

# The relationship between trust and the success of value based management initiatives

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Mini-dissertation submitted for the degree *Masters in Business Administration* at the Potchefstroom Campus of the North-West University

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November 2012

## DECLARATION

## **ACKNOWLEDGEMENTS**

Looking at the finished product of this research study, I realise there are many people that I have to acknowledge and thank. They have been instrumental in the process to realise my dream of writing a thesis to obtain my MBA.

Firstly, I would like to thank the Potchefstroom Business School and all its lecturers for the opportunity to learn and grow as an individual. Your knowledge and insight into the various subject fields has enabled me to think more strategically and has ultimately enabled me to write this thesis. Thank you Prof. Inus Nel for expanding my knowledge on Financial Management and challenging me to combine Trust and Value based management in a research study. Thank you Prof. Faans Steyn for the statistical analysis and the knowledge you shared around factor analysis. From Unisa, thank you Marinda Kotzé for the thorough language editing you did on the thesis.

A very special thank you to my amazing supervisor Marita Heyns. Thank you for continuously motivating and challenging me to lift my standards and to think wider than just the information at hand. Your passion for your subject field and your integrity has been inspirational to me.

To my family and friends, thank you for your understanding and support during this process. Without you, this achievement would not have been possible. A special thank you to my sister in law, Leanie Louw, who assisted with the translation of the questionnaires.

To my inspirational husband who also did his MBA with me. Thank you for going on this life changing journey with me. Your support, motivation and strive for excellence has inspired me to want to continue to grow and learn for the rest of my life. Thank you for always making the time to listen to my concerns and to challenge my way of thinking. I cherish this process that we shared and love you with everything that I am.

Lastly, to our Heavenly Father through whom all things are possible. Thank you for teaching me about Your grace throughout this MBA.

## **ABSTRACT**

The present study explored the relationship between trust and the success of value-based management (VBM) initiatives. According to Dirks and Ferrin (2001:450), academics from diverse disciplines, backgrounds and time periods, agree that trust is advantageous to the operations of organisations. Trust is thus beneficial to any organisation. The ultimate goal of VBM is to create value (Koller, 1994:87) which in turn creates wealth for stakeholders. The present study explored the relationship between trust and the successful implementation of VBM initiatives to provide support that value creation can be maximised if both constructs exist together within an organisation.

Kaap Agri, an agricultural services group, which supplies products and services to the agricultural sector and to the general public (Kaap Agri, 2011), was selected for the present research study. Employees of Kaap Agri completed questionnaires that measured both trust and VBM. The respondents were grouped into two separate groups which became the basis used for the study. The results of the two separate groups within Kaap Agri were compared to provide insight into the different levels of trust and the different levels of successful implementation of VBM.

To explore the relationship, both constructs was analysed and measured separately. The dissertation starts with a discussion on the accepted definitions for each key construct, followed by a literature review. The empirical research is discussed in Chapter three, which includes a discussion of the reliability and validity of the measuring instrument and the data that was obtained. Quantitative research was used during the study. The results of measuring both constructs are discussed separately and statistical analyses provide insights into the relationship between trust and VBM. The dissertation concludes with recommendations for future research and management considerations with regard to the research results.

The results indicate that the group with higher levels of average trust also had higher scores for VBM. Although no causality is implied, the relationship between the constructs suggests that further research with a larger sample could prove causality. Furthermore, the results showed that all three inputs of trust have a significant strong positive relationship with the total average VBM. A significant strong positive relationship between total average VBM and total average trust was also found.

The primary research question of the research study, which is to determine if there is a relationship between the level of trust within an organisation and the successful implementation of VBM initiatives, was answered. The present study therefore provides a platform for future research to further explore the relationship between trust and VBM and possibly provide evidence of causality.

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## **CHAPTER 1**

### **1 NATURE AND SCOPE OF RESEARCH STUDY**

#### **1.1 INTRODUCTION**

The study examines the influence of interpersonal trust on the successful implementation of value-based management (VBM) initiatives within an organisation. Researchers such as Mayer, Davis and Schoorman (1995) have found that trust within the organisation can lead to positive outcomes. The present study will investigate whether there is a relationship between trust and the successful implementation of VBM initiatives.

This chapter introduces the present study by presenting a brief background of the study with specific emphasis on the study's problem statement, research objectives, scope and methodology. The chapter concludes with a discussion on the limitations and anticipated problems that were expected during the course of the study.

##### **1.1.1 Background**

In the ever changing competitive business environment of South Africa, management of organisations is faced with continuous pressure to provide shareholders with the most wealth possible. The management of organisations has to continuously ensure that their organisation has a competitive advantage to maximise not only the profits of the organisation, but also to create the most wealth and value for its shareholders.

A number of scholars are currently researching the influence of developing hidden treasures, such as trust, on specific performance outcomes of the organisation. Scholars such as these have not only found that trust can change employees' and managements' attitudes towards taking risk, but also that trust can positively influence performance and organisational citizenship behaviour (OCB) leading to internal value being generated (Colquitt, Scott & LePine, 2007; Dyer & Chu, 2003; Mayer & Gavin, 2005).

VBM initiatives have been used by many organisations to create, manage and measure value for its stakeholders. "Value-based management is a management control system that measures, encourages and supports the creation of net worth" (Ameels, Bruggeman & Scheipers, 2002:5). However in the current economic climate managers must focus on

extracting the maximum value from VBM initiatives (VBM, 2012). Utilising an internal value driver, such as trust, could therefore positively influence and increase the value generated from successfully implemented VBM initiatives.

### **1.1.2 Significance of the research**

One of an organisation's most valuable assets is its people and to remain competitive, organisations must utilise its assets to work together to create value. The researcher of the present study has found that in the corporate environment, one of the key stumbling blocks that restrain colleagues from working together is a lack of trust. Realising that the existence of trust can have a positive influence on the organisation, the author started to consider the impact of trust on other improvement initiatives, such as continuous improvement, VBM and strategic business development initiatives. This made the author consider investigating the impact of trust on specifically VBM initiatives that can create wealth for the organisation's stakeholders.

According to Dirks and Ferrin (2001:450), academics from diverse disciplines, backgrounds and time periods, agree that trust is advantageous to the operations of organisations. Mayer *et al.* (1995:712) defines trust as: "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party." The model from Colquitt, Scott and Lephine (2007:919) which was derived from an integrated model of organisational trust (Mayer *et al.*, 1995:715), illustrates a variety of outcomes used to determine if a correlation exist between trust and these outcomes. These outcomes include risk-taking, task performance, citizenship behaviour and counterproductive behaviour. Two of these outcomes, namely task performance and organisation citizenship behaviour (OCB), form part of the inputs required for VBM. In Chapter 2, the difference amongst interpersonal, organisational and inter-organisational trust is discussed as well as the difference between trust and distrust. This research study focuses on interpersonal trust in an organisational setting and the relationship thereof with VBM.

The VBM process is used to determine the drivers of a strategy, understanding how the drivers create value and then subdividing these drivers into manageable action steps and activities (Frigo, 2002:6). Although the outputs of trust, such as OCB, are not the focus of the study, it is important to understand the relationship of these outputs as inputs to the successful or unsuccessful implementation of VBM initiatives. The outputs of trust are thus

the inputs of VBM. Wealth creation through VBM can thus possibly be increased if trust is present within the organisation to maximise performance and OCB.

The research will focus on the relationship between trust and the successful implementation of VBM initiatives to ensure that the maximum possible value is created. In addition, the research will aim to add value by providing confirmation of the importance of trust within an organisation when implementing VBM initiatives. This will assist management of organisations to first address trust within the organisations whereafter the value obtained from VBM can be maximised.

Various studies have included the concepts of trust and VBM, albeit separately. Studies that included both trust and VBM could not be found. This means that the present study can be seen as an exploratory study on the relationship between levels of trust and VBM, which could provide a platform for future studies.

The above section provided context as to how specific outputs of trust are inputs to VBM initiatives. The following section provides context to the study's problem statement.

## **1.2 PROBLEM STATEMENT**

It can be anticipated that a lack of trust can divert an employee's focus and attention away from activities that positively contribute to the organisation within which he or she operates. The ability to focus only on value-producing activities in an environment, where trust exists irrespective of the power that others in the organisation have, will result in a trust-performance relationship (Mayer & Gavin, 2005:875).

The researcher is of the opinion that organisations fail to understand the importance of trust during the implementation of company-wide management systems, such as VBM. By not having sufficient levels of trust, organisations stand to lose out on the potential value that could have been obtained through implementing these initiatives.

Kaap Agri was selected as the participant sample organisation for the present study. Kaap Agri is an agricultural services group that supplies products and services to the agricultural sector and to the general public (Kaap Agri, 2011). With its head office situated in Malmesbury, Kaap Agri has 147 operating points in over 84 cities and towns throughout South Africa and its footprint stretches into Namibia. In addition to its broad footprint in South Africa, Kaap Agri is the largest shareholder in Pioneer Food Group Limited (Kaap Agri,

2011). Kaap Agri was selected as participant sample for the present study because of its focus on adding lasting value to its stakeholders' lives, which is in line with VBM's aim of creating value. This research was conducted with the consent of the executive management team of Kaap Agri. A letter of consent can be found in Annexure A.

The objective of this research is to investigate the relationship between the existence of trust and the successful implementation of VBM initiatives. The research explores whether the presence of trust within Kaap Agri could influence the creation of more value by implementing VBM initiatives more successfully than if trust was not present.

### **1.3 RESEARCH OBJECTIVES**

#### **1.3.1 Primary objective**

The primary objective of this research is to explore whether the existence of trust within the organisation will have an influence on the successful implementation of VBM initiatives. The research study will thus explore whether there is a relationship between the existence of trust and the successful implementation of VBM initiatives within the organisation. The primary research question is as follows: Is there a relationship between the level of trust within an organisation and the successful implementation of VBM initiatives?

#### **1.3.2 Secondary objectives**

The specific objectives of the present study are:

- Is the level of hierarchy (dyadic) trust influenced by the level of trust in the ability, benevolence and integrity of management?
- Does the level of trust in the ability of management influence the successful implementation of VBM?
- Does the level of trust in the benevolence of management influence the successful implementation of VBM?
- Does the level of trust in the integrity of management influence the successful implementation of VBM?
- Does employees' trust propensity influence their overall level of hierarchy trust?
- Can the consistency of VBM elements identified be used as non-financial measurement to measure the successful implementation of VBM initiatives?

- Does previous exposure to the construct of VBM influence the average level of successful implementation of VBM initiatives?

The above section discussed the primary and secondary objectives of the research study. The next section discusses the scope of the research study.

## **1.4 SCOPE**

The primary discipline of this research is Organisational Behaviour, with Financial Management as a secondary discipline. The research will cover the topic of dyadic trust within the organisational environment and the influence thereof. The research will exclude the topic of co-worker and cross-cultural trust and the influence thereof on overall trust within the organisation.

Additionally, the research will cover aspects of VBM within the Financial Management discipline. VBM will be measured with a non-financial and a financial measurement tool. The financial measurement that will be utilised to determine if economic value was created from VBM is Economic Value Added (EVA).

The company selected for the present study, Kaap Agri, provides diversified products and services to their customers to enable them to perform their activities in the agricultural environment which includes small grain, table and wine grapes, stone fruits, vegetables, citrus, milk, meat and wool to name a few (Kaap Agri, 2012). Kaap Agri's strategic framework is focused on Financials/Growth, Customer services/Marketing, Admin/Systems and Personnel (Liebenberg, 2012). The organisation is committed to growing their business and deliver profits whilst ensuring that their employees are motivated and equipped (Liebenberg, 2012). With the organisational commitment to add value to the organisation for their stakeholders, Kaap Agri is the ideal candidate for the present study, which focuses on trust and VBM. The following section discusses the research methodology.

## **1.5 RESEARCH METHODOLOGY**

### **1.5.1 Research approach**

According to Welman, Kruger and Mitchell (2005:8), quantitative research is used to assess objective data whereas qualitative data is used to assess subjective data. Trust within the organisation is influenced, amongst other factors, by an individual's trust propensity. In the

present study, individuals' subjective perceptions with regard to trust instead of their inherent trust propensity will be measured. Measuring trust within the organisation will thus involve measuring subjective data. Table 1-1 below is based on literature from Welman *et al.* (2005:8-9) and indicates the various differences between quantitative and qualitative research and its application to the present study.

The present study aims to define the levels of trust within the organisational departments as well as to define the levels of VBM implemented within the departments. Thereafter, it aims to establish a correlation between these two variables, namely levels of trust and levels of VBM. Based on these considerations the quantitative research approach is considered as the more appropriate option to use and was utilised during the present study.

#### 1.5.1.1 Quantitative research

The selected research methodology, namely quantitative research, is discussed at the hand of specific concepts to explain that controls are established to ensure reliable and valid research outcomes are provided from the present study.

The truth value of quantitative research refers to the suitability of study interpretations and refers to internal validity (De Vos, Strydom, Fouché & Delpont, 2005:73). According to Wellman *et al.* (2005:107), "internal validity describes the degree to which changes in the dependent variable are indeed due to the independent variable rather than to something else". For the purpose of the present study, internal validity describes the degree to which the changes in the levels of trust within the organisation influences the levels of VBM successfully implemented. The selection process as described in Section 1.5.3.2 ensures that internal validity remains high. In addition, statistical regression was utilised to find outliers which were excluded from the study.

External validity refers to the applicability of the research, based on the rule that the theory holds for the specific population used during the research as well as an external environment when it is applied (Wellman *et al.*, 2005:125). Threats to external validity were addressed by the researcher who ensured that the anticipated answers to the questionnaire were hidden from the respondents. To ensure external validity, both the sample size and the sampling method were designed to ensure that the research results are representative of the population.

**Table 1-1: Differences between quantitative and qualitative research**

	<b>QUANTITATIVE</b>	<b>QUALITATIVE</b>	<b>RESEARCH STUDY</b>
Type of data	Objective	Subjective	Trust is subjective, although the aim of the study is to measure the level of trust which is obtained by objective data.
Flexibility of data	Study design is stable and is based on collected facts that do not change easily	Study design is dynamic, changeable and is flexible to change easily based on the obtained responses.	The research study design is stable and will be based on collected facts to determine if there is a correlation between levels of trust and VBM.
Purpose of research	Deals with abstraction of reality.	Deals with the constraints of everyday events.	The study's objective is to define levels of trust and the levels of VBM implementation within the organisation. In addition, the study aims to determine whether there is a correlation between the two variables. It provides an abstraction of reality.
Approach	Structure of research controlled in order to identify variables. A particularistic approach is followed.	Research is structured to collect a wide range of data. A holistic approach is followed.	The research study is controlled to identify the variables relating to the levels of trust and VBM that is implemented.
Reliability and validity	Focused on reliability	Focused on validity	The present study is focused on the reliability and consistent measurement of data to ensure that it can be replicated.

Source: Welman *et al.* (2005:8-9)

The concept of consistency refers to the extent to which researches produce the same outcomes. For quantitative research this is known as reliability. It must be asked: “will the evidence and conclusions stand up to the closest scrutiny?” (Wellman *et al.*, 2005:145). The reliability of the present study is estimated by considering the internal consistency. The Cronbach’s coefficient alpha is used to measure the consistency across the items within the measurement or questionnaire (Wellman *et al.*, 2005:147). During the present study, only data from the questionnaire with a Cronbach coefficient alpha of over 0.7 was accepted (Boshoff & Hoole, 1998:77; Statistica, 2006).

The neutrality or objectivity of the research study must be considered. This refers to the influence of the researcher’s preconceived ideas on the outcomes of the study (De Vos *et al.*, 2005:73). To ensure that the present study was done objectively, an independent third party was requested to review the researcher’s interpretations and outcomes based on the data collected.

The quantitative research approach, as discussed above, was used during the present study. The next section presents a summary of the literature review (see Chapter two).

### **1.5.2 Phase 1: Literature review**

Research is the process of utilising scientific procedures to increase one’s knowledge about a specific field of study (Wellman *et al.*, 2005:3). This knowledge can then be used to explain the mystery of specific phenomena and is extremely important as it provides further understanding of the topic (Wellman *et al.*, 2005:9). “The review of literature is aimed at contributing towards a clearer understanding of the nature and meaning of the problem that has been identified” (De Vos *et al.*, 2005:123).

The literature review in Chapter two provides further knowledge regarding the topics of trust and VBM, based on research done previously. This provided the researchers with a better understanding of certain aspects of the constructs and how this should be applied within this research study.

“The credibility of a source is of critical importance” (De Vos *et al.*, 2005:127). According to De Vos *et al.* (2005:127), the most relevant sources for literature reviews is articles published in professional journals and scientific books. Scientific books are based on previous research or original research which had been subjected to peer reviews and evaluations. Articles in professional journals are viewed as an important source of

information as they are written by experts within the study field, and are peer reviewed. Additionally, they present the most recent developments within the research field (De Vos *et al.*, 2005:127).

Various publications concerning the Organisational Behaviour and Financial Management fields were consulted while writing the literature review. These publications include journals, textbooks and internet sources. Attention was given to ensure that the most recent research studies and publications were used. This ensures that the literature review is relevant to the current environment within which the research study was conducted. Journals, such as *Organization science journals*, the *Journal of applied psychology* and *Academy of management journals*, were consulted during the literature review. Additional focus was given to publications by experts in the study field, such as but not limited to, Mayer *et al.* (1995, 1999, 2005), Dirks and Ferrin (2001, 2002, 2007) and Knight (1997).

The subjects that are address in the literature review include the following:

- The background and general theory regarding trust within an organisation as well as the sub-items of trust.
- The background and general theory regarding VBM implementation within an organisation and the elements of VBM.
- The various definitions, antecedents and outputs of the existence of trust and VBM within an organisation.
- The different types of trust within an organisation.
- The relationship and effect of trust on the implementation of VBM.

Academic search engines, such as the North-West University (NWU) library and Google Scholar, were utilised to obtain scientific research. Recently published scientific and accredited academic journals were also used to complete the literature review.

### **1.5.3 Phase 2: Empirical study**

Research is conducted to investigate a research question or hypothesis by collecting data from the objects of investigation with the goal to solve a research problem (Wellman *et al.*, 2005:52). The empirical study of the research consists of the research design, the research participants, the measuring instrument and the statistical analysis performed on the collected data. These aspects are discussed in more detail below.

### 1.5.3.1 Research Design

The aim of the research design is to develop a plan that will be used as guideline to obtain research participants and to collect data from these participants to enable the researcher to draw conclusions about the research questions or problem (Wellman *et al.*, 2005:52). The present study can be classified as both descriptive and explorative. The research is descriptive as the nature of the variables, namely trusts and VBM, will be defined and described within the context of previous research studies and the current research study. In addition, the present study is explorative as it investigates and explores whether a relationship can be found between the two variables, namely levels of trust and VBM.

A quantitative research method was used during the present study and determined the research design that was utilised. The specific design is a non-experimental research design, namely correlational design, which relates to measurements at a single time. Random units of analysis are obtained, individually measured on two or more variables at the same time, whereafter the relationship between the variables are analysed (Wellman *et al.*, 2005:94). The selected research design is best suited for the present study as it enabled the researcher to individually measure the two variables and analyse the relationship between them.

The research was done based on a 12-month period (one year) to ensure both variables could be measured during the same time period. It answered the research question by determining whether a relationship exists between the levels of trust in the organisation and the success of VBM initiatives. The following section presents a discussion on the measuring instrument that was used.

### 1.5.3.2 Measuring Instrument

The construct of trust was measured with a questionnaire. The questionnaire was developed by Mayer and Davis (1999:136) and is aimed at measuring the facets of trustworthiness, such as ability, benevolence and integrity. The instrument consists of 29 statements, and is scored on a scale from one to five where one is “disagree strongly” and five is “agree strongly”. A typical statement is: “I would be willing to let top management have complete control over my future in this company”. A high score indicates a high level of the trust construct. In previous studies by Mayers and Davis (1999) and Colquitt and Rodell (2011), the reliability of the instrument was found to be adequate. Colquitt and Rodell (2011:1191) found that the alpha coefficients for this instrument ranged from .96 to .85 whilst Mayers and

Davis (1999:127) found that the alpha coefficients ranged from .96 to .55. The lower alpha coefficient found by Mayers and Davis (1999:127) in later waves could be expected because it was anticipated that levels of trust would change as the result of a new performance appraisal system that was implemented between the different waves of research that was conducted.

