



Examining the relationship between employee engagement and perceived managerial wisdom

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

10 November 2010

Abstract

Wisdom is very difficult to study due to the complexity of defining wisdom outright. Various models propose characteristics of individuals that are perceived as wise but wisdom finds its real application in decision making. People would characterise someone as wise if they believe that the decision made by the person (the manager in this instance) is informed by the values of all stakeholders and have long term validity.

With increasing demands placed on managers to make decisions in contexts where various stakeholders and the natural environment have to be taken into consideration, managers have to make increasingly complex decisions. The decision then also has to take into consideration the values, beliefs and needs of the employees. By asking respondents to rate their manager's level of wisdom, why they perceive their managers as wise and what constitutes employee engagement in their minds, a relationship between employee engagement and the perception of wisdom can be deduced.

The evidence suggests that especially the cognitive and emotional dimensions of employee engagement are correlated with the perception of wisdom of the manager. New models for the measurement of implicit wisdom and employee engagement are proposed.

Keywords:

Employee Engagement, Wisdom (perception of), Leadership

Declaration

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

Signature

Date

10/11/2010

Acknowledgements

I would like to express my sincere appreciation to my family for their support during the last 2 years. Natasha for being there every step of the way, being my rock, my best friend and for loving me unconditionally. To Mother for her unyielding support, guidance and love. To Isabelle and Trista for allowing me to spend time on this MBA at their expense. I will make it up to you! To Ousus for teaching me that people are more important than profits.

I would also like to thank my work colleagues:

Reinhardt Swart for giving me the time off to attend class and for his support during this study, Socrates Tinga, for taking responsibility for production when I was away, Melanie Henn for keeping the fort in the office and to everyone at Afrisam that supported this study.

I would also like to thank everyone at GIBS that made this journey worthwhile especially Professor Dave Beaty (Supervisor) for his support and guidance and Professor Jonathan Cook for opening new horizons for us.

I would especially like to thank my father for teaching me the values of respect and responsibility. Pa, you are and always will be an inspiration to me. I hope to be half the man you were.

Lastly I would like to thank the Creator for blessing me in ways I cannot begin to comprehend or deserve.

"Until philosophers rule as kings or those who are now called kings and leading men genuinely and adequately philosophise, that is, until political power and philosophy entirely coincide, while the many natures who at present pursue either one exclusively are forcibly prevented from doing so, cities will have no rest from evils,... nor, I think, will the human race."

Plato, *Republic* 473c-d

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Chapter 1: Introduction

1.1 Problem statement.

Does a relationship or a correlation exist between the perceived wisdom of the manager and the level of employee engagement of his subordinates?

1.2 Problem definition.

Employee engagement is currently very topical due to the importance of employee engagement in increasing employee productivity. The reduction in employee engagement has been attributed to the apparent violation of the traditional psychological contract between employers and employees (Cartwright & Holmes, 2006; Towers Perrin, 2003). The concept of the traditional psychological contract states that for centuries employees exchanged their labour or knowledge for employment and was granted in return the security of long term employment. This lead to employee loyalty and commitment and ensured that the employer received value for their money. In recent times the obsession with productivity in the corporate world has lead to a situation where employees are seen again as in the early industrial revolution as mere inputs into production that has to be optimised and exploited. As humans are very complex and emotional the apparent disrespect for humanity as experienced by employees due to this obsession with productivity has in turn lead to a situation where trust, respect and loyalty for the employer has greatly reduced and where employees see employers as stepping stones and extract the

maximum value from the company before moving on at a whim causing great financial cost to employers. The increased focus on employee productivity has thus in turn caused the dehumanisation of employees and caused the violation of the traditional employment contract by employers. This has led to less engagement of employees and therefore less productivity and contribution from employees and an increase in cost for employers. It is interesting to note that the focus on productivity has actually contributed to the lower productivity of employees.

Employee engagement can be related to employees' sense of purpose and their perception of appreciation by employers and engagement is typically higher in employees that believe that their work contributes to a higher purpose (Attridge, 2009). Instilling a sense purpose is seen as one of the levers to pull to increase employee engagement. But what about wisdom?

Wisdom is a concept that invokes different responses in people and virtually every individual has encountered and defined it for themselves (Sternberg, 2004). Wisdom is widely studied and relates to the ability of the individual to make decisions that are judged by the majority of people as the correct or as a good decision. A person is only wise if characterized by someone else as wise and therefore wisdom does not exist outside of this relationship (Stange, 2005). Wisdom is in the eye of the perceiver and therefore is very difficult to define and study (Stange, 2005). Various groups have attempted to study wisdom and have come up with models that enable one to conceptualize this term (Sternberg, 2004; Baltes & Staudinger, 2000; Webster, 2003). In many of these models the ability of the individual to make

decisions that have timeless value and that take all stakeholder requirements into consideration has been proposed as a prerequisite of being perceived as wise. Webster developed a self assessment tool where individuals rate themselves as wise along a set of five criteria. This again shows that wisdom lies in the eye of the beholder as the respondents were asked to fill the questionnaire in by thinking of a foolish person for testing purposes (Webster, 2003).

If one considers the work of Sternberg and Baltes it can be proposed that managers that are wise would take decisions that take employee needs and values into consideration. The perception of employees regarding the wisdom of the manager would therefore be higher for these individuals and it is proposed that employees should feel more engaged due to the fact that their values and needs were considered during decision making. (Sternberg, 2004; Baltes & Staudinger, 2000)

The question then begs; **if an individual manager is wise or at the very least perceived as wise do his/her subordinates feel more engaged?**

The premise that wise people generally pursue values of a timeless nature and take decisions with all stakeholders in mind (Baltes & Staudinger, 2000) bodes well for creating an environment where individual subordinates can feel that they are respected and that they are part of a greater purpose. The inclusionary nature of wise people as well as the pursuit of a greater good coupled with the traits generally attributed to wise people of being humble and knowledgeable also supports the argument that employees working for wise individuals will be more engaged. It is

argued by this researcher that wise people would consider the needs (workload, balance, values) and the requirements of employees specifically in decision making. It is further proposed that wise management would encourage the wellbeing and work-life balance of their employees as a non-negotiable prerequisite of building positive employee-management relationships. The wise person would also do this in the context of the particular organisation and consider the productivity enhancements that are required to survive, but other than foolish individuals subordinate this to the wellbeing of the employees and rather improve productivity by inspiring and motivating individuals as opposed to pressuring them into submission.

1.3 Research Aims.

The aim of this research is to test if a link between perceived managerial wisdom and employee engagement exist.

1.4 Business applicability of this research.

This research could potentially be very useful in the pursuit of increased employee engagement. The employee engagement literature usually focuses on organisational attributes like culture as a cause of lower than optimal employee engagement and proposes specific interventions like increased recognition, better communication and performance management as starting points to increase employee engagement. (Towers Perrin, 2003)

It is the view of this researcher that employee engagement is a function of management's ability to engage employees. By studying the correlation of perceived managerial wisdom and employee engagement a new dimension could be added to the pursuit of employee engagement. This argument is supported by recent studies that show that the transformational leadership style greatly improved employee satisfaction (Yang, 2009) The principles of wise decision making can be taught and should there exist a correlation between perceived managerial wisdom and employee engagement, these principles could be taught to managers to improve their ability to increase employee engagement.

With the drive for sustainable development and the increasing importance of the triple bottom-line concept, managers of the future will have to be able to take decisions in increasingly complex environments with more stakeholders to consider. (Küpers, 2007) The principles of wisdom can be very useful in empowering employers and employees in the pursuit of balance between profit and societal responsible business.

Chapter 2: Literature Review

2.1 Wisdom defined?

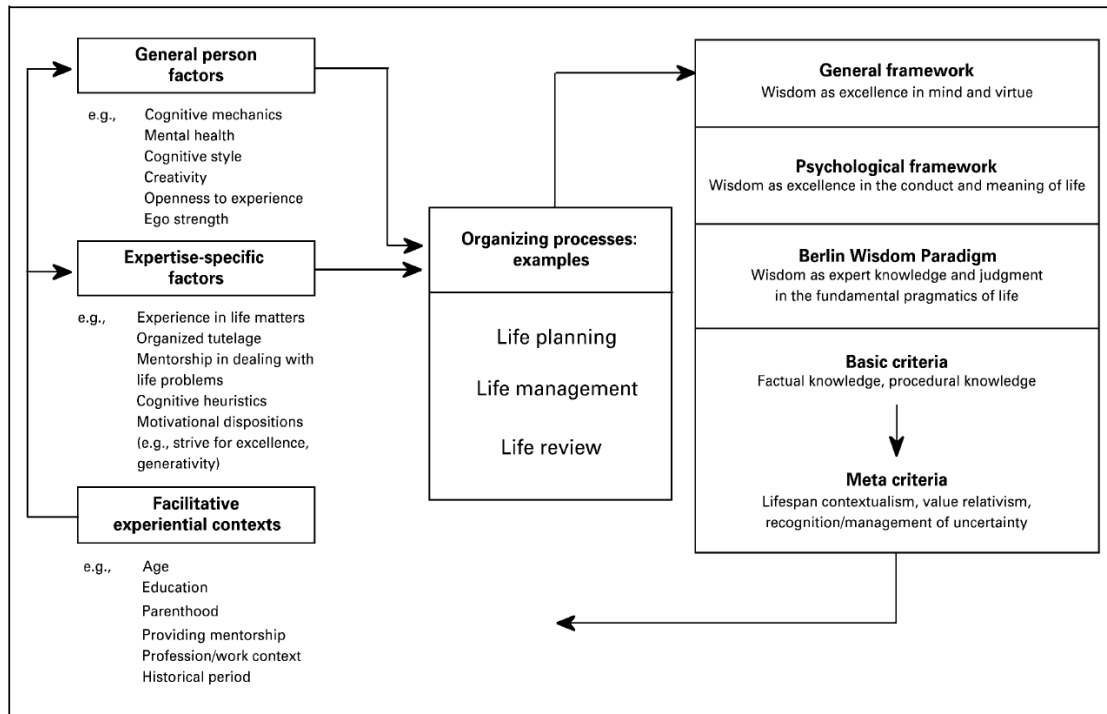
Wisdom is a concept that has different significance to different people and has been a topic of study from the time of the ancient Greek philosophers (Jeste & Vahia, 2008). In fact philosophy is defined as the “love of wisdom” (or the pursuit of wisdom). The study of wisdom however is something completely different and is called Sophology from the Greek words “Sophia” (wisdom) and “Logos” (study) (Shipley, 2004). Theories of wisdom can be divided into “implicit” and “explicit” theories where the implicit theories consist of preconceptions about wisdom that exist in the pre-reflective mind (Sternberg, 2004). Explicit theories are based on scientific study and developed following scientific rigor. Baltes and Staudinger (1993) developed the Berlin model of wisdom where knowledge (factual and procedural knowledge about life) form the prerequisite for wisdom, but where the distinction between wise individuals and foolish individuals, regardless of their level of knowledge, lies in the ability to make good judgements and the ability to transfer this knowledge to other people (Baltes & Staudinger, 1993). Wisdom therefore is characterized by an ability to take wise (or good) decisions in the face of uncertain or limited information based on the skill to apply the knowledge gained through experience over time (Baltes & Staudinger, 1993). Baltes and Staudinger (2000) do not fixate on the relationship between age and wisdom and shows that people who work in environments where important decisions have to be made or where advice of great importance must be given (psychologists for instance) are more likely to test positively for the characteristics of wisdom regardless of age (Baltes & Staudinger,

2000). Table 1 and Figure 1 are represented by Pasupathi et al. (2001) where he reviews Baltes and Staudinger's model. (Pasupathi et al., 2001)

Table 2.1 Wisdom Criteria (from Pasupathi et al., 2001).

Basic Criteria	High performances are exemplified by:
Rich Factual Knowledge about life	Consideration of general (human condition) and specific (e.g., life events, institutions) features of life matters as well as scope and depth in coverage of issues.
Rich Procedural Knowledge about life	Consideration of decision strategies, goal selection, choosing means to achieve goals, people to consult with, as well as strategies of advice-giving.
Meta-level Criteria	High performances are exemplified by:
Lifespan contextualism	Consideration of past, current, and possible future life contexts and the circumstances in which a life is embedded.
Value relativism	Consideration of variations in values and life priorities and the importance of viewing each person within an individual framework, but also the importance of a small set of universal values oriented towards the good of others and oneself.
Awareness and management of uncertainty	Consideration of the inherent uncertainty of life (in terms of interpreting the past and predicting the future) and effective strategies for dealing with uncertainty.

Figure 2.1 The development, structure, and functions of wisdom: a theoretical model. (Pasupathi et al., 2001).

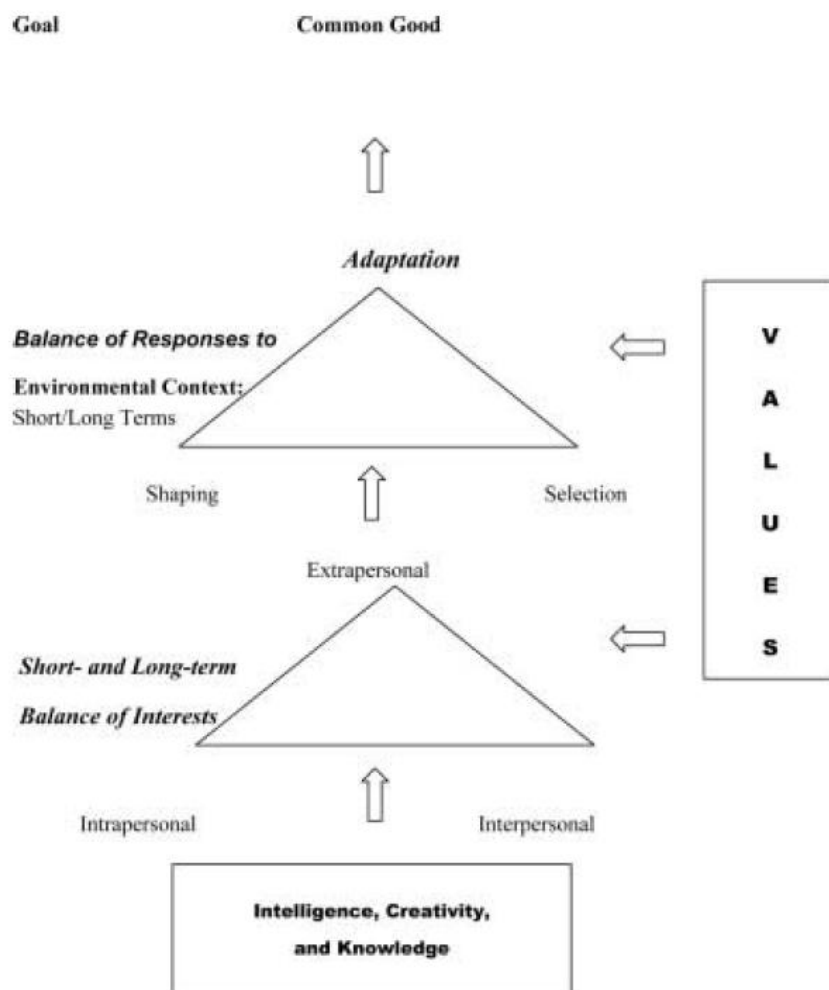


Advanced moral reasoners were shown to exhibit higher levels of wisdom related knowledge (Pasupathi & Staudinger, 2001).

Sternberg proposes a different model of wisdom that takes the intelligence and creativity of the person into consideration (Sternberg, 2004). A person that possess wisdom is said to have the ability to follow a greater good and balances self interest with the interests of the community in which the person operates (Sternberg, 2004). Decisions are based on values and people generally perceive individuals as wise if their decisions satisfy the values/interests of many different groups and if the decision has long term validity (Sternberg, 2004). Sternberg et al. (2007) further

proposes that wisdom is about applying knowledge, creativity and intelligence in the pursuit of a deliberate goal that satisfies the prerequisite that is must be in the common good (Sternberg et al 2007). The implication is that if one applies intelligence, creativity and knowledge in pursuit of a defined goal, this goal might only satisfy self interest or the interest of some groups and in this case wisdom is not applied (Sternberg et al 2007). Wisdom therefore balances self-interest (intra-personal) with the interests of others (inter-personal) in the context of the environment in which one operates (extra-personal) (Sternberg et al., 2007) (Figure 2.). This makes wisdom a desired input into any decision making process.

Figure 2.2 The structure of Wisdom. (Sternberg et al., 2007).



Wisdom although very abstract is a measurable concept, but the study of wisdom is extremely complex and is a long term endeavour (Stange, 2005). Perceived wisdom however presupposes that the observer has some concept of wisdom and the consensus in literature is that most individuals have some frame of reference to judge others as wise based on their knowledge, experience and guidance that they have received over the span of their lifetimes (Montgomery et al., 2002; Stange, 2005). Wisdom is rooted in ancient spirituality and manifests itself in the respect that individuals show for people around them and the environment/society in which they operate (Jeste & Vahia, 2008). Wisdom is also context specific and decisions that are wise in some instances are quite foolish in others (Sternberg, 2008). Kunzmann and Baltes (2003) also suggest that wisdom involves affective modulation and avoids the pursuit of pleasure (selfish notion) and involves a commitment to develop the potential of the self and that of others (Kunzmann & Baltes, 2003).

