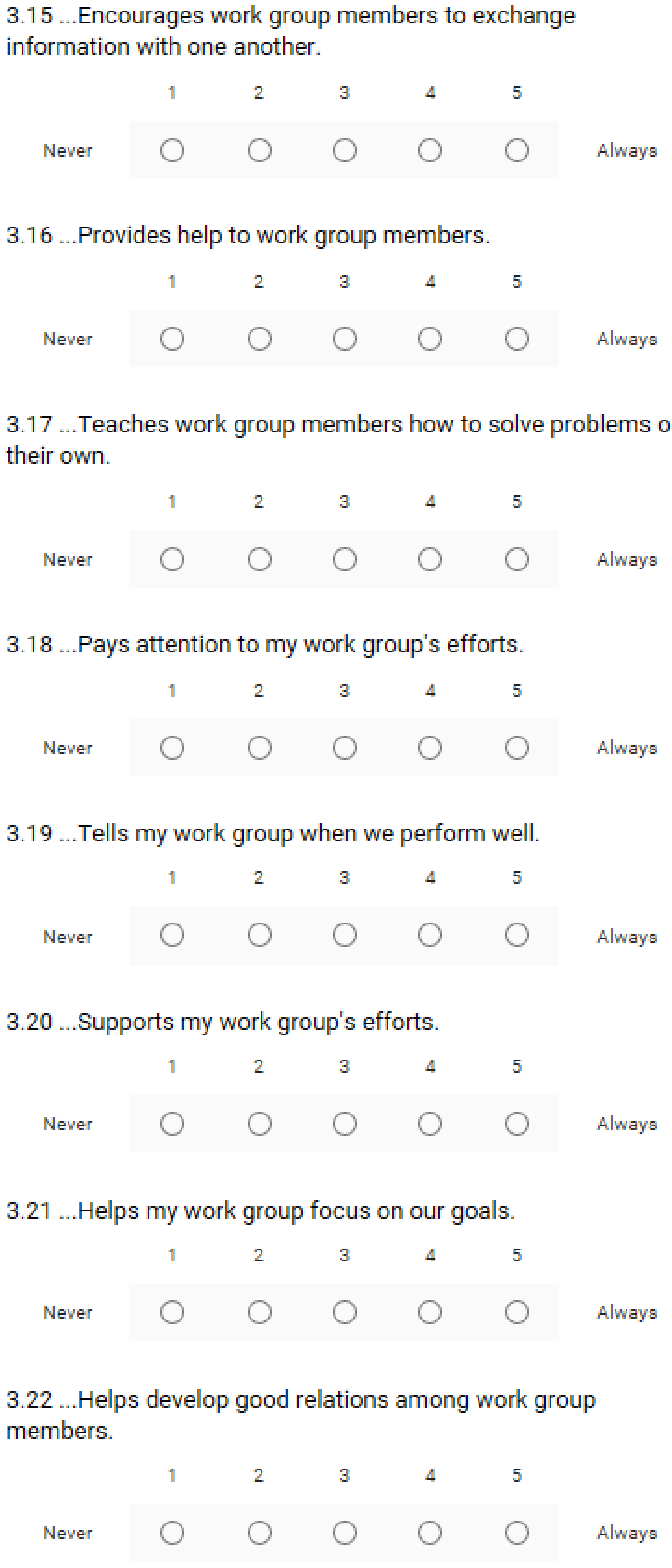
	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.13 ...Suggests ways to improve my work group's performance.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.14 ...Encourages work group members to solve problems together.

	1	2	3	4	5	
Never	○	○	○	○	○	Always



3.15 ...Encourages work group members to exchange information with one another.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.16 ...Provides help to work group members.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.17 ...Teaches work group members how to solve problems on their own.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.18 ...Pays attention to my work group's efforts.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.19 ...Tells my work group when we perform well.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.20 ...Supports my work group's efforts.

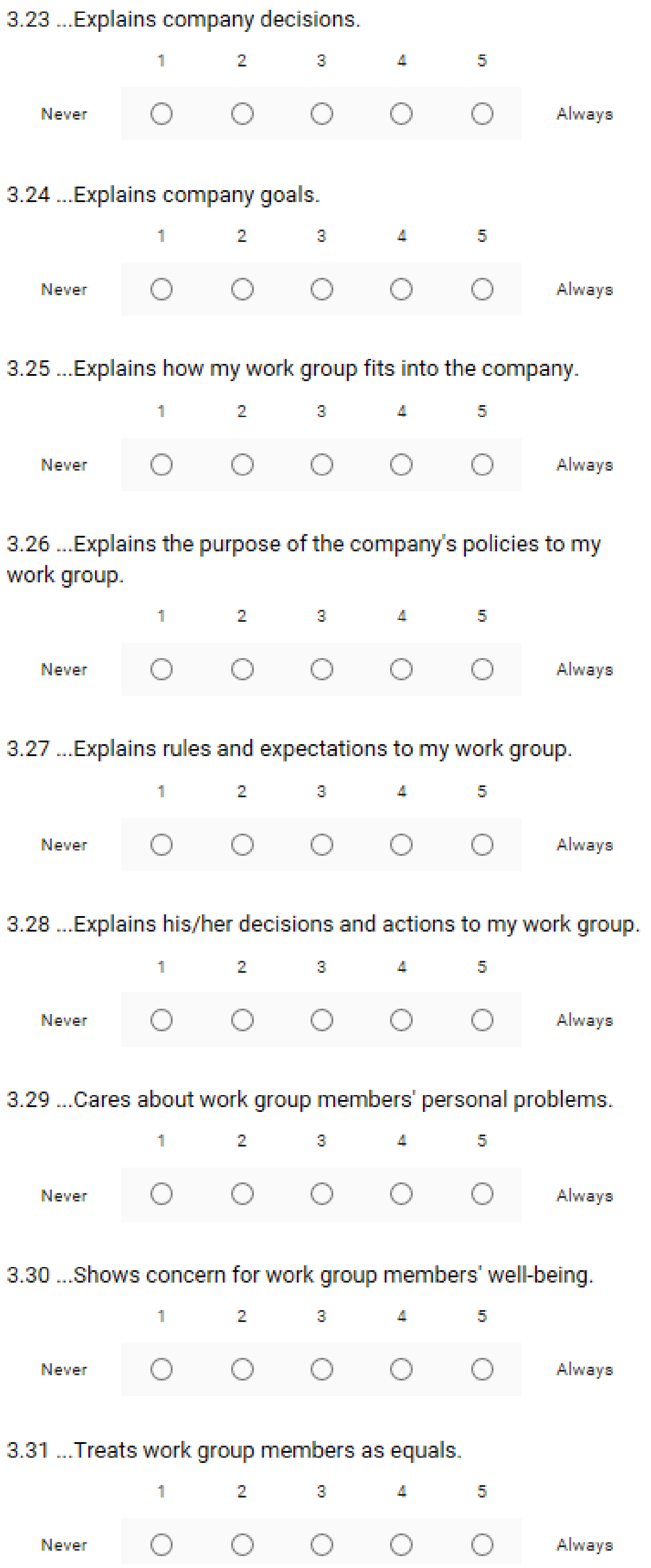
	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.21 ...Helps my work group focus on our goals.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.22 ...Helps develop good relations among work group members.

	1	2	3	4	5	
Never	○	○	○	○	○	Always



3.23 ...Explains company decisions.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.24 ...Explains company goals.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.25 ...Explains how my work group fits into the company.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.26 ...Explains the purpose of the company's policies to my work group.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.27 ...Explains rules and expectations to my work group.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.28 ...Explains his/her decisions and actions to my work group.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.29 ...Cares about work group members' personal problems.