For the purpose of the present study, the success of the VBM construct was measured on a non-financial level and financial level. To determine the level to which VBM was successfully implemented on a non-financial level, the following elements were measured using a self-developed structured questionnaire. Participants were asked to rate to what extent they agreed with the definitions provided for each element on a 5-point scale:

- Consistency of organisational mission
- Consistency of organisational governance
- Consistency of organisational communication
- Consistency of decision-making process and systems
- Consistency of organisational strategy
- Consistency of organisational culture
- Consistency of arrangement or structure of the organisation
- Consistency of performance management processes and systems

The questionnaire consists of 20 items with a minimum of two questions per VBM element. Four additional questions were included to determine if employees know what the concept of VBM is, what the ultimate goal of VBM is and how VBM can be measured. To develop the questionnaire a systematic approach was followed. Firstly a qualitative interview with executive management was conducted to obtain a descriptive statement for each of the elements used to measure the successful implementation of VBM. A second definition that closely relates the correct definition was also formulated and respondents were requested to select how much they agree with the definition. The validity of this questionnaire was determined by the means of Cronbach's coefficient alpha and the minimum required score was set at 0.7 for data to be defined as reliable.

To measure VBM from with a financial measurement, Economic value added (EVA) was selected. EVA is a financial performance measure that measures the organisation's performance and can thus be used to determine the value that was added to the organisation and its measures (Brewer, Chandra & Hock, 1999:4). According to Brewer *et al.* (1999:5), "EVA helps overcome the goal incongruence that exists between the manager and

the firm". The primary strength of EVA is that it measures the wealth created that aligns the objectives of management with the objectives of the organisation (Brewer *et al.*, 1999:7). The researcher selected EVA as the financial measurement for the present study, as it provides a measure for both value created by management and the organisation's performance, whereas other measures only focus on organisational performance.

EVA was used to determine the extent to which value was added to Kaap Agri during the 12-month period ending 30 September 2011. The projected EVA of the following 12 months, if current profit trends continue, was additionally calculated and then compared to the EVA as it was on 30 September 2011. This provided an indication of the value added during the previous 12 months as well as the change in EVA over that period.

The measurement of VBM used in research is not defined and standardised (Beck & Britselmaier, 2011:270). Measuring VBM both financially and non-financially should therefore be seen as exploratory because VBM has mostly been measured financially in previous research. Together, these measurements of VBM will provide an overall score to measure the level of successful implementation of the VBM initiative within Kaap Agri. Both the financial and non-financial measures will carry equal weight as no research could be found that determine which measurement should carry the most weight.

A combined questionnaire was developed to include both the constructs of trust and VBM. The data collected was used to perform a statistical analysis. The following section presents a discussion of the sampling procedures that was used to collect the data.

#### 1.5.3.3 Sampling procedures

The sampling procedure used in the present study was non-probability sampling called accidental sampling (Wellman *et al.*, 2005:68). Accidental sampling is the collection of the most convenient units of analysis that are willingly available for the research process (Wellman *et al.*, 2005:68). An electronic web-based questionnaire together with a cover letter was e-mailed to the 750 employees with access to e-mail and internet within Kaap Agri. The employees were near and readily available to participate in the research process and formed the sample of the research study. The sample was further grouped into two sub-groups to compare the results of the research study (see Chapter three for a more detailed discussion of the sampling procedure).

The research study focused on measuring levels of trust within the hierarchy of the organisation. This was done to determine if dyadic trust exists and to what level VBM was implemented within the organisation.

The process of statistical analysis is discussed in the following section.

#### 1.5.3.4 Statistical Analysis

To answer the research questions, statistical analysis was done on the obtained data. As a starting point, descriptive statistics or rather multivariate analysis (analysis where more than two variables are involved) were used. For example, the multivariate analysis was used to determine the average (mean) levels of trust within the organisation and the average scores for the consistency of each VBM element. The variability, or rather the standard deviation, was also determined through descriptive statistics.

Due to the nature of the present study, the relationship between the variables had to be investigated. Correlations estimate the extent to which changes in one variable is as a result of changes in another variable (Wellman *et al.*, 2005:234). The correlation between levels of trust and VBM elements thus describes how changes in one variable will influence changes in another variable. This will answer the question of whether increased levels of trust will have a positive influence on the successful implementation of VBM initiatives. Factor analysis was conducted to determine whether one factor could be used to describe the group of variables obtained from answering the group of questions.

The validity and reliability of the questionnaire was determined as discussed in Section 1.5.1. The previous section presented a discussion on the present study's research methodology. The following section presents a discussion of the limitations of the study.

## 1.6 LIMITATIONS/ANTICIPATED PROBLEMS

Measuring trust in an organisational setting where there is no trust could result in data with a certain degree of bias. The trust propensity of the individual completing the questionnaire could also influence the data obtained. The study only focuses on dyadic intra-organisational trust relationships. It excludes all other types of interpersonal relationships including co-worker and cross-cultural trust relationships within the organisation. It also excludes inter-organisational trust relationships.

Further, VBM initiatives are a fairly new concept and not many South African companies have successfully implemented VBM in its totality. Consequently, it is difficult to find organisations that have already implemented VBM successfully. It is also difficult to determine what the successful implementation of a VBM initiative constitutes and how it can truly be measured if shareholder value has been created from this specific initiative. The study focuses on the level of successfulness of the implementation of VBM within different groups in Kaap Agri by measuring the consistency of elements of VBM within these groups. The results from the two groups are then compared to determine if there is a difference in the level of implementation success.

The biggest challenge for the researcher was to ensure that the measuring instrument used in the study provided the data needed to determine if a relationship between the levels of trust and the successful implementation of VBM initiatives exists. This challenge was mitigated as explained in Section 1.5.3.3.

## **1.7 CHAPTER DIVISION**

The chapters in this mini-dissertation are presented as follows:

Chapter 1: Orientation to study: Introduction and problem statement.

Chapter 2: Literature review.

Chapter 3: Empirical study: Research and description of the application

Chapter 4: Discussion of results

Chapter 5: Conclusions and recommendations.

## **1.8 CHAPTER SUMMARY**

This chapter presented the background and the significance of the present study. The significance of the present study is that it provides scientific evidence of the relationship between levels of trust and the successful implementation of VBM initiatives. This chapter further provided detail on the research objectives and the scope of the research whereafter the research methodology was discussed. The chapter ends with highlighting limitations of the research study and providing a summary of the chapter division that is to follow.

In chapter two a detailed literature review can be found that provides a critical discussion of the constructs of trust and VBM based on research previously done by academics. The literature review presents a holistic view of the constructs and guides the direction that the research study follows.

## CHAPTER 2

### 2 LITERATURE REVIEW

The previous chapter sets the background for the research study and highlights the significance of the research. This chapter presents a discussion of existing literature on the two key concepts, namely trust and VBM, as well as the relationship between the concepts. The following section presents a framework for the one primary construct of this research study, namely trust. Trust is defined, the inputs and outputs are discussed and various sub-items that influence the level of trust are described. The chapter concludes with a discussion on the other primary construct of this research, namely VBM.

#### 2.1 TRUST

##### 2.1.1 Defining trust

To realise personal or organisational goals, working together requires people to be interdependent on one another in numerous ways, resulting in a need for trust (Mayer, Davis & Schoorman, 1995:710). According to Mayer *et al.* (1995:712), trust can be defined as: “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party”. Trust is a psychological state or mindset that is a result of measurable factors, such as characteristics and behaviours that provide an indication of trustworthiness that build trust (Cho & Ringquist, 2010: 55-56). Rousseau, Sitkin, Burt and Camerer (1998:395) states that trust is: “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another”. The definitions of trust based on previous scholars’ research indicate that trust has two components. The first component is the intention or willingness to accept vulnerability and the second component is a positive expectation of others (Colquitt *et al.*, 2007:909).

According to Bhattacharya, Devinney and Pillutla (1998:461-462) trust can be better understood by considering the following six themes:

1. Trust can only occur in an environment that is uncertain and where risk is involved.
2. Trust reflects an expectations or a facet of predictability.
3. A characteristic of trust is its importance.
4. A characteristic of trust is its strength.
5. Trust occurs in a person and situation specific, environment of mutuality.
6. Trust is “good” as it is an expectancy of a positive outcome.

These six themes have led to the following definition of trust: “Trust is a hope or expectancy of positive results and outcomes that will occur based on the action of another person during an uncertain interaction” (Bhattacharya *et al.*,1998:462).

The definition of trust that is used within this present study is based on the above literature and is as follows: *Trust is the willingness of one party to accept vulnerability in an uncertain environment based on beliefs and positive expectations that the other party’s behaviour and actions will result in good outcomes.*

The following two sections distinguish important differential concepts within the scope of trust, including trust propensity, trustworthiness and trust vs. distrust.

### **2.1.2 Trust, trust propensity and trustworthiness**

At this point it is important to make a distinction between trust, trust propensity and trustworthiness. Trust propensity is the constant individual differences that affect a person’s willingness and likelihood to trust others (Mayer *et al.*, 1995:715). A person’s trust propensity will determine how much trust a person will have towards another person, before deciding whether that person is trustworthy or not (Mayer *et al.*, 1995:715). Often the decision to trust another person has to be made before adequate time has passed to gather data in order to determine whether the other person is trustworthy. Trust propensity will thus influence the decision to either trust or distrust the individual (Colquitt *et al.*, 2007:911). In sum, trust propensity involves one’s personal willingness to trust others.

Trustworthiness refers to the characteristics of a manager that influence the level of trustworthiness the subordinates believe he or she encompasses and is thus central to understanding and calculating trust levels (Colquitt *et al.*, 2007:910). The characteristics and actions of a person will therefore influence whether a person is considered to be more

trustworthy than another person. In other words, it is the personal characteristics of a person that will determine to what extent he or she is trusted by others (Mayer *et al.*, 1995:717). Three characteristics that are used to determine trustworthiness include ability, benevolence and integrity, with each characteristic having a unique influence on trust levels (Colquitt *et al.*, 2007; Mayer *et al.*, 1995).

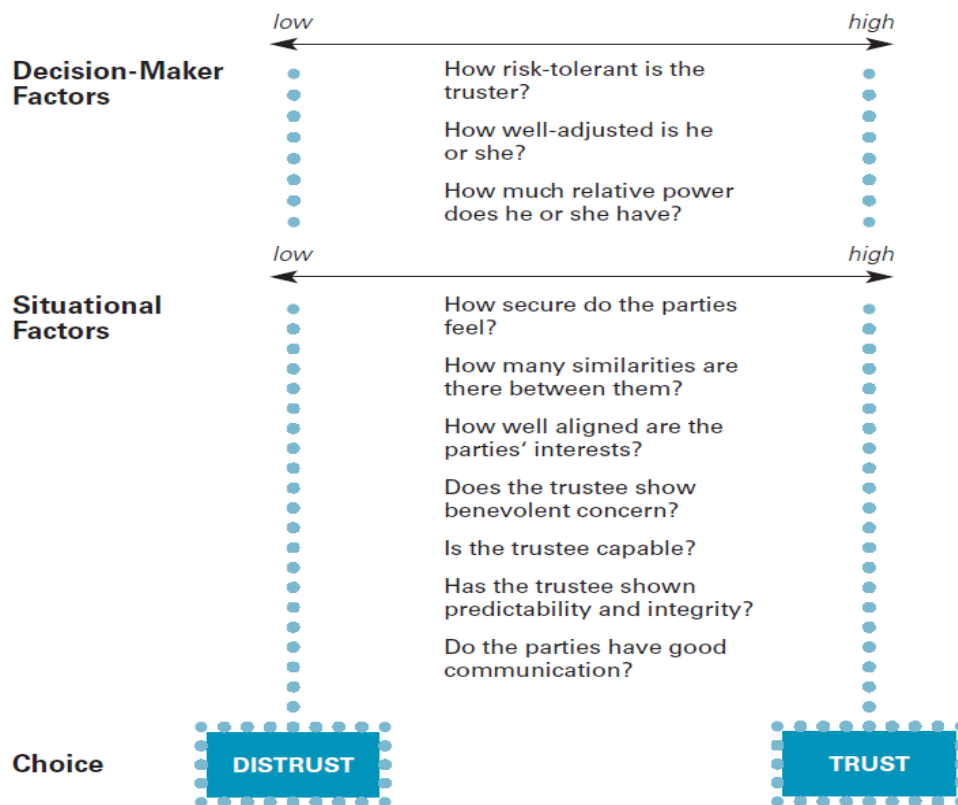
Research done by Colquitt *et al.* (2007:918) revealed a positive relationship between trust propensity and trust when trustworthiness was present and when trustworthiness was not considered simultaneously. The study also revealed that trust propensity was significantly related to all the antecedents of trustworthiness perceptions, namely ability, benevolence and integrity (Colquitt *et al.*, 2007:918). Based on these findings it is clear that an employee's propensity to trust others within an organisation has little to do with the ability, benevolence and integrity of others, but more to do with the individual's personal willingness to trust others. Therefore, if the subordinates have high trust propensities, their belief of the trustworthiness of their manager - based on the manager's ability, benevolence and integrity - will increase their level of trust towards their manager.

It is of value for the purposes of the present study to discuss the opposites of the continuum, namely trust and distrust.

### **2.1.3 Trust vs. Distrust**

Hurley (2006:62) describes trust as "A measure of the quality of a relationship – between two people, between groups of people, or between a person and an organisation". In addition, Hurley (2006:62) states that when a situation is predictable, it is irrelevant whether trust exists, because there is no requirement for one person to make a judgement call. However, the instability of changing business models, outsourcing, downsizing and mergers creates an environment that cultivates distrust (Hurley, 2006:62). "Temporary information vacuums in corporate life are common, and distrust thrives in a vacuum" (Galford & Drapeau, 2003:92). Miscommunication can breed a sense of betrayal amongst employees, which can lead to distrust (Hurley, 2006:59). A manager can thus mitigate the possibility of distrust developing amongst his or her employees by communicating in a forthright manner in order to address the information vacuum (Galford & Drapeau, 2003:92).

The following model (Figure 2-1) was developed by Hurley (2006:58) and presents the factors people weigh when deciding whether to trust another person.



**Figure 2-1: Factors influencing decision to trust**

Source: Hurley, 2006:58

This model developed by Hurley (2006:58) indicates that identical factors are considered when a decision is made to trust or distrust another person. This indicates that trust and distrust are at opposite sides of the same continuum. For the purposes of the present study, trust and distrust is viewed as opposites of the same continuum, however this do not mean that if trust is lacking, distrust exist. Instead, it indicates the inclination towards trust or distrust based on Hurley’s (2006:58) model mentioned above. The next section presents a discussion on the antecedents of trust based on an integrative model of organisational trust by Mayer *et al.* (1995:717). Various studies have proved the validity and accuracy of this model.

#### 2.1.4 Inputs/Antecedents for trust

The integrative model of organisational trust by Mayer *et al.* (1995:717) illustrates how three characteristics of a trustee is used to explain the most important contributions to the trustee's level of trustworthiness. The three characteristics include ability, benevolence and integrity. Each characteristic may vary independently and is separable but not necessarily independent of each other (Mayer *et al.*, 1995:720). These antecedent or inputs of trust can each be defined as follows:

- *Ability*

Ability or competence of the trustee can be assessed by asking employees the following question: "Overall, how good a job do you feel is being done by your immediate supervision/team leader?" (Cho & Ringquist, 2011:64). Ability can be defined as the capabilities, skills group and characteristics that a trustee would use to enable him or her to have influence and esteem within a specific field or domain (Mayer *et al.*, 1995:717).

- *Benevolence*

Benevolence can be defined as the degree to which the trustor believes that the trustee is willing to do noble and good do things for the trustor when there is no profit motive for the trustee (Mayer *et al.*, 1995:718). According to Cho and Ringquist (2011:64), benevolence can be assessed by asking the employee to what extent he or she believes that his or her superior supports their needs to balance personal, family and work issues. Benevolence can generate an emotional connection to the trustee, encouraging a sense of a constructive effect (Colquitt *et al.*, 2007:911).

- *Integrity*

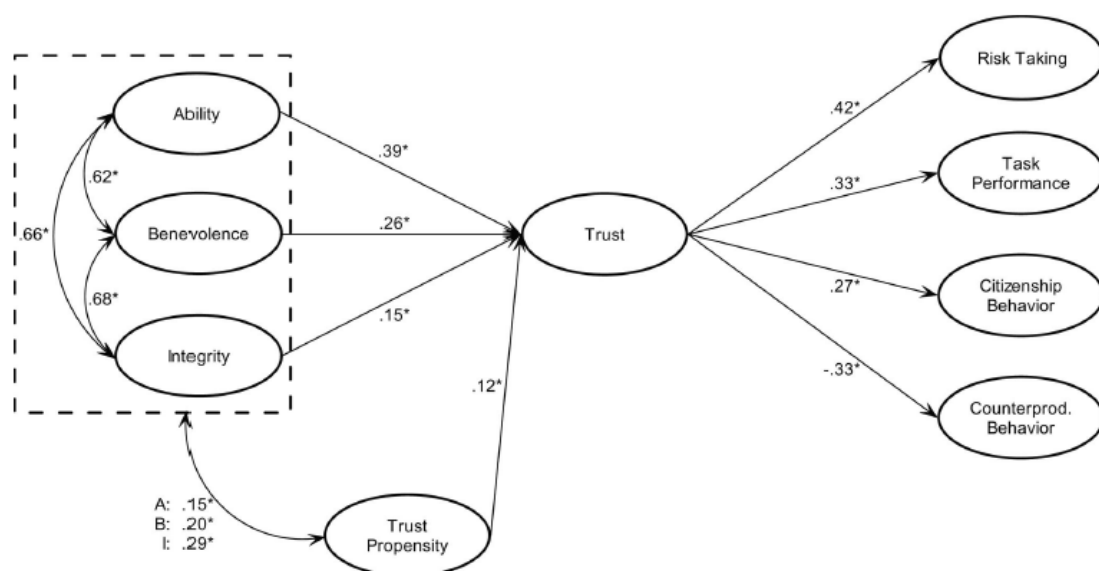
"The relationship between integrity and trust involves the trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable" (Mayer *et al.*, 1995:719). Integrity is based on the perception of the trustor. Acceptability of actions, credibility of communication, consistency of past actions, approach as well as fairness are some of the elements that influence the level of perceived integrity (Mayer *et al.*, 1995:719). The perceived level of integrity that an employee believes his or her superior or team leader has can be assessed by asking the employee if he or she believes that his or her organisation's leaders maintain integrity and honesty at all times (Cho & Ringquist, 2011:64).

According to research by Colquitt *et al.* (2007:922), the high correlation of ability, benevolence and integrity with trust indicates that all three have a distinctive and noteworthy relationship with trust and promotes trust. The researcher acknowledges that other antecedents of trust does exist, but due to the central importance of ability, benevolence and integrity, the present study only focuses on these three inputs as discussed above.

After describing the antecedents of trust in the section above, the following section presents a discussion on the various outputs or consequences of trust as establish by previous research.

### 2.1.5 Outputs/Consequences for trust – value of trust

For every input or antecedents there must be an output or consequence. As discussed previously, ability, benevolence and integrity together with trust propensity will promote the existence of trust. The question of what the consequences of trust are remains to be addressed. The model below (Figure 2-2) was developed by Colquitt *et al.* (2007:919) and was derived from the integrated model of organisational trust by Mayer *et al.* (1995:715). The model identifies a variety of outcomes of trust, namely risk taking, task performance, citizenship behaviour and counterproductive behaviour. These outcomes were identified and tested to determine whether correlations exist between trust and these outcomes. A relationship was established as illustrated.