2.2 Employee engagement.

No discussion of engagement can be undertaken without acknowledging the contribution of W. A. Kahn. Kahn conceptualized engagement in 1990 as the “harnessing of organizational members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (Kahn 1990, p. 694). Kahn argues that the role of the person and the expression of self exist in a dynamic relationships where personal energy is channeled into the expression of the self in a specific role and the self is then expressed in the role itself. These concepts are called self employment

(application of personal energy) and self expression (the self is expressed in the role it performs). This expression is said to fulfill the human spirit at work. The disengaged therefore does not express the self in their roles and therefore withdraws personal energy from the expression of the self in a specific role. This leads to withdrawal and robotic and apathic behavior is observed. Engagement is different from job involvement as the disengaged individual can still be involved, but the nature of the involvement is significantly different. The “how” of personal involvement then becomes more important than whether the person is involved or not. Employee engagement is also concerned with the employees’ emotions and behaviors in addition to cognition and how it pertains to their involvement their jobs (May et al., 2004).

Figure 2.3 The structure of Employee work engagement according to Kahn. (Kahn, 1990).

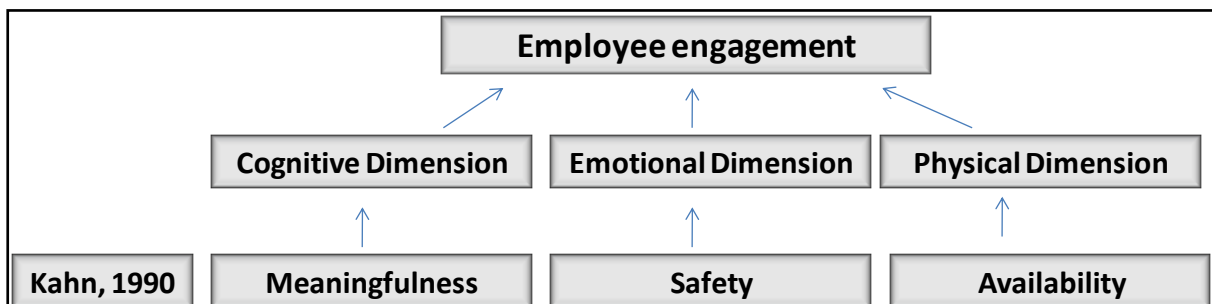
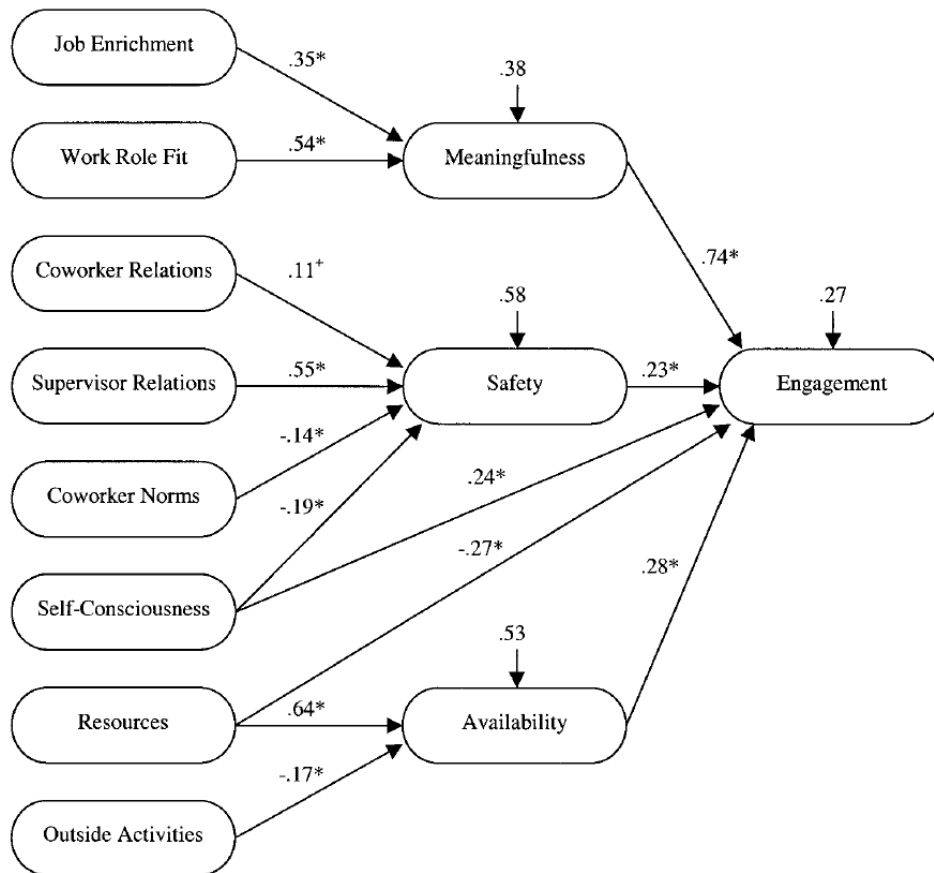
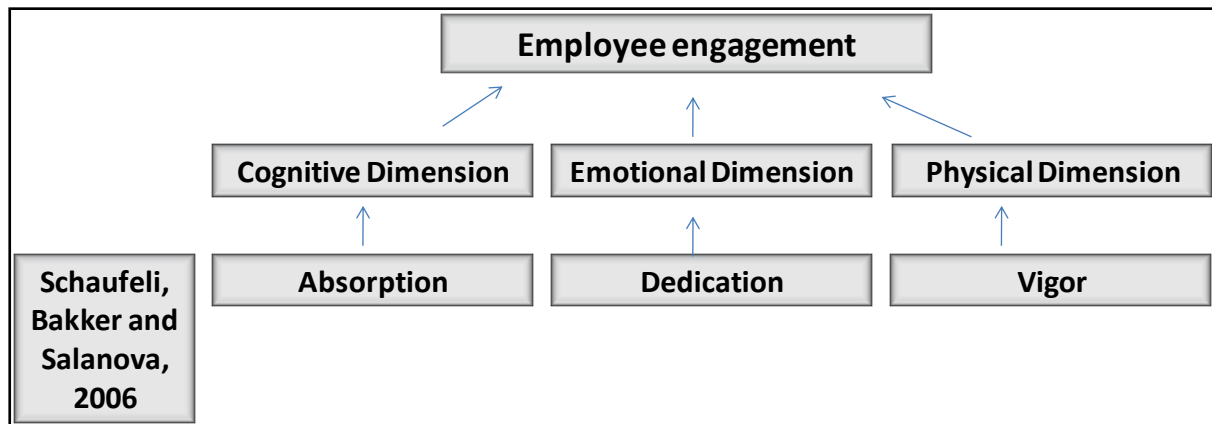


Figure 2.4 Revised path-analytic framework of engagement (Reproduced from May et al., 2004). Note. Path coefficients are standardized. * $p < .05$; + $p < .10$.



Employee engagement is further defined in the literature as a situation where employees feel positive emotions toward their work, find their work personally meaningful, consider their workload to be manageable, and have hope about the future of their work (Attridge, 2009). Employee engagement therefore has an emotional, cognitive and a physical component where the emotional component is strongly associated with the construct of dedication, the physical or behavioural dimension is strongly associated with the construct of vigour and the cognitive dimension is associated with absorption (Attridge, 2009).

Figure 2.5 The structure of Employee work engagement according to Schaufeli, Bakker and Salanova. (Schaufeli, Bakker & Salanova, 2006).



Although the value of employee engagement has been quantified (Towers Perrin, 2003), achieving employee engagement is very difficult and takes significant managerial effort with limited success (Attridge, 2009). Wefald and Downy (2009) argue that engagement and satisfaction are highly correlated concepts and could not find evidence to the contrary (Wefald & Downy, 2009). Employee engagement can be measured quite easily and various studies by the Gallup Organisation and Towers Perrin (Flemming et al., 2005; Towers Perrin, 2003) have highlighted the general low levels of employee engagement and propose that the violation of the traditional psychological contract between employers and employees by employers are to blame (Cartwright & Holmes, 2006; Towers Perrin, 2003). The relentless pursuit of profit at the expense of employee wellbeing therefore has contributed to the low engagement observed in recent times. Employers are increasingly trying to introduce meaning into the workplace and thereby getting employees to be more productive and engaged (May et al., 2004).

2.3 The relationship between employee engagement and perceived managerial wisdom.

Küpers (2007) suggests that due to the increasing complexity of the modern organization and business context in general, wisdom can no longer be ignored. Although knowledge on its own is very important, the application of knowledge in this very complex context where personal, social, political and economic realities are constantly changing, demands something more. The current state calls for managers that can balance economic value creation with leading ethically responsible practices while responding to the needs of all stakeholders, in short wise management (Küpers, 2007).

2.4 Conclusion.

As wisdom is associated with decision making capabilities in an environment where the values and concerns of many stakeholders must be taken into consideration, the manager that exhibit wisdom must be someone that can engage the people that are in his employ. Recent literature has shown that where spirited leadership (luckcock, 2010), transformational (Yang, 2009) and charismatic leadership (Babcock-Robertson & Strickland, 2010) are practiced a positive effect on employee work engagement is observed and it then follows that wise managers or at least people that are perceived as wise should also exhibit the ability to engage their employees.

Chapter 3: Research Propositions

3.1 Research Propositions

The author suggests that the superficial introduction of meaning in the workplace is unwise unless employees are valued and protected by wise management, no amount of superficial spirituality will transform the disengaged into productive employees.

- It is proposed by the author that employee perception of managerial wisdom is very important to employee engagement. People that believe they are being respected and lead by someone that makes decisions for the greater good and in line with their needs (and values) and those of the community while considering the environmental impact of decisions can be trusted and will introduce meaning into the workplace.
- It is further proposed by the author that a wise manager will balance the needs of all stakeholders and perform duties in an ethical and responsible manner, allowing employees the opportunity to gain knowledge and develop and grow to their full potential while not placing unreasonable demands on their abilities.

The overarching research proposition of this study is therefore that there exists a positive correlation between the perceived wisdom of the manager and employee engagement.

Although wisdom is complex and can be difficult to measure the perception of wisdom is an opinion of the perceiver and therefore can easily be measured. Furthermore by correlating the dimensions of wisdom identified with the perceiver's perception of wisdom, clarity on the important dimensions of wisdom that leads to the perception of wisdom can be inferred. The study is specifically targeted at measuring selected academic dimensions of wisdom exhibited by the manager:

- The level of procedural and factual knowledge about life of the manager (Baltes & Staudinger, 2000).
- Integrity of the manager (Yang, 2009).
- Compassion of the manager (Küpers, 2007).
- Manager's ability to practice empathic listening (Küpers, 2007, Stange, 2005).
- Trust in management (Yang, 2009).
- The level of management ability to regulate emotions (Kunzmann & Baltes, 2003).
- Perception of the value (good vs. bad) of management decisions (Stange, 2005).
- Respect shown by management for employees (Jeste & Vahia, 2008).
- Manager's ability to transfer knowledge (Baltes & Staudinger, 2000, Kunzmann & Baltes, 2003) and
- The use of this knowledge to make quality decisions (Baltes & Staudinger, 2000, Sternberg et al, 2007)
- The perception of the relativism of management values (Baltes & Staudinger, 2000).
- Insight of the manager (Baltes & Staudinger, 2000).

- The perceived performance of the manager during uncertain times (Baltes & Staudinger, 2000).

The respondents was asked to rate the level of the manager's wisdom.

In conjunction with this the study also measured the dimensions of employee engagement i.e.

- Behavioural dimension (vigour).
- Cognitive dimension (absorption)
- Emotional dimension (dedication)

The Utrecht Work Engagement Scale (UWES) was used (Schaufeli & Bakker 2003).

Statements about the following dimensions were included to ascertain if any of these also correlate with employee engagement.

- Meaningful work.
- Challenging work.
- Emotional safety.
- Positivity of the environment.
- Feeling of pride towards the company.
- Personal commitment and motivation to perform at high levels of performance.

By measuring both wisdom as perceived by the respondent and employee engagement a correlation between the two concepts can be deduced. By

incorporating some of the dimensions associated with wisdom like knowledge and insight these dimensions can be correlated with the respondent's perception of wisdom. Demographic data of the manager will also be collected to ascertain if age, race, gender or level of education of the manager has any meaningful effect on the perception of wisdom of the respondent.

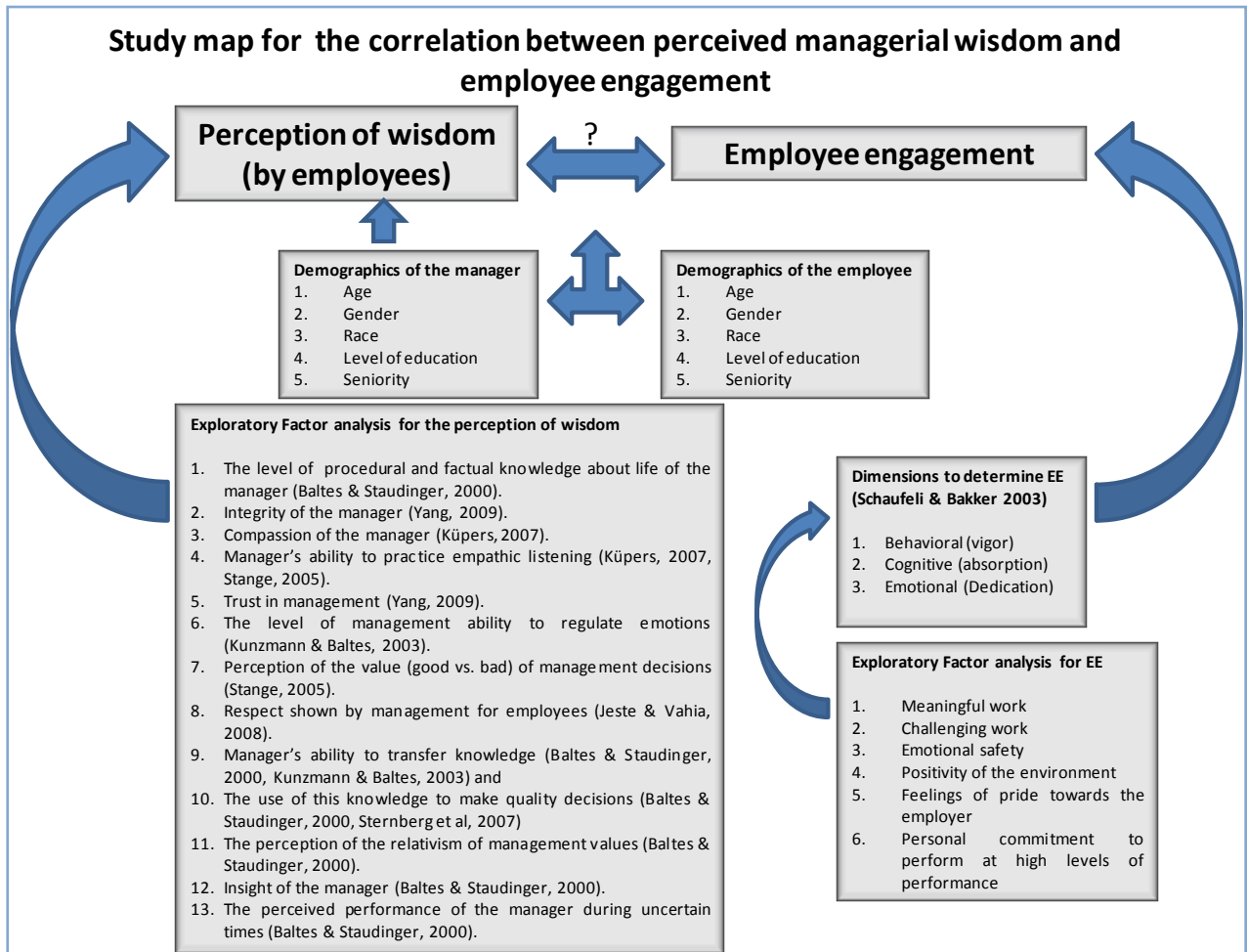
The survey instrument had a demographic section of the respondent to determine if age, race and gender of the respondents are significant determinants of the importance of perceived managerial wisdom.

3.2 Research questions.

1. Which academic dimensions of wisdom exhibited by the manager influence the perception of wisdom?
2. Are there more dimensions of employee engagement?
3. Do the demographics of the respondent influence the perception of wisdom of the manager?
4. Do the demographics of the manager influence the perception of wisdom?
5. Is there a correlation between perceived managerial wisdom and employee engagement?
6. Which academic dimensions of wisdom exhibited by the manager has the biggest correlation with employee engagement?

The following study map shows the outline of the research.

Figure 3.1 Study map of the current research project.



4 Research Methodology.

4.1 Research design:

The study followed a quantitative descriptive methodology with a questionnaire based on a 7 point likert type scale. The scale of the questionnaire was from 0 (strongly disagree) to 6 (strongly agree). Quantitative descriptive research was chosen due to the fact that both concepts (wisdom and employee engagement) have been defined to a point where dimensions of each have been identified. Employee engagement is routinely measured through the survey method (Zikmund, 2003).

The study was further divided into three sections.