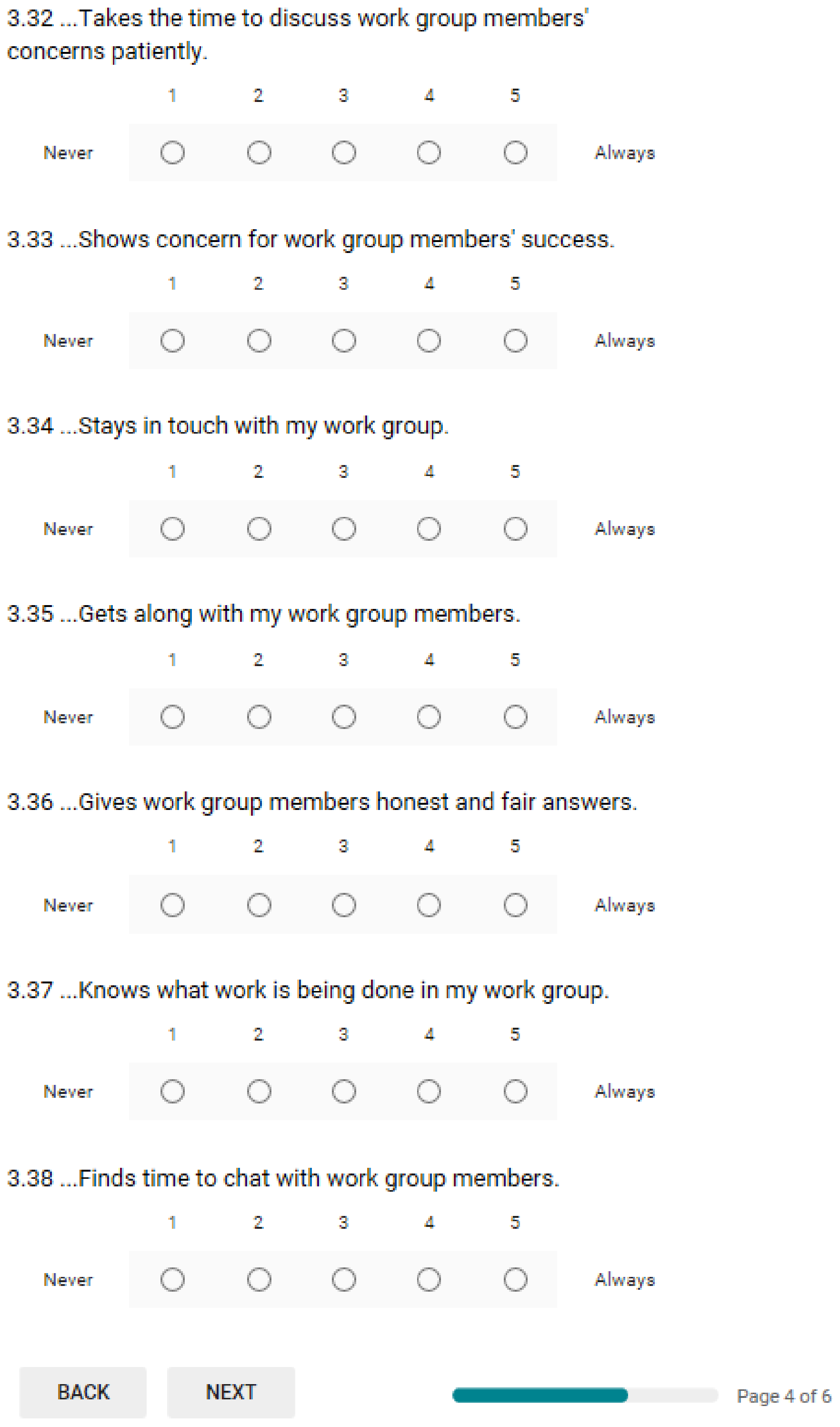
	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.30 ...Shows concern for work group members' well-being.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.31 ...Treats work group members as equals.

	1	2	3	4	5	
Never	○	○	○	○	○	Always



3.32 ...Takes the time to discuss work group members' concerns patiently.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.33 ...Shows concern for work group members' success.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.34 ...Stays in touch with my work group.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.35 ...Gets along with my work group members.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.36 ...Gives work group members honest and fair answers.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.37 ...Knows what work is being done in my work group.

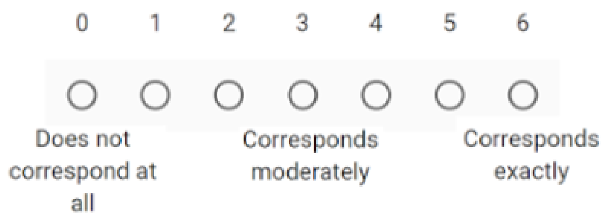
	1	2	3	4	5	
Never	○	○	○	○	○	Always

3.38 ...Finds time to chat with work group members.

	1	2	3	4	5	
Never	○	○	○	○	○	Always

PART 4: QUESTIONNAIRE (CONT.)

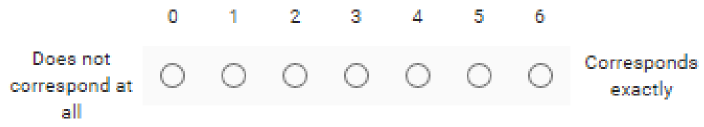
Using the scale below, please indicate to what extent each of the following items corresponds to the reasons why you are presently involved in your work.



0	1	2	3	4	5	6
○	○	○	○	○	○	○
Does not correspond at all			Corresponds moderately			Corresponds exactly

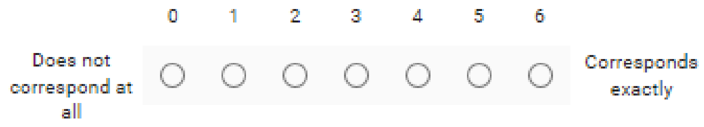
I am presently involved in my work...

4.1 ...Because this is the type of work I chose to do to attain a certain lifestyle.



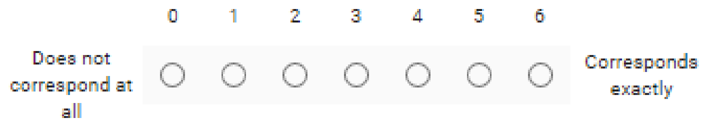
	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.2 ...For the income it provides me.



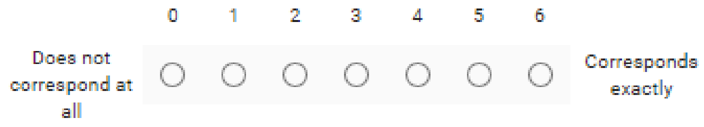
	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.3. I ask myself this question, I don't seem to be able to manage the important tasks related to this work.



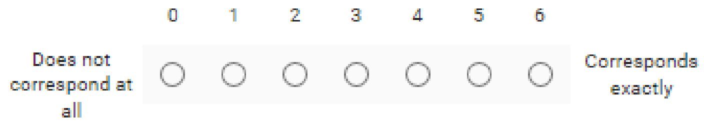
	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.4 ...Because I derive much pleasure from learning new things.