**Figure 2-2: Inputs and outputs of trust**

(Source: Colquitt *et al.*, 2007:919)

Several beneficial outcomes (but not limited to the list discussed) were found as a result of recognising and encouraging trust within an organisation. Additionally, the model by Colquitt et al. (2007:919) and research by Dirks and Ferrin (2002) highlight the following:

- *Risk Taking*

Risk is a critical component of trust and although there is no risk involved in the preparedness to be vulnerable, risk forms an integral part of the behaviour of preparedness to be vulnerable (Mayer *et al.*, 1995:724). It is also suggested that the level of trust is compared to the level of the situation's perceived risk (Mayer *et al.*, 1995:726). The trustor's perception about the trustee's ability, benevolence and integrity results in a preparedness to risk, which results in the trustor prepared to take risk within the relationship with the trustee who will ultimately lead to positive outcomes (Dirks & Ferrin, 2001:452). Ultimately, according to Mayer *et al.* (1995:724), "trust will lead to risk taking in a relationship, and the form of the risk taking depends on the situation."

- *Task Performance*

According to Dirks and Ferrin (2001:450), "trust operates in a straightforward manner: Higher levels of trust are expected to result in more positive attitudes, higher levels of cooperation and other forms of workplace behaviour, and superior levels of performance." For example, work-unit performance can be assessed by asking employees how they would rate their overall quality of work within the group (Cho & Ringquist, 2011:65). Trust provides an environment within an organisation where cooperation, positive attitudes, positive perceptions and higher performance are more likely to occur (Dirks & Ferrin, 2001:455).

- *Citizenship Behaviour*

Organisational citizenship behaviour (OCB) can be used to understand how trust relates to performance. Organisation citizenship behaviour can be defined as behaviour that is aimed to assist the organisation (Mayer & Gavin, 2005:884). Research has indicated steady support for the notion that trust effects OCB. This effect is qualified by the perceived fairness and/or satisfaction of past actions (Dirks & Ferrin, 2001:459). Results from the studies by Dirks and Ferrin (2002:620) indicated that trust had a relationship with each of the following aspects of OCB: Altruism, civic virtue, conscientiousness, courtesy and sportsmanship. These results thus present evidence that citizenship behaviour is an outcome of trust. OCB is aimed at "pursuing a shared sense of organisational mission" and higher levels of interpersonal trust are associated with it

(Cho & Ringquist, 2011:58). An increase in OCB will thus be beneficial to the organisation and increase the probability that the organisation's mission will be achieved.

- *Counterproductive behaviour*

According to Sackett and Devore as quoted by Colquitt *et al.* (2007:922), trust can predict counterproductive behaviour which can lead to increased costs for an organisation if it is not managed properly. Whilst trust and affective commitment has been found to correlate positively, a negative relationship has been observed between counterproductive behaviour and affective commitment. These findings suggest that as trust increase, counterproductive behaviour should decrease and effectively minimise the cost of counterproductive behaviour within the organisation (Colquitt *et al.*, 2007:922).

Other outcomes based on the Heuristic model of trust (Cho & Ringquist, 2011:57) must also be mentioned. These include:

- *Decrease in transaction cost*

Transaction cost refers to cost that is related to monitoring, negotiating and enforcing agreements (Cho & Ringquist, 2011:57). It has been established that trust can reduce transaction cost by smoothing negotiations and thus decreasing the cost to complete negotiations (Zaheer, McEvily & Perrone, 1998:155).

- *Increase in voluntary deference*

If one can assume that the management of an organisation is competent, respect for the management team is necessary to ensure optimum organisational performance when managerial decisions are made (Cho & Ringquist, 2011:58). Kramer (1998) states that "organisations operate more smoothly and accomplish tasks more rapidly when those in positions of authority do not have to continuously explain and justify their decisions and high levels of interpersonal trust encourage voluntary deference" (Cho & Ringquist, 2011:58).

Together, all of these outcomes can have a positive effect on an organisation. When trust is present, these outcomes are even more beneficial for the organisation.

The above section presented a definition of trust and clarity on the general inputs and outputs of trust that forms an essential part of the present study. The section that follows narrow the scope of the present study by providing more clarity on the specific area of interpersonal trust that the present study is focused.

## **2.1.6 Interpersonal trust and inter-organisational trust**

The present study focuses on interpersonal trust and it is therefore important to clearly define the difference between interpersonal and organisational trust. Interpersonal trust can be defined as the extent of an individual's trust in another individual or counterpart (co-worker) within the same organisation (Zaheer *et al.*, 1998:142). Cho and Ringquist (2011:57) refer to interpersonal trust as "trust between members of the same organisation".

Inter-organisational trust is defined by Cho and Ringquist (2011:57) as "trust in one organisation by members of another organisation". Zaheer *et al.* (1998:142) further describes inter-organisational trust as the extent of trust that members of another organisation has in another organisation. Based on previous research, the complexity of inter-organisational trust is encompassed by three facets, namely predictability, reliability and fairness (Zaheer *et al.*, 1998:143).

Tan and Lim (2009:46) states that interpersonal trust influences other forms of trust, including inter-organisational trust, which then influences organisational outcomes. In addition, further research has revealed that interpersonal trust and inter-organisational trust are connected but distinct and both influences performance and negotiation processes differently (Zaheer *et al.*, 1998:141). For example, inter-organisational trust reduces transaction cost, whilst interpersonal trust encourages OCB (Cho & Ringquist, 2011:61). Both types of trust thus influence the outcomes of trust as described previously in distinct and different ways and should be researched separately. The researcher has selected interpersonal trust (co-worker trust) as the main focus of present study. Inter-organisational trust is not the main focus of the present study, but rather the interpersonal trust amongst the different levels within an organisation. The following sections describe the types of trust within different organisational levels.

### **2.1.6.1 Trust within the organisation levels**

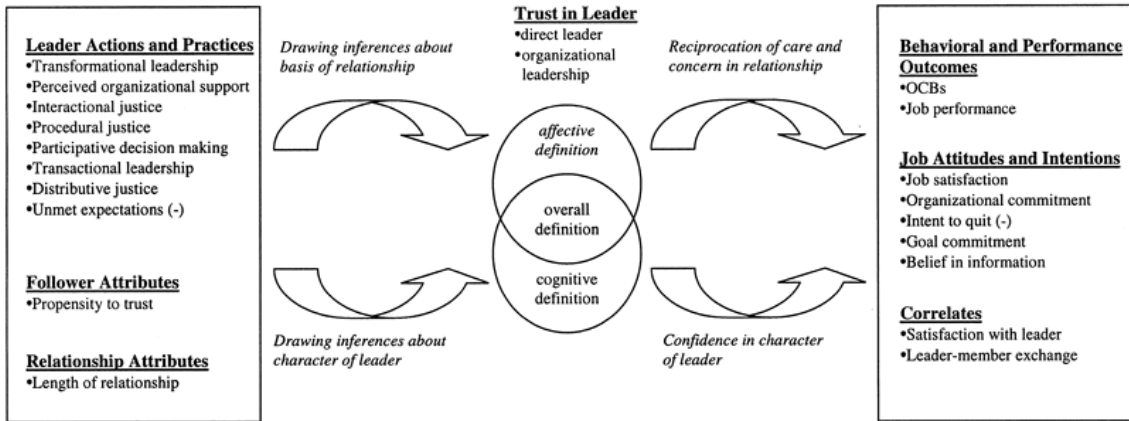
The following types of trust within the different levels in an organisation exist and are defined for the purposes of the present study. Hierarchy trust is discussed first, whereafter co-worker trust and cross-cultural trust are discussed.

### *Hierarchy trust: Management and subordinates*

Employees' decisions to trust management and other authority figures are influenced more by the perceived benevolence and integrity of management (the perceived intentions of management) than by the assessed ability of management (Kramer & Tyler, 1996). In a study by Davis, Schoorman, Mayer and Tan (2000:571), the researchers found a correlation between trust and ability, benevolence and integrity. However, during their regression analysis, only benevolence and integrity were found to have a significant correlation with trust. The present study, as discussed in Chapter one, tests whether correlational relationships exist between employees' trust in management and all three perceived attributions of management, including ability, benevolence and integrity.

An employee's ability to focus his or her attention on value-adding activities within an organisation is influenced by the extent to which he or she trusts various levels of management within the organisation (Mayer & Gavin, 2005:876). Assessing trust from a bottom-up or top-down standpoint, trust may fluctuate on an emotional level (Costigan, Insinga, Berman, Ilter, Kranas & Kureshov, 2007:765). Different levels of management will influence the employee's ability to focus his or her attention on value-adding activities in different ways. The direct manager of the employee makes tactical and operational decisions that impact the employee's daily activities and this impacts the employee's ability to focus on value-adding activities. Top management makes strategic decisions which influences the organisation's financial decision, culture and existence. A lack of trust in top management can result in employees focusing and worrying about possible layoffs and the future existence of the organisation instead of focusing on value-adding activities (Mayer & Gavin, 2005:877). The results of these studies highlight the importance of understanding that different levels of trust in different levels of management will have a diverse impact on employees.

The below illustration from Dirks and Ferrin (2002:613) (Figure 2-3) presents the attributes of leadership that have an influence on the level of trust towards the leader. These attributes result in outcomes such as job performance and OCB. The inputs and outputs of trust in leadership align with the inputs and outputs as discussed in Sections 2.2.4 and 2.2.5.



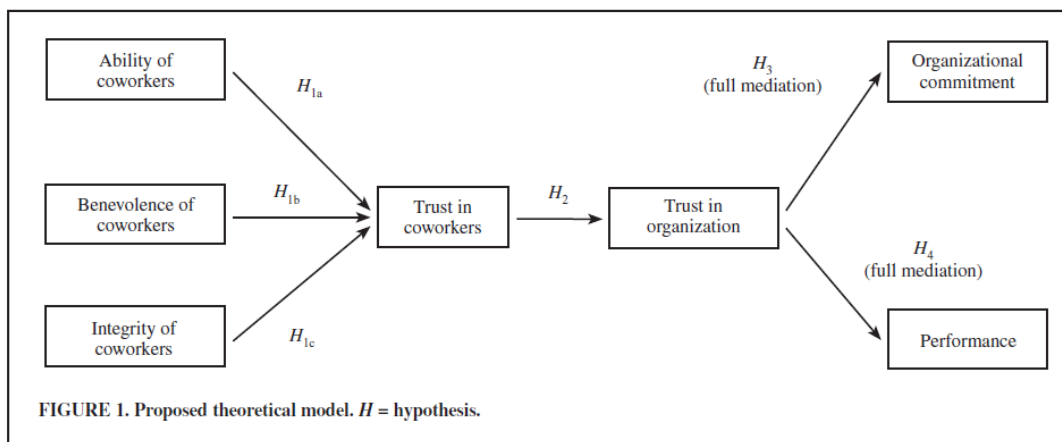
**Figure 2-3: Trust in leadership**

(Source: Dirks and Ferrin, 2002:613)

The majority of research that was done for the present study focused on establishing if different levels of trust towards senior management exist in different levels of employment.

*Horizontal: Co-worker trust*

According to Tan and Lim (2009:46) trust amongst co-workers (workers who have relatively equal authority and power within the organisation) influences trust in other types of trust within the organisation which affects the outcomes of the organisation. Tan and Lim (2009:46) further propose a model to illustrate co-worker trust which states that inputs to trust in co-workers influences trust in the organisation and leads to “organisation-focused outcomes of commitment and performance”. Figure 2-4 illustrates the theoretical model (Tan & Lim, 2009:47).



**Figure 2-4: Theoretical model of trust**

(Source: Tan & Lim, 2009:47)

Tan and Lim (2009:60-61) found a positive relationship between trust in co-workers and organisation trust, which highlights the importance of trust in co-workers as it influences the organisation trust and the development of preferred positive organisational outcomes. Co-worker trust, in its totality, is excluded from the present study as the sample size of senior management respondents is too small to provide meaningful findings concerning the co-worker trust amongst senior management members.

### *Cross-cultural trust*

Cross-cultural trust can influence organisational trust, but it is excluded from the present study as it is beyond the scope of the study. However, the following section can be seen as an introduction on the topic of cross-cultural trust, as it is an important concept within the South African business environment.

The increase in workforce composition diversity is a significant trend which is likely to increase the importance of trust within the workplace (Mayer, Davis & Schoorman, 1995:710). Based on the research of Berscheid and Walster (1978) and Newcomb (1956), Mayer *et al.* (1995:710) states that less reliance can be placed on interpersonal similarities and mutual backgrounds to contribute to employees' willingness and mutual desirability to work together within a diverse workforce. Affect-based trust and its relationship with organisational behaviour in multiple cross-cultural venues accounts for a substantial self-rating variance and further research in this area will add value (Costigan *et al.*, 2007:782).

The section to follow presents a framework for the concept of value-based management (VBM). VBM is defined, the inputs, outputs and measurement of VBM is discussed, as well as the key to successfully implementing VBM.

## **2.2 VALUE-BASED MANAGEMENT (VBM)**

### **2.2.1 Defining VBM**

"VBM is a management control system that measures, encourages and supports the creation of net worth" (Ameels *et al.*, 2002:5). The ultimate goal of VBM is to create value and provides a precise metrics upon which an organisation can be shaped by focusing on better decision-making (Koller, 1994:87). Another goal of VBM is to endorse non-value

based methodologies to measure the net worth of an organisation (Beck & Britselmaier, 2011:271).

VBM includes creating value, managing value and measuring value (VBM, 2012). Furthermore, according to VBM (2012), VBM's objective is to provide a consistency of the following elements within the organisation's purpose and values to maximise shareholder value:

- *Organisation mission:* An organisation's mission statements are targets for change and a precise mission requires an understanding of its markets, industry, technologies, competitions as well as its people, and often requires that the developer of the mission trust inputs from other managers and employees with experience within the organisation or market (Anderson, 1997:36).
- *Organisation strategy:* Sound strategic analysis enables an organisation to understand how different strategies affect value creation and which strategy will create the most value for an organisation (Rappaport, 2006:69). "To achieve the ultimate goal of VBM, however, the business strategy must be designed to maximise value creation" (Frigo, 2002:6).
- *Organisation governance:* Organisation governance refers to the governing body that determines the organisation's mission and strategy, and regulates the activities of the organisation to ensure that it is aligned with the strategy (VBM, 2012).
- *Organisation culture:* According to Koller (1994:88) VBM should be focused on the reason for and the methods on how to change the culture of the organisation to be more focused on value creation. According to the model by Dirks and Ferrin (2001:451), "trust operates in a straightforward manner: Higher levels of trust are expected to result in more positive attitudes, higher levels of cooperation and other forms of workplace behaviour, and superior levels of performance". The relationship between levels of trust and the organisational culture is thus explored in the present study to better understand this relationship.
- *Organisation communication:* Management processes and systems with effective communication must be tightly linked to value creation to encourage employee behaviour that maximises value creation (Koller, 1994:89). According to Dirks and Ferrin (2001:455) when trust levels are low, information is often perceived as

suspicious, whereas when trust levels are high, information is more easily accepted. Thus, higher trust levels may increase the acceptance of communication around value creation and maximise the value created. This possibility necessitates the present study's focus on the relationship between trust and VBM.

- *Arrangement or structure of the organisation:* VBM aims to ensure that the structure of the organisation is aligned to the purpose of the organisation, which is to maximise shareholder value through value creation (VBM, 2012).
- *Decision-making process and systems:* "When VBM is working well, an organisation's management processes provide decision makers at all levels with the right information and incentives to make value-creating decisions" (Koller, 1994:89.) Studies have found that high levels of trust have a significant effect on the acceptance of decisions (Dirks & Ferrin, 2001:455). The relationship between the acceptance of value-creating decisions and levels of trust can thus be explored.
- *Performance management processes and systems:* It is important for senior management to understand the performance variables that ultimately drive the value of the organisation (Koller, 1994:89). These performance variables are the key value drivers of the organisation (Koller, 1994:91). Performance appraisal systems that are effectively used can create an opportunity to establish and grow trust within the organisation (Mayer & Davis, 1999:123). Furthermore, Mayer and Davis (1999:133) found that where performance evaluation systems were perceived by employees as unsuitable for performance measurement and reward, the systems' replacement with a new performance evaluation system resulted in a significant increase in the employees' trust in top management.

In Rappaport's ten ways to create shareholder value (2006:66-77) he suggests ten principles that can assist an organisation to create the maximum shareholder value. Of the ten principles, three focus on rewarding employees on different levels within the organisation. The remaining principles focus on making strategic decision that maximise value, the assets that should be carried, executives accepting the risk of ownership, providing value relevant information to investors as well as the operational aspects of the organisation. These principles should be applied to an organisation to achieve value creation for its shareholders.

According to Beck and Britzelmaier (2011:270), the claims that VBM increases organisational performance have not been consistently proven by previous research. This is

mainly because the measurement of VBM for research purposes is not defined and standardised (Beck & Britselmaier, 2011:270). The significance of the present study as discussed in Chapter one, is thus to utilise a standardised measure of VBM, such as EVA, and explore whether there is a relationship between specific elements of VBM and levels of trust.

#### 2.2.1.1 Inputs for VBM (Value drivers)

“VBM aligns a company’s overall aspirations, analytical techniques, and management processes with the key drivers of value” (Koller, 1994:88). The VBM process is used to establish what the drivers of a strategy is, to understanding how the drivers create value and then to subdivide these drivers into manageable action steps and activities (Frigo, 2002:6). It is important for an organisation to be able to identify and understand all the performance variables that will create value for the organisation as these are the key value drivers for the organisation. Value drivers refer to every variable that impacts the value of the organisation and must be defined at a detailed level that is similar to the level of detail of decision variables (Koller, 1994:91). According to Koller (1994:94-95), value drivers have a significant impact on value; are not static and must be reviewed regularly; are measurable; and is under the control of the specific line manager.

New structural changes within organisations in South Africa have damaged historical bonds of loyalty, which enabled trust historically (Martins, 2002:754). “Trust affects all relationships between individuals and group of individuals” (Martins, 2002:754). Due to the ever changing South African business environment the impact of the change in levels of trust on value drivers as part of VBM must thus be understood. This further inspired the researcher to explore the relationship between levels of trust and VBM.

The following section explains what the consequences or outcomes of the value drivers of VBM are.

#### 2.2.1.2 Outputs or Objectives for VBM

According to Koller (1994:90) the ultimate financial output or objective of VBM is to hold value maximisation as the critical financial objective for the organisation. However, objectives must be tailored to the various levels within the organisation. Organisations should focus on both financial goals and non-financial goals, such as product innovation,

customer satisfaction and employee satisfaction as objectives and measurements for VBM (Koller, 1994:90). It is important to understand how to measure whether these objectives of VBM have been met and whether value has been created.

The inputs and outputs discussed above provide a framework for the concept of VBM. The following section presents a discussion on one of the most important aspects of VBM, namely the measurement of VBM.

### **2.2.2 Measurement of VBM**

“VBM’s value parameters, such as net cash flow, net present worth of an asset, discounted cash flow, actual returns on investment, and reliable capital depreciation techniques, all add up to one single position, namely a total concept of measurable values” (Beck & Britselmaier, 2011:271). Stakeholders can only obtain information from the annual financial statements due to limited transparency from the management of an organisation. This dilemma is resolved with the help of VBM (Beck & Britselmaier, 2011:271).

According to Weaver and Weston (2003:1), the following four alternative performance metrics can be utilised during VBM:

1. Intrinsic Value Analysis (IVA) – discounted cash flow methodology
2. Returns to shareholder measured over time horizons
3. EVA
4. Market Value Added (MVA) – relationship between the value of the organisation’s operating assets at book value and the market value of the organisation’s financial instruments (market-to-book ratio).

All of the above metrics use similar methodologies with each of their advocates arguing its distinctive superiority to enable VBM whilst also highlighting the defects and limitations of the other approaches (Weaver & Weston, 2003:16).

EVA has been selected as the performance metric utilised during this research study. EVA can be defined as a financial performance measurement that uses the operating income (after tax) - the investment in assets that was needed to generate the operating income; and the cost of the investment in that assets, or alternatively the weighted average cost of capital – can be used (Brewer *et al.*, 1999:4). Section 3.2.3.2 in Chapter three provides further detail on the formula used to calculate EVA for an organisation. According to Brewer *et al.* (1999:5), “EVA helps overcome the goal incongruence that exists between the manager and

the firm". The primary strength of EVA is that it measures whether the wealth created by management aligns to the objectives of the organisation (Brewer *et al.*, 1999:7). EVA is thus one of the performance measurements that can be used to hold employees accountable for generating not only profits, but also shareholder value and wealth.