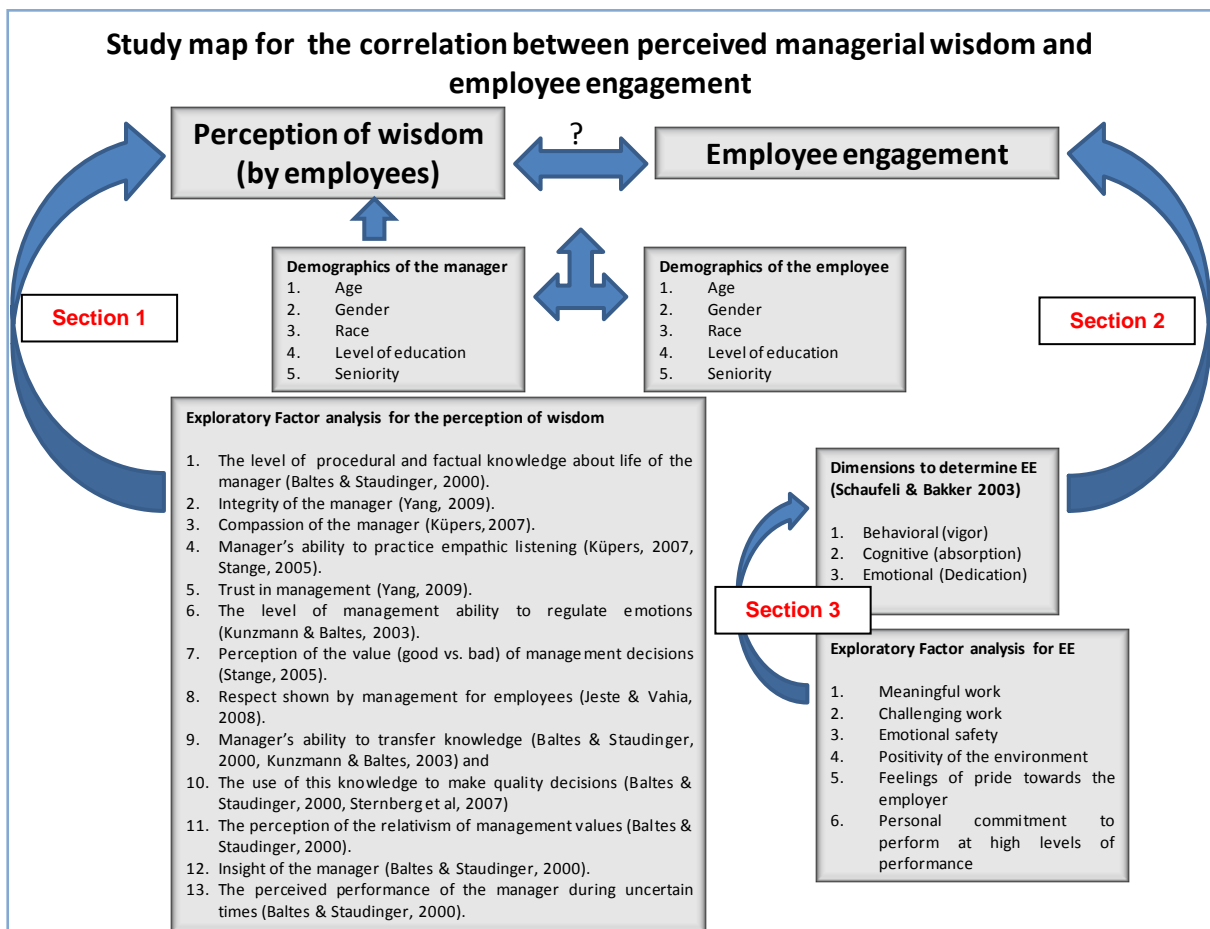
Section 1 was dedicated to exploratory factor analysis where some of the academic propositions of wisdom will be correlated with the respondent's perception of wisdom. The aim of this section is to allow inquiry into which academic dimensions of wisdom exhibited by the manager, respondents use to judge whether someone is wise or not.

Section 2 was dedicated to testing the level of engagement of the respondents using the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker 2003) and comparing it to the perception of wisdom of the manager from section 1.

Section 3 was dedicated to further exploratory factor analysis of the propositions of employee engagement to understand whether there are more factors that should be considered when employee engagement is measured.

The results of section 2 were used to validate the propositions in section 3 by comparing the propositions that give high scores in section 3 with high levels of employee engagement or vice versa.

Figure 4.1 Study map of the current research project showing the different section of the research.



4.2 Unit of analysis.

The unit of analysis in this study was the individual worker employed in South Africa. A questionnaire was chosen over the expert interview or focus groups to assure confidentiality of the respondents and therefore to limit response bias (Zikmund, 2003; Babbie & Mouton, 2001).

4.3 Population and sampling.

The population includes all employees in South Africa that have access to internet and that are employed in a company of a sufficient size that the company has some environmental and social impact. For this study companies with 100 or more employees was selected.

Convenience sampling (Zikmund, 2003) was employed to identify a large enough sample to be able to extrapolate to the total population. MBA students and business contacts of the researcher were contacted by email and the questionnaire was forwarded to employees of Afrisam that has access to email. In addition to convenience sampling, respondents were encouraged to forward the embedded email to their contacts (snowball sampling). Due to these sampling methods no response rate could be calculated.

4.4 Data gathering process and research instrument.

An online questionnaire (Appendix 1) was employed to gather information and respondents was contacted by email. The email contained a letter describing the process, reason for the research and a statement on the availability of research results, confidentiality of data and respondent anonymity. A URL was imbedded in the email linking the individual to a secure site where the questionnaire could be completed.

4.4.1 Questionnaire structure.

Part1. The first part of the questionnaire contained instructions on how to complete the questionnaire. This section also contained questions to capture demographic information of the respondent and the manager that is the subject of enquiry.

Part 2. In part two the research questions were posed in the form of statements that reflect the operationalization of the constructs of employee engagement and perceived managerial wisdom. The Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker 2003) was used for the measurement of employee engagement and statements that are associated with the academic dimensions of wisdom were included.

Questions and statements were as far as possible clear, written in conversational language, non-ambiguous and limited to a single concept (Zikmund, 2003). (Appendix 1).

4.5 Data Analysis.

The data was analysed using correlation analysis. The perception of wisdom score was correlated with employee engagement. Furthermore factor analysis, correlation analysis and linear regression was used to determine the factors that affect the perception of wisdom and employee engagement.

All correlation analysis was performed using the Pearson product moment correlation coefficient. The correlation is +1 in the case of a perfect positive (increasing) linear relationship (correlation), -1 in the case of a perfect decreasing (negative) linear relationship, and some value between -1 and 1 in all other cases, indicating the degree of linear dependence between the variables. As it approaches zero there is less of a relationship (closer to uncorrelated). The larger the coefficient approaching 1 or -1, the stronger the correlation between the variables. A real disadvantage of simple correlation coefficients is that they only detect linear dependencies between two variables. In some cases two variables are dependant, but not in a linear fashion which produces a correlation that does not correctly measure the dependence. For the most part the simple correlation gives an accurate measure of the linear dependence between variables. (Levin & Rubin, 1991)

To determine the equality of means an analysis of variance (ANOVA) calculation was performed. The ANOVA test is used to assess the equality of the means in different samples. It tests the null hypothesis that the means are equal. Thus if the resulting p-value of the ANOVA test is less than 0.05 (for a 95% probability two sided test), the obtained differences in sample means are unlikely to have occurred based on random sampling. The null hypothesis of equal means is therefore rejected and it can be concluded that there is a difference between the means in the population. (Levin & Rubin, 1991)

To determine internal consistency or reliability of the new dimensions of the models, Cronbach's alpha values for the dimensions were calculated. Cronbach's alpha results from the basic test theory that the reliability of test scores can be expressed as the ratio of the true-score over the total-score variances. Alpha can take on any value less than or equal to 1. Higher values of alpha are more desirable and as a rule of thumb a reliability of 0.70 or higher (obtained using a substantial sample) is required before an instrument can effectively be used. Cronbach's alpha will generally increase as the inter-correlations among test items increase, and is therefore known as an internal consistency estimate of reliability of test scores. Because inter-correlations among test items are maximized when all items measure the same construct, Cronbach's alpha is widely believed to indirectly indicate the degree to which a set of items measures a single construct. However, the average inter-correlation among test items is affected by skew. Alpha is most appropriately used when the items measure different dimensions within a single construct (Cronbach, 1951). For the purposes of this study Cronbach's alpha values of greater than 0.7 will be seen as indicative of internal consistency of dimensions.

4.6 Limitations of the proposed research methodology.

Because wisdom is difficult to measure only the perception of wisdom can confidently be measured. The exploratory factor analysis in part one of the research design cannot be exhaustive and the statements have not been validated. This part of the research aims to shed light on how people perceive others to be wise and can lead to further research.

The measurement of the perception of wisdom is subjective and can be prone to social desirability bias as the individual is asked to fill in a questionnaire on wisdom and employee engagement and could therefore choose to give a higher than appropriate score on the perception of wisdom section. Some extremity bias can also be expected in this instance as the respondent tries to validate his choice of subject for the study.

The exploratory factor analysis in section 3 (employee engagement) of the research design is also composed of statements that have not been validated and could be misleading. These factors were considered in the analysis of the data.

Due to the large population of the study it will be very difficult to find a representative sample.

5 Results.

5.1 Introduction:

Data for this study was collected using an online questionnaire (Appendix 1). The link to the questionnaire was embedded in an email and sent to various groups including current MBA students and employees of various companies. Respondents were requested to forward the mail to their contacts (snowball sampling). Due to this sampling method no response rate could be calculated. A total of 154 respondents attempted the questionnaire with 122 respondents finishing the questionnaire (79.22%). One of the limitations in the original sample was that the respondents had to be employed by a company that employed more than 100 employees and therefore respondents that did not qualify was also removed from the sample. This brought the final sample to 109 respondents. (70.77% of the original 154 respondents.)

5.2 Sample description:

The sample selected consisted of 109 respondents Table 5.1 describes the demographics of the respondents. The respondents' age, race, gender, level of education, seniority and the size of their company was measured.

The average age of the respondents were 37.34 years with a good balance between male and female of 54.1% male and 45.9% female. The racial distribution was 57.8% white 21.1% black and the remainder being Coloured, Indian and other Asian.

Most of the respondents had some form of tertiary education (88.1%) and 79.8% held management positions. Most of the respondents (61.5%) worked for companies that has between 500 and 5000 employees.

Table 5.1 The description of the sample

Demographic elements		
You're Age?	Response Average	Response Total
	37.34	4,070
You're Gender?	Response Percent	Response Count
Male	54.1%	59
Female	45.9%	50
N		109
You're Race?	Response Percent	Response Count
White	57.8%	63
Black	21.1%	23
Colored	4.6%	5
Indian	14.7%	16
Asian	1.8%	2
N		109
You're Level of education?	Response Percent	Response Count
Primary School	0.0%	0
Secondary School	11.9%	13
Diploma	22.0%	24
Degree	28.4%	31
Post graduate degree	37.6%	41

		N	109
You're Seniority?			
	Response Percent	Response Count	
Non Management	20.2%	22	
Team leader	11.9%	13	
Middle management	44.0%	48	
Senior management	18.3%	20	
Executive management	5.5%	6	
		N	109
My company has:			
	Response Percent	Response Count	
Less than 100 employees	0.0%	0	
100-500 employees	17.4%	19	
500-5000 employees	61.5%	67	
More than 5000 employees	21.1%	23	
		N	109

Table 5.2 describes the demographics of the managers that were the subject of the questionnaire. The managers' age, race, gender, seniority and level of education were measured.

The average age of the managers was 44.06 and 77.1% were male. 73.4% were white and 94.5% of all managers had a tertiary qualification. 74.3% of the managers evaluated held a senior or executive management position.

Table 5.2 The description of the managers that were the subject of the questions.

Demographic elements		
Your Manager's Age?	Response Average	Response Total
	44.06	4,802
Your Manager's Gender?	Response Percent	Response Count
Male	77.1%	84
Female	22.9%	25
	N	109
Your Manager's Race?	Response Percent	Response Count
White	73.4%	80
Black	11.9%	13
Colored	1.8%	2
Indian	9.2%	10
Asian	3.7%	4
	N	109
Your Manager's Level of education?	Response Percent	Response Count
Primary School	0.0%	0
Secondary School	5.5%	6
Diploma	14.7%	16
Degree	34.9%	38
Post graduate degree	45.0%	49
	N	109
Your Manager's Seniority?	Response Percent	Response Count
Non Management	0.0%	0
Team leader	1.8%	2
Middle management	23.9%	26
Senior management	45.9%	50
Executive management	28.4%	31
	N	109

5.3 Descriptive statistics:

Results for the employee engagement section of the research are presented in table 5.3. The Utrecht Work and Well-being Survey was used to measure the three dimensions (vigour, dedication and absorption) of employee engagement.

Table 5.3 Results of the Utrecht Work and well-being Survey (UWES)

Part 2. Work & Well-being Survey (UWES) © 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, choose the “0” (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by choosing the number (from 1 to 6) that best describes how frequently you feel that way. © Schaufeli & Bakker (2003).									
Answer Options	Never	Almost Never (a few times a year or less)	Rarely (Once a month or less)	Sometimes (A few times a month)	Often (Once a week)	Very often (A few times a week)	Always (Every day)	Mean Value	Response Count
At my work, I feel bursting with energy	1	3	6	23	24	41	11	4.14	109
I find the work that I do full of meaning and purpose	2	2	9	15	20	41	20	4.31	109
Time flies when I'm working	1	2	4	7	16	39	40	4.86	109
At my job, I feel strong and vigorous	1	1	9	17	26	42	13	4.24	109
I am enthusiastic about my job	0	3	8	18	25	34	21	4.30	109
When I am working, I forget everything else around me	2	1	16	23	23	33	11	3.90	109
My job inspires me	2	5	9	22	24	31	16	4.00	109



When I get up in the morning, I feel like going to work	3	6	11	16	26	34	13	3.93	109
I feel happy when I am working intensely	0	0	3	6	21	46	33	4.92	109
I am proud of the work that I do	0	3	2	14	13	35	42	4.84	109
I am immersed in my work	1	2	8	20	20	36	22	4.31	109
I can continue working for very long periods at a time	0	3	4	13	17	39	33	4.69	109
To me, my job is challenging	4	8	9	13	24	30	21	4.01	109
I get carried away when I'm working	0	4	9	20	24	34	18	4.18	109
At my job, I am very resilient, mentally	2	1	3	14	20	48	21	4.54	109
It is difficult to detach myself from my job	3	10	17	20	17	28	14	3.63	109
At my work I always persevere, even when things do not go well	0	1	5	5	26	39	33	4.80	109
N									109

Various questions relating to the academic dimensions of wisdom proposed for this study was grouped with a direct respondent measurement of their manager's wisdom (perception of managerial wisdom). The results of this section of the questionnaire are represented in table 5.4.

Table 5.4 Results of the Wisdom questions.

<p>The following 28 statements are about how you perceive your manager (the person you are evaluating). Please read each statement carefully and decide if you agree or disagree with the statement of your manager. You can rate your agreement with the statement from 0 (Strongly disagree) to 6 (Strongly agree). Please answer to the best of your ability, being as honest as possible. Remember all information will be kept confidential.</p>									
Answer Options	Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)	Mean Value	Response Count
My manager is very knowledgeable about life (experienced in life matters)	3	2	5	11	28	44	16	4.34	109
My manager has unquestionable integrity	5	6	8	11	20	37	22	4.15	109
My manager exhibit compassion for others	5	3	15	7	25	33	21	4.08	109
My manager listens to me	4	5	7	8	23	45	17	4.24	109
My manager understands me when I talk to him/her	4	5	8	9	16	50	17	4.26	109
I trust my manager	6	10	10	9	18	38	18	3.92	109
My manager regularly loses his temper (negative)	31	26	16	10	12	8	6	1.94	109
My manager is very emotional (negative)	27	25	19	11	11	12	4	2.06	109
My manager usually makes the right decision	0	7	14	9	28	42	9	4.02	109
My manager usually makes decisions that take employee needs into consideration	5	9	14	8	24	40	9	3.77	109
My manager usually makes good decisions	0	9	11	9	24	45	11	4.08	109
My manager respects me	3	7	5	9	17	47	21	4.34	109
I respect my manager	2	4	9	7	16	43	28	4.50	109
My manager shares his knowledge	2	5	11	12	19	39	21	4.22	109
My manager is a good teacher	8	6	16	12	32	20	15	3.60	109
My manager uses his knowledge to make decisions	1	4	6	14	17	41	26	4.47	109
My manager makes decisions that are impulsive (not well thought through) (negative)	21	29	20	16	10	7	6	2.09	109
My manager has strong values	2	4	10	8	21	36	28	4.40	109



My manager's values are similar to mine	8	10	10	8	26	31	16	3.75	109
My manager is very conservative in his approach to things	5	15	15	18	20	26	10	3.39	109
My manager is very open-minded	6	8	10	17	23	30	15	3.77	109
My manager understands my personal issues	9	4	13	12	20	41	10	3.77	109
My manager tries to understand why people do things	7	5	16	18	20	34	9	3.62	109
My manager is a very insightful person	5	4	9	16	31	27	17	3.95	109
My manager leads by example	7	3	12	9	26	35	17	3.99	109
My manager is strong during difficult times	5	10	4	10	21	36	23	4.13	109
My manager always knows what to do during difficult times	4	9	5	13	33	33	12	3.92	109
My manager stays calm and focused during difficult times	3	9	13	11	20	32	21	3.98	109
I think my manager is a wise person	3	8	9	7	25	36	21	4.16	109
N									109

The last part of the questionnaire measured the proposed other dimensions of employee engagement and the results of this section is represented in table 5.5.