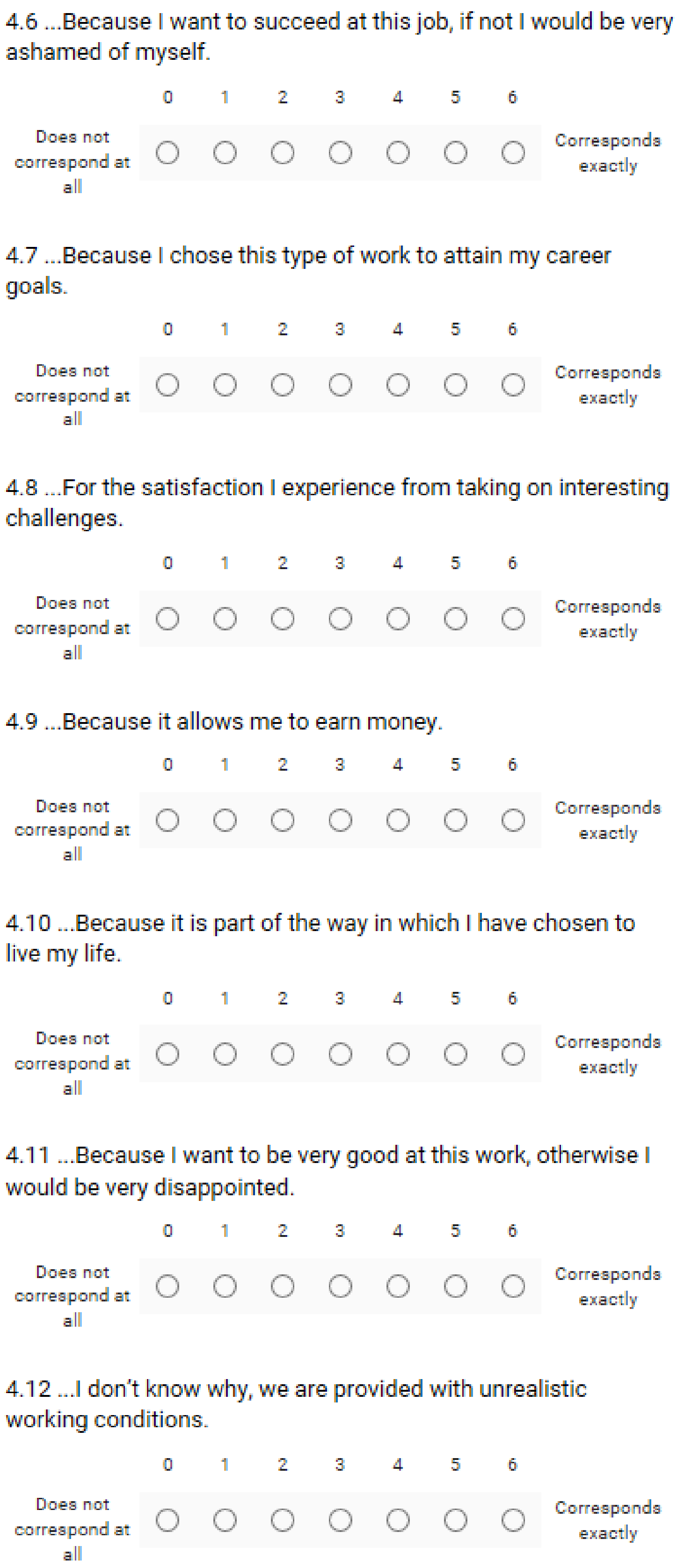


	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.5 ...Because it has become a fundamental part of who I am.



	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly



4.6 ...Because I want to succeed at this job, if not I would be very ashamed of myself.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.7 ...Because I chose this type of work to attain my career goals.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.8 ...For the satisfaction I experience from taking on interesting challenges.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.9 ...Because it allows me to earn money.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.10 ...Because it is part of the way in which I have chosen to live my life.

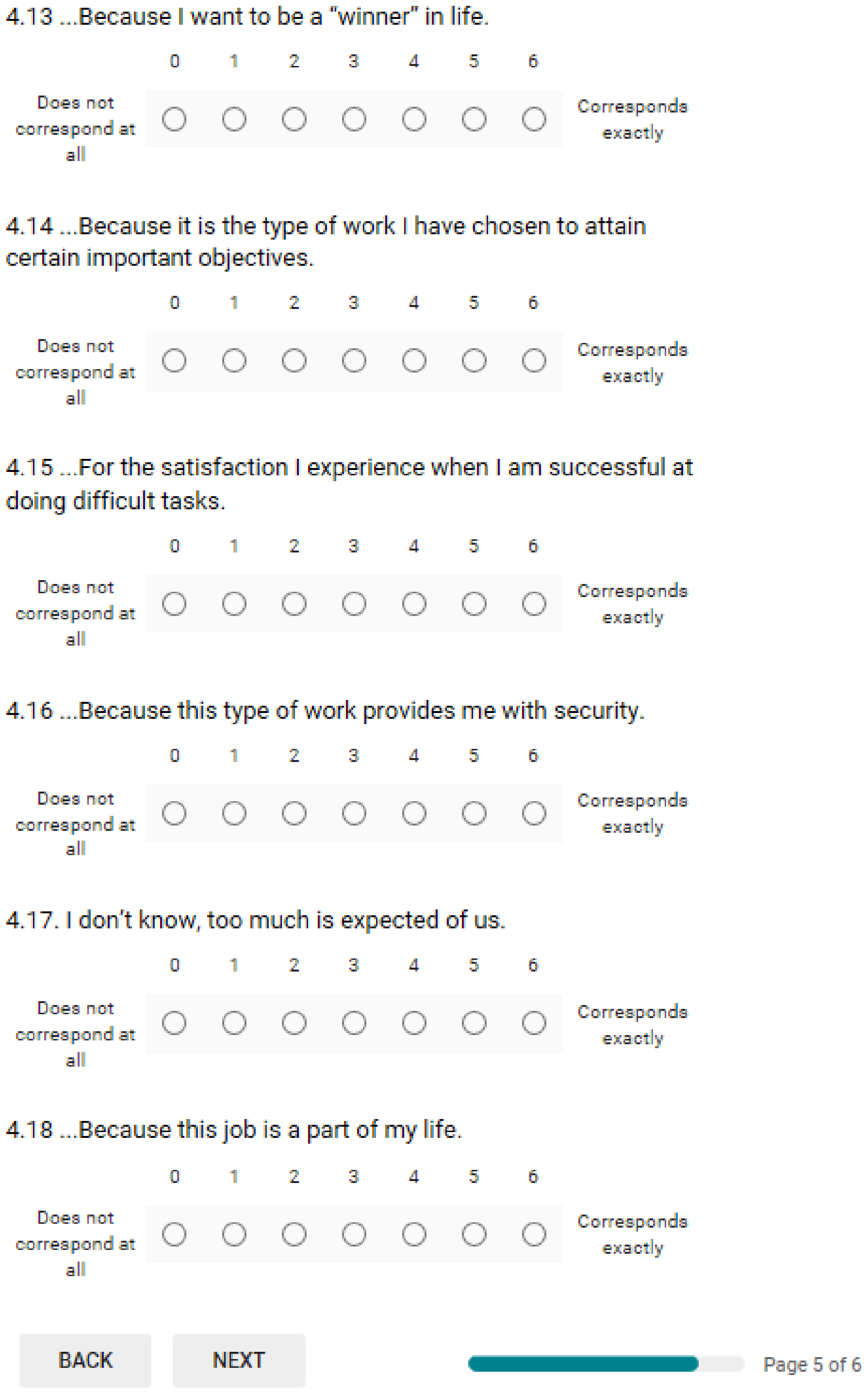
	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.11 ...Because I want to be very good at this work, otherwise I would be very disappointed.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.12 ...I don’t know why, we are provided with unrealistic working conditions.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly



4.13 ...Because I want to be a “winner” in life.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.14 ...Because it is the type of work I have chosen to attain certain important objectives.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.15 ...For the satisfaction I experience when I am successful at doing difficult tasks.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.16 ...Because this type of work provides me with security.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.17. I don't know, too much is expected of us.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

4.18 ...Because this job is a part of my life.

	0	1	2	3	4	5	6	
Does not correspond at all	○	○	○	○	○	○	○	Corresponds exactly

PART 5: QUESTIONNAIRE (CONT.)

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job.

If you have never had this feeling, cross the “0” (zero) in the space after the statement. If you have had this feeling, indicate how often you felt it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

0	1	2	3	4	5	6
○	○	○	○	○	○	○
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

5.1. At my work, I feel bursting with energy.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.2. I find the work that I do full of meaning and purpose.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.3. Time flies when I am working.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.4. At my job, I feel strong and vigorous.