The literature defined VBM and discussed how it can be measured. The present study utilises EVA together with measuring the consistency of the elements as discussed in Section 2.1.1, to determine to what level VBM has been successfully implemented. The following section presents a discussion on the key aspects to successfully implement VBM within an organisation.

### **2.2.3 Keys to successful implementation**

When VBM is successfully implemented it creates remarkable benefit for the organisation as it provides maximum value on a constant basis (Koller, 1994:87). VBM is not just a methodology but must focus on the reasons why and the actions on how to change the organisation's culture where all employees demonstrate a value creation mindset and where value creating decisions are made at all levels (Koller, 1994:88-89). When an organisation develops performance measures to measure whether value has been created, management must consider the organisation's culture and the complexity of the culture (Knight, as quoted by Duyck, 1998:103).

During implementation, each approach to VBM is initiated by a strategic planning process. It then requires top management commitment and involvement; it must link performance to incentive reward systems; and it must include communication and training for employees (Weaver & Weston, 2003:2). The same authors point out that other stakeholders, such as consumers, the community and employees in addition to shareholders, must be taken into account during the implementation (2003:2).

According to Koller (1994:96-99) there are critical management processes that must be governed to implement VBM within an organisation. These include developing a strategy that focuses on maximising value; translating the strategy into short- and long-term performance targets; creating action plans and budgets to achieve the targets; developing performance measures and incentive schemes to encourage employees to meet the targets; and to monitoring the performance. According to Knight, "Value based management succeeds when decision-making becomes focused and achieves alignment between strategy, performance measurement, and behaviour" (Duyck, 1998:102).

Koller (1994:100) provides a list of ten key aspects that ensure that VBM is successfully implemented. These aspects include: Establishing top management buy-in and support; integrating VBM approach with planning elements; ensuring availability of critical data; tying incentives to value creation; and other key aspects. To successfully implement VBM in ever changing economic, cultural and political environments, trust must be evaluated and the impact thereof on the implementation of VBM must be considered (Weaver & Weston, 2003:2).

Frameworks for both concepts of trust and VBM have now been established. The final section of the literature review focuses on the link and possible relationship between these two different concepts. The section presents a framework that enables the researcher to explore the relationship between the outputs of trust as inputs to the success of VBM initiatives in the chapters that follow.

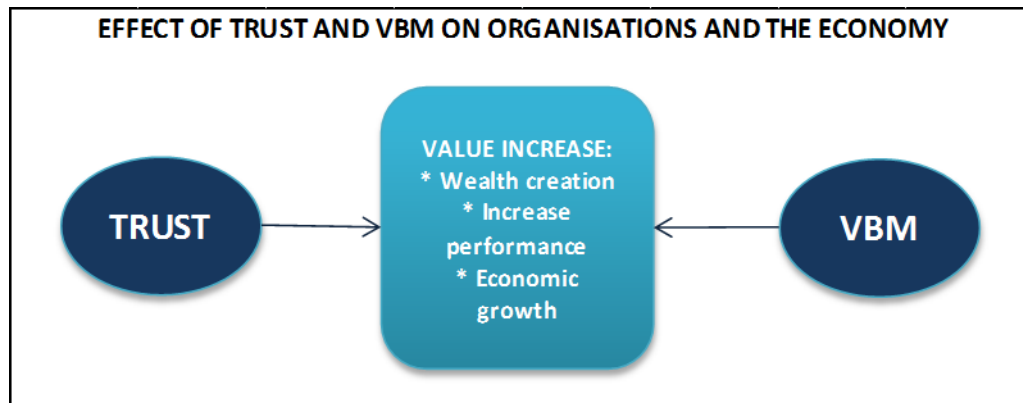
### **2.3 THE LINK BETWEEN VBM AND TRUST**

In modern society, organisations are viewed as the opportunity creators of wealth and economic growth (Kanji, 2005: 1069). According to Kanji (2005: 1069), for sustainable growth and business excellence to take place, organisations and their management should consider social and environmental concerns and demonstrate that the organisation operates with integrity within the values and norms of society. Management must demonstrate their business confidence as wealth creators and build trust between their organisation and society (Kanji, 2005:1069). Higher levels of trust amongst community members can enhance economic growth whilst a lack of trust may inhibit wealth and economic growth (Miranda & Klement, 2009:32). This is because lower levels of trust or a lack of trust may lead to increasing transaction costs resulting in lower rates of investment returns and lower growth rates (Miranda & Klement, 2009:32).

Research has shown that even minor increases in levels of trust within an organisation can lead to substantial improvements and growth in the profits of the organisation (Ball, 2009:7). In addition, an organisation operating with a trust surplus can bear tangible fruit that is measurable and of value to the organisation (Ball, 2009:7). A study by Carstens and Barnes (2006:18) found a significant relationship between trust and overall organisation performance. The same researcher (Carstens & Barnes, 2006:10) states that to achieve increased organisational performance through trust and collaboration, management of organisations must exhibit trust in their employees before demanding trust from their

employees. According to Miranda and Klement (2009:35) organisations around the world are finding a source of competitive advantage through building trust with all stakeholders and shareholders and by displaying ethical behaviour.

From the research above and Section 2.1.1.2 that relates to the outputs of VBM, it is clear that there is a potential positive relationship between trust and VBM as influencers of organisational performance. Figure 2-5 graphically displays these relationships.

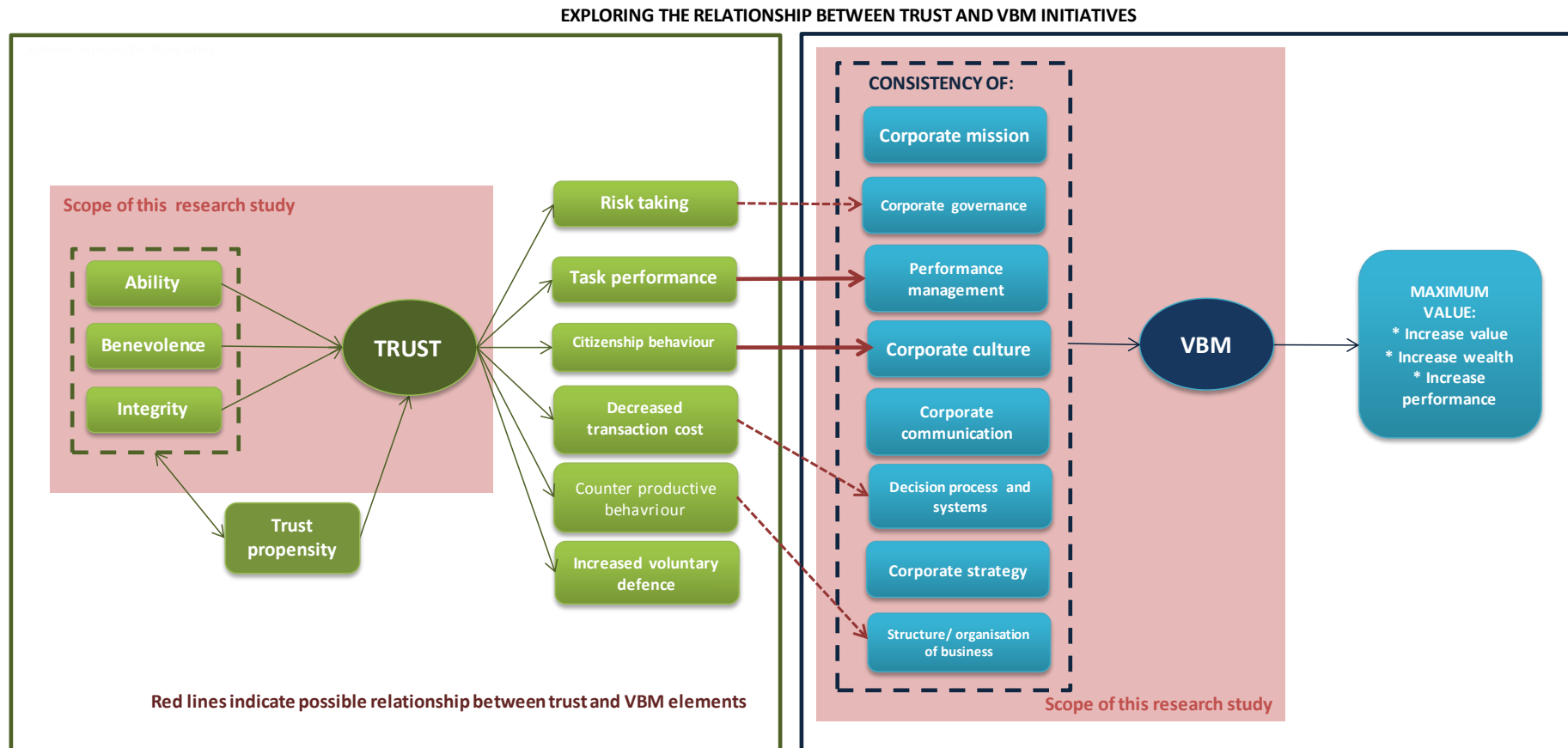


**Figure 2-5: Effect of trust and VBM**

The presence of trust in an organisation has various positive outcomes that are beneficial to an organisation. Two of these positive outcomes, namely task performance and organisation citizenship behaviour, form part of the inputs required for VBM. The outputs of trust can thus also be viewed as the antecedents to VBM. As a result, creating maximum value through VBM can possibly be increased if a higher level of trust is present within the organisation. Research has not concretely established relationships between all the outputs of trust and the specific inputs of VBM. Consequently, the present study does not focus on the individual outputs of trust, but rather on the level of trust as a variable in its entirety. Should there appear to be a relationship between trust as an independent variable and VBM as a dependent variable it could provide the basis for further future research.

The diagram below (Figure 2-6) illustrates the possible relationship between the outcomes of trust and the inputs of VBM. By measuring the levels of trust and the consistency of the inputs of VBM within the organisation, the present study explores the relationship between trust and VBM. The researcher aims to understand whether higher levels of trust could be related to a possible increase in the value that can be created through VBM.

Figure 2-6 (Colquitt *et al.*, 2007:919; Cho & Ringquist, 2011:57; VBM, 2012) provides an indication of the scope of the present study's exploration of the relationship between trust and VBM.



**Figure 2-6: The relationship between trust and VBM**

(Sources: Colquitt *et al.* (2007:919), Cho & Ringquist (2011:57) and VBM (2012))

As mentioned in Chapter one, various studies have included the concepts of trust and VBM separately, but studies that incorporate both concepts could not be found. With that in mind, it is advised that Figure 2-6 and the present study should be seen as exploratory in terms of the relationship between levels of trust and VBM. The findings of present study may provide a platform for future studies.

In Chapter 2 the literature review provided a background for the present study. The next chapter, Chapter 3, focuses on the empirical study that includes the research, the description and the application of the literature on trust and VBM.

## **CHAPTER 3**

### **3 EMPIRICAL RESEARCH STUDY: RESEARCH AND DESCRIPTION OF APPLICATION**

The previous chapter presented a discussion on the existing literature on VBM and trust, as well as the relationship between these concepts. The literature presents the background for the present study.

In this chapter the research process is discussed by providing a description of the research methods and techniques used during the present study. The discussion includes a detailed description of the research process, measuring instrument, identification of the study population, data collection method and data analysis method. This section enables future replication of the research and highlights the requirements of controllability (Welman *et al.*, 2005:250).

#### **3.1 RESEARCH PROCESS**

In Chapter one, the primary research question is presented as follows: Is there a relationship between the level of trust within an organisation and the successful implementation of VBM initiatives? The research process illustrates the procedures that were used to enable the researcher to obtain an answer to the research question and enables future replication of the study.

During the research approach, as discussed in Chapter one (Section 1.5.1), quantitative research was selected as the most appropriate method of research. Quantitative research enables the present study to be reliable and valid. The quantitative research method determined the specific research design as a non-experimental research design, namely correlational design. Correlational design relates to measurements at a single time. The selected research design is best suited for the present study as it enables the researcher to individually measure the two variables, trust and VBM, where after the relationship between these can be analysed.

The research process focuses on the measuring instrument used, the identification of the study population, the method of data collection and the data analysis. The following section describes the development of the measuring instrument and discusses the reliability and validity thereof.

## **3.2 MEASURING INSTRUMENT USED**

The two concepts of the present study, namely trust and VBM, was measured through a combined structured questionnaire that was completed by a sample of the study population. The questionnaire was distributed to the study population within Kaap Agri with the permission and support of the executive management team of Kaap Agri. The research study complies with the guidelines for ethical research of the NWU and ensures anonymity for the respondent and confidentiality of the data. Completion of the questionnaire by the respondent was completely voluntary and members of the population could choose if they wanted to participate in the research study without fear of retribution. The questionnaire consists of three sections, namely the biographical information, measurement of trust and measurement of VBM. A copy of the questionnaires can be found in Annexure B.

### **3.2.1 Biographical information: Section A**

The questionnaire starts by requesting the respondent to complete the biographical information in Section A. This enabled the researcher to conduct a comprehensive statistical analysis and determine significant relationships. Each participant was requested in Section A to create a personal code that was only known to the participant. The personal code created by the participant enabled the participant to remain anonymous when completing the questionnaire as the code was not known to the researcher or any member of Kaap Agri. The participant could therefore complete the questionnaire without fear of retribution. However if, in future, the researcher wants to research the development of trust overtime, respondents will be requested to reconstruct the personal code. This code will then enable the researcher to study the development of trust over time while the respondent remains anonymous. A key biographical element requested in Section A is the identification of the department within which the respondent works as well as the level of employment of the respondent. This enabled the researcher to measure the level of trust and the successful implementation of VBM amongst different levels within different departments within Kaap Agri. The biographical information also provides the definable groups that become the units of analysis described in Section 3.5.

### 3.2.2 Measuring Trust: Section B

The second section of the questionnaire, Section B, focuses on measuring the trust construct. The trust construct was measured by a questionnaire that was originally developed by Mayer and Davis (1999:136). The measuring instrument measures the different facets of trustworthiness, such as ability, benevolence and integrity as well as the trust propensity of the respondent. The questionnaire consists of 29 statements, which had to be completed by the respondent by selecting, on a 5-point likert scale, the number that best described to what extent they agreed with the statement. Number one on the likert scales was “disagree strongly” and five was “agree strongly”. The higher the score of the respondent, the higher the level of trust the respondent demonstrates. For instance, if the respondent reads the statement: “Top management is very capable of performing its job” and selects 5 which is agree strongly, the respondent demonstrates that he or she trusts the ability of top management to perform its job. Alternatively, if the respondent selects one, he or she demonstrates very low levels of trust in the ability of top management to perform its job. To increase the reliability of this section, questions with reversed scores were included. For these reversed scored questions, a higher score indicates low levels of trust which is the exact opposite of the questions mentioned above where a high score indicates high levels of trust. This increases the reliability of Section B.

The reliability and validity of the questionnaire developed by Mayer and Davis (1999:136) has been proved through various studies. The research completed by Mayer and Davis (1999:127) with this questionnaire has resulted in the following Cronbach’s alpha for three different waves:

- For ability: 0.93, 0.85 and 0.88
- For benevolence: 0.95, 0.87 and 0.89
- For integrity: 0.96, 0.82 and 0.88
- For trust as verb: 0.82, .59 and 0.60
- For trust propensity: 0.71, .55 and 0.66

Colquitt and Rodell (2011:1191-1193) also used this questionnaire in their research and the following Cronbach’s alpha for the two different waves was found:

- For ability: 0.96 and 0.96
- For benevolence: 0.94 and 0.95
- For integrity: 0.87 and 0.85
- For trust as verb: 0.82 and 0.84

Based on the higher than .70 Cronbach's coefficient alpha's from previous research, the researcher is thus confident that the questionnaire provides reliable and accurate measurement of trust within Kaap Agri. The validity of this section was also determined by the means of Cronbach's coefficient alpha and only questions with a score of higher than 0.7 was used in the present study. The next section describes how VBM was measured.

### **3.2.3 Measuring VBM: Section C**

As mentioned in Chapter one, for the purpose of the present study, the success of the VBM construct was measured on a financial and non-financial level. The non-financial level was measured with a questionnaire, whereas the financial level was measured by calculating EVA. The following sections describe the non-financial and the financial measurement techniques.

#### **3.2.3.1 Non-financial measurement of VBM: Section C**

Section C of the combined questionnaire, focuses on the non-financial measurement of the VBM construct. It is a self-developed structured questionnaire that is based on eight elements of VBM that was found in the literature. The concept and approach to utilise the nine elements of VBM was discussed with Prof. Nel, a lecturer in Financial Managements at the Potchefstroom Business School, who is a specialist on VBM. It was agreed that the consistency of the elements customised specifically for Kaap Agri would enable the non-financial measurement of VBM. Section C is utilised to determine the level to which VBM was successfully implemented on a non-financial level and is divided into two parts.

Part A of Section C measures the following elements of VBM (VBM, 2012):

- Consistency of organisational mission
- Consistency of organisational governance
- Consistency of organisational communication
- Consistency of decision-making process and systems
- Consistency of organisational strategy
- Consistency of organisational culture
- Consistency of arrangement or structure of the organisation
- Consistency of performance management processes and systems

The correct definition of each element was provided by Kaap Agri's Human Resources Director, Mr. Johan Liebenberg, by means of a qualitative interview. A second, less accurate definition was created by the researcher that closely resembles the correct definition as provided by Mr Liebenberg. The two definitions per element were presented in Part A and the respondent was requested to select, for each definition, to what extent they agreed with the definition. Similar to Section B, a 5-point likert scale was utilised where number one on the likert scales was "disagree strongly" and five was "agree strongly". The higher the respondent's score for each definition, the higher their agreement that the definition is correct. It is important to note that the correct definition per element was randomly arranged under each element. This ensured that the respondents, who know some of the correct definitions, could not determine the remaining correct definitions by means of a pattern. This section therefore determines whether the respondents know the correct definitions and whether the entire sample consistently know the correct definitions of each of the elements of VBM. As described in Chapter two, VBM's objective is to provide consistency of the elements to maximise shareholder value (VBM, 2012). Therefore, if the results of the present study reveals that the elements are consistent within the sample, the goal of VBM have been achieved and shareholder value have been created, thereby providing evidence for the successful implementation of VBM within Kaap Agri.

Part B of Section C, includes questions that determines whether respondents are familiar with the concept of VBM, the ultimate goal of VBM as well as the measurement of VBM. This provides an indication of the respondent's high-level understanding of the VBM construct in general. This provides the researcher with an indication of the depth to which VBM was implemented within Kaap Agri, which can influence the level of value created from VBM within Kaap Agri. A possible nuisance variable that may influence the respondent's answers of Part B, is the respondent's previous exposure to the concept of VBM as a financial management tool. This does not form part of the present study's hypothesis and must consequently be controlled within the study. To this end, a final question is included in this section to determine the respondent's previous exposure to the concept of VBM. This functions to control this variable as a nuisance variable.

Part B of Section C was measured by calculating a combined score out of five for this section. A score of one indicates very limited to no previous exposure to VBM, whereas a score of five indicates extensive and in-depth exposure to VBM. For the first three questions, a score of zero was given for the incorrect answer and a score of one for the correct answer. For the final question relating to previous exposure to VBM, a score of zero was given if the

respondent indicated that they had no previous exposure to VBM. A score of one was given to limited exposure to VBM and a score of two was given for in-depth knowledge of VBM. The total score for this section was statistically analysed together with the average score obtained from the non-financial measurement of VBM. This provides an indication of a potential nuisance variable.

The validity of Section C of this questionnaire was determined by the means of Cronbach's coefficient alpha and only questions with a score of higher than 0.7 was used in the present study. The previous section describes the non-financial measurement of VBM. The following section presents a description of how VBM was measured by the financial performance measurement called EVA.

### 3.2.3.2 Financial measurement of VBM: EVA

EVA was selected as the financial measurement of VBM (see Chapter one Section 1.5.3.3). EVA is a financial performance measure that measures organisational performance and determines if value was added to the organisation (Brewer *et al.*, 1999:4). EVA specifically measures to what extent wealth was created by the alignment of management objectives with organisation objectives (Brewer *et al.*, 1999:7). The researcher specifically selected EVA as the financial measurement for the present study, as it not only focuses on organisational performance, as other measurements do, but also measures the value created by management.