Table 5.5 Results of the questions relating to the proposed other dimensions of employee engagement.

The following 20 statements are about how you feel about your work. Please read each statement carefully and decide if you agree or disagree with the statement. You can rate your agreement with the statement from 0 (Strongly disagree) to 6 (Strongly agree). Please answer to the best of your ability, being as honest as possible. Remember all information will be kept confidential.									
Answer Options	Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)	Mean Value	Response Count
My work is important to me	0	2	3	3	6	48	47	5.17	109
My work is important to my company	0	0	3	3	7	53	43	5.19	109
My work makes a difference to society	1	4	8	12	29	36	19	4.28	109
I find my job challenging	2	9	10	2	22	42	22	4.27	109
My job requires great skill	1	2	4	3	32	41	26	4.66	109
I am afraid of my manager (negative)	40	36	14	7	7	2	3	1.29	109
I find my manager intimidating (negative)	42	34	12	5	8	5	3	1.36	109
I speak up without fear of reprimand	5	6	9	7	12	45	25	4.29	109
People at my work are positive people	5	8	17	11	31	30	7	3.59	109
My manager always focuses on the positive side of things	3	7	13	16	25	33	12	3.83	109
I like my work environment	3	9	15	4	24	42	12	3.94	109
My best friend works for the company	50	31	6	3	7	7	5	1.33	109
I get rewarded for my efforts at work	6	11	9	13	26	32	12	3.71	109
I get recognition for my efforts at work	5	12	10	12	27	28	15	3.72	109
I am respected at work	1	0	5	14	20	52	17	4.53	109
I am proud to work for my company	1	1	8	5	25	41	28	4.63	109
I would recommend my company to my best friend	5	5	10	10	22	32	25	4.16	109
I would recommend that my child find employment at my company	10	10	10	19	14	25	21	3.61	109
I am currently looking for alternative employment outside my company	31	18	8	10	10	15	17	2.58	109

I am personally committed to achieve my goals at work	0	1	5	4	11	43	45	5.06	109
I am motivated to go to work every day	4	5	5	12	28	38	17	4.17	109
N									109

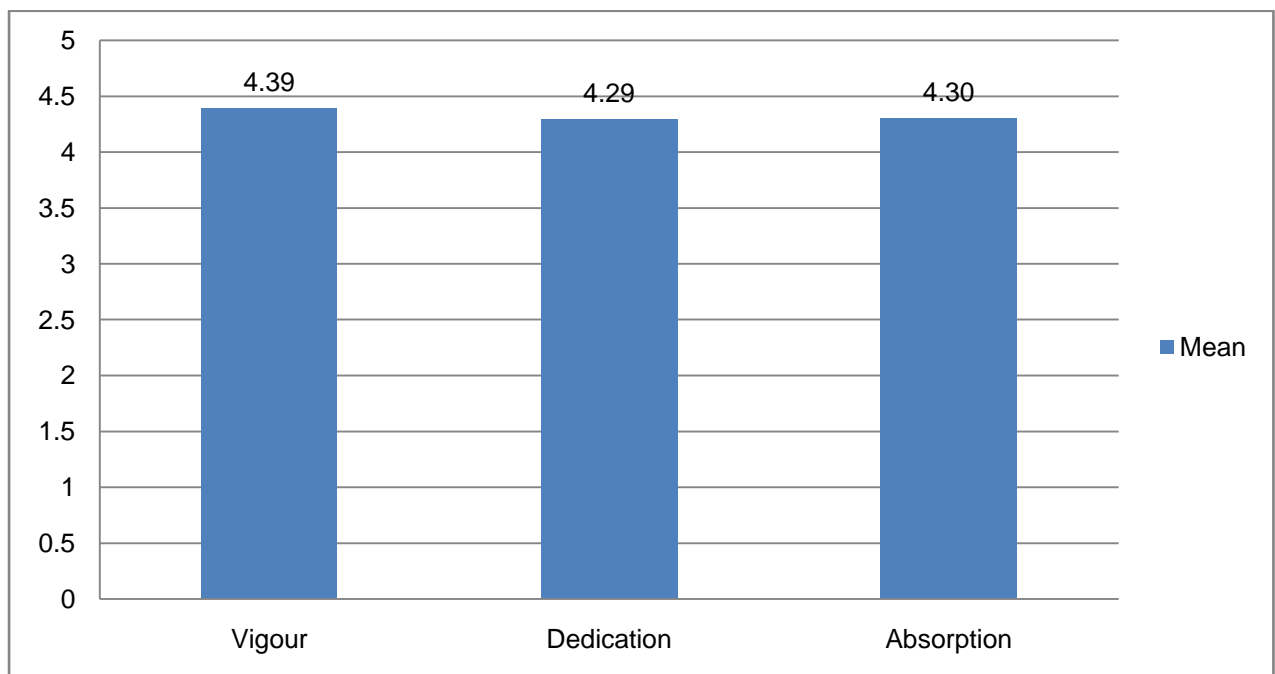
For the purpose of this study the UWES scores for vigour, dedication and absorption was calculated separately to allow for the correlation between the perception of wisdom and employee engagement. The UWES score can be used as a one item score where the means of the dimensions of vigour, dedication and absorption are calculated and combined and then used as a single score or as a three dimension score where the means of the dimensions of vigour, dedication and absorption are calculated separately and used separately in calculations (Schaufeli & Bakker 2003). For the purposes of this study the dimensions were independently calculated to be able to correlate them independently with the perception of wisdom to determine if the perception of wisdom correlates with all the dimensions of employee engagement or not.

Table 5.6 and figure 5.1 represents the mean values recorded for vigour, dedication and absorption of the respondent group.

Table 5.6 The descriptive statistics for vigour, dedication and absorption of the respondent group.

Dimension	N	Minimum	Maximum	Mean	Std. Deviation
Vigour	109	1.83	6.00	4.3884	.98132
Dedication	109	1.00	6.00	4.2936	1.22492
Absorption	109	1.67	6.00	4.3012	1.04243

Figure 5.1 The mean values of the UWES dimensions of vigour, dedication and absorption.



In the following sections the results of the analysis is discussed with respect to the research questions posed:

Research Question 1: Which academic dimensions of wisdom exhibited by the manager influence the perception of wisdom?

Research Question 2: Are there more dimensions of employee engagement?

Research Question 3: Do the demographics of the respondent influence the perception of wisdom of the manager?

Research Question 4: Do the demographics of the manager influence the perception of wisdom?

Research Question 5: Is there a correlation between perceived managerial wisdom and employee engagement?

Research Question 6: Which academic dimensions of wisdom exhibited by the manager has the biggest correlation with employee engagement?

5.4 Research question 1: Which academic dimensions of wisdom exhibited by the manager influence the perception of wisdom?

In order to answer research question 1 the proposed theoretical dimensions of perceived managerial wisdom had to be confirmed. In order to do this a factor analysis was undertaken. The proposed dimensions of perceived managerial

wisdom are represented in Table 5.7 with the questions from the questionnaire designed to measure the dimensions.

Table 5.7 Proposed dimensions of perceived managerial wisdom.

Proposed dimensions of perceived managerial wisdom	Questions related to the dimension
The level of procedural and factual knowledge about life of the manager.	My manager is very knowledgeable about life (experienced in life matters)
Integrity of the manager	My manager has unquestionable integrity
Compassion of the manager.	My manager exhibit compassion for others
Manager's ability to practice empathic listening	My manager listens to me. My manager understands me when I talk to him/her.
Trust in management	I trust my manager.
The level of management's ability to regulate emotions.	My manager regularly loses his temper. My manager is very emotional.
Perception of the value (good vs. bad) of management decisions.	My manager usually makes the right decision. My manager usually makes decisions that take employee needs into consideration. My manager usually makes good decisions.
Respect shown by management for employees	My manager respects me. I respect my manager.

Leadership's ability to transfer knowledge	My manager shares his knowledge. My manager is a good teacher
The use of this knowledge to make quality decisions	My manager uses his knowledge to make decisions. My manager makes decisions that are impulsive (not well thought through).
The perception of the relativism of management values.	My manager has strong values. My manager's values are similar to mine. My manager is very conservative in his approach to things. My manager is very open-minded.
Insight of the manager.	My manager understands my personal issues. My manager tries to understand why people do things. My manager is a very insightful person.
The perceived performance of the manager during uncertain times.	My manager leads by example. My manager is strong during difficult times. My manager always knows what to do during difficult times. My manager stays calm and focused during difficult times.

Factor analysis was used to investigate the construct validity of the theoretically intended scales in the questionnaire. The Kaiser-Maier-Olkin test as well as Bartlett's test of sphericity was obtained in order to evaluate sampling adequacy. KMO takes values between 0 and 1, with small values meaning that overall the

variables have too little in common to warrant a factor analysis. Values above 0.70 are usually considered to be acceptable.

The KMO value for the wisdom dimensions was 0.932. Bartlett's test of sphericity was significant for this analysis. A number of factor solutions were investigated, considering guidelines such as the Kaizer criterion (Eigenvalues larger than unity), the scree plot, the amount of variance explained by the factors, as well as the clarity and size of the factor loadings. Most importantly though, the factors should also make theoretical sense. A principle axis factor analysis with a direct oblimin rotation was performed.

The proposed dimensions of perceived managerial wisdom did not result in strong factor loadings and therefore the original dimensions were combined into three factors. Three factors were identified as dimensions of perceived managerial wisdom, explaining a total of 70.5% of the variance in these questions. The factors were named as follows. Factor 1: Values based dimension. Factor 2: Emotional dimension. Factor 3: Knowledge based dimension. (Table 5.8)

Table 5.8 The results of the factor analysis for perceived managerial wisdom.

Questions	Factors identified with factor loading			
	Values Based dimension	Emotional dimension	Knowledge based Dimension	none
My manager usually makes decisions that take employee needs into consideration	.941			
My manager usually makes the right decision	.854			-.520
I trust my manager	.849			
My manager has unquestionable integrity	.835			
My manager's values are similar to mine	.762			
My manager respects me	.736			
My manager understands me when I talk to him/her	.690			
My manager is very open-minded	.690			
My manager usually makes good decisions	.690		.225	-.339
My manager exhibit compassion for others	.664			.299
My manager has strong values	.629			
My manager listens to me	.581		.283	.265
My manager tries to understand why people do things	.482		.343	.224
I respect my manager	.453		.423	
My manager understands my personal issues	.442		.374	.205
My manager is very emotional		.801		
My manager regularly loses his temper	-.276	.632	.242	
My manager makes decisions that are impulsive (not well thought through)		.472	-.276	
My manager always knows what to do during difficult times			.859	
My manager uses his knowledge to make decisions			.815	

My manager is strong during difficult times			.811	
My manager is a very insightful person			.735	
My manager is very knowledgeable about life (experienced in life matters)			.692	
My manager is a good teacher	.311		.636	
My manager leads by example	.346		.621	
My manager shares his knowledge	.432		.477	
My manager stays calm and focused during difficult times	.321	-.347	.453	
My manager is very conservative in his approach to things				

Following the identification and labelling of factors, the internal consistency (reliability) of the subscale scores were calculated and evaluated by means of Cronbach's Alpha. The value of Alpha, the item-total correlations as well as the average inter-item correlation was taken into account.

The statement "My manager is very conservative in his approach to things" did not have factor loading for any of the identified factors and was therefore eliminated as a statement to measure perceived managerial wisdom.

Factor reliability of the new proposed dimensions of perception of managerial wisdom is presented in table 5.9.

Table 5.9 Results of the factor reliability for the newly identified dimensions of perceived managerial wisdom.

Factor	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Value Based dimension	.969	.969	15
Knowledge based Dimension	.957	.957	8
Emotional dimension	.664	.663	3

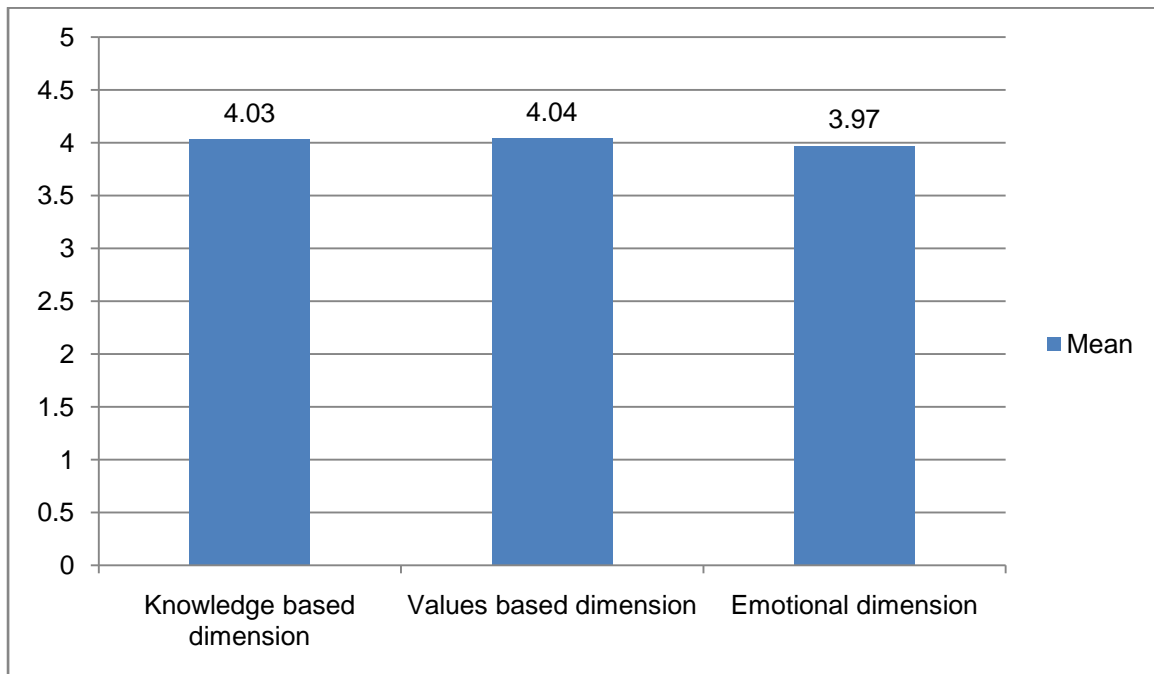
The factor reliability of the values based dimension and the knowledge based dimension was above 0.95 indicating strong reliability but the emotional dimension gave a factor reliability of only 0.664. Although this factor reliability is lower than the 0.7 proposed for the study the emotional dimension was included in further studies due to the fact that 0.664 approaches 0.7 when rounded off. The low factor reliability can be attributed to the fact that the scales were not validated before the questionnaire was distributed and further study is required to determine if the emotional dimension is significant in measuring perceived managerial wisdom.

Lastly, new subscale scores were calculated, using the mean score on the items per factor. Results are presented in table 5.10 and figure 5.2. Subsequent analyses were performed using these factor scores.

Table 5.10 Descriptive statistics of the newly identified dimensions of perceived managerial wisdom.

	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge based dimension	109	.25	6.00	4.0321	1.40780
Values based dimension	109	.87	6.00	4.0446	1.34106
Emotional dimension	109	.00	6.00	3.9694	1.40072
N	109				

Figure 5.2 The mean values of the newly identified dimensions of perceived managerial wisdom.



To determine if the newly identified dimensions of wisdom could be used to measure the respondent's measure or perception of the manager's level of wisdom a linear regression was performed using the dimensions as predictors and the perception of wisdom answer as a dependant variable. The R squared value for the model was determined as $R^2 = 0.767$ which shows that the predictors can explain almost 77 % of the variance in the dependent variable. This therefore shows that the newly identified dimensions can be used to determine the perception of wisdom of the employee. The model can be written mathematically as:

$$\text{Perceived managerial wisdom} = 1.063 * (\text{Knowledge based dimension score}) - 0.072 * (\text{value based dimension score}) - 0.003 * (\text{emotional dimension}) + 0.177$$

The model can further be refined if only the knowledge based dimension score is used. The regression with the knowledge based dimension as predictor has an R squared value of $R^2 = 0.766$. This means that just the knowledge based dimension contributes 76.6% to the variance of the perception of managerial wisdom score. The model can be written mathematically as:

$$\text{Perceived managerial wisdom} = 1.002 * (\text{Knowledge based dimension score}) + 0.116$$

The results can be seen in table 5.11 and table 5.12.

Table 5.11 Results of the linear regression model for perceived managerial wisdom using all three newly determined dimensions of perceived managerial wisdom.