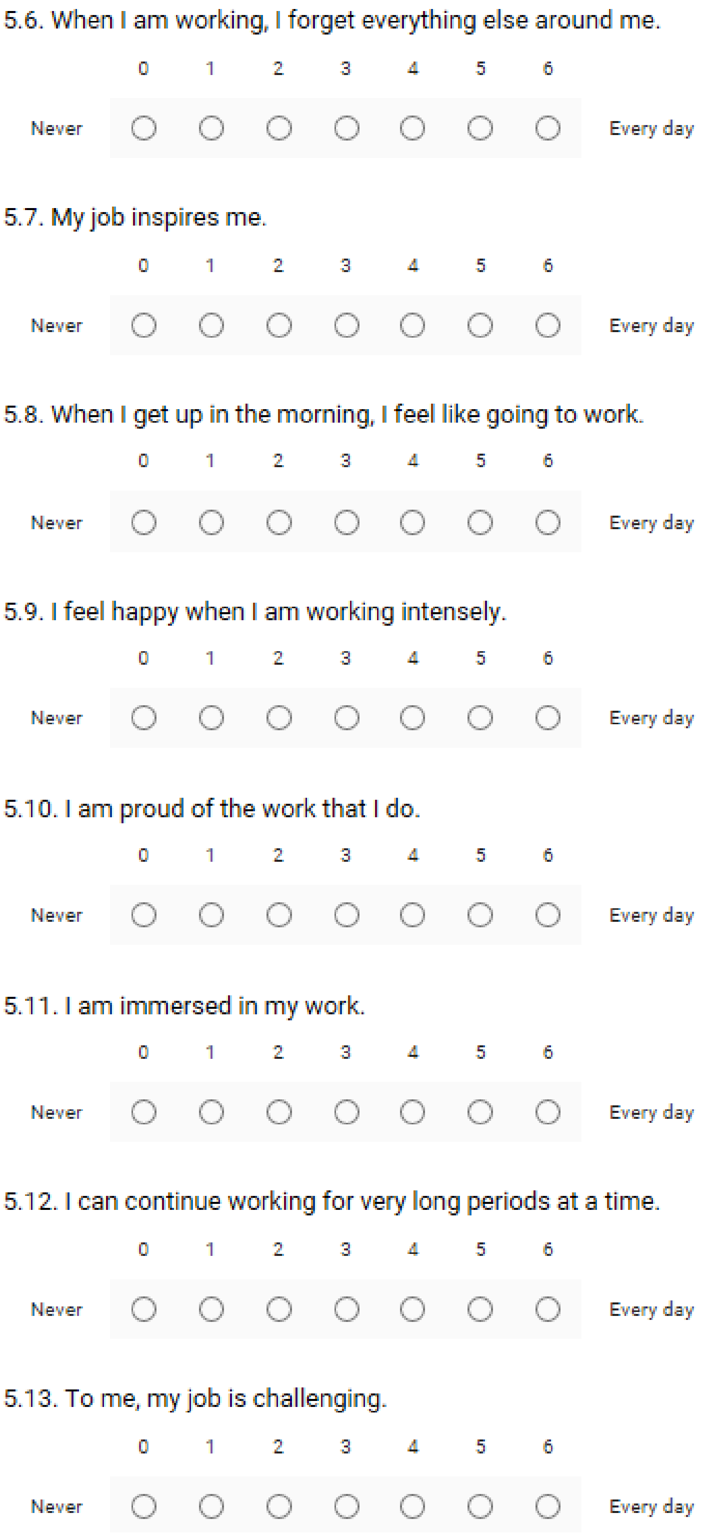
	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.5. I am enthusiastic about my job.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.6. When I am working, I forget everything else around me.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day



5.6. When I am working, I forget everything else around me.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.7. My job inspires me.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.8. When I get up in the morning, I feel like going to work.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.9. I feel happy when I am working intensely.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.10. I am proud of the work that I do.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.11. I am immersed in my work.

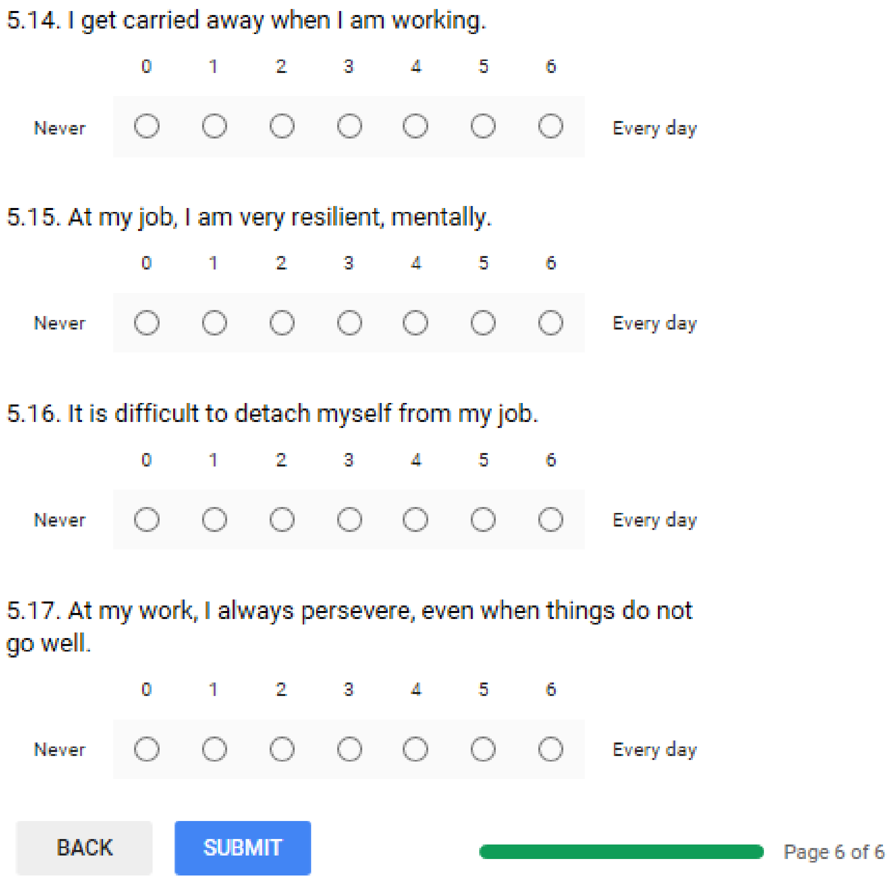
	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.12. I can continue working for very long periods at a time.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.13. To me, my job is challenging.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day



5.14. I get carried away when I am working.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.15. At my job, I am very resilient, mentally.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.16. It is difficult to detach myself from my job.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

5.17. At my work, I always persevere, even when things do not go well.

	0	1	2	3	4	5	6	
Never	○	○	○	○	○	○	○	Every day

APPENDIX C: RESULTS FROM EXPLORATORY FACTOR ANALYSIS

C1: Servant leadership

	KMO	Bartlett's Test (p-value)	% Variance explained	Cronbach's alpha
Empowerment	0.891	0.000	67.644%	0.918
Standing back	0.647	0.000	66.570%	0.740
Accountability	0.718	0.000	77.300%	0.851
Forgiveness	0.659	0.000	62.566%	0.700
Courage	0.500	0.000	76.219%	0.680
Authenticity	0.711	0.000	57.839%	0.764
Humility	0.889	0.000	77.171%	0.920
Stewardship	0.767	0.000	79.539%	0.870

Component Matrix^a

Component	Questions	Score
Empowerment 1 component extracted	Q2_2 Q2_4 Q2_3 Q2_27 Q2_1 Q2_12 Q2_20	0.900 0.892 0.886 0.825 0.786 0.726 0.722
Standing Back 1 component extracted	Q2_5 Q2_21 Q2_13	0.867 0.848 0.725
Accountability 1 component extracted	Q2_14 Q2_6 Q2_22	0.904 0.882 0.850
Forgiveness 1 component extracted	Q2_15 Q2_7 Q2_23	0.828 0.792 0.751
Courage 1 component extracted	Q2_16 Q2_8	0.873 0.873
Authenticity 1 component extracted	Q2_28 Q2_9 Q2_17 Q2_24	0.856 0.752 0.737 0.687
Humility 1 component extracted	Q2_30 Q2_29 Q2_10 Q2_18 Q2_25	0.927 0.909 0.890 0.880 0.779
Stewardship 1 component extracted	Q2_19 Q2_26 Q2_11	0.920 0.879 0.876

C2: Empowering leadership

	KMO	Bartlett's Test (p-value)	% Variance explained	Cronbach's alpha
Leading by Example	0.887	0.000	80.299%	0.930
Participative Decision-Making	0.894	0.000	70.887%	0.770
Coaching	0.932	0.000	69.938%	0.957
Informing	0.912	0.000	79.069%	0.948
Showing Concern / Interacting with the Team	0.924	0.000	67.334%	0.945