The researcher used EVA as measuring instrument to determine the extent to which value was added to Kaap Agri during the 12-month study period. The EVA was then compared to the EVA of previous 12-month periods to determine a percentage change over the different periods. This provided the researcher with an indication of the change in EVA over periods of time. The following formula was utilised when calculating the EVA (Megginson *et al.*, 2010:697):

$$\text{EVA} = \text{NOPAT} - (\text{WACC} * \text{Operating Capital})$$

Where:

NOPAT = Net operating profit after tax

WACC = Weighted average cost of capital

Operating Capital = Operating Current Assets – Operating Current Liabilities + Net Fixed Assets

Together, the financial and non-financial measurement of VBM provides an overall score to measure the level of successful implementation of the VBM initiative within the different departments of Kaap Agri. Both the financial and non-financial measures carry equal weight, as both measurements are equally important when determining if VBM was successfully implemented.

After the measuring instrument was developed, the researcher focussed on ensuring that the measurements were user friendly, understandable, accurate and reliable. The next section describes the steps that were taken to enhance and improve the measurements.

### **3.2.4 Development and Testing of questionnaire: Pilot study**

Care was taken to ensure that the questionnaire that was used in the present study was accurate, understandable and provided the required data to enable the researcher to complete the research study. Originally the questionnaire was developed in English. This was because Section B, that measures the trust construct, is an existing questionnaire developed by Mayer and Davis (1999:136). After finalising the English questionnaire, the questionnaire was translated to Afrikaans, as the majority of employees at Kaap Agri are predominantly Afrikaans-speaking. The respondent is better able to provide more accurate and truthful answers to the questions when the questionnaire is in the language that the respondent feels the most comfortable with. Both English and Afrikaans questionnaires were sent to Ms. Leanie Louw, a postgraduate external moderator at the University of Stellenbosh (US) who also worked as Language Editor at the US writing laboratory. Ms. Louw provided corrections that were made to the Afrikaans questionnaire to ensure that both English and Afrikaans questionnaires align in meaning, definitions, formatting and rationality. This ensured that the Afrikaans and English questionnaires were consistent.

To ensure that the questionnaire is understandable, a pilot study was conducted on a representative sample group that resembles the target population within Kaap Agri. A total of 10 employees, consisting of three general workers, five middle managers and two senior managers from a different organisation, were selected to complete the questionnaire. The respondents were requested to provide feedback on the following elements of the questionnaire:

- Ease of understanding and clarity of the instructions
- Ease of understanding and clarity of statements
- Time took to complete the questionnaire
- If the formulation of questions made them feel comfortable to answer honestly

General feedback from pilot study group was that both the instructions and statements are understandable and clear. The average time to complete as indicated by the group was below 10 minutes. Feedback regarding the flow of the questionnaire and the formulation of the introduction was used to further improve the questionnaire.

The above section describes the development and testing of the measurement instrument that was used in the research study. The next section describes the study population and sample.

### **3.3 IDENTIFICATION OF STUDY POPULATION**

The present study focuses on measuring levels of trust within the hierarchy of Kaap Agri. Measuring the constructs as per the level of employment was done to determine if dyadic and co-worker trust exist within the organisation and to determine to what level VBM was implemented within the organisation.

The population of the present study included all employees who worked for Kaap Agri on a permanent employment contract during the study period. Kaap Agri had 1684 employees across South Africa during the study period (Kaap Agri, 2011:53). The population of the present study included male and female employees from all ages and demographic groups and from all levels of employment within Kaap Agri. The employees of Kaap Agri thus represent the population of the present study that the researcher wants to generalise the results from the research study to.

A sample selected for a study must be an accurate representation of the population from which it was selected (Wellman *et al.*, 2005:55). Accidental sampling as described in Section 1.5.3.2 was used as collection method to obtain the present study's sample. A total of 750 employees that have access to email, representing the total number of employees within the population, were selected and electronic questionnaires were distributed to these employees. The response rate was 30.5% as 229 questionnaires were received back from the selected group. During this time, two reminders were sent to the employees to request

their cooperation in completing the questionnaire. However, the response rate remained below 50%. All of the 229 questionnaires were eligible to be used and the 229 respondents thus represented the sample for the research study.

### **3.4 METHOD OF DATA COLLECTION**

Primary data was collected for the present study by distributing the questionnaires to the most convenient collection of employees within the population. An electronic web-based questionnaire was created for both English and Afrikaans separately to enable ease of completion for the respondent and ease of data analysis for the researcher. The links to both electronic web-based questionnaires together with a cover letter was e-mailed to 750 employees. The cover letter explains the purpose of the study and provides reassurance of the confidentiality of the information given by the respondent. The cover letter further states that the questionnaire would take approximately 10 minutes to complete. The cover letter also includes the contact details of the researcher in case any respondent required clarity on the questions or if more information was required. After the e-mails were sent out to the 750 employees, employees had 16 days to complete the questionnaire. During this time, two reminders were sent out to the 750 employees by Mr. Johan Liebenberg, encouraging the employees to complete the questionnaire. The unwillingness of employees to participate in a study about trust towards senior management and VBM could potentially suggest that employees are reluctant or scared to share their opinions because of an unknown factor. However, this unknown factor that influences employees to not complete the questionnaire was not measured and remains unknown to Kaap Agri.

After the period to complete the questionnaire came to an end, the responses from the 229 respondents were extracted from the web-based questionnaire tool into one data sheet. This sheet was utilised for all data analysis and represents the sample of the research study.

### **3.5 ANALYSIS OF DATA**

The primary unit of analysis in the present study is the employees of Kaap Agri. Statements about the employees within the sample are formulated because the employees are the units of analysis.

Further units of analysis within the sample were also used to formulate additional sample statements. Groups within the sample are formed based on the biographical information provided by the respondents. These groups that form units of analysis are the following:

- Age groups
- Gender: Male and Female
- Educational qualifications
- Demographic groups
- Departments within Kaap Agri
- Level of employment

After obtaining the data sheet that represents the sample, the researcher had to clean up and code the data sheet before it could be utilised for all data analysis. Departmental information provided in Section A was used to divide the data set into two groups. Group one consisted of all respondents that selected Kaap Agri stores or Agrimark as their department. This group therefore represented all respondents who work in the Kaap Agri retail stores. All respondents that selected other departments, such as Finance, Information Technology, Human Resources, etc. were grouped into the second group. As a result, group two represented more back-end support and services performed by Kaap Agri. The two groups formed the basis of the study as the trust and VBM scores of group one was compared with the trust and VBM scores of group two.

The scores from reversed scored questions in Section B were recoded to align with the other questions' scores to ensure that a high score represents higher levels of trust. In Section C, which focuses on measuring VBM, the correct definitions of each of the nine elements (as discussed in Section 3.2.3.1) was selected and used for data analysis.

After the dataset was cleaned and coded by the researcher, statistical consultation services of the NWU was utilised to complete the statistical analysis on the data. This was done by utilising descriptive statistics that included means and standard deviations of the units of analysis. In addition, a statistical package called Statistica (StatSoft, 2011) was used to complete the statistical analysis and to assess the reliability of the measuring instrument as well as to test for possible correlations. Regression analysis was done by the researcher personally by utilising PHStat (Pearson Higher Education, 2012) and the statistical consultation services was requested to specifically focus on factor analysis as the researcher had no previous exposure to this form of statistical analysis.

Factor analysis or more specifically confirmatory factor analysis (CFA) was conducted on the dataset. CFA is a statistical technique that enables a researcher to test if relationships between the variables in the dataset and their underlying construct or theme exist (Shur, 2006). The researcher used theory to hypothesise the relationship pattern between the variables and to construct and then test the hypothesis statistically with CFA (Shur, 2006).

Section B of the questionnaire measures the inputs of the trust construct as described in Section 2.2.4. Each input of trust has various questions related to it. Based on the theory, it was hypothesised that the items of each input construct should have a relationship to the underlying theme or construct, namely an input of trust. CFA is therefore used to determine if relationships amongst the items within each input of trust exist. The factor analysis is therefore aimed at identifying how many factors are needed to explain the set of variables (Qualtrics, 2012). The same was done for the trust propensity and action trust constructs.

Chapter three described the research process to enable future researchers to replicate the research study. The chapter focussed on the measurement instrument that was used during the study to provide clarity and certainty around the validity and reliability of the obtained data. The next chapter presents a discussion of the results obtained from the data analysis of this present study.

## CHAPTER 4

### 4 DISCUSSION OF RESULTS

In Chapter three the research process was discussed by providing a description of the research methods and techniques used during the present study. In addition, Chapter three presented a discussion of the research process, measuring instrument, study population, as well as the data collection and analysis methods.

The purpose of Chapter four is to apply the research methodology discussed in Chapter three to the data obtained to generate the results of the research study. The results from the statistical analysis of Sections A (Biographical information), B (Trust) and C (VBM) of the measuring instrument is discussed as well as the correlations and relationships amongst various variables within these sections. The results of the descriptive statistics are the first results that are discussed.

#### 4.1 DESCRIPTIVE STATISTICS

Descriptive statistics provide a summary or description of the data obtained from the respondents for the individual units of analysis (Welman *et al.*, 2005:231). The present study involves more than two variables therefore the descriptive statistics conducted are called multivariate analysis (Welman *et al.*, 2005:231).

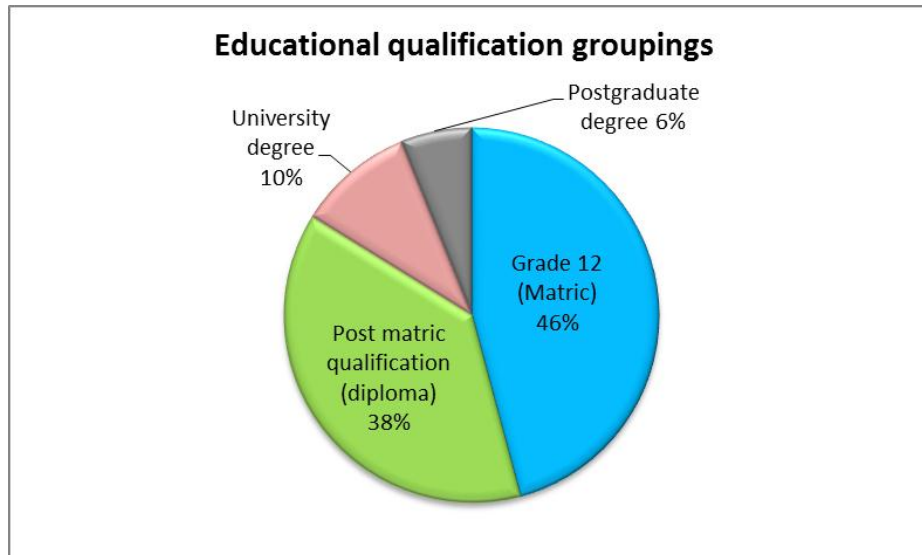
##### 4.1.1 Descriptive statistics: Units of analysis

Section A of the questionnaire focuses on the biographical information of the respondent. The data obtained from this section provide the researcher with the groups within the sample that form the units of analysis. These groups that form the units of analysis are the following:

- Age groups
- Gender: Male and Female
- Educational qualifications
- Demographic groups
- Departments within Kaap Agri
- Level of employment
- Average years in current role

The following results were obtained from the descriptive statistics completed on the dataset. The sample consisted of 229 respondents that were all permanently employed by Kaap Agri.

Thirteen per cent of the respondents were younger than 30 years, 35% were between 31 and 40 years, 31% were between 41 and 50 years and 20% were older than 51 years of age. The sample was divided into 68% male and 32% female respondents. Figure 4-1 indicates the groupings of the educational qualifications of the sample.



**Figure 4-1: Educational qualification groupings**

At 46%, close to half of the sample's highest qualification was a matric certificate, while 6% of the sample had a postgraduate degree. The majority of the respondents formed part of the White demographic group (85% of sample) and 13% of the sample formed part of the Coloured demographic group. Table 4-1 illustrates the demographic distribution of the sample.

**Table 4-1: Demographic groups**

Demographic groups		
Black	3	1%
Coloured	30	13%
Indian	0	0%
White	194	85%
Other	2	1%

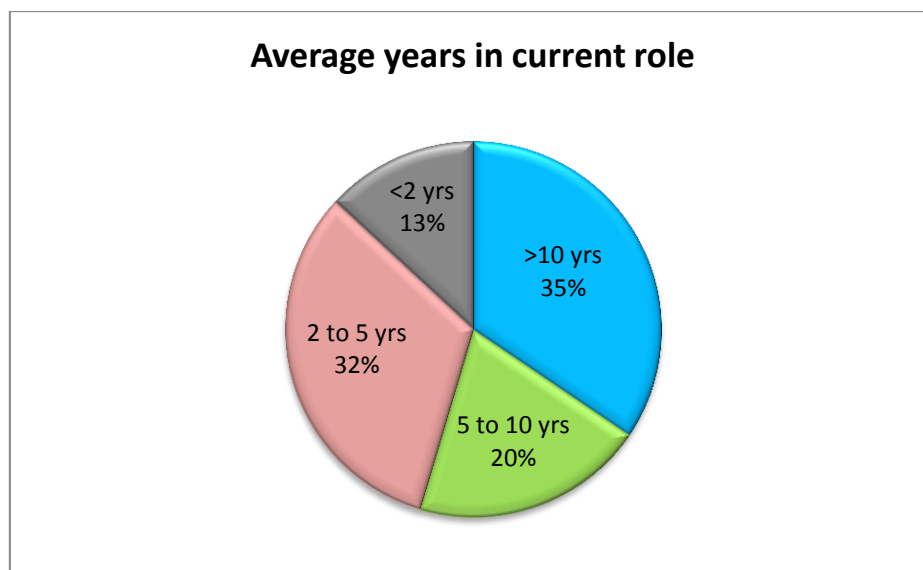
The key unit of analysis was the department within which the respondent works. Respondents were requested to identify the department within which they worked. The different departments were divided into two groups as explained in Section 3.5. Forty-five

per cent of the sample formed part of group one: Agrimark/Village Mart and 55% of the sample formed part of group two: Other. These two groups formed the basis of further statistical analysis, as discussed in Section 4.2. Level of employment is another important unit of analysis. The sample is divided into 8% senior management, 79% middle management and 14% general workers as summarised in Table 4-2.

**Table 4-2: Level of employment**

Level of employment		
Executive / Senior management	18	8%
Middle / Line management	180	79%
General worker	31	14%

The final descriptive statistic was the average years in current role. The largest portion of the sample had been working in their current role for more than 10 years (35%), whereas 13% of the sample has been working in their current role for less than 2 years. Figure 4-2 illustrates that more than half (55%) of all respondents had been working in their current role for more than 5 years.



**Figure 4-2: Average years in current role**

It is interesting to note that 57% of those respondents whose highest qualification were matric had been in their current role for more than 5 years. This section provided a summary of the data and sets the background for the data used for the statistical analysis completed on trust and VBM in the following section.

## 4.2 STATISTICAL ANALYSIS OF TRUST

In this section the statistical findings regarding the trust construct is discussed.

### 4.2.1 Descriptive statistics: Trust

The sample's data were analysed and the Cronbach's alpha was determined to measure the reliability of the data. The average inter-item correlation was also determined to measure the results of correlated questions within each grouping of questions that measures one sub-item of trust, for example ability. Furthermore, the mean, standard deviation, minimum and maximum score for each sub-item (input and potential influence of trust) were calculated. A score of one indicates a very low level or lack of trust whereas a score of five indicates a very high level of trust. Firstly the reliability of the data is discussed.

#### 4.2.1.1 Reliability of sub-items of trust

Table 4-3 summarises the trust reliability results.

**Table 4-3: Reliability measured under trust**

RELIABILITY MEASURED UNDER TRUST		
	CRONBACH ALPHA	AVE INTER-ITEM CORRELATION
Ability	0.92	0.67
Benevolence	0.93	0.73
Integrity	0.87	0.59
Trust as verb	0.48	0.20
Trust propensity	0.60	0.15

- *Ability*

The Cronbach's alpha for ability was found to be 0.92, indicating a high level of reliability and consistency across the items within this section of the questionnaire. The Cronbach's coefficient alpha is similar to the results of Mayer and Davis (1999:127) research which found Cronbach's coefficient alpha for ability between 0.93 and 0.85. Because the Cronbach's alpha was greater than 0.7, the results were used for further statistical analysis. The inter-item correlation was 0.67, indicating good internal consistency.

- *Benevolence*

The Cronbach's alpha for benevolence was the highest of all the variables at 0.93 and was used for further statistical analysis. This is similar to the results of the Cronbach's alpha for benevolence found by both Mayer and Davis (1999:127) and Colquitt and Rodell (2011:1191). This indicates a high level of reliability and consistency across the items within the benevolence variable. The average inter-item correlation was 0.73, indicating a higher internally consistency than the consistency within the ability construct. Items within the benevolence construct were thus highly correlated.

- *Integrity*

The Cronbach's alpha for this variable was 0.87 indicating a high level of reliability and consistency. Colquitt and Rodell (2011:1191) research resulted in a Cronbach's alpha for integrity of 0.87 in wave one which is identical to the findings of this research study. This provides further evidence of the reliability of the results. The inter-item correlation was 0.59 indicating some correlation amongst the items within the integrity construct. Because the Cronbach's alpha was higher than 0.7 the results was used for further analysis.

- *Trust as a verb*

The Cronbach's alpha for the sub-item "trust as a verb" was below the required 0.7 at a score of 0.48 indicating a lower level of reliability. The research of Mayer and Davis (1999:127) found lower Cronbach's alpha's of 0.59 and 0.60 for wave two and three. The decrease in reliability from Mayer and Davis (1999:127) research is explained by the fact that it can be expected that "trust as a verb" would decrease with the implementation of a new appraisal system. However, no such major changes occurred within Kaap Agri during the research study. The low Cronbach's alpha could however be explained by the fact that the questionnaire used was not standardised for the South-African context. The inter-item correlation was 0.2, indicating that little correlation amongst the items within the construct exists. This item had the lowest reliability score of all the sub-items of trust.

Table 4-4 indicates the variability of each of the four questions used to obtain the overall score for "trust as a verb".

**Table 4-4: Variation of sub-items of "Trust as a verb"**

VARIATION OF SUB-ITEMS OF "TRUST AS A VERB"					
	MEAN SCORE	STANDARD DEVIATION	MINIMUM SCORE	MAXIMUM SCORE	COEFFICIENT OF VARIATION
Question 1	3.64	0.91	1.00	5.00	0.25
Question 2	3.14	1.04	1.00	5.00	0.33
Question 3	3.35	0.97	1.00	5.00	0.29
Question 4	3.49	0.93	1.00	5.00	0.27

Table 4-4 indicates that all four questions had a standard deviation greater than 0.9. This indicates that scores were wider distributed from the mean score when compared with other questions in sub-items. The answers to question two were the most widely distributed from its means score. The coefficient of variation was also determined for each question. As summarised in the Table 4-4, question two is more variable relative to the mean than the other questions. Question two asks whether the respondent would be willing to let top management have complete control over their future in the company. The variation in the respondent's answers could indicate that not all respondents will be willing to trust senior management to control their future in Kaap Agri to the same degree. The mean score for this question was also the lowest of the four questions, indicating the lowest level of trust within this section. However, because all of the questions show comparable higher levels of variability, leaving out the result of question two did not improve the reliability of the data. The data remained unreliable and this sub-item was not used for further analysis in as part of the total average trust. Consideration must be given to whether, in the South African context, respondents are in general less likely to act on levels of trust than respondents from other more established countries.

- *Trust propensity*

The Cronbach's alpha of trust propensity was found to be 0.6 indicating a moderate level of reliability. However, it did not meet the required Cronbach's alpha measure of 0.7. The inter-item correlation at 0.15 also indicates little correlations amongst the items within this construct. According to Clark and Watson (1995:315) it is not unusual for a modern researcher to describe and accept reliabilities of between 0.6 and 0.7 as adequate. Although the reliability does not meet the required Cronbach's alpha measure of 0.7, correlation of this sub-item and total trust was thus analysed for interest sake. However, caution must be taken when generalising the findings of the sample to the larger population as the data are not as reliable as that of the other sub-items of trust.