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.876 ^a	0.767	0.761	0.788

a. Predictors: (Constant), Emotional dimension, Value based dimension, Knowledge based dimension

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.177	.294		.601	.549
	Knowledge based dimension	1.063	.111	.929	9.572	.000
	Value based dimension	-.072	.115	-.060	-.633	.528
	Emotional dimension	-.003	.057	-.003	-.059	.953

a. Dependent Variable: I think my manager is a wise person

Table 5.12 Results of the linear regression model for perceived managerial wisdom using only the knowledge based dimension as predictor.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.875 ^a	0.766	0.764	0.782	0.766	351.09	1

a. Predictors: (Constant), Knowledge based dimension

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.116	.228		.509	.612
	Knowledge based dimension	1.002	.053	.875	18.737	.000

a. Dependent Variable: I think my manager is a wise person

The newly determined dimensions of perceived managerial wisdom were further correlated independently with each other and the score of the perception of wisdom question (perception of wisdom score).

Because a non-probability sample was used in this research, effect sizes (rather than inferential statistics) are used to decide on the significance of the findings. According to Cohen (1988) the following cut-off points in terms of the correlation coefficient are recognised as practically significant (independent of the direction of the relationship):

- $r = 0.10$: small effect
- $r = 0.30$: medium effect
- $r = 0.50$: large effect

For the purposes of the present study, r -values larger than 0.30 (medium effect) are considered practically significant.

There were various practically significant large effect correlation coefficients observed, specifically the correlation between the knowledge based dimension and the perception of wisdom ($r = 0.875$). The perception of wisdom also showed a statistically significant correlation (large effect) with the values based dimension ($r = 0.746$). Furthermore, a correlation coefficients of $r = 0.869$ were observed when the value based dimension was correlated with the knowledge based dimension. The results can be seen in table 5.13.

Table 5.13 Results of the correlation analysis of the newly determined dimensions of perceived managerial wisdom with perceived managerial wisdom.

		Knowledge based dimension	Values based dimension	Emotional dimension	I think my manager is a wise person
Knowledge based dimension	Pearson Correlation	1	.869**	.288**	.875**
	Sig. (2-tailed)		.000	.002	.000
Values based dimension	Pearson Correlation		1	.223	.746**
	Sig. (2-tailed)			.020	.000
Emotional dimension	Pearson Correlation			1	.251**
	Sig. (2-tailed)				.008
I think my manager is a wise person	Pearson Correlation				1

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

* . Correlation is significant at the 0.05 level (2-tailed). N = 109

5.5 Research Question 2: Are there more dimensions of employee engagement?

As before with the perception of wisdom dimensions the analysis of the data could only be done once the proposed new dimensions of employee engagement had been confirmed. The originally proposed alternative dimensions for employee engagement are represented in Table 5.14 with the questions from the questionnaire designed to measure the dimensions.

Table 5.14 Proposed alternative dimensions of employee engagement

Proposed alternative dimensions of employee engagement	Questions related to the dimension
Meaningful work.	My work is important to me. My work is important to my company. My work makes a difference to society.
Challenging work.	I find my job challenging. My job requires great skill.
Emotional safety.	I am afraid of my manager. I find my manager intimidating. I speak up without fear of reprimand.

<p>Positivity of the environment.</p>	<p>People at my work are positive people.</p> <p>My manager always focuses on the positive side of things.</p> <p>I like my work environment.</p> <p>My best friend works for the company.</p> <p>I get rewarded for my efforts at work.</p> <p>I get recognition for my efforts at work.</p> <p>I am respected at work.</p>
<p>Feeling of pride towards the company.</p>	<p>I am proud to work for my company.</p> <p>I would recommend my company to my best friend.</p> <p>I would recommend that my child find employment at my company.</p> <p>I am currently looking for alternative employment outside my company.</p>
<p>Personal commitment and motivation to perform at high levels of performance.</p>	<p>I am personally committed to achieve my goals at work.</p> <p>I am motivated to go to work every day.</p>

Factor analysis was again used to investigate the construct validity of the theoretically intended scales in the questionnaire. The Kaiser-Maier-Olkin test as well as Bartlett's test of sphericity was obtained in order to evaluate sampling adequacy. KMO takes values between 0 and 1, with small values meaning that overall the variables have too little in common to warrant a factor analysis. Values above 0.70 are usually considered to be acceptable.

The KMO value for the engagement dimensions was 0.789. Bartlett's test of sphericity was significant. A number of factor solutions were again investigated,

considering guidelines such as the Kaiser criterion (Eigen values larger than unity), the scree plot, and the amount of variance explained by the factors, as well as the clarity and size of the factor loadings. A principle axis factor analysis with a direct oblimin rotation was performed. As in the case of the perception of wisdom factor analysis, the original dimensions proposed did not show high factor loading and was combined into five factors. For the engagement questions, five factors were identified, explaining 67.24% of variance. The factors were named as follows. Factor 1: Positive environment. Factor 2: Negative manager experience. Factor 3: Commitment. Factor 4: Recommend. Factor 5: Reward. (Table 5.15)

Table 5.15 Results of the factor analysis for employee engagement.

Questions	Factors identified with factor loading				
	Positive Attitude	Negative manager experience	Commitment	Recommend	Reward
My manager always focuses on the positive side of things	.819		-.280	.313	.819
I like my work environment	.708		-.435	-.591	.342
People at my work are positive people	.604		-.316	-.411	.362
I speak up without fear of reprimand	.543	-.458			.223
I am afraid of my manager		.924			
I find my manager		.883			



intimidating					
My best friend works for the company	.219	.379		-.278	.394
My job requires great skill			-.749		.201
I find my job challenging	.266		-.814	-.279	.304
I am motivated to go to work every day	.360		-.775	-.403	
My work is important to my company			-.745	-.348	.277
My work is important to me			-.714	-.397	
I am personally committed to achieve my goals at work		-.349	-.619	-.357	
I would recommend my company to my best friend	.234		-.306	-.919	.318
I am proud to work for my company	.276		-.290	-.911	.271
I would recommend that my child find employment at my company	.201		-.292	-.843	.296
I am currently looking for alternative employment outside my company	-.427	.285	.362	.602	
I get recognition for my efforts at work	.606			-.308	.817
My work makes a difference to society			-.485		.697
I get rewarded for my	.577			-.397	.801

efforts at work					
I am respected at work	.293	-.293		-.370	.673

Following the identification and labelling of factors, the internal consistency (reliability) of the subscale scores were calculated and evaluated by means of Cronbach's Alpha. The value of Alpha, the item-total correlations as well as the average inter-item correlation was taken into account. Factor reliability of the new proposed dimensions of employee engagement is presented in table 5.16.

Table 5.16 Results of the factor reliability for the newly identified dimensions of employee engagement.

Factor	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Positive attitude	.713	.718	4
Negative manager experience	.926	.928	2
Recommended	.826	.859	4
Commitment	.834	.841	6
Reward	.796	.789	4

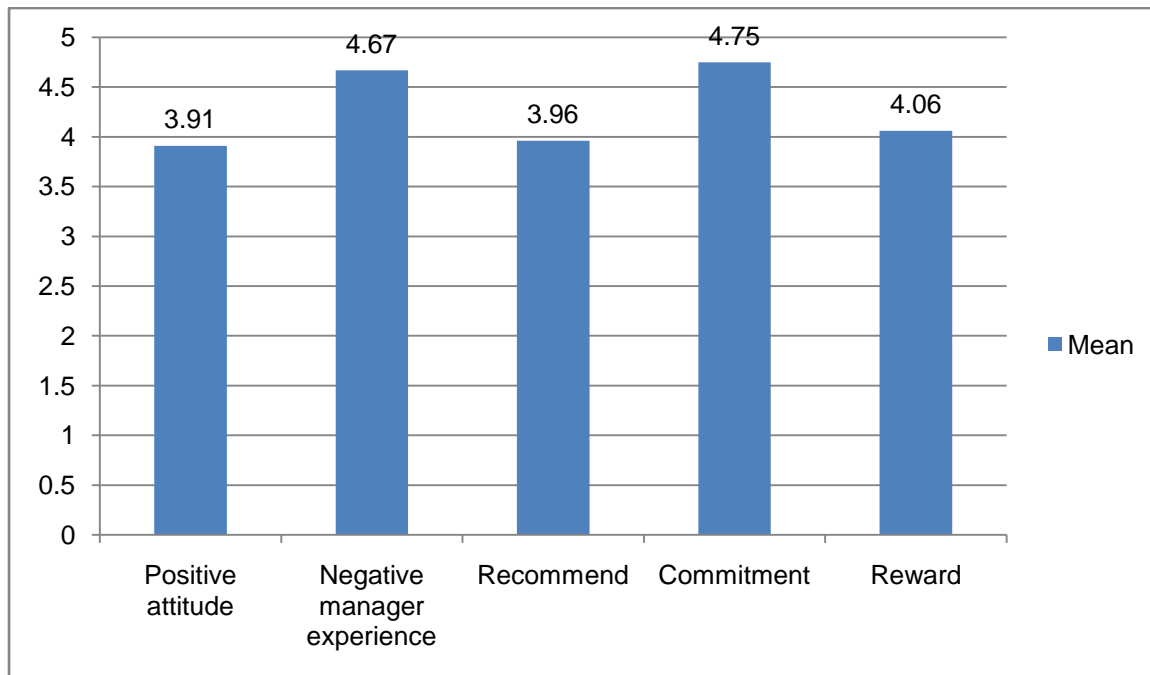
All reliability values were above 0.7 and were therefore treated as statistically significant for the rest of the study.

Lastly, new subscale scores were calculated, using the mean score on the items per factor. Results are presented in table 5.17 and figure 5.3. Subsequent analyses were performed using these factor scores.

Table 5.17 Descriptive statistics of the newly identified dimensions of employee engagement.

Factor	N	Minimum	Maximum	Mean	Std. Deviation
Positive attitude	109	1.00	6.00	3.9128	1.18164
Negative manager experience	109	.00	6.00	4.6743	1.51134
Recommended	109	.00	6.00	3.9564	1.47974
Commitment	109	1.83	6.00	4.7538	.92312
Reward	109	1.25	6.00	4.0596	1.18238
N	109				

Figure 5.3 The mean values of the newly identified dimensions of employee engagement.



To determine if the newly identified dimensions of employee engagement could be used to measure the respondents level of engagement a linear regression was performed using the dimensions as predictors and the three dimensions of the Utrecht work well being survey (UWES) as dependant variables. The three dimensions of the UWES were used separately to eliminate the effect of co-linearity that might exist between the dimensions. As the UWES can be used as single score measure or a three score measure of employee engagement the separate use of the dimensions in regression analysis is preferred (Schaufeli & Bakker 2003).

The R squared value for the model with vigour as the dependant variable was determined as $R^2 = 0.615$ which shows that the predictors can explain almost 62% of

the variance in the dependent variable. This therefore shows that the newly identified dimensions can be used to determine the employee's level of engagement as measured by the vigour dimension. The model can be written mathematically as follows:

$$\begin{aligned} \text{Vigour} = & 0.195*(\text{Positive attitude score}) + 0.015*(\text{Negative manager} \\ & \text{experience score}) + 0.053*(\text{Recommend score}) + 0.712*(\text{Commitment score}) \\ & - 0.107*(\text{Reward score}) + 0.392 \end{aligned}$$

The R squared value for the model with dedication as the dependant variable was determined as $R^2 = 0.67$ which shows that the predictors can explain almost 67% of the variance in the dependent variable. This therefore shows that the newly identified dimensions can be used to determine the employee's level of engagement as measured by the dedication dimension. The model can be written mathematically as follows:

$$\begin{aligned} \text{Dedication} = & 0.019*(\text{Positive attitude score}) - 0.059*(\text{Negative manager} \\ & \text{experience score}) + 0.076*(\text{Recommend score}) + 0.943*(\text{Commitment} \\ & \text{score}) + 0.128*(\text{Reward score}) - 0.810 \end{aligned}$$

The R squared value for the model with absorption as the dependant variable was determined as $R^2 = 0.575$ which shows that the predictors can explain almost 58% of the variance in the dependent variable. This therefore shows that the newly identified dimensions can be used to determine the employee's level of engagement as

measured by the absorption dimension. The results can be seen in table 5.17, 5.18 and 5.19. The model can be written mathematically as follows:

$$\text{Absorption} = 0.206*(\text{Positive attitude score}) + 0.007*(\text{Negative manager experience score}) + 0.005*(\text{Recommend score}) + 0.741*(\text{Commitment score}) - 0.47*(\text{Reward score}) + 0.113$$

Table 5.17 Results of the linear regression model for vigour using the newly determined dimensions of employee engagement as predictors.

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.784 ^a	0.615	0.596	0.62336

a. Predictors: (Constant), Reward, Negative manager experience, Commitment, Recommended, Positive attitude

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.392	.364		1.076	.285
	Positive attitude	.195	.068	.235	2.858	.005
	Negative manager experience	.015	.041	.024	.377	.707
	Recommend	.053	.050	.081	1.064	.290
	Commitment	.712	.075	.669	9.491	.000
	Reward	-.107	.065	-.129	-1.649	.102

a. Dependent Variable: Vigour

Table 5.18 Results of the linear regression model for dedication using the newly determined dimensions of employee engagement as predictors.

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.818 ^a	0.67	0.654	0.72103

a. Predictors: (Constant), Reward, Negative manager experience, Commitment, Recommended, Positive attitude

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.810	.422		-1.921	.057
	Positive attitude	.019	.079	.019	.244	.808
	Negative manager experience	-.059	.047	-.073	-1.258	.211
	Recommended	.076	.058	.092	1.313	.192
	Commitment	.943	.087	.711	10.873	.000
	Reward	.128	.075	.123	1.702	.092

a. Dependent Variable: Dedication

Table 5.19 Results of the linear regression model for absorption using the newly determined dimensions of employee engagement as predictors.

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.758 ^a	0.575	0.555	0.69566

a. Predictors: (Constant), Reward, Negative manager experience, Commitment, Recommended, Positive attitude

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.113	.407		.278	.781
	Positive attitude	.206	.076	.233	2.698	.008
	Negative manager experience	.007	.045	.010	.146	.884
	Recommended	.005	.056	.007	.090	.928
	Commitment	.741	.084	.656	8.856	.000
	Reward	-.047	.072	-.053	-.651	.517

a. Dependent Variable: Absorption

The newly determined dimensions of employee engagement were further correlated independently with each other and the dimensions of the UWES score the results can be seen in table 5.20 .

As discussed before r-values larger than 0.30 (medium effect) are considered practically significant for the purposes of the present study.

There were various significant correlation coefficients observed, specifically the correlations between commitment and the UWES dimensions deserve mention. Correlation coefficients above $r = 0.75$ were observed when commitment was correlated with the dimensions of vigour ($r = 0.753$), dedication ($r = 0.799$) and absorption ($r = 0.732$).

The new dimension of reward also had a large effect correlation of $r = 0.594$ with the new dimension of positive attitude. Positive attitude gave a medium effect correlation with the dimensions of vigour ($r = 0.467$), dedication ($r = 0.402$) and absorption ($r = 0.464$) and a medium effect correlation with commitment ($r = 0.391$). A large effect correlation between positive attitude and the new dimension of recommend was also observed ($r = 0.509$).

Table 5.20 Results of the correlation analysis of the newly determined dimensions of employee engagement with the dimensions of the UWES score.

		Vigour	Dedication	Absorption	Positive attitude	Negative manager experience	Recommend	Commitment	Reward
Vigour	Pearson Correlation	1	.815**	.837**	.467**	.101	.448**	.753**	.290**
	Sig. (2-tailed)		.000	.000	.000	.295	.000	.000	.002
Dedication	Pearson Correlation		1	.749**	.402**	.008	.470**	.799**	.417**
	Sig. (2-tailed)			.000	.000	.933	.000	.000	.000
Absorption	Pearson Correlation			1	.464**	.092	.399**	.732**	.325**
	Sig. (2-tailed)				.000	.340	.000	.000	.001
Positive attitude	Pearson Correlation				1	.206	.509**	.391**	.594**
	Sig. (2-tailed)					.031	.000	.000	.000
Negative manager experience	Pearson Correlation					1	.095	.066	.176
	Sig. (2-tailed)						.328	.496	.067
Recommend	Pearson Correlation						1	.451**	.440**

	Sig. (2-tailed)								.000	.000
Commitment	Pearson Correlation								1	.358**
	Sig. (2-tailed)									.000
Reward	Pearson Correlation									1

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

* . Correlation is significant at the 0.05 level (2-tailed). N = 109.

5.6 Research Question 3: Do the demographics of the respondent influence the perception of wisdom of the manager?

In order to answer research question three ANOVA calculations were performed to determine if the demographics of the respondent has an influence on the perception of wisdom of the respondent. Table 5.21 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the gender of the respondent. Table 5.22 represents the results of the ANOVA calculation of the data relating to the gender of the respondent.

Table 5.21 Descriptive statistics for the perception of wisdom question as a function of the gender of the respondent.

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Male	59	4.20	1.551	.202	3.80	4.61
Female	50	4.10	1.693	.239	3.62	4.58
Total	109	4.16	1.611	.154	3.85	4.46

Table 5.22 The results of the ANOVA performed on the means of the perception of wisdom question as a function of the gender of the respondent.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.289	1	.289	.111	.740
Within Groups	280.059	107	2.617		
Total	280.349	108			

No statistically significant differences in the means were detected when the perception of wisdom is separated as a function of the gender of the respondent.