Component Matrix^a

Component	Questions	Score
Leading by Example 1 component extracted	Q3_5	0.929
	Q3_4	0.915
	Q3_2	0.906
	Q3_3	0.903
	Q3_1	0.824
Participative Decision-Making 1 component extracted	Q3_7	0.914
	Q3_6	0.906
	Q3_8	0.880
	Q3_10	0.874
	Q3_9	0.869
	Q3_11	-0.551
Coaching 1 component extracted	Q3_20	0.880
	Q3_22	0.871
	Q3_13	0.867
	Q3_16	0.867
	Q3_21	0.866
	Q3_19	0.856
	Q3_18	0.836
	Q3_14	0.810
	Q3_15	0.806
	Q3_12	0.772
	Q3_17	0.758
Informing 1 component extracted	Q3_26	0.926
	Q3_24	0.904
	Q3_25	0.904
	Q3_23	0.883
	Q3_28	0.858
	Q3_27	0.858
Showing Concern / Interacting with the Team 1 component extracted	Q3_32	0.879
	Q3_33	0.879
	Q3_36	0.867
	Q3_30	0.852
	Q3_31	0.838
	Q3_29	0.813

	Q3_34	0.777
	Q3_35	0.772
	Q3_37	0.766
	Q3_38	0.749

C3: Motivational stance

	KMO	Bartlett’s Test (p-value)	% Variance explained	Cronbach’s alpha
Intrinsic Motivation	0.710	0.000	70.988%	0.787
Integrated Regulation	0.691	0.000	68.461%	0.787
Identified Regulation	0.609	0.000	66.623%	0.745
Introjected Regulation	0.680	0.000	70.568%	0.778
External Regulation	0.636	0.000	61.617%	0.685
Amotivation	0.650	0.000	69.604%	0.778

Component Matrix[a]

Component	Questions	Score
Intrinsic Motivation 1 component extracted	Q4_4	0.845
	Q4_15	0.844
	Q4_8	0.839
Integrated Regulation 1 component extracted	Q4_5	0.854
	Q4_10	0.815
	Q4_18	0.813
Identified Regulation 1 component extracted	Q4_7	0.894
	Q4_14	0.821
	Q4_1	0.725
Introjected Regulation 1 component extracted	Q4_11	0.881
	Q4_6	0.849
	Q4_13	0.788
External Regulation 1 component extracted	Q4_9	0.834
	Q4_2	0.817
	Q4_16	0.697
Amotivation 1 component extracted	Q4_12	0.888
	Q4_17	0.871
	Q4_3	0.736

C4: Work engagement

	KMO	Bartlett's Test (p-value)	% Variance explained	Cronbach's alpha
Vigor	0.823	0.000	56.277%	0.843
Dedication	0.879	0.000	74.040%	0.909
Absorption	0.821	0.000	55.047%	0.839

Component Matrix[a]

Component	Questions	Score
Vigor 1 component extracted	Q5_4	0.845
	Q5_12	0.814
	Q5_8	0.811
	Q5_1	0.766
	Q5_15	0.634
	Q5_17	0.594
Dedication 1 component extracted	Q5_5	0.919
	Q5_2	0.864
	Q5_10	0.862
	Q5_7	0.859
	Q5_13	0.794
Absorption 1 component extracted	Q5_11	0.858
	Q5_14	0.782
	Q5_6	0.734
	Q5_9	0.728
	Q5_16	0.698
	Q5_3	0.632

APPENDIX D: SPEARMAN'S RHO CORRELATIONS

Spearman's rho Correlations

	Empowerment	Standing_Back	Accountability	Forgiveness	Courage	Authenticity	Humility	Stewardship	Leading_by_example	Participative_Decision_Making	Coaching	Informing	Showing_Concern
Empowerment	1.000	.647**	.568**	-.331**	.409**	.560**	.756**	.815**	.755**	.704**	.778**	.718**	.685**
Standing_Back	.647**	1.000	.521**	-.271**	.358**	.500**	.653**	.605**	.621**	.587**	.611**	.565**	.599**
Accountability	.568**	.521**	1.000	-0.122	.467**	.455**	.448**	.504**	.591**	.428**	.485**	.447**	.409**
Forgiveness	-.331**	-.271**	-0.122	1.000	0.116	-0.129	-.264**	-.346**	-.368**	-.313**	-.327**	-.305**	-.338**
Courage	.409**	.358**	.467**	0.116	1.000	.461**	.335**	.394**	.387**	.256**	.330**	.241**	.287**
Authenticity	.560**	.500**	.455**	-0.129	.461**	1.000	.670**	.611**	.527**	.527**	.509**	.518**	.544**
Humility	.756**	.653**	.448**	-.264**	.335**	.670**	1.000	.815**	.717**	.730**	.753**	.714**	.687**
Stewardship	.815**	.605**	.504**	-.346**	.394**	.611**	.815**	1.000	.804**	.752**	.773**	.785**	.698**
Leading_by_example	.755**	.621**	.591**	-.368**	.387**	.527**	.717**	.804**	1.000	.691**	.757**	.719**	.710**
Participative_Decision_Making	.704**	.587**	.428**	-.313**	.256**	.527**	.730**	.752**	.691**	1.000	.849**	.725**	.735**
Coaching	.778**	.611**	.485**	-.327**	.330**	.509**	.753**	.773**	.757**	.849**	1.000	.808**	.846**
Informing	.718**	.565**	.447**	-.305**	.241**	.518**	.714**	.785**	.719**	.725**	.808**	1.000	.695**
Showing_Concern	.685**	.599**	.409**	-.338**	.287**	.544**	.687**	.698**	.710**	.735**	.846**	.695**	1.000
Intrinsic_Motivation	.302**	.228**	.335**	-0.115	.275**	.334**	.248**	.343**	.315**	.325**	.340**	.279**	.409**
Integrated_Regulation	.314**	.326**	.298**	-0.047	0.132	.408**	.273**	.374**	.345**	.314**	.272**	.272**	.265**
Identified_Regulation	.341**	.296**	.274**	0.043	.311**	.324**	.213*	.324**	.277**	.277**	.326**	.211*	.252**
Introjected_Regulation	.197*	.221*	.361**	0.026	.261**	.364**	.268**	.344**	.336**	.282**	.343**	.255**	.313**
External_Regulation	0.010	0.000	0.033	0.137	0.120	0.172	0.020	0.090	0.088	0.061	0.045	0.014	0.065
Amotivation	-.177*	-.175*	-.334**	.261**	-0.053	-0.066	-0.122	-.220*	-.261**	-.229**	-.190*	-.223*	-.259**
Vigor	.392**	.348**	.386**	-.207*	.178*	.290**	.336**	.399**	.383**	.443**	.425**	.332**	.400**
Dedication	.496**	.297**	.402**	-.188*	.251**	.333**	.331**	.474**	.411**	.419**	.454**	.404**	.422**
Absorption	.376**	.262**	.363**	-.182*	.276**	.288**	.291**	.384**	.390**	.314**	.334**	.288**	.342**
SLS	.864**	.765**	.656**	-0.144	.552**	.774**	.882**	.835**	.762**	.736**	.775**	.731**	.701**
ELQ	.797**	.648**	.506**	-.353**	.332**	.569**	.788**	.830**	.844**	.884**	.959**	.866**	.904**
WEIMS	.223*	.207*	.238**	0.115	.266**	.393**	.234**	.305**	.264**	.237**	.272**	.196*	.222*
UWES	.450**	.316**	.413**	-.207*	.249**	.308**	.336**	.447**	.431**	.400**	.425**	.361**	.412**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Spearman's rho Correlations