The above section described the reliability of the sub-items of trust. This study indicated high levels of Cronbach's alpha for ability and benevolence specifically. For most measurements of reliability the higher the score the better the result. However, higher scores can also indicate a redundancy of items rather than consistency (Streiner, 2003:102). Future research studies that utilize this measuring instrument must thus consider the impact of a potential redundancy of items. The following section describes the remaining descriptive statistics completed on these sub-items.

#### 4.2.1.2 Inputs/Antecedents for trust

In Chapter two, Section 2.2.4 identifies the inputs of trust as ability, benevolence and integrity. Each of these inputs was measured through the questionnaire and the average scores were obtained. Table 4-5 summarises the results obtained from descriptive statistics.

**Table 4-5: Sub-items measured under trust**

<b>SUB-ITEMS MEASURED UNDER TRUST</b>				
	<b>MEAN SCORE</b>	<b>STANDARD DEVIATION</b>	<b>MINIMUM SCORE</b>	<b>MAXIMUM SCORE</b>
Ability	4.29	0.59	1.83	5.00
Benevolence	3.37	0.86	1.00	5.00
Integrity	3.69	0.68	1.00	5.00
Trust as verb	3.41	0.60	1.00	5.00
Trust propensity	3.33	0.46	2.00	4.63

- *Ability*

Ability scored the highest mean score of 4.29 indicating high levels of trust in the ability of senior management. The standard deviation of 0.59 indicated that the scores of the respondents were distributed within 0.59 of the mean score of 4.29. The scores are thus closely distributed around the mean. The minimum score is 1.83 and the maximum is 5.

- *Benevolence*

Benevolence had a mean score of 3.37, indicating moderate levels of trust in the benevolence of senior management with the results distributed within 0.86 of the mean score. The distribution of the scores were thus more widely spread than that of ability that was clustered closer to the mean.

- *Integrity*

Integrity had a mean score of 3.69, also indicating moderate levels of trust in the integrity of senior management, with the results distributed within 0.68 of the mean score. The scores were more closely distributed around the mean than that of the scores for benevolence.

Results from the descriptive statistics revealed that employees show higher trust or belief in the ability of senior management than in the benevolence and integrity of senior management. With benevolence scoring the lowest, the result indicated that although employees trusted the ability and integrity of senior management, they did not believe that senior management will do good things for them if no profit or benefit for the senior management existed. The definition of trust by Mayer *et al.* (1995:712), as described in Chapter two, states that the one party must be willing to be vulnerable to the actions of another party. The fact that respondents indicated the lowest level of trust in the benevolence of senior management provides an indication that their perception of the benevolence of management could hinder their willingness to be vulnerable to the actions of senior management. Moreover, “trust as a verb” could also be influenced by the perceived benevolence as employees are not willing to trust senior management to control their future. They are not willing to act on their level of trust in senior management as they do not want to be vulnerable as the intentions of management are questioned. As a result the level of trust in senior management decreases.

The three characteristics namely ability, benevolence and integrity were used by both Mayer *et al.* (1995) and Colquitt *et al.* (2007) to determine trustworthiness. These characteristics were also measured in the present study. The above section provides confirmation that the higher than mid-point scores of these characteristics increase the levels of trust and thus the trustworthiness of senior management. The next section looks at “trust as a verb” or action trust and the trust propensity of the respondents.

#### 4.2.1.3 Trust as verb and Trust propensity

The trust as a verb had a mean score of 3.41 with results distributed within 0.6 around the mean. This indicated moderate levels of trust and a coefficient of variation of 18%. The mean score for trust propensity was found to be 3.33, indicating the lowest level of trust of all of the sub-items of trust. The data was narrowly distributed within 0.46 of the mean and the

coefficient of variation was 14%. Trust propensity relative to its means was thus less variable than “trust as a verb”. The above section described the results obtained from descriptive statistics. The next section describes further statistical analysis completed, starting with factor analysis.

#### 4.2.2 Factor analysis

The main objective of factor analysis, as described in Section 3.5, is to determine how many factors are needed to explain a set of variables. Factor analysis was conducted on the sub-items of trust. Table 4-6 summarises the factor analysis findings.

**Table 4-6: Factor analysis**

FACTOR ANALYSIS				
SUB-ITEMS	NUMBER OF CONSTRUCTS	% VARIANCE	COMMUNALITIES	CONSTRUCT VALID
Ability	1	72%	0.64 - 0.77	Yes
Benevolence	1	79%	0.69 - 0.80	Yes
Integrity	1 (2)	66%	0.11 - 0.81	Yes but BC4 is another construct
Trust as verb	2	71%	0.65 - 0.85	No
Trust propensity	4	71%	0.49 - 0.85	No

For construct validity to exist, factor analysis must meet the following requirements: (Kline, 1994:1-27)

- That only one factor exists or perhaps two
- That a high variance is accounted for by the factor – typically more than 70%
- That high communalities are found – preferable higher than 0.5

For the ability and benevolence sub-items, only one construct was found. The ability sub-item had a high variance of 72% and high communalities between 0.64 and 0.77 were found. This indicated a high amount of variance shared by a question that is shared by all the questions in the sub-item grouping. For the benevolence sub-item grouping the highest variance of 79% was found which indicates that 79% of the variance within the grouping is due to the one identified factor. Communalities for benevolence were also found to be high as it was between 0.69 and 0.80. Ability and benevolence sub-items are therefore construct

valid, as only one factor was needed to explain the set of variables with the sub-item grouping.

For the sub-item integrity, 66% of the variance was due to one identified factor. However, it was found that one of the six questions within the group has another factor. More than 70% of the variance within the grouping can thus be explained by these two factors. Commonalties were also found to be high as it ranged between 0.11 and 0.80. Due to the higher combined variance and the high variance of the one factor and the high communalities, the integrity sub-item can also be seen as construct valid.

For trust as a verb, two factors explained 71% of the variance. One factor alone only explained 40% of the variance and the other factor explained 31% of the variance. For trust propensity, four factors explained 71% of the variance and communalities were lower at between 0.45 and 0.85. These two sub-items were thus not construct valid as more than one factor was required to explain the variance within the grouping of the sub-item.

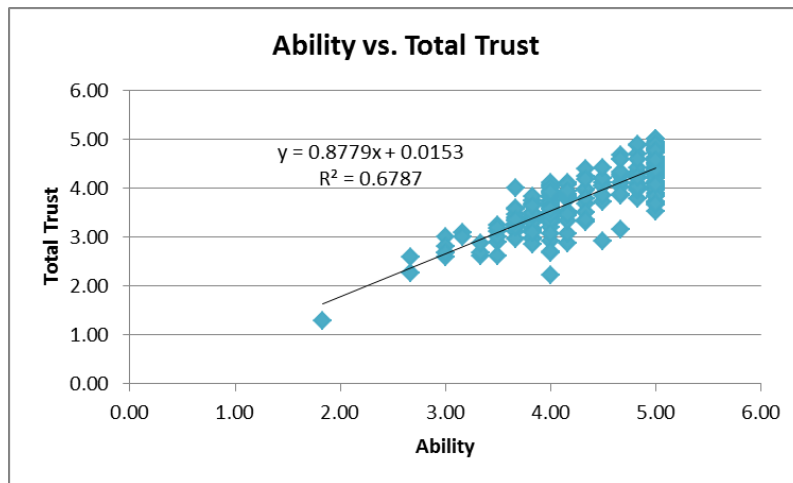
Now that the reliability and construct validity of ability, benevolence and integrity have been discussed, the next section discusses the correlation between the total average level of trust and the average scores for each of these sub-items or inputs of trust.

#### **4.2.3 Correlations between trust elements**

The previous section confirmed that the inputs of trust, namely ability, benevolence and integrity were reliable and construct valid. The inputs of trust thus formed the average total level of trust. The average level of trust was obtained by combining the scores of the inputs of trust and calculating an average total level of trust. The statistical analysis of the correlations amongst each input and the average of level of trust is discussed in this section.

Figure 4-3 illustrates the average score of each input plotted on a scatter plot compared to the average level of trust obtained from the data. The mean score for the total average trust was 3.79, indicating moderate levels of trust as it is above the mid-point score. A trend line was included to determine the impact on the total level of average trust if the input of trust changes.

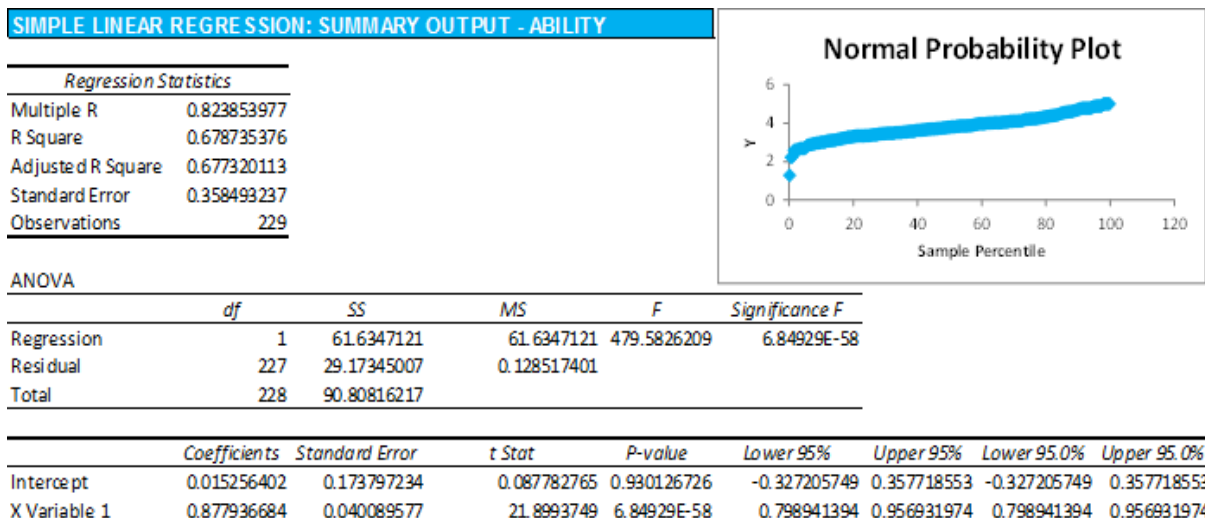
- Ability



**Figure 4-3: Ability vs. Total Trust**

Figure 4-3 indicates that for every one change in ability, the level of average total trust will increase with 0.88. This suggests a strong linear relationship between ability as an input of total trust and the total trust construct. The coefficient of determination further indicated that 67.87% of the variation in total average trust can be explained by the variability in ability as an input of trust.

Linear regression was also conducted to confirm the above analysis and to confirm that the relationship is significant. Figure 4-4 illustrates the findings.



**Figure 4-4: Simple Linear Regression: Ability vs. Total Trust**

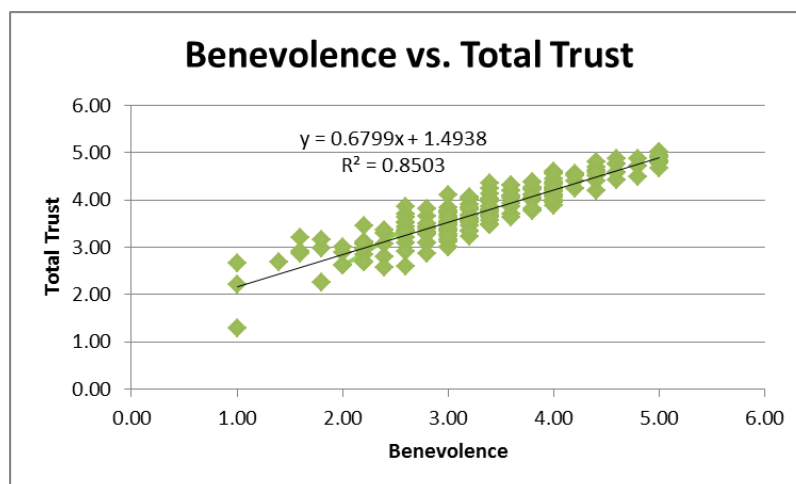
The four assumptions of linear regression are (Levine, Stephan, Krehbiel & Berenson, 2008:530-533):

- Linearity: A linear model is appropriate if there are no obvious or noticeable trends or patterns in the residuals plot.
- Independence: Autocorrelation could exist if data was collected over a period of time. However as the data collected for this research study was done during the same period, there is no need to evaluate the independence assumption.
- Normality: The normal probability plot of the residuals must be in a straight line for linear regression to be acceptable.
- Equal variance: Equal variance for residuals at each level of  $X_i$  values must be apparent.

For simple linear regression of ability vs. total level of average trust, all four assumptions have been adhered to. It can therefore be concluded that at a 5% level of significance there is evidence of a strong positive linear relationship between ability and the total average level of trust.

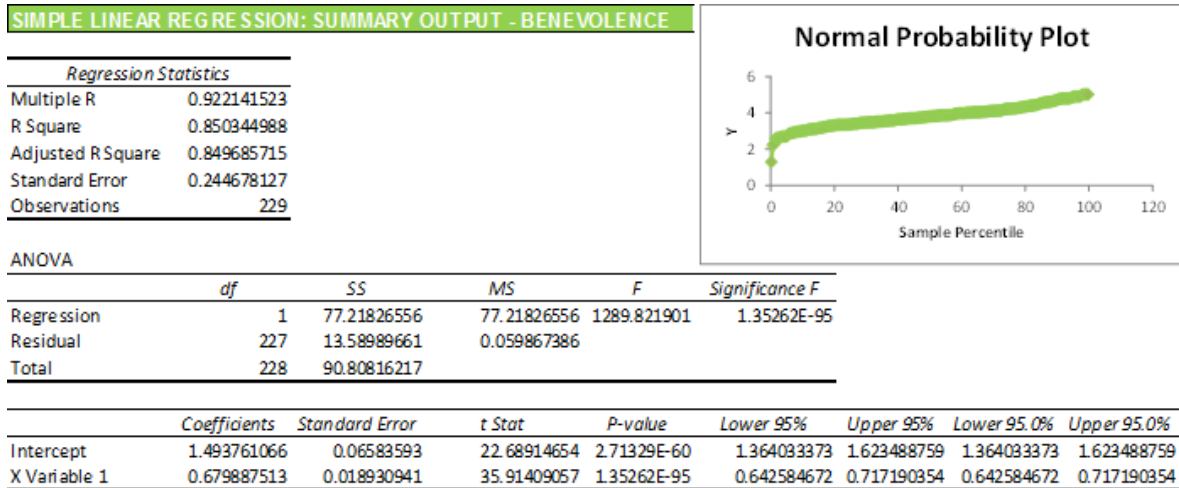
- *Benevolence*

The scatter plot graph below (Figure 4-5) of the average scores for ability and total trust indicates that for every one change in benevolence, the level of average total trust will increase with 0.68. This suggests a medium to strong linear relationship between benevolence as an input of total trust and the total trust construct. The coefficient of determination further indicated that 85.03% of the variation in total average trust is explained by the variability in benevolence as an input of trust.



**Figure 4-5: Benevolence vs. Total Trust**

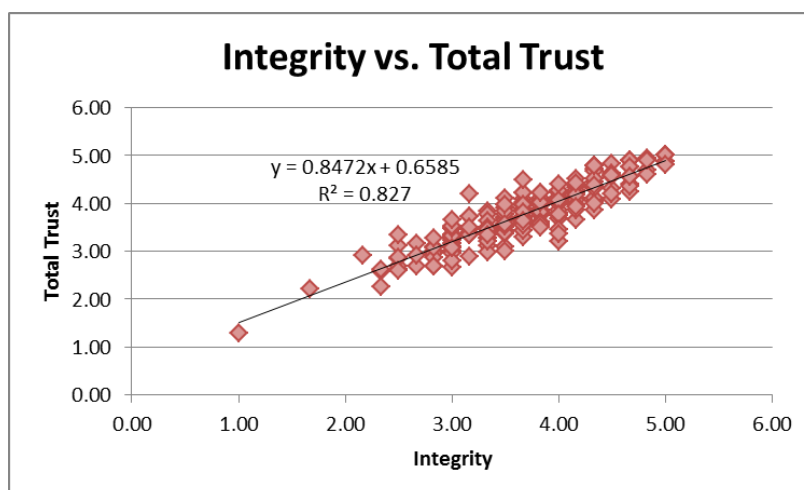
The findings of the linear regression completed on benevolence and total trust is summarised in Figure 4-6.



**Figure 4-6: Simple Linear Regression: Benevolence vs. Total Trust**

Just as per the findings for ability, simple linear regression of benevolence vs. total level of average trust indicated that all four assumptions have been adhered to. At a 5% level of significance, there is evidence of a strong positive linear relationship between benevolence and the total average level of trust.

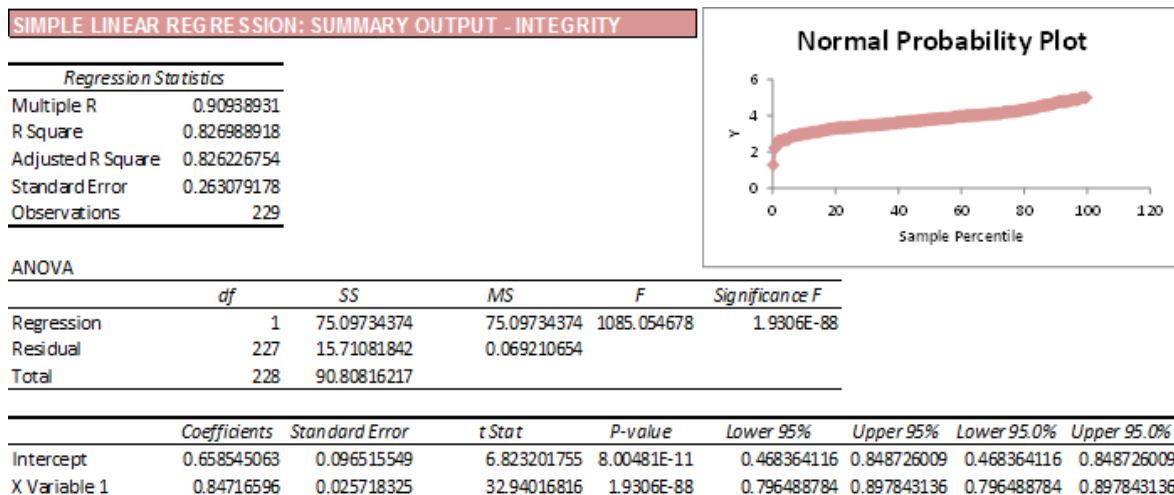
- *Integrity*



**Figure 4-7: Integrity vs. Total Trust**

The final input of trust is integrity. Figure 4-7 illustrates the results from the integrity sub-item grouping, which indicates that for every one change in integrity, the level of average total trust will increase with 0.85. This suggests a strong linear relationship between integrity as an input of total trust and the total trust construct. The coefficient of determination further indicated that 82.7% of the variation in total average trust is explained by the variability in integrity as an input of trust.

The findings of the linear regression adhere to the four assumptions that are outlined by Levine *et al.*, (2008:530-533). At a 5% level of significance, there is evidence of a strong positive linear relationship between integrity and the total average level of trust as confirmed by the summary of the linear regression in Figure 4-8.



**Figure 4-8: Simple Linear Regression: Integrity vs. Total Trust**

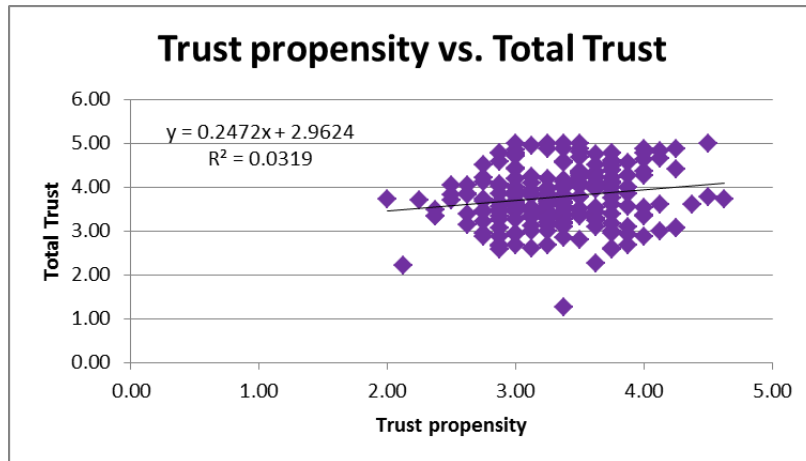
The above section discussed the correlations found between the inputs of trust and total trust. This research study indicate stronger positive relationships between the individual inputs of trust with total trust than the findings of Colquitt *et al.* (2007:919) as indicated in figure 2.2 in Chapter two.