Table 5.23 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the seniority of the respondent. Table 5.24 represents the results of the ANOVA calculation of the data relating to the seniority of the respondent. No statistically significant difference in the means is observed when the perception of wisdom score is divided into the seniority of the respondent.

Table 5.23 Descriptive statistics for the perception of wisdom question as a function of the seniority of the respondent.

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error
Non-management	22	4.32	1.836	.391
Team Leader	13	4.23	1.922	.533
Middle management	48	4.04	1.368	.197
Senior and executive management	26	4.19	1.744	.342
Total	109	4.16	1.611	.154

Table 5.24 The results of the ANOVA performed on the means of the perception of wisdom question as a function of seniority of the respondent.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.313	3	.438	.165	.920
Within Groups	279.036	105	2.657		
Total	280.349	108			

Table.5.25 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the level of education of the respondent. Table 5.26 represents the results of the ANOVA calculation of the data relating to the level of education of the respondent.

Table 5.25 Descriptive statistics for the perception of wisdom question as a function of the level of education of the respondent.

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error
Secondary school	13	4.38	1.805	.500
Diploma	24	4.58	1.472	.300
Degree	31	4.06	1.632	.293
Post Graduate degree	41	3.90	1.609	.251
Total	109	4.16	1.611	.154

Table 5.26 The results of the ANOVA performed on the means of the perception of wisdom question as a function of the level of education of the respondent.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.958	3	2.653	1.022	.386
Within Groups	272.391	105	2.594		
Total	280.349	108			

From these results one can deduce that the level of education of the respondent has no effect on the perception of managerial wisdom.

To determine if the age of the respondent influences the perception of wisdom a correlation analysis was done between the perception of wisdom and the newly determined dimensions of perceived managerial wisdom and age of the respondent. There seems to be no effect of age on the respondent's perception of wisdom of the manager. The results are represented in Table.5.27.

Table 5.27 The correlation of the newly determined dimensions of perceived managerial wisdom and the perception of wisdom question with the age of the respondent.

Dimension		Respondent Age
Knowledge based dimension	Pearson Correlation	.039
	Sig. (2-tailed)	.684
Values based dimension	Pearson Correlation	.175
	Sig. (2-tailed)	.069
Emotional dimension	Pearson Correlation	.111
	Sig. (2-tailed)	.251
I think my manager is a wise person	Pearson Correlation	.020
	Sig. (2-tailed)	.836

N = 109

Table 5.28 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the level of education of the respondent. Table 5.29 represents the results of the ANOVA calculation of the data relating to the level of education of the respondent. No statistically significant difference in the means is observed when the perception of wisdom score is presented as a function of the level of education of the respondent.

Table 5.28 Descriptive statistics for the perception of wisdom question as a function of the level of education of the respondent.

Descriptives

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error
White	63	4.24	1.552	.196
Black	23	3.74	1.864	.389
Coloured, Asian, Indian	23	4.35	1.496	.312
Total	109	4.16	1.611	.154

Table 5.29 The results of the ANOVA performed on the means of the perception of wisdom question as a function of the level of education of the respondent.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.268	2	2.634	1.015	.366
Within Groups	275.081	106	2.595		
Total	280.349	108			

5.7 Research Question 4: Do the demographics of the manager influence the perception of wisdom?

To answer research question 4 the following ANOVA calculations were done to determine if the demographics of the manager has an influence on the perception of wisdom of the respondent. Table 5.30 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the gender of the manager. Table 5.31 represents the results of the ANOVA calculation of the data as a function of the gender of the manager.

Table 5.30 Descriptive statistics for the perception of wisdom question as a function of the gender of the manager.

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Male	84	4.17	1.720	.188	3.79	4.54
Female	25	4.12	1.201	.240	3.62	4.62
Total	109	4.16	1.611	.154	3.85	4.46

Table 5.31 The results of the ANOVA performed on the means of perception of wisdom question as a function of the gender of the manager.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.042	1	.042	.016	.900
Within Groups	280.307	107	2.620		
Total	280.349	108			

There seems to be very little difference in the perception of managerial wisdom when the data is analysed with respect to the gender of the manager.

Table 5.32 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the level of education of the manager. Table 5.33 represents the results of the ANOVA calculation of the data as a function of the level of education of the manager.

Table 5.32 Descriptive statistics for the perception of wisdom question as a function of the level of education of the manager.

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error
Secondary education or Diploma	22	3.77	1.926	.411
Degree	38	4.16	1.443	.234
Post Graduate degree	49	4.33	1.586	.227
Total	109	4.16	1.611	.154

Table 5.33 The results of the ANOVA performed on the means of the perception of wisdom calculation as a function of the level of education of the manager.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.657	2	2.328	.895	.412
Within Groups	275.692	106	2.601		
Total	280.349	108			

It is clear from the results that the level of education of the manager has no bearing on the perception of wisdom by the respondent.

To determine if the age of the manager influences the perception of wisdom a correlation analysis was done between the question about the perception of wisdom and the newly determined dimensions of perceived managerial wisdom and age of the manager. The results are represented in Table 5.34. Using the cut-off value of $r = 0.3$ for significant correlations the only correlation that approaches significance is the correlation between perceived managerial wisdom and age of the manager ($r = 0.193$). This correlation is a small effect correlation at best and therefore not large enough to warrant any further discussion.

Table 5.34 The correlation of the newly determined dimensions of perceived managerial wisdom and the perception of wisdom question with the age of the manager.

Dimension		Manager Age
Knowledge based dimension	Pearson Correlation	.155
	Sig. (2-tailed)	.108
Values based dimension	Pearson Correlation	.113
	Sig. (2-tailed)	.242
Emotional dimension	Pearson Correlation	.159
	Sig. (2-tailed)	.098
I think my manager is a wise person	Pearson Correlation	.193 [*]
	Sig. (2-tailed)	.044

N=109

Table 5.35 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the seniority of the manager. Table 5.36 represents the results of the ANOVA calculation of the data relating to the seniority of the manager.

Table 5.35 Descriptive statistics for the perception of wisdom question as a function of the seniority of the manager.

Descriptives

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error
Team leader/Middle management	28	3.86	1.715	.324
Senior management	50	4.38	1.323	.187
Executive management	31	4.06	1.914	.344
Total	109	4.16	1.611	.154

Table 5.36 The results of the ANOVA performed on the means of the perception of wisdom question as a function of the seniority of the manager.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.269	2	2.635	1.015	.366
Within Groups	275.080	106	2.595		
Total	280.349	108			

The results show that there is no significant effect of the seniority of the manager on the perception of wisdom of the respondent.

Table 5.37 represents the results of the mean values calculated for the question about the perception of wisdom (I think my manager is a wise person) as a function of the race of the manager. Table 5.38 represents the results of the ANOVA calculation of the data relating to the race of the manager.

Table 5.37 Descriptive statistics for the perception of wisdom question as a function of the race of the manager.

Descriptives

I think my manager is a wise person

	N	Mean	Std. Deviation	Std. Error
White	80	4.38	1.453	.162
Black	13	4.31	1.888	.524
Coloured, Indian, Asian	16	2.94	1.692	.423
Total	109	4.16	1.611	.154

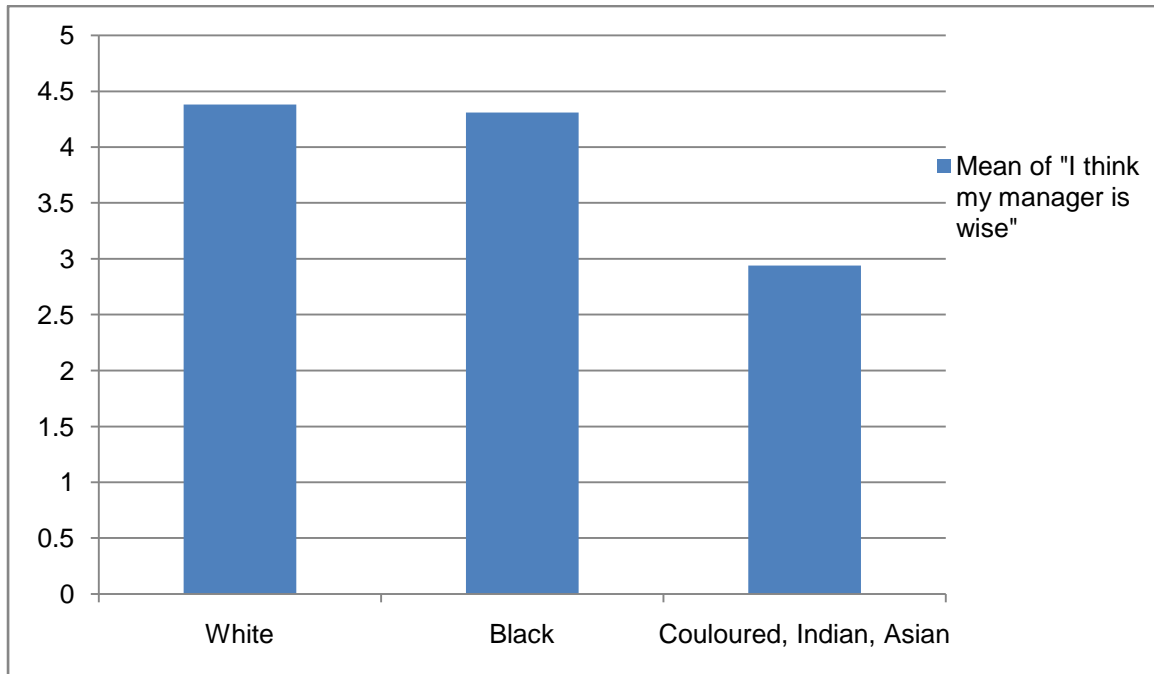
Table 5.38 The results of the ANOVA performed on the means of the perception of wisdom question as a function of the race the manager.

I think my manager is a wise person

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.892	2	13.946	5.856	.004
Within Groups	252.457	106	2.382		
Total	280.349	108			

A significant effect of race on the perception of wisdom can be deduced. After inspecting the mean values for the perception of wisdom as a function of race (Figure 5.4) it is clear that managers that belong to the Indian, Coloured and Asian race group scored significantly lower than black and white managers. The sample of Indian, Coloured and Asian managers was small (N = 16). The sample for Black managers were also too small to make statistical inferences about the sample (N = 13). Further studies are thus required to determine (with a significantly larger sample) if this observation holds.

Figure 5.4 The mean values of “I think my manager is wise” as a function of the race of the manager.



5.8 Research Question 5: Is there a correlation (relationship) between perceived managerial wisdom and employee engagement?

To determine if a correlation between perceived managerial wisdom and employee engagement exist a correlation analysis between the perception of wisdom score and the dimensions of employee engagement as determined using the UWES score was performed. The dimensions of the UWES measure were correlated independently to eliminate co-linearity effects that might exist between the dimensions. As stated before r-values larger than 0.30 (medium effect) are considered practically significant for the purposes of the present study.

From Table 5.39 it is clear that a clear medium effect size correlation exist between perceived managerial wisdom and the dimension of dedication ($r = 0.312$) and absorption ($r = 0.325$). For the dimension of vigour a small effect size correlation ($r = 0.241$) was observed with perceived managerial wisdom.

Table 5.39 The correlation of the perception of wisdom question with the dimensions of employee engagement individually.

Dimensions		Vigour	Dedication	Absorption	I think my manager is a wise person
Vigour	Pearson Correlation	1	.815**	.837**	.241*
	Sig. (2-tailed)		.000	.000	.011
Dedication	Pearson Correlation		1	.749**	.312**
	Sig. (2-tailed)			.000	.001
Absorption	Pearson Correlation			1	.325**
	Sig. (2-tailed)				.001
I think my manager is a wise person	Pearson Correlation				1

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

* . Correlation is significant at the 0.05 level (2-tailed). N = 109 for all calculations.

5.9 Research Question 6: Which academic dimensions of wisdom exhibited by the manager has the biggest correlation with employee engagement?

To determine which academic dimensions of wisdom has the biggest correlation with employee engagement a correlation analysis between the newly determined

dimensions of the perception of wisdom and the dimensions of employee engagement as determined using the UWES score was performed. The dimensions of the UWES measure were correlated independently like before to eliminate collinearity effects that might exist between the dimensions. As stated before r-values larger than 0.30 (medium effect) are considered practically significant for the purposes of the present study.

From Table 5.40 it is clear that a clear medium effect size correlation between the knowledge based dimension and the dimension of dedication ($r = 0.305$) and absorption ($r = 0.326$) exists. For the dimension of vigour a small effect size correlation ($r = 0.239$) was observed with the knowledge based dimension. There also exist a clear medium effect size correlation between the values based dimension and the dimension of dedication ($r = 0.306$) and absorption ($r = 0.341$). For the dimension of vigour a small effect size correlation ($r = 0.288$) was observed with the knowledge based dimension. This correlation is however approaching medium size effect and is therefore treated as significant.

Table 5.40 The correlation of the newly determined dimensions of the perception of wisdom with the dimensions of employee engagement individually.

Dimensions		Vigour	Dedication	Absorption	Knowledge based dimension	Value based dimension	Emotional dimension
Vigour	Pearson Correlation	1	.815**	.837**	.239	.288**	-.042
	Sig. (2-tailed)		.000	.000	.012	.002	.663
Dedication	Pearson Correlation		1	.749**	.305**	.306**	-.048
	Sig. (2-tailed)			.000	.001	.001	.620
Absorption	Pearson Correlation			1	.326**	.341**	-.041
	Sig. (2-tailed)				.001	.000	.671
Knowledge based dimension	Pearson Correlation				1	.869**	.288**
	Sig. (2-tailed)					.000	.002
Value based dimension	Pearson Correlation					1	.223
	Sig. (2-tailed)						.020

Emotional dimension	Pearson Correlation							1
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** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed). N = 109 for all calculations.

6 Discussion of Results.

6.1 Introduction:

In this chapter the results of the study will be discussed in respect of the research questions. The data presented in chapter 5 will be used to relate the newly developed theory with the literature and conclusions will be drawn about the importance of the findings. The discussion is conducted along the research questions that were posed in Chapter 3.

6.2 Research question 1: Which academic dimensions of wisdom exhibited by the manager influence the perception of wisdom?

6.2.1 Newly determined dimensions of perceived managerial wisdom.

The aim of this part of the study was to do an exploratory analysis to see if the characteristics of the manager influence the perception of managerial wisdom by the respondent (employee). To this end several dimensions of perceived managerial wisdom was proposed (table 5.7) that are related to the characteristics of the manager. To confirm these dimensions a factor analysis was done (table 5.8). The originally proposed dimensions did not result in adequate construct validity as determined by factor analysis. By combining the proposed dimensions into three dimensions, good construct validity was observed. The three new dimensions were

named: values based dimension, emotional dimension and knowledge based dimension. The dimensions are compared to the original dimensions in table 6.1

Table 6.1 The relationship between the proposed dimensions and the newly identified dimensions of perceived managerial wisdom.

Newly identified dimensions of Perceived managerial wisdom.	Proposed dimensions of perceived managerial wisdom	Questions related to the dimension
Values Based Dimension	Integrity of the manager	My manager has unquestionable integrity
	Compassion of the manager.	My manager exhibit compassion for others
	Manager's ability to practice empathic listening	My manager listens to me. My manager understands me when I talk to him/her.
	Trust in management	I trust my manager.
	Perception of the value (good vs. bad) of management decisions.	My manager usually makes the right decision. My manager usually makes decisions that take employee needs into consideration. My manager usually makes good decisions.
	Respect shown by management for employees	My manager respects me. I respect my manager.



	<p>The perception of the relativism of management values.</p>	<p>My manager has strong values.</p> <p>My manager's values are similar to mine.</p> <p>My manager is very open-minded.</p>
	<p>Insight of the manager.</p>	<p>My manager understands my personal issues.</p> <p>My manager tries to understand why people do things.</p>
<p>Emotional Dimension</p>	<p>The level of management's ability to regulate emotions.</p>	<p>My manager regularly loses his temper.</p> <p>My manager is very emotional.</p> <p>My manager makes decisions that are impulsive (not well thought through).</p>
<p>Knowledge based dimension</p>	<p>The use of this knowledge to make quality decisions</p>	<p>My manager uses his knowledge to make decisions.</p>
	<p>Leadership's ability to transfer knowledge</p>	<p>My manager shares his knowledge.</p> <p>My manager is a good teacher</p>
	<p>The level of procedural and factual knowledge about life of the manager.</p>	<p>My manager is very knowledgeable about life (experienced in life matters)</p> <p>My manager is a very insightful person.</p>

	<p>The perceived performance of the manager during uncertain times.</p>	<p>My manager leads by example.</p> <p>My manager is strong during difficult times.</p> <p>My manager always knows what to do during difficult times.</p> <p>My manager stays calm and focused during difficult times.</p>
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The newly identified dimension will now be discussed individually.

6.2.1.1 The Values based dimension.

The values based dimension is a combination of the proposed dimensions of 1. Integrity of the manager, 2. Compassion of the manager, 3. Manager's ability to practice empathic listening, 4. Trust in management, 5. Perception of the value (good vs. bad) of management decisions, 6. Respect shown by management for employees, 7. The perception of the relativism of management values and 8. Insight of the manager. If the question asked in the questionnaire are analysed they broadly represent the values of the manager and the name values based dimension was therefore assigned to this dimension.