	Intrinsic_Motivation	Integrated_Regulation	Identified_Regulation	Introjected_Regulation	External_Regulation	Amotivation	Vigor	Dedication	Absorption	SLS	ELQ	WEIMS	UWES
Empowerment	.302**	.314**	.341**	.197*	0.010	-.177*	.392**	.496**	.376**	.864**	.797**	.223*	.450**
Standing_Back	.228**	.326**	.296**	.221*	0.000	-.175*	.348**	.297**	.262**	.765**	.648**	.207*	.316**
Accountability	.335**	.298**	.274**	.361**	0.033	-.334**	.386**	.402**	.363**	.656**	.506**	.238**	.413**
Forgiveness	-0.115	-0.047	0.043	0.026	0.137	.261**	-.207*	-.188*	-.182*	-0.144	-.353**	0.115	-.207*
Courage	.275**	0.132	.311**	.261**	0.120	-0.053	.178*	.251**	.276**	.552**	.332**	.266**	.249**
Authenticity	.334**	.408**	.324**	.364**	0.172	-0.066	.290**	.333**	.288**	.774**	.569**	.393**	.308**
Humility	.248**	.273**	.213*	.268**	0.020	-0.122	.336**	.331**	.291**	.882**	.788**	.234**	.336**
Stewardship	.343**	.374**	.324**	.344**	0.090	-.220*	.399**	.474**	.384**	.835**	.830**	.305**	.447**
Leading_by_example	.315**	.345**	.277**	.336**	0.088	-.261**	.383**	.411**	.390**	.762**	.844**	.264**	.431**
Participative_Decision_Making	.325**	.314**	.277**	.282**	0.061	-.229**	.443**	.419**	.314**	.736**	.884**	.237**	.400**
Coaching	.340**	.272**	.326**	.343**	0.045	-.190*	.425**	.454**	.334**	.775**	.959**	.272**	.425**
Informing	.279**	.272**	.211*	.255**	0.014	-.223*	.332**	.404**	.288**	.731**	.866**	.196*	.361**
Showing_Concern	.409**	.265**	.252**	.313**	0.065	-.259**	.400**	.422**	.342**	.701**	.904**	.222*	.412**
Intrinsic_Motivation	1.000	.571**	.529**	.566**	.207*	-.242**	.559**	.636**	.548**	.339**	.369**	.568**	.626**
Integrated_Regulation	.571**	1.000	.585**	.517**	.372**	-0.026	.537**	.601**	.534**	.392**	.315**	.739**	.594**
Identified_Regulation	.529**	.585**	1.000	.495**	.366**	0.014	.511**	.558**	.462**	.374**	.299**	.762**	.543**
Introjected_Regulation	.566**	.517**	.495**	1.000	.317**	-0.012	.436**	.462**	.432**	.356**	.346**	.733**	.471**
External_Regulation	.207*	.372**	.366**	.317**	1.000	0.127	0.162	0.097	0.058	0.101	0.067	.621**	0.114
Amotivation	-.242**	-0.026	0.014	-0.012	0.127	1.000	-.215*	-.233**	-0.159	-0.147	-.241**	.267**	-.228**
Vigor	.559**	.537**	.511**	.436**	0.162	-.215*	1.000	.771**	.753**	.402**	.439**	.456**	.911**
Dedication	.636**	.601**	.558**	.462**	0.097	-.233**	.771**	1.000	.690**	.440**	.463**	.471**	.883**
Absorption	.548**	.534**	.462**	.432**	0.058	-0.159	.753**	.690**	1.000	.369**	.366**	.437**	.912**
SLS	.339**	.392**	.374**	.356**	0.101	-0.147	.402**	.440**	.369**	1.000	.812**	.351**	.427**
ELQ	.369**	.315**	.299**	.346**	0.067	-.241**	.439**	.463**	.366**	.812**	1.000	.267**	.448**
WEIMS	.568**	.739**	.762**	.733**	.621**	.267**	.456**	.471**	.437**	.351**	.267**	1.000	.477**
UWES	.626**	.594**	.543**	.471**	0.114	-.228**	.911**	.883**	.912**	.427**	.448**	.477**	1.000

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

APPENDIX E: STATISTICAL MEDIATION ANALYSIS

E1: Statistics for default model

E1.1: Regression Weights (Default model)

			Estimate	S.E.	C.R.	P
Autonomous Motivation	<---	ELQ	-.271	.315	-.860	.390
Autonomous Motivation	<---	SLS	.451	.195	2.312	.021
UWES	<---	ELQ	.169	.254	.665	.506
UWES	<---	SLS	.059	.165	.355	.723
UWES	<---	Autonomous Motivation	.931	.128	7.260	***
Showing Concern	<---	ELQ	1.000			
Informing	<---	ELQ	1.054	.071	14.940	***
Coaching	<---	ELQ	1.054	.051	20.842	***
Participative Decision Making	<---	ELQ	.843	.050	17.019	***
Leading by example	<---	ELQ	1.016	.074	13.678	***
Stewardship	<---	SLS	1.000			
Humility	<---	SLS	.884	.049	17.893	***
Authenticity	<---	SLS	.630	.057	11.137	***
Courage	<---	SLS	.435	.079	5.533	***
Forgiveness	<---	SLS	-.345	.083	-4.144	***
Accountability	<---	SLS	.496	.056	8.928	***
Standing Back	<---	SLS	.807	.062	12.955	***
Empowerment	<---	SLS	.876	.046	19.102	***

			Estimate	S.E.	C.R.	P
Intrinsic Motivation	<---	Autonomous Motivation	1.000			
Integrated Regulation	<---	Autonomous Motivation	1.110	.128	8.646	***
Identified Regulation	<---	Autonomous Motivation	1.039	.145	7.150	***
Vigor	<---	UWES	1.000			
Dedication	<---	UWES	1.167	.066	17.663	***
Absorption	<---	UWES	.976	.072	13.540	***

E1.2: Standardized Regression Weights (Default model)

			Estimate
Autonomous Motivation	<---	ELQ	-.299
Autonomous Motivation	<---	SLS	.815
UWES	<---	ELQ	.151
UWES	<---	SLS	.086
UWES	<---	Autonomous Motivation	.754
Showing Concern	<---	ELQ	.912
Informing	<---	ELQ	.863
Coaching	<---	ELQ	.966
Participative Decision Making	<---	ELQ	.907
Leading by example	<---	ELQ	.831
Stewardship	<---	SLS	.943
Humility	<---	SLS	.895
Authenticity	<---	SLS	.734
Courage	<---	SLS	.453

			Estimate
Forgiveness	<---	SLS	-.353
Accountability	<---	SLS	.645
Standing Back	<---	SLS	.791
Empowerment	<---	SLS	.912
Intrinsic Motivation	<---	Autonomous Motivation	.787
Integrated Regulation	<---	Autonomous Motivation	.773
Identified Regulation	<---	Autonomous Motivation	.649
Vigor	<---	UWES	.927
Dedication	<---	UWES	.927
Absorption	<---	UWES	.829

E1.3: Covariance’s (Default model)

			Estimate	S.E.	C.R.	P	Label
SLS	<-->	ELQ	.885	.124	7.152	***	

E1.4: Correlations (Default model)

			Estimate
SLS	<-->	ELQ	.942

E1.5: Standardized Total Effects (Default model)

	ELQ	SLS	Autonomous Motivation	UWES
Autonomous Motivation	-.299	.815	.000	.000
UWES	-.074	.700	.754	.000
Absorption	-.062	.581	.626	.829

	ELQ	SLS	Autonomous Motivation	UWES
Dedication	-.069	.649	.699	.927
Vigor	-.069	.649	.699	.927
Identified Regulation	-.194	.529	.649	.000
Integrated Regulation	-.231	.630	.773	.000
Intrinsic Motivation	-.235	.641	.787	.000
Empowerment	.000	.912	.000	.000
Standing Back	.000	.791	.000	.000
Accountability	.000	.645	.000	.000
Forgiveness	.000	-.353	.000	.000
Courage	.000	.453	.000	.000
Authenticity	.000	.734	.000	.000
Humility	.000	.895	.000	.000
Stewardship	.000	.943	.000	.000
Leading by example	.831	.000	.000	.000
Participative Decision making	.907	.000	.000	.000
Coaching	.966	.000	.000	.000
Informing	.863	.000	.000	.000
Showing Concern	.912	.000	.000	.000

E1.6: Standardized Indirect Effects (Default model)

% Mediation=.614/.7*100=87.7%

	ELQ	SLS	Autonomous Motivation	UWES
Autonomous Motivation	.000	.000	.000	.000
UWES	-.225	.614	.000	.000
Absorption	-.062	.581	.626	.000

	ELQ	SLS	Autonomous Motivation	UWES
Dedication	-.069	.649	.699	.000
Vigor	-.069	.649	.699	.000
Identified Regulation	-.194	.529	.000	.000
Integrated Regulation	-.231	.630	.000	.000
Intrinsic Motivation	-.235	.641	.000	.000
Empowerment	.000	.000	.000	.000
Standing Back	.000	.000	.000	.000
Accountability	.000	.000	.000	.000
Forgiveness	.000	.000	.000	.000
Courage	.000	.000	.000	.000
Authenticity	.000	.000	.000	.000
Humility	.000	.000	.000	.000
Stewardship	.000	.000	.000	.000
Leading by example	.000	.000	.000	.000
Participative Decision Making	.000	.000	.000	.000
Coaching	.000	.000	.000	.000
Informing	.000	.000	.000	.000
Showing Concern	.000	.000	.000	.000