As discussed in Section 4.2.1.1, although the reliability for trust propensity does not meet the required Cronbach’s alpha measure of 0.7, correlation of this sub-item and total trust was analysed for interest sake. The following section discusses the results.

- *Trust propensity*

The below scatter plot of results from the trust propensity sub-item grouping indicates that for every one change in trust propensity, the level of average total trust will increase

with 0.24. This suggests a weak linear relationship between trust propensity and the total trust construct. The coefficient of determination further indicated that only 3% of the variation in total average trust is explained the variability in trust propensity. These findings are illustrated in Figure 4-9.



**Figure 4-9: Trust propensity vs. Total Trust**

In Section 2.2.2 in Chapter two it is discussed that trust propensity will influence the decision of a person to either trust or not trust another individual (Colquitt *et al.*, 2007:911). The above findings however suggest a weak relationship between trust propensity and total trust. This could be explained by the overall reliability of the trust propensity sub-item which was found to be less than adequate. In addition, trust propensity is the constant individual differences that would affect the respondent's willingness and likelihood to trust senior management as explained by Mayer *et al.* (1995:715). The individual differences of the respondents therefore influenced the average scores of trust propensity and could explain why no material relationship was found with total trust. As these results could have been specifically related to the unique circumstances of the present study, it is suggested that future studies measure trust propensity as well as the relationship between trust propensity and trust.

#### **4.2.4 Conclusion**

From the above statistical analysis it was found that all the sub-items had an average score above the mid-point of three. However, only the three inputs of trust, namely ability, benevolence and integrity were found to be reliable as their Cronbach's alphas were higher than 0.7. The factor analysis further provided evidence that the same three inputs of trust, namely ability, benevolence and integrity were construct valid as one theme can be used to

explain the set of variables that form the sub-item of trust. The three inputs together formed the average measurement or level of trust. Through regression analysis it was found that all three inputs of trust had a significant positive linear relationship with the total average level of trust.

It can therefore be concluded that for the present study, the higher the levels of ability, benevolence and integrity employees believe that senior management possess, the higher the levels of trust the employees have in senior management. This is similar to findings from previous research by Mayer and Davis (1999:134). As per the predefined definition of trust in Chapter two, employees of Kaap Agri were willing to accept vulnerability in an uncertain environment based on their beliefs and positive expectations that senior management's behaviour and actions will result in good outcomes.

The statistical analysis of VBM is discussed in the next section.

### 4.3 STATISTICAL ANALYSIS OF VBM

The previous section presented a discussion of the research findings concerning the construct of trust. The following section focuses on the statistical findings regarding the VBM construct.

#### 4.3.1 Descriptive statistics: VBM

##### 4.3.1.1 Reliability of elements of VBM

Firstly the reliability of the elements measuring VBM was determined. Table 4-7 summarises the findings.

**Table 4-7: Reliability measured for VBM**

RELIABILITY MEASURED FOR VBM		
	CRONBACH ALPHA	AVE INTER-ITEM CORRELATION
VBM Total	0.77	0.32

The Cronbach's alpha for the VBM construct was found to be 0.77, indicating a high level of reliability and consistency across the items within this section of the questionnaire. The average inter-item correlation was 0.32 indicating that some correlation amongst the items

within the VBM construct exists. Because the Cronbach's alpha was bigger than 0.7, the results were used for further statistical analysis.

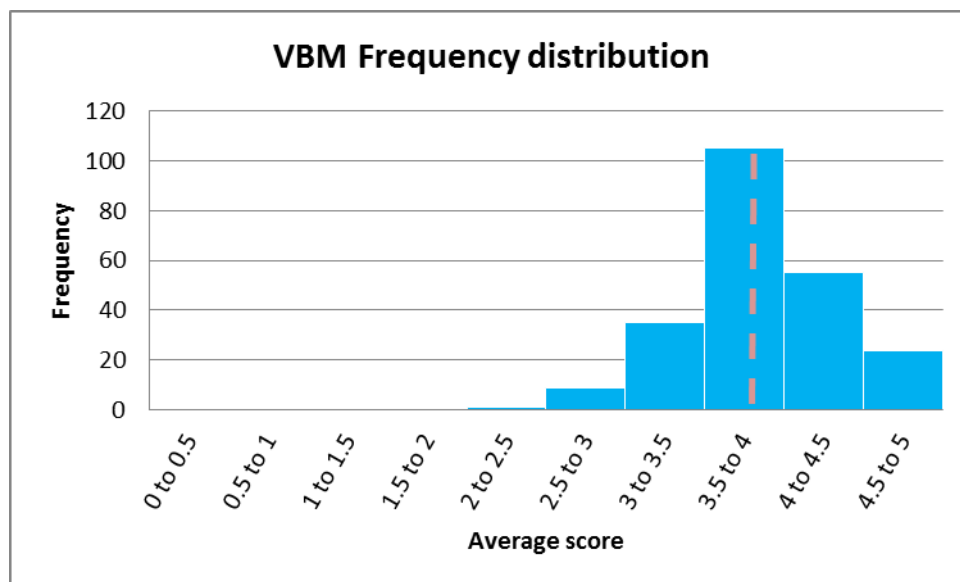
#### 4.3.1.2 Elements of VBM

The elements measuring VBM were analysed and a combined average score that indicated consistency of the definitions were obtained. The higher the score for the overall consistency, the more successfully VBM was implemented within the organisation. Table 4-8 presents a summary of the total score for VBM.

**Table 4-8: Measurement of VBM**

MEASUREMENT OF VBM				
	MEAN SCORE	STANDARD DEVIATION	MINIMUM SCORE	MAXIMUM SCORE
VBM Total	3.94	0.47	2.50	5.00

The mean score for VBM was found to be 3.94, indicating moderate levels of consistency that is above the mid-point of three. The results were distributed within 0.47 of the mean score for VBM. The minimum score of 2.50 indicates that the score were distributed towards the higher scores with most of the scores, as illustrated by Figure 4-10, falling between an average score of 3.5 to 4.



**Figure 4-10: VBM Frequency distribution**

The dashed line in the graph represents the mean score of 3.94 and indicates the high levels of consistency found in the results of the VBM section of the questionnaire. The element with the highest mean score was “consistency of decision-making processes and systems” with a mean score of 4.28. The element with the lowest means score of 3.4 was “consistency of organisational culture”. This could suggest that employees were aware and consistently aligned to how decisions were made within Kaap Agri although employees were not consistent with their interpretation of what the organisational culture was or should be. To provide more clarity around these findings, it is suggested that more research should be done that focuses specifically on these two elements.

Additional analysis was done to determine whether the mean score for VBM improved if one of the elements were not taken into account. Table 4-9 indicates that the mean VBM score decreased when one of the elements was deleted. This provided further confirmation that all elements should be utilised when determining the VBM score. Interesting to note is that the reliability of the results increased above the total VBM Cronbach’s alpha of 0.77 to 0.80 when the “consistency of organisational culture” was deleted from the results. As mentioned above, in future this element and its influence on VBM can be researched to provide clarity around the below findings.

**Table 4-9: Measurement of VBM elements**

MEASUREMENT OF VBM				
VARIABLE	MEAN IF DELETED	STANDARD DEVIATION IF DELETED	CRONBACH ALPHA	AVE INTER-ITEM CORRELATION
Consistency of organisational mission	3.44	0.42	0.76	0.43
Consistency of organisational communication	3.42	0.43	0.74	0.54
Consistency of organisational governance	3.41	0.42	0.73	0.61
Consistency of decision making process and systems	3.41	0.42	0.74	0.52
Consistency of organisational strategy	3.46	0.41	0.73	0.55
Consistency of organisational culture	3.52	0.44	0.80	0.19
Consistency of arrangement or structure of the organisation	3.47	0.42	0.74	0.52
Consistency of performance management processes and systems	3.45	0.41	0.74	0.54

The above section provided confirmation that the data used to measure the VBM construct were reliable and that a mean score of 3.94 was found. The next section discusses the results of the factor analysis conducted on VBM construct data.

#### 4.3.2 Factor analysis

Factor analysis was done on the elements utilised to measure VBM to determine how many factors were needed to explain this group variables. The following tables illustrate the findings from the factor analysis.

**Table 4-10: Factor Analysis – Eigenvalues**

<b>EIGENVALUES - EXTRACTION: PRINCIPAL COMPONENTS</b>				
<b>Value</b>	<b>Eigenvalues</b>	<b>% Total variance</b>	<b>Cumulative Eigenvalue</b>	<b>Cumulative %</b>
1	3.33	41.63	3.33	41.63
2	1.13	14.18	4.47	55.82
3	0.85	10.56	5.31	66.38

It was found that 66.38% of the variance within the group can be explained by the three factors identified (see Table 4-10). The requirements for construct validity as explained in Section 4.2.2 requires that only one factor or perhaps two should be present. The communalities were also calculated, as illustrated in Table 4-11. Marked communalities are those commonalties that can be classified as high due to a score equal or higher than 0.5. Once again, high commonalties were found when three factors were used in the statistical analysis.

**Table 4-11: Factor Analysis - Communalities**

COMMUNALITIES - EXTRACTION: PRINCIPAL COMPONENTS ROTATION: UNROTATED				
VARIABLE	FROM 1 FACTOR	FROM 2 FACTORS	FROM 3 FACTORS	MULTIPLE R-SQUARE
Consistency of organisational mission	0.32	0.35	0.81	0.22
Consistency of organisational communication	0.50	0.51	0.63	0.36
Consistency of organisational governance	0.59	0.61	0.61	0.44
Consistency of decision making process and systems	0.47	0.54	0.55	0.35
Consistency of organisational strategy	0.52	0.58	0.66	0.39
Consistency of organisational culture	0.06	0.80	0.84	0.13
Consistency of arrangement or structure of the organisation	0.39	0.59	0.60	0.31
Consistency of performance management processes and systems	0.47	0.48	0.61	0.34

The final requirement considered for construct validity is that a high variance, typically more than 70%, should be accounted for by the factor as described in Section 4.2.2. Table 4-12 highlights that although one or two high variances were found as marked in the table, the variance cannot be explained by a single factor.

**Table 4-12: Factor Analysis – Factor Loadings**

FACTOR LOADINGS (UNROTATED) - EXTRACTION: PRINCIPAL COMPONENTS				FACTOR LOADINGS (VARIMAX RAW)- EXTRACTION: PRINCIPAL COMPONENTS			
VARIABLE	FROM 1 FACTOR	FROM 2 FACTORS	FROM 3 FACTORS	VARIABLE	FROM 1 FACTOR	FROM 2 FACTORS	FROM 3 FACTORS
Consistency of organisational mission	-0.56	0.19	0.68	Consistency of organisational mission	0.07	0.14	0.89
Consistency of organisational communication	-0.71	-0.11	0.34	Consistency of organisational communication	0.46	-0.01	0.65
Consistency of organisational governance	-0.77	-0.15	0.01	Consistency of organisational governance	0.67	0.06	0.40
Consistency of decision making process and systems	-0.69	-0.26	-0.11	Consistency of decision making process and systems	0.70	-0.03	0.24
Consistency of organisational strategy	-0.72	-0.25	-0.27	Consistency of organisational strategy	0.80	0.04	0.13
Consistency of organisational culture	-0.25	0.86	-0.20	Consistency of organisational culture	-0.01	0.92	0.04
Consistency of arrangement or structure of the organization	-0.63	0.44	-0.08	Consistency of arrangement or structure of the organization	0.38	0.60	0.30
Consistency of performance management processes and systems	-0.69	-0.07	-0.37	Consistency of performance management processes and systems	0.75	0.21	0.04

The factor analysis thus found that for the VBM construct, the results do not meet the requirements for construct validity. More than three factors are needed to explain the group of elements that is used to measure the VBM construct.

### 4.3.3 Nuisance factors

For the present study specific questions were included in the questionnaire to determine the respondents' previous exposure to the VBM construct. These questions provided an average score for the respondents' previous exposure to VBM. Previous exposure to VBM could be a nuisance variable that may influence the respondents' answers, as discussed in Section 3.2.3. The average score of the potential nuisance variable (previous exposure to VBM) and the average VBM score were compared and statistical analyses were completed. This was done to determine if the nuisance variable existed.

Figure 4-11 displays the average potential nuisance score plotted on a scatter plot compared to the average score for VBM. A trend line was included to determine the impact on the average VBM score if the average potential nuisance score changed.

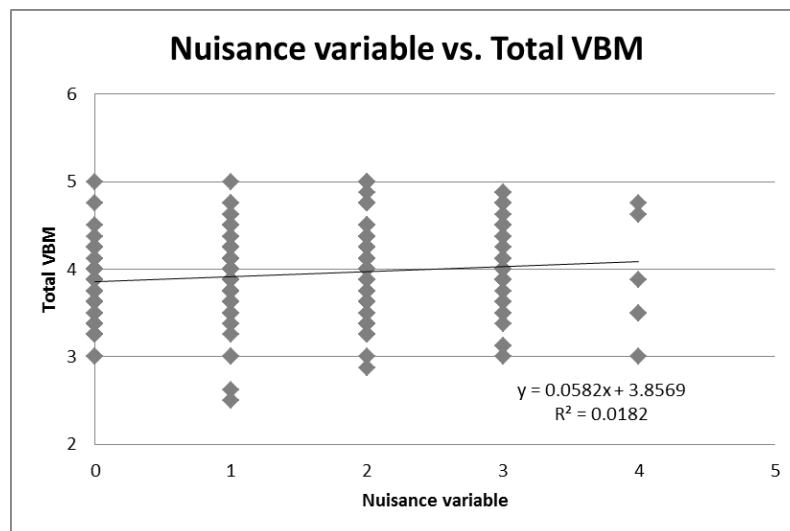
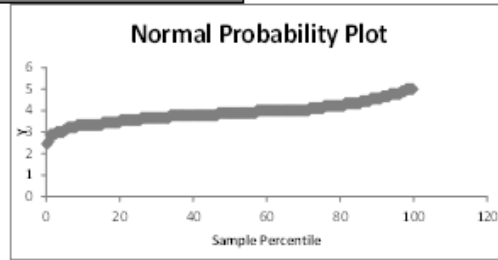


Figure 4-11: Nuisance variable vs. Total VBM

Figure 4-11 indicates that for every one change in the average nuisance variable, the average VBM increases with 0.06. This suggests weak linear relationship between the nuisance variable and the overall VBM score. The coefficient of determination further indicates that only 2% of the variation in the total average VBM score is explained by the variability in the nuisance variable. Linear regression was also conducted to confirm the above analysis and the following table and graph illustrates the findings.

**SIMPLE LINEAR REGRESSION: SUMMARY OUTPUT - NUISANCE VARIABLE AND VBM**

<i>Regression Statistics</i>	
Multiple R	0.150756549
R Square	0.022727537
Adjusted R Square	0.018422372
Standard Error	0.475252648
Observations	229



<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	1.192371707	1.192372	5.27913262	0.022493249
Residual	227	51.27137297	0.225865		
Total	228	52.46374468			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	3.789663225	0.051704961	73.294	5.3786E-160	3.687780175	3.8915463	3.687780175	3.891546275
X Variable 1	0.06568865	0.028589664	2.297636	0.022493249	0.009353589	0.1220237	0.009353589	0.122023711

**Figure 4-12: Simple Linear regression: Nuisance variable vs. Total VBM**

For simple linear regression of the nuisance variable versus total average VBM, all four assumptions of linear regression as discussed in Section 4.2.3 was adhered to. It can therefore be concluded that at a 5% level of significance there was no evidence of a real linear relationship between the nuisance variable and the total average VBM.

The above analysis provides confirmation that there was no relationship between the nuisance variable and the total average VBM score. As a result, there was no need to control the nuisance variable. The above sections focused on the non-financial measurement of VBM. The following section focuses on the financial measurement of VBM by utilising EVA.

**4.3.4 Financial measurement: EVA**

EVA was selected as the financial measurement of VBM to determine if value was created by management as described in Chapter one Section 1.5.3.3. The following formula was utilised when calculating the EVA (Meggison, Smart and Graham, 2010:697):

$$\text{EVA} = \text{NOPAT} - (\text{WACC} * \text{Operating Capital})$$

Where:

NOPAT = Net operating profit after tax

WACC = Weighted average cost of capital

Operating Capital = Operating Current Assets – Operating Current  
Liabilities + Net Fixed Assets

For the last audited financials as at 30 September 2011, EVA was calculated to be the following:

$$\begin{aligned}\text{EVA} &= \text{NOPAT} - (\text{WACC} * \text{Operating Capital}) \\ &= \text{R } 300\,241 - (10.37\% * \text{R } 1\,201\,601) \\ &= \text{R } 175\,670\end{aligned}$$

The positive EVA provides an indication that during the financial period ending 30 September 2011, economic value was added by management to Kaap Agri. VBM was thus successful during this financial period.

Table 4-13 provides further detail regarding the calculations of the various components required for the EVA formula that was used.

**Table 4-13: EVA calculation tables – September 2011**

<b>DEBT AND EQUITY %</b>		
DEBT	R 896 865	27%
EQUITY	R 2 453 758	73%
<b>TOTAL</b>	<b>R 3 350 623</b>	<b>100%</b>

<b>WACC CALCULATIONS</b>	
	<b>SEPT 2011</b>
DEBT %	27%
AFTER TAX RETURN ON DEBT	5%
Short term borrowings	R 443 775
Finance cost	R 23 316
EQUITY %	73%
RETURN ON EQUITY	12%
Equity	R 2 453 758
NOPAT	R 300 241
<b>WACC</b>	<b>10.37%</b>

<b>OPERATING CURRENT ASSETS (CA)</b>	
Trade and other receivables	R 887 885
Inventory	R 406 187
Cash and cash equivalents	R 14 850
<b>TOTAL</b>	<b>R 1 308 922</b>

<b>OPERATING CURRENT LIABILITIES (CL)</b>	
Trade and other payables	R 428 979
Accruals (Provisions)	R 3 445
Tax provisions	R 97
<b>TOTAL</b>	<b>R 432 521</b>

<b>EVA CALCULATIONS</b>	
	<b>SEPT 2011</b>
NOPAT	R 300 241
OPERATING CAPITAL	R 1 201 601
operating CA	R 1 308 922
less operating CL	R 432 521
plus Net Fixed Assets	R 325 200
Average WACC	10.37%
<b>EVA</b>	<b>R 175 670</b>

EVA was also calculated using the interim results as at 31 March 2012 and extrapolating the NOPAT to a full year period and at a constant WACC. This was done to compare the year on year movement in EVA as audited financial statements for the period ending 30 September 2011 was not available when the study was completed.

$$\begin{aligned} \text{EVA} &= \text{NOPAT} - (\text{WACC} * \text{Operating Capital}) \\ &= \text{R } 128\,168 - (10.37\% * \text{R } 1\,235\,965) \\ &= \text{R } 34 \end{aligned}$$

The very small positive EVA provides an indication that economic value will be added by management to Kaap Agri if the current profit trend continues. However, the smaller EVA when compared with the EVA calculated as at 30 September 2011, suggests that less economic value was added by management. Consequently, VBM was successful during this period, albeit to a lesser extent.

Table 4-14 provides further detail regarding the calculations of the various components required for the EVA formula that was used.