Values are a recurring theme in the wisdom literature. Sternberg proposes that the decisions that managers make are based on values that the managers hold dear. People (observers, employees and stakeholders) generally perceive individuals as wise if their decisions satisfy the values/interests of many different groups and if the decision has long term validity (Sternberg, 2004). Some of the values that are

explicitly mentioned are respect for others. Jeste & Vahia contends that wisdom is rooted in ancient spirituality and manifests itself in the respect that individuals show for people around them and the environment/society in which they operate (Jeste & Vahia, 2008)

Sternberg et al. (2007) further proposes that wisdom is about applying knowledge, creativity and intelligence in the pursuit of a deliberate goal that satisfies the prerequisite that is must be in the common good (Sternberg et al 2007). The common good here is interpreted as an outcome that satisfies the needs, values and expectations of society above the self (Sternberg et al 2007). This statement implies great respect for the greater society, relativistic values that satisfy a large amount of individuals and groups, a general concern for others as manifested in compassion for others, the ability to determine what is important to stakeholders (empathic listening and insight) and most importantly the strength of character to make the right decision for the group based on the relativistic values that the manager holds dear (integrity). It is for this reason that these proposed dimensions could be grouped together to form the new values based dimension.

6.2.1.2 The Emotional dimension.

The emotional dimension is a modification of the originally proposed dimension of the level of management's ability to regulate emotions and one statement that was originally assigned to another dimension (My manager makes decisions that are

impulsive (negative)). In retrospect the implication of impulsivity in the question better fits with lack of emotional control and the statement was therefore assigned to the emotional dimension.

The regulation of emotions as an indicator of wisdom by observers has also been discussed in literature and specifically Kunzmann and Baltes (2003) suggest that wisdom involves affective modulation and avoids the pursuit of pleasure (selfish notion) (Kunzmann & Baltes, 2003). It can therefore be said that due to the managers ability to regulate his own emotions, rational decisions can be taken and allows the manager to balance self interest with the interest of the group that will be affected by the decision as Sternberg proposes as a prerequisite for a wise decision (Sternberg et al 2007). It can be inferred that the perception of wisdom must be dependent on the ability of the manager to control his/her emotions. The factor loading of this dimension was however only 0.664 which does not fulfil the requirement set for significance of 0.7. As the statements were not validated before the questionnaire was sent out further research is required to improve the construct validity of this dimension.

6.2.1.3 The knowledge based dimension.

The knowledge based dimension is a collection of the proposed dimensions of 1. the use of this knowledge to make quality decisions, 2. leadership's ability to transfer

knowledge, 3. the level of procedural and factual knowledge about life of the manager and 4. the perceived performance of the manager during uncertain times.

These originally proposed dimensions group well together due to the fact that all are based to some degree on the knowledge (application of rational information) of the manager. The perceived performance of the manager during difficult times can be interpreted as a knowledge based dimension due to the fact that people trust in the manager's ability to use his knowledge during these times to lead the group through the difficult times. The statements used to measure this dimension also imply a certain knowledge base. For instance one statement asks the respondent to rate his manager on the ability to know what to do during difficult times. The importance of knowledge in wisdom literature cannot be overstated. Baltes and Staudinger's (1993) model is based on the observation that knowledge (factual and procedural knowledge about life) form the prerequisite for wisdom and that the distinction between wise individuals and foolish individuals, regardless of their level of knowledge, lies in the ability to make good judgements and the ability to transfer this knowledge to other people (Baltes & Staudinger, 1993). Knowledge is also a prerequisite in Sternberg's model and although Sternberg's model is quite different from Baltes's model in that it takes the intelligence and creativity of the person into consideration, the intelligence dimension is based on the application of knowledge intelligently by the person that is supposedly wise (Sternberg, 2004).

6.2.2 Using the newly determined dimensions of perceived managerial wisdom to predict the perception of wisdom.

Having determined that there are three distinct dimensions to the perception of wisdom, the question of whether these dimension can be used to determine the perception of wisdom needs to be addressed. To this end a linear regression analysis was performed (Table 5.11). The statement used to test the perception of wisdom of the respondent (I think my manager is a wise person) was used as the dependant variable with the three newly identified dimensions as predictors. The R squared value for the model was determined as $R^2 = 0.767$ which shows that together the three dimensions as the predictors can explain almost 77 % of the variance in the perception of wisdom score. This implies that a new model for the perception of wisdom can be formulated based on the three dimensions. The mathematical model can be written as follows:

$$\text{Perceived managerial wisdom} = 1.063*(\text{Knowledge based dimension score}) - 0.072*(\text{value based dimension score}) - 0.003*(\text{emotional dimension}) + 0.177$$

To reiterate the importance of the knowledge based dimension the model was further refined by only using the knowledge based dimension score. The regression with the knowledge based dimension as predictor had an R squared value of $R^2 = 0.766$. This means that the knowledge based dimension by itself contributes 76.6% to the

variance of the perception of managerial wisdom score. The model can be written mathematically as:

$$\text{Perceived managerial wisdom} = 1.002 * (\text{Knowledge based dimension score}) + 0.116$$

6.2.3 The implications of these findings.

In answering research question one, new dimensions of perceived managerial wisdom was identified and used to develop a model that can predict the perception of managerial wisdom. As wisdom only exists in the mind of the perceiver this model allows for the measurement of implicit wisdom. The implication of this is that one can extract the characteristics that people use to assign wisdom to another person and then measure wisdom empirically through a questionnaire. But most importantly these results can be used to develop characteristic matrixes that allow for the identification of managers based on their ability to be perceived as wise and that has the latent ability to make decisions that are perceived by others as in the interest of the greater good. Important implications of this research can be realised in the pursuit of sustainable business practices.

6.3 Research Question 2: Are there more dimensions of employee engagement?

6.3.1 Newly determined dimensions of employee engagement.

The aim of this part of the study was to do an exploratory analysis to see if more dimensions could be identified for employee engagement. To this end several dimensions of employee engagement (Table 5.14) was proposed. To confirm these dimensions a factor analysis was done (Table 5.15). The originally proposed dimensions did not constitute dimensions with good construct validity as determined by the factor analysis. By combining the proposed dimensions into five dimensions good construct validity was observed (Table 5.16). The five new dimensions were named: positive attitude, negative manager experience, recommend, commitment and reward dimension. The dimensions are compared to the original dimensions in table 6.1

Table 6.2 The relationship between the proposed dimensions and the newly identified dimensions of employee engagement.

Newly identified dimensions of employee engagement	Proposed alternative dimensions of employee engagement	Questions related to the dimension
Positive attitude	Positivity of the environment.	<p>People at my work are positive people.</p> <p>My manager always focuses on the positive side of things.</p> <p>I like my work environment.</p>
	Emotional safety.	I speak up without fear of reprimand.
Negative manager experience		<p>I am afraid of my manager.</p> <p>I find my manager intimidating.</p> <p>My best friend works for the company.</p>
Commitment	Challenging work.	<p>I find my job challenging.</p> <p>My job requires great skill.</p>
	Personal commitment and motivation to perform at high levels of performance.	<p>I am personally committed to achieve my goals at work.</p> <p>I am motivated to go to work every day.</p>
	Meaningful work.	<p>My work is important to me.</p> <p>My work is important to my company.</p>
Reward		My work makes a difference to society.

	Positivity of the environment.	<p>I get rewarded for my efforts at work.</p> <p>I get recognition for my efforts at work.</p> <p>I am respected at work.</p>
Recommend	Feelings of pride towards the company.	<p>I am proud to work for my company.</p> <p>I would recommend my company to my best friend.</p> <p>I would recommend that my child find employment at my company.</p> <p>I am currently looking for alternative employment outside my company (negative).</p>

6.3.1.1 The dimension of positive attitude.

The dimension of positive attitude was constructed with some statements from the proposed positivity of the environment and emotional safety dimensions. The positive attitude name was assigned due to the nature of the statements measuring the perception of the individual and thus the state of mind of the individual. Positive attitude has been indicated before as a predictor of employee engagement. Attridge for instance described employee engagement as a situation where employees feel positive emotions toward their work, find their work personally meaningful, consider their workload to be manageable, and have hope about the future of their work (Attridge, 2009). The positive attitude is usually not measured to determine employee engagement and is seen as a consequence of employee engagement, but

in this case the factor loading was quite high for the statements relating to positive attitude and the dimension can therefore be used as a predictor for employee engagement.

6.3.1.2 The dimension of negative manager experience.

The negative manager experience dimension is constructed from some of the statements relating to emotional safety and one from positivity of the environment dimensions. The statement “my best friend works for the company” had a factor loading that grouped it in this dimension, but further research is needed to determine if it really belongs in this dimension. For the purposes of this study it was included and used in the calculations. The influence of the manager is very important in the building of a positive climate and in making employees feel valued. Kahn originally conceptualized employee engagement in as the “harnessing of organizational members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (Kahn 1990, p. 694). The expression of the self is believed to be very difficult where no emotional safety can be created by the manager and this then supports the inclusion of the positive experience with the manager in engagement.

6.3.1.3 The dimension of commitment.

The dimension of commitment is a combination of the originally proposed dimensions of 1. Challenging work, 2. Personal commitment to perform at high levels of performance and 3. Meaningful work. The statements used to constitute the test for this dimension all relate to the commitment of the individual due to motivational considerations and the perception of value of the work that the individual performs. The overall theme of these statements is commitment and that is why the dimension was named commitment. The expression of the self requires commitment from the individual. The statements relating to this dimension measures this level of commitment of the respondent.

6.3.1.4 The recommend dimension.

The recommend dimension is basically the originally proposed dimensions of feelings of pride towards the company. This dimension had very high factor loadings in the factor analysis (0.826). It is intuitive that an engaged employee would recommend their company to others including their families. This is the basis for including this dimension in the analysis.

6.3.1.5 The reward dimension.

The reward dimension is a combination of the originally proposed dimensions of Meaningful work and Positivity of the environment. After careful consideration of the statements measuring these proposed dimensions they were combined into the reward dimension. Financial reward has always been used as a lever to try to improve employee engagement, but with limited success (Towers Perrin, 2003). In this dimension the tangible and intangible reward mechanisms are grouped together and evaluated.

6.3.2 Using the newly determined dimensions of employee engagement to predict the employee engagement as measured by the UWES score.

Having determined the five new dimension of employee engagement the use of these dimensions to determine employee engagement had to be measured using linear regression. The newly identified dimensions were used as predictors and the three dimensions of the Utrecht work well being survey (UWES) was used as dependant variables. The three dimensions of the UWES were used separately to eliminate the effect of co-linearity that might exist between the dimensions. As stated earlier the UWES can be used as single score measure or a three score measure of employee engagement the separate use of the dimensions in regression analysis is preferred (Schaufeli & Bakker 2003).

All three dimensions of the UWES score could be predicted by using the newly identified dimensions and the R squared values of the three models were $R^2 = 0.615$ for Vigour (dependant variable), $R^2 = 0.67$ for Dedication and $R^2 = 0.575$ for Absorption. The models are represented mathematically by the following equations:

$$\begin{aligned} \text{Vigour} = & 0.195*(\text{Positive attitude score}) + 0.015*(\text{Negative manager} \\ & \text{experience score}) + 0.053*(\text{Recommend score}) + 0.712*(\text{Commitment score}) \\ & - 0.107*(\text{Reward score}) + 0.392 \end{aligned}$$

$$\begin{aligned} \text{Dedication} = & 0.019*(\text{Positive attitude score}) - 0.059*(\text{Negative manager} \\ & \text{experience score}) + 0.076*(\text{Recommend score}) + 0.943*(\text{Commitment} \\ & \text{score}) + 0.128*(\text{Reward score}) - 0.810 \end{aligned}$$

$$\begin{aligned} \text{Absorption} = & 0.206*(\text{Positive attitude score}) + 0.007*(\text{Negative manager} \\ & \text{experience score}) + 0.005*(\text{Recommend score}) + 0.741*(\text{Commitment score}) - \\ & 0.47*(\text{Reward score}) + 0.113 \end{aligned}$$

Although the R squared values are rather low, the dimensions however can be used to determine the employee engagement. To support these findings the correlations between the newly defined dimensions and the dimensions of the UWES score was determined. The commitment dimension correlated with vigour ($r = 0.753$), dedication ($r = 0.799$) and absorption ($r = 0.732$) and positive attitude gave a

medium effect correlation with the dimensions of vigour ($r = 0.467$), dedication ($r = 0.402$) and absorption ($r = 0.464$). These correlations are indicative of the fact that the new dimensions are relevant for determining employee engagement. Further refinement of the concepts could be done to increase the validity of the new dimensions in determining employee engagement.

6.3.3 The implications of these findings.

The implications of determining new dimensions for employee engagement are various: 1. With some refinement a new test for employee engagement can be developed to measure this important construct. 2. New levers can be identified for interventions where employee engagement is low and 3. More insight can be gained into what makes employees contribute to their work.

6.4 Research Question 3: Do the demographics of the respondent influence the perception of wisdom of the manager?

None of the ANOVA calculations performed on the means of the scores with respect to the different demographic elements of the respondent gave any indication that the means were different. It can therefore be deduced that the demographics (size of the organisation, age of the respondent, gender of the respondent, race of the respondent, seniority and education level of the responded) has no influence on the perception of wisdom score.

6.5 Research Question 4: Do the demographics of the manager influence the perception of wisdom?

Similar to research question 3, no evidence could be obtained from the ANOVA calculations that the demographics of the manager influence the perception of wisdom of the employee. The only difference in the perception of wisdom for managers was observed for managers that belong to the Coloured, Indian and Asian race groups. The sample size for this group was however too small to make any statistically significant deduction possible. The observation that the demographics of the manager has very little to do with the perception of wisdom is supported by previous studies where the perception of wisdom could only slightly be correlated with the age of the respondent and less tangible cues were used by respondents to judge the wisdom of the subject of study (Stange, 2005). The range of the age of the managers was too small to make a conclusion over the effect of age on the perception of wisdom. Further research is needed to determine if age has a significant effect on the perception of wisdom.

6.6 Research Question 5: Is there a correlation between perceived managerial wisdom and employee engagement.

The correlation between perceived managerial wisdom and the UWES scores independently were calculated and a clear medium effect size correlation between perceived managerial wisdom and the dimension of dedication ($r = 0.312$) and

absorption ($r = 0.325$) was observed. For the dimension of vigour a small effect size correlation ($r = 0.241$) was observed with perceived managerial wisdom (Table 5.39).

This correlation is very important as it supports the basis of the study. It is interesting to note that the perception of wisdom correlates more with the dimensions of dedication and absorption and less with vigour. According to Attridge (2009) the emotional component is strongly associated with the construct of dedication, the physical or behavioural dimension is strongly associated with the construct of vigour and the cognitive dimension is associated with absorption (Attridge, 2009). The perception of wisdom is therefore more associated with the cognitive and the emotional dimension and therefore the mind and the feelings of the employee. The behavioural/physical dimension is less correlated, but there is also a statistically significant correlation.

The premise of the study was that if an employee is lead or managed by an individual that take their values and needs into consideration i.e. someone who is perceived as wise (from the definition of wisdom presented in chapter 2), the employee would be more engaged. The results of this study support this notion.

The question then begs: what is the applicability of this finding? The first point to consider is that wisdom can be learned through experience and reflection. The study therefore suggests that if managers focus on developing these skills they can create

an environment for employees to become more engaged. The benefits of engagement have been reported before, and can be briefly summarised as follows:

1. Employees that are engaged are more productive.
2. Employees that are engaged are easier to work with. Reduced employee turnover, less labour disputes, less absenteeism.
3. Employees trust in management makes change management easier.
4. Employee willingness to take on responsibility above and beyond their responsibilities.
5. A generally more positive work environment.
6. Better quality and
7. Customer service.

The list of benefits is by no means exhaustive, and various financial performance improvements are implicated in these benefits. The employee engagement literature is filled with reasons why engagement is important and Kahn probably summarises it the best in defining engagement as:

“the harnessing of organizational members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (Kahn 1990, p. 694).

The engaged therefore expresses the self in their roles and therefore employs personal energy in the expression of the self in a specific role. Furthermore due to

the determination of the characteristics that managers are judged on when perception of wisdom is measured we now have a means of identifying managers on this basis, design developmental paths to improve managerial wisdom and measure progress through applying the questionnaire developed for this study. There are other issues that influence employee engagement like labor practices, working conditions and environment, but the leader or manager of a group of people has a significant role to play in creating the environment for individuals to perform at their best. Wisdom or at least the perception of wisdom by the employees can now be added to the subject matter of leadership to enable the continuous improvement of management practices, specifically as they pertain to the well being of employees.

6.7 Research Question 6: Which academic dimensions of wisdom exhibited by the manager has the biggest correlation with employee engagement?

Having determined that a correlation between perceived managerial wisdom and employee engagement exist, the matter was further investigated to see which dimensions of perceived managerial wisdom correlated most with employee engagement.