E1.7: Model Fit Summary (Default model)

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	63	303.319	146	.000	2.078
Saturated model	209	.000	0		
Independence model	19	2410.029	190	.000	12.684

E1.8: Baseline Comparisons (Default model)

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.874	.836	.931	.908	.929
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

E1.9: Root Mean Square Error of Approximation (Default model)

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.092	.077	.107	.000
Independence model	.303	.293	.314	.000

E2: Statistics including ELQ model only

E2.1: Regression Weights (ELQ)

			Estimate	S.E.	C.R.	P
Autonomous Motivation	<---	ELQ	.426	.090	4.746	***
UWES	<---	ELQ	.245	.080	3.052	.002
UWES	<---	Autonomous Motivation	.942	.121	7.815	***
Showing Concern	<---	ELQ	1.000			
Informing	<---	ELQ	1.042	.072	14.565	***
Coaching	<---	ELQ	1.069	.049	21.799	***
Participative Decision Making	<---	ELQ	.841	.050	16.976	***
Leading by example	<---	ELQ	.984	.077	12.811	***
Intrinsic Motivation	<---	Autonomous Motivation	1.000			
Integrated Regulation	<---	Autonomous Motivation	1.092	.127	8.632	***
Identified Regulation	<---	Autonomous Motivation	1.025	.144	7.139	***
Vigor	<---	UWES	1.000			
Dedication	<---	UWES	1.165	.066	17.656	***
Absorption	<---	UWES	.974	.072	13.508	***

E2.2: Standardized Regression Weights (ELQ)

			Estimate
Autonomous Motivation	<---	ELQ	.465
UWES	<---	ELQ	.219
UWES	<---	Autonomous Motivation	.769
Showing Concern	<---	ELQ	.913
Informing	<---	ELQ	.853
Coaching	<---	ELQ	.979
Participative Decision Making	<---	ELQ	.905
Leading by example	<---	ELQ	.805
Intrinsic Motivation	<---	Autonomous Motivation	.794
Integrated Regulation	<---	Autonomous Motivation	.768
Identified Regulation	<---	Autonomous Motivation	.646
Vigor	<---	UWES	.928
Dedication	<---	UWES	.926
Absorption	<---	UWES	.828

E2.3: Standardized Total Effects (ELQ)

	ELQ	Autonomous Motivation	UWES
Autonomous Motivation	.465	.000	.000
UWES	.577	.769	.000
Absorption	.478	.637	.828
Dedication	.534	.713	.926
Vigor	.535	.714	.928
Identified Regulation	.300	.646	.000
Integrated Regulation	.357	.768	.000

	ELQ	Autonomous Motivation	UWES
Intrinsic Motivation	.369	.794	.000
Leading by example	.805	.000	.000
Participative Decision Making	.905	.000	.000
Coaching	.979	.000	.000
Informing	.853	.000	.000
Showing Concern	.913	.000	.000

E2.4: Standardized Indirect Effects (ELQ)

% Mediation=.358/ .577*100=62%

	ELQ	Autonomous Motivation	UWES
Autonomous Motivation	.000	.000	.000
UWES	.358	.000	.000
Absorption	.478	.637	.000
Dedication	.534	.713	.000
Vigor	.535	.714	.000
Identified Regulation	.300	.000	.000
Integrated Regulation	.357	.000	.000
Intrinsic Motivation	.369	.000	.000
Leading by example	.000	.000	.000
Participative Decision Making	.000	.000	.000
Coaching	.000	.000	.000
Informing	.000	.000	.000
Showing Concern	.000	.000	.000

E2.5: CMIN (ELQ)

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	36	65.470	41	.009	1.597
Saturated model	77	.000	0		
Independence model	11	1295.367	66	.000	19.627

E2.6: Baseline Comparisons (ELQ)

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	36	65.470	41	.009	1.597
Saturated model	77	.000	0		
Independence model	11	1295.367	66	.000	19.627

E2.7: Root Mean Square Error of Approximation (ELQ)

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.069	.035	.099	.160
Independence model	.383	.365	.401	.000

E3: Statistics including SLS model only

E3.1: Regression Weights (SLS)

			Estimate	S.E.	C.R.	P
Autonomous Motivation	<---	SLS	.301	.054	5.528	***
UWES	<---	SLS	.159	.053	3.012	.003
UWES	<---	Autonomous Motivation	.914	.125	7.333	***
Stewardship	<---	SLS	1.000			
Humility	<---	SLS	.882	.052	16.972	***
Authenticity	<---	SLS	.643	.057	11.297	***
Courage	<---	SLS	.458	.079	5.809	***
Forgiveness	<---	SLS	-.329	.085	-3.892	***
Accountability	<---	SLS	.509	.056	9.118	***
Standing Back	<---	SLS	.806	.064	12.560	***
Empowerment	<---	SLS	.884	.047	18.635	***
Intrinsic Motivation	<---	Autonomous Motivation	1.000			
Integrated Regulation	<---	Autonomous Motivation	1.093	.127	8.634	***
Identified Regulation	<---	Autonomous Motivation	1.027	.144	7.154	***
Vigor	<---	UWES	1.000			
Dedication	<---	UWES	1.167	.066	17.619	***
Absorption	<---	UWES	.978	.072	13.562	***

E3.2: Standardized Regression Weights (SLS)

			Estimate
Autonomous Motivation	<---	SLS	.537
UWES	<---	SLS	.232
UWES	<---	Autonomous Motivation	.747
Stewardship	<---	SLS	.938
Humility	<---	SLS	.889
Authenticity	<---	SLS	.746
Courage	<---	SLS	.474
Forgiveness	<---	SLS	-.336
Accountability	<---	SLS	.658
Standing Back	<---	SLS	.787
Empowerment	<---	SLS	.916
Intrinsic Motivation	<---	Autonomous Motivation	.793
Integrated Regulation	<---	Autonomous Motivation	.768
Identified Regulation	<---	Autonomous Motivation	.647
Vigor	<---	UWES	.926
Dedication	<---	UWES	.926
Absorption	<---	UWES	.831

E3.3: Standardized Total effects (SLS)

	SLS	Autonomous Motivation	UWES
Autonomous Motivation	.537	.000	.000
UWES	.633	.747	.000
Absorption	.526	.621	.831
Dedication	.586	.692	.926
Vigor	.586	.692	.926
Identified Regulation	.347	.647	.000
Integrated Regulation	.412	.768	.000
Intrinsic Motivation	.426	.793	.000
Empowerment	.916	.000	.000
Standing Back	.787	.000	.000
Accountability	.658	.000	.000
Forgiveness	-.336	.000	.000
Courage	.474	.000	.000
Authenticity	.746	.000	.000
Humility	.889	.000	.000
Stewardship	.938	.000	.000

E3.4: Standardized Indirect Effects (SLS)

% Mediation=.401/.633*100=63.3%

	SLS	Autonomous Motivation	UWES
Autonomous Motivation	.000	.000	.000
UWES	.401	.000	.000
Absorption	.526	.621	.000
Dedication	.586	.692	.000
Vigor	.586	.692	.000
Identified Regulation	.347	.000	.000
Integrated Regulation	.412	.000	.000
Intrinsic Motivation	.426	.000	.000
Empowerment	.000	.000	.000
Standing Back	.000	.000	.000
Accountability	.000	.000	.000
Forgiveness	.000	.000	.000
Courage	.000	.000	.000
Authenticity	.000	.000	.000
Humility	.000	.000	.000
Stewardship	.000	.000	.000

E3.5: CMIN (SLS)

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	45	165.260	74	.000	2.233
Saturated model	119	.000	0		
Independence model	14	1383.537	105	.000	13.177

E3.6: Baseline Comparisons (SLS)

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.881	.831	.930	.899	.929
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

E3.7: Root Mean Square Error of Approximation (SLS)