A medium effect size correlation (Table 5.40) between the knowledge based dimension and the dimension of dedication ($r = 0.305$) and absorption ($r = 0.326$) was found. For the dimension of vigour a small effect size correlation ($r = 0.239$) was observed with the knowledge based dimension. These results can again be

interpreted that the knowledge based dimension influences the cognitive and emotional dimensions more than the physical/behavioural dimension of vigour. This is in-line with the results found with the perception of wisdom.

A medium effect size correlation was also determined between the values based dimension and the dimension of dedication ($r = 0.306$) and absorption ($r = 0.341$). For the dimension of vigour a small effect size correlation ($r = 0.288$) was observed with the knowledge based dimension. This correlation is however approaching medium size effect and is therefore significant. Again these correlations were consistent with the perception of wisdom correlation with adsorption and dedication.

No further significant correlation was found and it can be deduced that the knowledge based dimension of perceived managerial wisdom has the biggest correlation with employee engagement followed by the values based dimension.

This clarifies the requirements for a manager to influence employee engagement. A well developed knowledge base is not only important for wisdom, but also for employee engagement this coupled with strong values based behaviour can allow the manager or leader to influence the engagement of their employees.

7 Conclusions.

Wisdom is a concept that finds resonance with virtually everyone. Wisdom only exists in the eye of the beholder as someone is characterised as wise by someone else. Wisdom is difficult to study due to the complexity of defining wisdom outright and various models propose characteristics of individuals that are perceived as wise as indicators for wisdom but wisdom finds its real application in the decision making ability of the individual. People would characterise someone as wise if they believe that the decisions made by the person (the manager in this instance) is informed by the values of all stakeholders and have long term validity (Sternberg et al 2007).

With increasing demands placed on individual managers to make decisions in contexts where various stakeholders and the natural environment has to be taken into consideration, managers are having to consider the greater good before deciding on a course of action. The greater good then also takes into consideration the values, beliefs and needs of the employees and by asking respondents to rate their managers level of wisdom, why they perceive their managers as wise and what constitutes employee engagement in their minds, a correlation between the perception of wisdom and employee engagement was deduced.

The evidence from this study suggests that the perception of wisdom is correlated with employee engagement, especially the cognitive and emotional dimensions of employee engagement. New dimensions of perceived managerial wisdom was

identified and used to develop a model that can predict the perception of managerial wisdom. As wisdom only exists in the mind of the perceiver this model allows for the measurement of implicit wisdom. The implication of this is that one can extract the characteristics that people use to assign wisdom to another person and then measure wisdom empirically through a questionnaire. But most importantly these results can be used to develop characteristic matrixes that allow for the identification of managers based on their ability to be perceived as wise and that has the latent ability to make decisions that are perceived by others as in the interest of the greater good. This research can lead to the development of leaders that have the ability to function better in these complex contexts and that are perceived by their followers and stakeholders as competent decision makers.

The demographics of the respondent and the manager were also investigated to determine if any relationship exist between the demographics and the perception of wisdom. No statistically significant effect of demographics for either the respondent or the manager could be found. It can therefore be deduced that the demographics (size of the organisation, age of the respondent/manager, gender of the respondent/manager, race of the respondent/manager, seniority and education level of the responded/manager) has no influence on the perception of wisdom score. This finding is supported by previous studies where the perception of wisdom could only slightly be correlated with the age of the respondent and less tangible cues were used by respondents to judge the wisdom of the subject of study (Stange, 2005). In this study the range of the age of the manager was very limited and therefore the correlation of the perception of wisdom with age of the manager was not observed.

This study also aimed to determine if other dimensions of employee engagement existed and a new model for the measurement of employee engagement was developed. The implications of determining new dimensions for employee engagement are various: 1. With some refinement a new test for employee engagement can be developed to measure this important construct. 2. New levers can be identified for interventions where employee engagement is low and 3. More insight can be gained into what makes employees contribute to their work.

A clear relationship in the form of correlations was observed between specifically the cognitive and emotional dimensions of employee engagement and the perception of wisdom. The implication of this can be summarised as follows:

1. The first point to consider is that wisdom can be learned through experience and reflection. The study therefore suggests that if managers focus on developing these skills they can create an environment for employees to become more engaged.
2. The benefits of engagement can be realised through development of the leader/manager, including financial returns.
3. Furthermore due to the determination of the characteristics that managers are judged on when perception of wisdom is measured we now have a means of identifying managers on this basis, design developmental paths to improve managerial wisdom and measure progress through applying the questionnaire developed for this study.

There are other issues that influence employee engagement like labor practices, working conditions and environment, but the leader or manager of a group of people has a significant role to play in creating the environment for individuals to perform at their best. Wisdom or at least the perception of wisdom by the employees can now be added to the subject matter of leadership to enable the continuous improvement of management practices, specifically as they pertain to the well being of employees.

Throughout this study the importance of knowledge, values and emotional control of the manager was highlighted. The requirements for a manager to influence employee engagement are thus clarified slightly better through this study and can be summarised as follows: A well developed knowledge base is not only important for wisdom, but also for employee engagement and this coupled with strong values based behaviour can allow the manager or leader to influence the engagement of their employees. This coupled with good emotional control and intelligence determines the success of the manager in engaging employees.

Through the further development of the concepts proposed in this study we can move towards creating a sustainable business environment that takes care of society, the environment and the most important part of any business: its people.

The philosopher Nicholas Maxwell summarises the need for the pursuit of wisdom in today's world with the following statement:

“It is hardly too much to say that all our current global problems have come about because of the successful scientific pursuit of knowledge and

technological know-how dissociated from wisdom. The appalling destructiveness of modern warfare and terrorism, vast inequalities in wealth and standards of living between first and third worlds, rapid population growth, environmental damage, destruction of tropical rain forests, rapid extinction of species, global warming, pollution of sea, earth and air, depletion of finite natural resources, all exist today because of the massively enhanced power to act (of some), made possible by modern science and technology. Nevertheless, science as such is not the problem, but rather science dissociated from the pursuit of wisdom.” (Maxwell, 2003)

This quote sound very much like Plato’s call for “philosopher kings” in Republic?

This study does not aim to reduce wisdom or employee engagement to simple constructs, but rather as a call to managers to start asking the difficult questions about the “greater good” and how their decisions impact the lives and well-being of others.

References.

Attridge, M., (2009), Measuring and Managing Employee Work Engagement; A review of the Research and Business Literature., *Journal of Workplace Behavioural Health*, 24, 383-398.

Babbie, E. & Mouton, J., (2001), *The practice of Social Research. South African Edition*. Cape Town: Oxford University Press.

Babcock-Roberson M. E., & Strickland O. J., (2010), The Relationship Between Charismatic Leadership, Work Engagement, and Organizational Citizenship Behaviors, *The Journal of Psychology*, 144(3), 313–326.

Baltes, P. B. & Staudinger U. M., (1993), The search for a Psychology of Wisdom., *Current Directions in Psychological Science*, 2(3). 75-80.

Baltes, P. B. & Staudinger U.M., (2000), Wisdom: A Metaheuristic (Pragmatic) to orchestrate mind and virtue toward excellence, *American Psychologist*, 55(1). 122-136.

Cartwright, S. & Holmes, N., (2006), The Meaning of work: The challenge of regaining employee engagement and reducing cynicism. *Human Resource Management Review*, 16, 199-208.

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (Revised edition). Orlando, CA: Academic Press.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16 (3), 297-334.

Flemming, J. H., Coffman, C., Harter, J. K., (2005). Manage your human sigma. *Harvard Business Review*, 83(7/8), 106-114.

Jeste, D. V. & Vahia, I. V., (2008), Comparison of the conceptualization of Wisdom in Ancient Indian Literature with Modern Views: Focus on the Bhagavad Gita. *Psychiatry*, 71(3). 197-209.

Kunzmann, U. & Baltes, P. B., (2003), Wisdom-related Knowledge: Affective, Motivational and Interpersonal Correlates, *Personality and Social Psychology Bulletin*, 29, 1104-1119.

Küpers, W., M., (2007) Phenomenology and integral Pheno-practice of Wisdom in leadership and Organization., *Social Epistemology*, 41 (2), 169-193.

Levin R. I., & Rubin D. S., (1991) *Statistics for Management* (5th edition). Englewood Cliffs, NY: Prentice-Hall International.

Luckcock, T., (2010), Spirited Leadership and the Struggle for the Soul of Headteachers: Differentiating and Balancing Nine Types of Engagement., *Educational Management Administration & Leadership*, 38(4) 405–422

May, D. R., Gilson, R. L., Harter, L. M., (2004), The Psychological conditions of meaningfulness, safety, and the availability of the Human Spirit at work., *Journal of organizational and occupational Psychology*, 77, 11-37.

Maxwell, N.,(2003), Do Philosophers love wisdom, *The Philosophers' Magazine*, 22, 22-24.

Montgomery, A., Barber, C., McKee, P., (2002), A Phenomenological study of wisdom in later life., *International journal of aging and human development.*, 54(2), 139-157.

Pasupathi, M. & Staudinger U.M., (2001), Do Advanced Moral reasoners also show wisdom? Linking moral reasoning and wisdom-related knowledge and judgement, *International journal of behavioural development*, 25(5), 401-415.

Schaufeli, W. & Bakker, A., (2003), Utrecht Work Engagement Scale: preliminary manual. Occupational Health Psychology Unit Utrecht University. Available at www.schaufeli.com/ (accessed 30/05/2010).

Shipley, G., (2004). Sophology: The word. Available at http://sophology.org/sophology_word.htm (accessed 30/05/2010).

Stange, A., (2005). *The social dimension of wisdom: Conditions for perceiving advice-giving persons as wise*. Doctoral thesis, Free University of Berlin. Available at <http://www.diss.fu-berlin.de/2006/462/> (accessed 20/02/2010).

Sternberg, R. J., (2008), The WICS approach to Leadership: Stories of Leadership and the Structures and Processes that support them., *The Leadership Quarterly*., 19, 360-371.

Sternberg, R. J., Reznitskaya, A., Jarvin, L., (2007), Teaching for wisdom: what matters is not what students know, but how they use it., *London Review of Education*., 5(2), 143-158.

Sternberg, R. J., (2004), What is wisdom and how can we develop it?, *The Annals of the American Academy of Political and Social Sciences*., 591, 164-174.

Unknown., (2003)., Working Today: Understanding what drives Employee Engagement. *The Towers Perrin Talent report 2003 (US report)*. Towers Perrin.

Webster, J. W., (2003), An Exploratory Analysis of a Self-Assessed Wisdom Scale., *Journal Adult Development*, 10(1), 13-22.

Wefald, A. J. & Downey, R. G., (2009), Construct Dimensionality of Engagement and its Relation with Satisfaction., *The Journal of Psychology*, 143(1), 91-111.

Yang, Y., (2009), An investigation of group interaction functioning stimulated by transformational leadership on employee intrinsic and extrinsic job satisfaction: An extension of the resource-based theory perspective., *Social Behaviour and Personality*, , 37(9), 1259-1278.

Zikmund, W. G., (2003), *Business research methods*. 7th ed. Ohio: Thompson South Western

Appendix 1: Questionnaire:

Part 1.

This survey aims to collect data about employee engagement and your perception of your manager's level of wisdom. Please answer as accurately as possible and follow instructions in each section. Your participation in this research is voluntary and you can withdraw at any time. By completing the survey, you indicate that you voluntarily participate in this research. All data will be kept confidential and you will have access to all the results of the study by contacting me or my supervisor. Our details are provided below. Your participation in this research is greatly appreciated.

Researcher name:	Dr. Jan Reynhardt	Dr. Dave Beaty (Supervisor)
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Demographic section :

D1. Please provide us with the following information about yourself:

Age.....

Gender (M/F).....

Nationality.....

Race:

White	Black	Coloured	Indian

Your level of education:

Primary school	Secondary school	Diploma	Degree	Post graduate degree
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Seniority:

Non Management	Team leader	Middle management	Senior management	Executive management

My company has:

Less than 100 employees	100-500 employees	500-5000 employees	More than 5000 employees

D2. Please provide us with the following information about the manager that you will be evaluating:

Age.....

Gender (M/F).....

Nationality.....

Your relationship to the Manager

Direct report	Not direct report (evaluating senior management)

Race:

White	Black	Coloured	Indian

Your manager's level of education:

Primary school	Secondary school	Diploma	Degree	Post graduate degree

Seniority:

Non Management	Team leader	Middle management	Senior management	Executive management

Part 2.

Work & Well-being Survey (UWES) ©

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 feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

1. At my work, I feel bursting with energy

	Almost never	Rarely	Sometimes	often	Very often	Always
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

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

	Almost never	Rarely	Sometimes	often	Very often	Always
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

3. Time flies when I'm working

	Almost never	Rarely	Sometimes	often	Very often	Always
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

4. At my job, I feel strong and vigorous

	Almost never	Rarely	Sometimes	often	Very often	Always
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. I am enthusiastic about my job

	Almost never	Rarely	Sometimes	often	Very often	Always
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

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

	Almost never	Rarely	Sometimes	often	Very often	Always
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

7. My job inspires me

	Almost never	Rarely	Sometimes	often	Very often	Always
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

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

	Almost never	Rarely	Sometimes	often	Very often	Always
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

9. I feel happy when I am working intensely

	Almost never	Rarely	Sometimes	often	Very often	Always
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

10. I am proud of the work that I do

	Almost never	Rarely	Sometimes	often	Very often	Always
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

11. I am immersed in my work

	Almost never	Rarely	Sometimes	often	Very often	Always
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

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

	Almost never	Rarely	Sometimes	often	Very often	Always
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

13. To me, my job is challenging

	Almost never	Rarely	Sometimes	often	Very often	Always
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

14. I get carried away when I'm working

	Almost never	Rarely	Sometimes	often	Very often	Always
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

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

	Almost never	Rarely	Sometimes	often	Very often	Always
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

16. It is difficult to detach myself from my job

	Almost never	Rarely	Sometimes	often	Very often	Always
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

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

	Almost never	Rarely	Sometimes	often	Very often	Always
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

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The following 28 statements (number 18-46) are about how you perceive your manager (the person you are evaluating). Please read each statement carefully and decide if you agree or disagree with the statement of your manager. You can rate your agreement with the statement from 0 (Strongly disagree) to 6 (Strongly agree). Please answer to the best of your ability, being as honest as possible. Remember all information will be kept confidential.

The level of procedural and factual knowledge about life of the manager. *

18. My manager is very knowledgeable about life (experienced in life matters)

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Integrity of the manager. *

19. My manager has unquestionable integrity

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Compassion of the manager. *

20. My manager exhibit compassion for others

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Manager's ability to practice empathic listening. *

21. My manager listens to me.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

22. My manager understands me when I talk to him/her.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Trust in management. *

23. I trust my manager.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

The level of management's ability to regulate emotions. *

24. My manager regularly loses his temper.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

25. My manager is very emotional.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Perception of the value (good vs. bad) of management decisions. *

26. My manager usually makes the right decision.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

27. My manager usually makes decisions that take employee needs into consideration.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

28. My manager usually makes good decisions.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Respect shown by management for employees. *

29. My manager respects me.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

30. I respect my manager.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Leadership's ability to transfer knowledge. *

31. My manager shares his knowledge.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

32. My manager is a good teacher.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

The use of this knowledge to make quality decisions. *

33. My manager uses his knowledge to make decisions.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

34. My manager makes decisions that are impulsive (not well thought through).

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

The perception of the relativism of management values. *

35. My manager has strong values.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

36. My manager's values are similar to mine.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

37. My manager is very conservative in his approach to things.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

38. My manager is very open-minded.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Insight of the manager. *

39. My manager understands my personal issues.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

40. My manager tries to understand why people do things.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

41. My manager is a very insightful person.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

The perceived performance of the manager during uncertain times. *

42. My manager leads by example.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

43. My manager is strong during difficult times.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

44. My manager always knows what to do during difficult times.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

45. My manager stays calm and focused during difficult times.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

The level of the manager's wisdom. *

46. I think my manager is a wise person.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

The following 20 statements (number 47-67) are about how you feel about your work. Please read each statement carefully and decide if you agree or disagree with the statement. You can rate your agreement with the statement from 0 (Strongly disagree) to 6 (Strongly agree). Please answer to the best of your ability, being as honest as possible. Remember all information will be kept confidential.

Meaningful work. *

47. My work is important to me.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

48. My work is important to my company.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

49. My work makes a difference to society.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Challenging work. *

50. I find my job challenging.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

51. My job requires great skill.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Emotional safety. *

52. I am afraid of my manager.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

53. I find my manager intimidating.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

54. I speak up without fear of reprimand.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Positivity of the environment. *

55. People at my work are positive people.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

56. My manager always focuses on the positive side of things.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

57. I like my work environment.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

58. My best friend works for the company.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

59. I get rewarded for my efforts at work.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

60. I get recognition for my efforts at work.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

61. I am respected at work.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Feeling of pride towards the company. *

62. I am proud to work for my company.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

63. I would recommend my company to my best friend.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

64. I would recommend that my child find employment at my company.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

65. I am currently looking for alternative employment outside my company.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

Personal commitment and motivation to perform at high levels of performance.*

66. I am personally committed to achieve my goals at work.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

67. I am motivated to go to work every day.

Strongly disagree (0)	Disagree (1)	Somewhat disagree (2)	Not sure (3)	Somewhat agree (4)	Agree (5)	Strongly agree (6)

*Headings will not be included in final questionnaire.