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.099	.078	.119	.000
Independence model	.310	.295	.324	.000

APPENDIX F: BIOGRAPHICAL STATISTICS

F1: Age groups

Motivational Stance (WEIMS)

Scale		Intrinsic Motivation			Integrated Regulation			Identified Regulation		
		21-35	36-50	50+	21-35	36-50	50+	21-35	36-50	50+
	n	22	71	35	22	71	35	22	71	35
Does not correspond at all	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	1	0.00%	0.00%	0.00%	0.00%	1.43%	2.86%	0.00%	1.43%	2.86%
	2	0.00%	2.86%	0.00%	9.09%	2.86%	0.00%	13.64%	2.86%	5.71%
Correspond moderately	3	18.18%	5.71%	5.71%	22.73%	14.29%	11.43%	22.73%	22.86%	22.86%
	4	9.09%	24.29%	17.14%	36.36%	32.86%	40.00%	22.73%	25.71%	28.57%
	5	40.91%	45.71%	60.00%	27.27%	38.57%	34.29%	36.36%	35.71%	31.43%
Correspond exactly	6	31.82%	21.43%	17.14%	4.55%	10.00%	11.43%	4.55%	11.43%	8.57%
	Mean	4.86	4.77	4.89	3.95	4.34	4.37	3.95	4.26	4.06

Scale		Introjected Regulation			External Regulation			Amotivation		
		21-35	36-50	50+	21-35	36-50	50+	21-35	36-50	50+
	n	22	71	35	22	71	35	22	71	35
Does not correspond at all	0	0.00%	2.86%	0.00%	0.00%	0.00%	0.00%	13.64%	21.43%	22.86%
	1	0.00%	2.86%	0.00%	0.00%	1.43%	0.00%	40.91%	18.57%	22.86%
	2	0.00%	4.29%	0.00%	9.09%	5.71%	5.71%	13.64%	20.00%	22.86%
Correspond moderately	3	18.18%	11.43%	11.43%	36.36%	20.00%	22.86%	13.64%	31.43%	17.14%
	4	50.00%	21.43%	22.86%	36.36%	28.57%	34.29%	13.64%	4.29%	14.29%
	5	22.73%	35.71%	45.71%	18.18%	41.43%	34.29%	4.55%	4.29%	0.00%
Correspond exactly	6	9.09%	21.43%	20.00%	0.00%	2.86%	2.86%	0.00%	0.00%	0.00%
	Mean	4.23	4.39	4.74	3.64	4.11	4.06	1.86	1.91	1.77

Work Engagement (UWES)

Scale		Vigor			Dedication			Absorption		
		21-35	36-50	50+	21-35	36-50	50+	21-35	36-50	50+
	n	22	71	35	22	71	35	22	71	35
Never	0	0.00%	0.00%	0.00%	0.00%	1.43%	0.00%	0.00%	0.00%	0.00%
A few times a year or less	1	0.00%	1.43%	0.00%	0.00%	1.43%	0.00%	0.00%	2.86%	0.00%
Once a month or less	2	4.55%	2.86%	0.00%	0.00%	1.43%	2.86%	4.55%	7.14%	5.71%
A few times a month	3	4.55%	10.00%	5.71%	18.18%	11.43%	8.57%	9.09%	11.43%	11.43%
Once a week	4	18.18%	25.71%	28.57%	18.18%	18.57%	20.00%	27.27%	31.43%	25.71%
A few times a week	5	68.18%	48.57%	48.57%	54.55%	41.43%	40.00%	54.55%	35.71%	51.43%
Everyday	6	4.55%	11.43%	17.14%	9.09%	24.29%	28.57%	4.55%	11.43%	5.71%
	Mean	4.64	4.51	4.77	4.55	4.66	4.82	4.45	4.24	4.40

F2: Frequency of interaction with leaders

Servant leadership (SLS)

Scale		Empowerment			Standing Back			Accountability			Forgiveness		
		Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day
	n	35	61	32	35	61	32	35	61	32	35	61	32
Never	0	2.86%	0.00%	0.00%	5.71%	0.00%	3.13%	2.86%	0.00%	0.00%	2.86%	0.00%	6.25%
Almost Never	1	8.57%	1.67%	0.00%	5.71%	1.67%	0.00%	0.00%	0.00%	0.00%	20.00%	5.00%	9.38%
Rarely	2	8.57%	0.00%	3.13%	11.43%	0.00%	0.00%	2.86%	0.00%	0.00%	20.00%	8.33%	25.00%
Sometimes	3	11.43%	3.33%	9.38%	28.57%	3.33%	40.63%	11.43%	1.67%	9.38%	25.71%	6.67%	34.38%
Often	4	31.43%	5.00%	40.63%	25.71%	16.67%	21.88%	31.43%	5.00%	28.13%	28.57%	13.33%	18.75%
Very Often	5	34.29%	20.00%	25.00%	20.00%	10.00%	31.25%	34.29%	25.00%	56.25%	2.86%	1.67%	6.25%
Always	6	2.86%	5.00%	21.88%	2.86%	3.33%	3.13%	17.14%	3.33%	6.25%	0.00%	0.00%	0.00%
	Mean	3.74	4.53	4.53	3.34	4.13	3.84	4.40	4.93	4.59	2.66	2.67	2.69

Scale		Courage			Authenticity			Humility			Stewardship		
		Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day
	n	35	61	32	35	61	32	35	61	32	35	61	32
Never	0	2.86%	0.00%	0.00%	2.86%	0.00%	0.00%	2.86%	1.67%	0.00%	5.71%	0.00%	0.00%
Almost Never	1	2.86%	0.00%	3.13%	5.71%	0.00%	0.00%	11.43%	0.00%	3.13%	8.57%	1.67%	3.13%
Rarely	2	14.29%	0.00%	9.38%	11.43%	3.33%	3.13%	8.57%	1.67%	3.13%	5.71%	0.00%	0.00%
Sometimes	3	22.86%	6.67%	28.13%	14.29%	15.00%	31.25%	25.71%	8.33%	34.38%	14.29%	1.67%	31.25%
Often	4	25.71%	10.00%	21.88%	45.71%	6.67%	37.50%	31.43%	16.67%	34.38%	22.86%	6.67%	18.75%
Very Often	5	31.43%	15.00%	21.88%	20.00%	10.00%	21.88%	20.00%	6.67%	15.63%	31.43%	20.00%	28.13%
Always	6	0.00%	3.33%	15.63%	0.00%	0.00%	6.25%	0.00%	0.00%	9.38%	11.43%	5.00%	18.75%
	Mean	3.60	4.27	3.97	3.54	3.93	3.97	3.31	3.77	3.84	3.80	4.57	4.25

Empowering Leadership (ELQ)

Scale		Leading by Example			Participatice decision making			Coaching		
		Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day
	n	35	61	32	35	61	32	35	61	32
Almost Never	1	5.71%	1.67%	3.13%	0.00%	0.00%	3.13%	2.86%	0.00%	3.13%
Rarely	2	5.71%	1.67%	37.50%	11.43%	1.67%	18.75%	14.29%	3.33%	15.63%
Sometimes	3	25.71%	5.00%	37.50%	31.43%	1.67%	65.63%	31.43%	0.00%	50.00%
Often	4	40.00%	11.67%	21.88%	48.57%	28.33%	12.50%	51.43%	21.67%	28.13%
Very Often	5	22.86%	15.00%	0.00%	8.57%	3.33%	0.00%	0.00%	10.00%	0.00%
	Mean	3.69	4.05	3.78	3.54	3.93	3.88	3.31	4.02	3.97

Scale		Informing			Showing Concern		
		Less than once a week	Once a week or more	Every day	Less than once a week	Once a week or more	Every day
	n	35	61	32	35	61	32
Never	1	2.86%	1.67%	3.13%	2.86%	0.00%	6.25%
Almost Never	2	11.43%	0.00%	21.88%	8.57%	3.33%	15.63%
Sometimes	3	22.86%	5.00%	46.88%	37.14%	0.00%	43.75%
Frequently	4	42.86%	13.33%	25.00%	45.71%	23.33%	34.38%
Always	5	20.00%	15.00%	0.00%	5.71%	8.33%	0.00%
	Mean	3.66	4.05	3.88	3.43	4.02	4.06