**Table 4-14: EVA calculation tables - March 2012**

OPERATING CURRENT ASSETS (CA)		OPERATING CURRENT LIABILITIES (CL)	
Trade and other receivables	R 910 710	Trade and other payables	R 409 302
Inventory	R 399 147	Accruals (Provisions)	R 2 596
Cash and cash equivalents	R 6 348	Tax provisions	R 5 573
TOTAL	R 1 316 205	TOTAL	R 417 471

EVA CALCULATIONS	
	MARCH 2012
NOPAT*	R 128 168
OPERATING CAPITAL	R 1 235 965
operating CA	R 1 316 205
less operating CL	R 417 471
plus Net Fixed Assets	R 337 231
Average WACC	10.37%
<b>EVA</b>	<b>R 34</b>

\*6 month actual result extrappolated for full year forecast

#### **4.3.5 Conclusion**

The statistical analysis on the VBM construct provided confirmation that the data used to measure the VBM construct were reliable. The mean score of 3.94 indicates that VBM was successful within Kaap Agri as a consistency of the elements of VBM occurs. However, the factor analysis revealed that for the VBM construct, the results do not meet the requirements for construct validity. Furthermore, the statistical analysis provided confirmation that there was no relationship between the nuisance variable and the total average VBM score. Consequently, there is no need to control the nuisance variable. The positive EVA that was calculated suggested that during the financial period ending 30 September 2011, economic value was added by management to Kaap Agri and VBM was successful during this financial period.

Both the non-financial and financial measurement of VBM carries equal weight when determining overall success of VBM. As both measurements indicate that VBM was successful within Kaap Agri and that economic value was added to the organisation, it can be concluded that VBM was successful during the previous 12-month period. As discussed in Section 2.2.2 in Chapter two, trust historically develops over time. The VBM results of the 12-month period can thus be compared with the trust results obtained from the research study as the trust continued to develop over the same period of time. The above section presented a discussion of the statistical analysis on the VBM construct. The following section focuses on the correlations found between the sub-items of the trust construct and sub-items of the VBM construct.

#### **4.4 CORRELATIONS BETWEEN TRUST AND VBM**

The previous sections in this chapter have confirmed that a moderate level of trust exists within the sample group and that VBM was successful in Kaap Agri. This section discusses the findings of the regression analysis completed between the sub-items of trust and the sub-items of VBM. This was calculated to determine if significant relationships between the variables exist.

Based on the statistical analysis completed in Section 4.2.2, the three inputs of trust (ability, benevolence and integrity) were found to be construct valid and were therefore used as three single variables when testing for correlations between trust and sub-items of VBM. Two factors explained 71% of the variance in trust as a verb, however one factor alone only explained 40% of the variance whereas the other factor explained 31% of the variance.

Therefore trust as a verb was grouped as a single variable. However for trust propensity, four factors explained 71% of the variance and it was found to not be construct valid. Consequently, the sub-items were separately tested for correlations with the sub-items of VBM. The VBM sub-items grouped together were found not to be construct valid and each variable was used separately when testing for correlations. At a 95% confidence level the following significant relationships were found as summarised in Table 4-15.

**Table 4-15: Correlations between trust and VBM**

CORRELATIONS BETWEEN TRUST AND VBM									
	Org. mission	Org. communication	Org. governance	Decision making process & systems	Org. Strategy	Org. Culture	Org. Structure	Performance management	VBM Total average
Ability	0.243473	0.422964	0.522761	0.493863	0.521247	0.081302	0.306954	0.399835	0.582146
Benevolence	0.202579	0.336275	0.494775	0.388199	0.411593	0.117842	0.309257	0.409608	0.521522
Integrity	0.226657	0.339164	0.593354	0.398829	0.401895	0.122998	0.326456	0.390267	0.545398
Trust as verb	0.118249	0.237098	0.358006	0.300367	0.275891	-0.012797	0.122213	0.274966	0.321938
Trust propensity (BE1)	-0.070751	0.085634	0.036082	0.132961	0.179493	-0.060324	0.033881	0.054834	0.072538
Trust propensity (BE2)	0.092586	0.116621	0.114761	0.027182	0.081153	0.181954	0.264156	0.135662	0.203869
Trust propensity (BE3)	0.015905	0.096405	0.098872	0.057709	0.058528	0.169923	0.201082	-0.018294	0.135772
Trust propensity (BE4)	-0.039798	-0.012434	0.000242	0.050403	0.086662	0.042775	0.020411	0.011586	0.034536
Trust propensity (BE5)	0.110932	0.137516	0.221962	0.240605	0.140919	0.136040	0.149575	0.162477	0.257237
Trust propensity (BE6)	-0.035668	0.130613	0.102851	0.123150	0.098392	0.120977	0.239190	0.117447	0.175279
Trust propensity (BE7)	-0.019577	0.073547	0.175823	0.135186	0.068371	0.220273	0.235547	0.083599	0.194896
Trust propensity (BE8)	0.071399	0.061594	0.133446	0.172389	0.041570	0.155526	0.251379	0.004741	0.177655

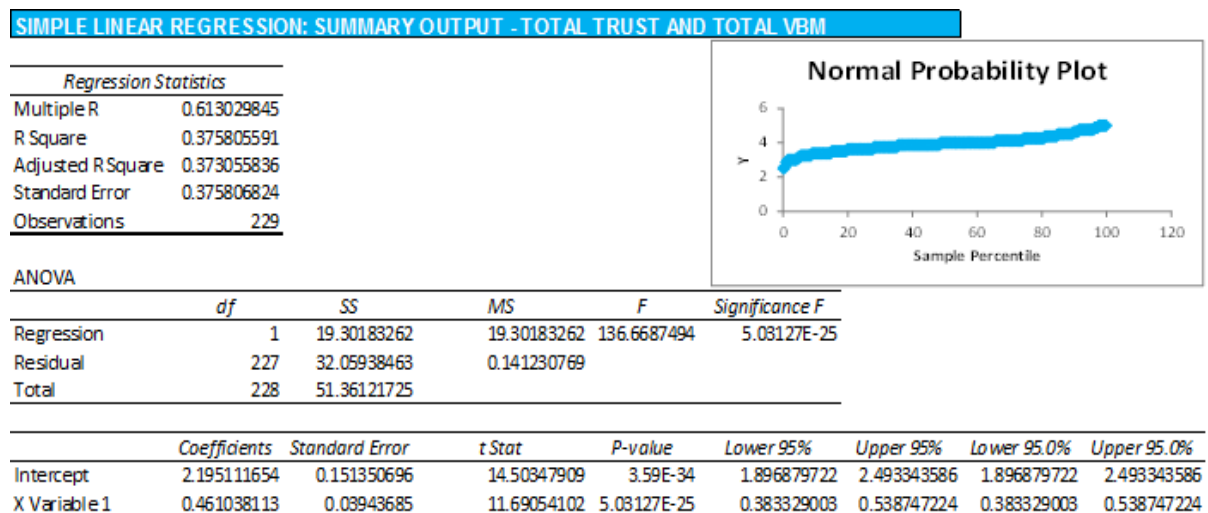
0.9999	Significant relationship at 95% confidence level	0.9999	Strong positive relationships (R>0.5)
0.9999	No significant relationship at 95% confidence level	0.9999	Moderately strong positive relationships (R>0.4)

All the red scores indicate significant relationships at a confidence level of 95%. The closer the scores are to one, the stronger the relationship between the independent and the dependent variable. All the pink filled scores indicate moderately strong positive relationships between the variables. The red scores that are not filled are all significant but weak relationships were found amongst the variables. For instance, the score of 0.42 between ability and organisational communication indicates that at a 95% confidence level, there is a moderately strong positive relationship between organisational communication (as sub-item of VBM) and ability (as input of trust).

The stronger correlations that should be noted are the green filled scores. These scores indicate significant strong positive relationships amongst variables as the scores are greater than 0.5. The following conclusions can thus be made from the correlation table:

- 0.52 – there is a significant strong positive relationship between organisational governance and ability.
- 0.59 – there is a significant strong positive relationship between organisational governance and integrity. This is the strongest correlation found amongst the variables.
- 0.52 – there is a significant strong positive relationship between organisational strategy and ability.
- 0.58 – there is a significant strong positive relationship between the total average VBM and ability. This is the second strongest correlation found and the relationship between the variables is important to take note of.
- 0.52 – there is a significant strong positive relationship between the total average VBM and benevolence.
- 0.55 – there is a significant strong positive relationship between the total average VBM and integrity.

From the above it can be concluded that all three inputs of trust have a significant strong positive relationship with the total average VBM. Regression analysis on total average trust, calculated from the inputs of trust, as described in Section 4.2.3, together with total average VBM was completed. This was done to determine if a relationship existed between the two variables. From the below summary, Multiple R indicated a score of 0.61. This indicates that at a 95% confidence level, a significant strong positive relationship between total average VBM and total average trust existed.



**Figure 4-13: Simple Linear Regression: Total trust vs. Total VBM**

In addition, the R-Square score of 0.375 indicates that at a 95% confidence level, 38% of the variation in total average VBM can be attributed to the variation in total average trust. The regression analysis thus confirmed that a significant positive relationship between these variables exists.

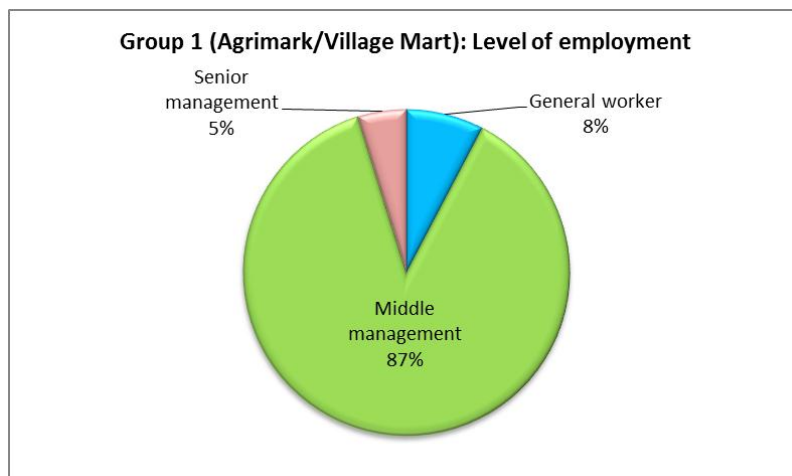
The following section focuses on measuring trust and VBM in Groups A and B and then comparing them with one another as described in Section 3.5.

#### 4.5 TRUST AND VBM WITHIN THE TWO GROUPS

The level of trust and the successful implementation of VBM between the two different groups within Kaap Agri were measured and are compared in this section. This provides comparable results to determine if a higher level of trust has a positive influence on the success of VBM.

##### 4.5.1 Group one

Group one consists of all respondents that selected Kaap Agri stores (Agrimark) or Village Mart as their department. This group represents all respondents who worked in the Kaap Agri retail stores during the study period and formed the first unit of analysis. Figure 4-14 illustrates the levels of employment within group one.



**Figure 4-14: Group 1 – Level of employment**

The level of employment forms the secondary unit of analysis that was used when measuring trust and VBM for group one. The mean score for trust and VBM for this unit of

analysis were compiled and the results are summarised in table 4-16. To eliminate the influence of the different number of respondents per level of employment, the total measure for trust and VBM was calculated by taking the average score of the three levels of employment.

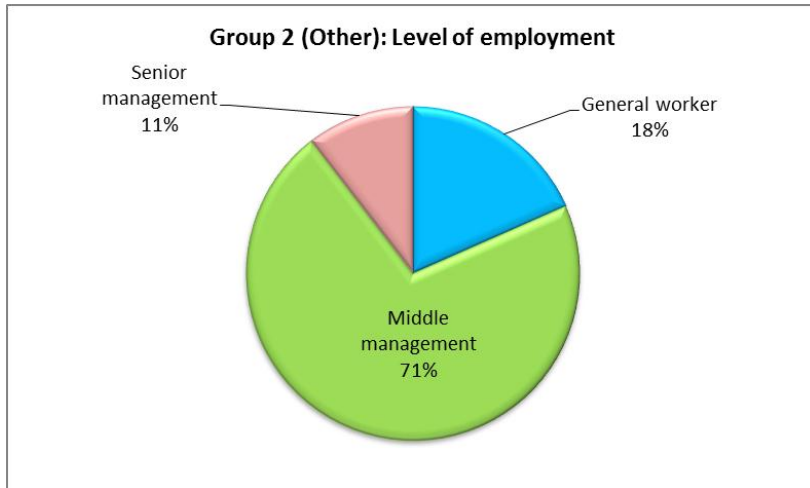
**Table 4-16: Group 1 – Trust and VBM results**

<b>GROUP 1: AGRIMARK / VILLAGE MART</b>	
<b>AVERAGE TRUST MEASUREMENT</b>	
	<b>MEAN SCORE</b>
General worker	3.16
Middle management	3.96
Senior management	4.08
<b>TOTAL</b>	<b>3.74</b>
<b>AVERAGE VBM MEASUREMENT</b>	
	<b>MEAN SCORE</b>
General worker	3.63
Middle management	4.04
Senior management	4.13
<b>TOTAL</b>	<b>3.93</b>

For the trust construct it was found that senior management showed the highest level of trust and the highest score for the VBM construct. General workers showed the lowest score for both constructs. This could be a potential indicator that VBM was less successfully implemented amongst general workers. Furthermore, Table 4-16 indicates that the mean trust score for group one was 3.74 and the mean VBM score was 3.93. Both scores were higher than the average mid-point and suggest moderate high levels of trust and moderate high successful VBM implementation rates. The following section discusses the same findings for group two.

#### **4.5.2 Group two**

Group two consists of all respondents that selected other departments, such as Finance, Information Technology, Human Resources, etc. Group two represents more back-end support and services performed by Kaap Agri. Figure 4-15 represents the levels of employment (secondary unit of analysis) within group two.



**Figure 4-15: Group 2 – Level of employment**

The majority of the respondents within this group formed part of middle management which was aligned with what was found in group one. However, as mentioned previously, the influence of the different number of respondents per level of employment was found by calculating the average total scores by taking the average score per level of employment. Table 4-17 summarises the mean score for trust and VBM for per level of employment.

**Table 4-17: Group 2 – Trust and VBM results**

<b>GROUP 2: OTHER</b>	
<b>AVERAGE TRUST MEASUREMENT</b>	
	<b>MEAN SCORE</b>
General worker	3.57
Middle management	3.64
Senior management	4.17
<b>TOTAL</b>	<b>3.79</b>
<b>AVERAGE VBM MEASUREMENT</b>	
	<b>MEAN SCORE</b>
General worker	3.71
Middle management	3.87
Senior management	4.28
<b>TOTAL</b>	<b>3.95</b>

Similar to what was found for group one, senior management showed the highest level of trust and the highest score for the VBM construct. General workers showed the lowest score for both constructs. The mean trust score for group two was found to be 3.79 and the mean VBM score was 3.95. Both scores were higher than the average mid-point and indicated moderate high levels of trust and moderate high successful VBM. This section provided the

results for the two groups within the sample. The next section compares the results of the two groups in order to identify possible trends.

#### 4.5.3 Comparison of results from group one and two

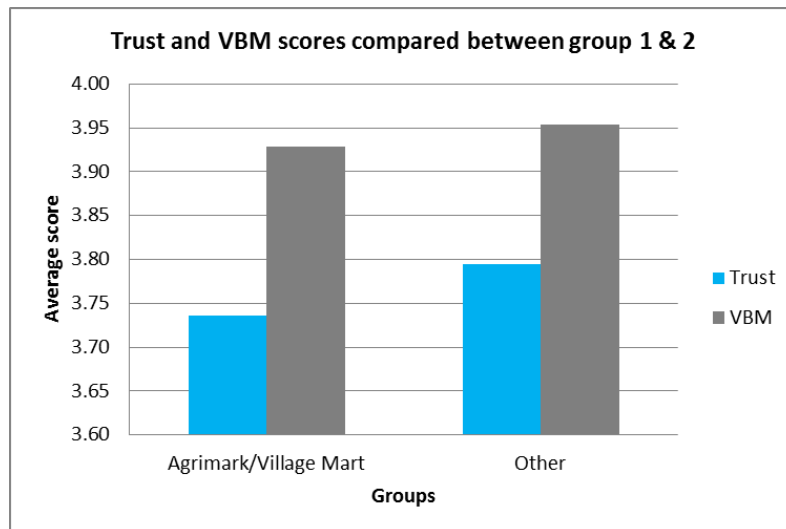
Firstly, the mean score per level of employment between group one and two was compared. The highest score for each unit was highlighted in green in Table 4-18.

**Table 4-18: Comparison of results between Group 1 and 2**

<b>AVERAGE TRUST MEASUREMENT</b>		
	<b>MEAN SCORE GROUP ONE</b>	<b>MEAN SCORE GROUP TWO</b>
General worker	3.16	3.57
Middle management	3.96	3.64
Senior management	4.08	4.17
<b>TOTAL</b>	<b>3.74</b>	<b>3.79</b>
<b>AVERAGE VBM MEASUREMENT</b>		
	<b>MEAN SCORE GROUP ONE</b>	<b>MEAN SCORE GROUP TWO</b>
General worker	3.63	3.71
Middle management	4.04	3.87
Senior management	4.13	4.28
<b>TOTAL</b>	<b>3.93</b>	<b>3.95</b>

Group one indicates the highest score for trust per the middle management unit of analysis. It is interesting to find is that similarly group one only indicates the highest score for VBM per the middle management unit. Group one’s middle management scores for both constructs were thus the higher of the two groups and could potentially indicate that a relationship exists between the two constructs. Group two scored the highest mean score for general workers and senior management for both the trust and VBM construct. Once again, because the highest score for these units occurs in both constructs, it could indicate a potential relationship.

When comparing the overall score for trust and VBM from group one with that of group two, a diagram was created to illustrate the findings (see Figure 4-16). It is clear that group one, Agrimark/Village Mart has a lower average trust score and a lower average VBM score. Group two has a higher trust score and a higher VBM score. This provides further indication that a possible relationship between levels of trust and the success of VBM may exist.



**Figure 4-16: Comparison of score between Group 1 and 2**

Based on these results group two indicates higher levels of trust and higher successful implementation of VBM.

#### **4.5.4 Conclusion**

From the above analysis it was found that the group with the higher levels of average trust also has a higher score for VBM. Although no causality is implied, the relationship between the constructs suggests that further research with a larger sample could prove causality. The amount of value that could potentially be obtained from the influence of higher levels of trust on VBM must thus be considered and researched in the future.

The following chapter revisits the research questions and objectives and final conclusions are made from the research findings. The chapter concludes with recommendations that are based on the present study's findings.

## **CHAPTER 5**

### **5 CONCLUSIONS AND RECOMMENDATIONS**

Chapter four discussed the results found from the statistical analysis of the data. Descriptive statistics was completed, factor analysis was conducted and correlations amongst variables were identified and quantified for both the trust and VBM constructs. Total average levels of trust and total average VBM scores between group one (Agrimark/Village Mart) and two (Other) were compared and it was found that the group with the higher levels of average trust also had a higher score for VBM.

Chapter five concludes the exploratory study of the relationship between trust and VBM. Limited previous research has been done on the constructs of trust and VBM. The present study provided confirmation of the importance of trust within an organisation when implementing VBM initiatives. The findings of the present study highlight that the management of organisations should first address trust within their organisations, which will then enable them to maximise the value obtained from VBM. Due to the positive relationship between trust and VBM, it is recommended that future research consider the potential relationship between trust and other business management practices that can increase the net worth of an organisation.

The final chapter revisits the research objectives and final conclusions are made from the research findings. The chapter concludes with recommendations that are based on findings of the present study.

#### **5.1 RESEARCH OBJECTIVES**

In Chapter one, the research objectives for the research study was identified. The primary objective of this research study was to explore whether the existence of trust within the organisation would have an influence on the successful implementation of VBM initiatives. The total average level of trust and total average of VBM between two different groups were measured in Chapter four to explore whether there was a relationship between the existence of trust and the successful implementation of VBM initiatives. Overall correlations between total average trust and total average VBM within the sample were also determined in Chapter four.

The primary research question: “Is there a relationship between the level of trust within an organisation and the successful implementation of VBM initiatives?” is answered in Section 5.2 that follows.

The following secondary objectives were also identified in Chapter one:

- Is the level of hierarchy (dyadic) trust influenced by the level of trust in the ability, benevolence and integrity of management?
- Does the level of trust in the ability of management influence the successful implementation of VBM?
- Does the level of trust in the benevolence of management influence the successful implementation of VBM?
- Does the level of trust in the integrity of management influence the successful implementation of VBM?
- Does employees’ trust propensity influence their overall level of hierarchy trust?
- Can the consistency of elements identified be used as non-financial measurement to measure the successful implementation of VBM initiatives?
- Does previous exposure to the construct of VBM influence the average level of successful implementation of VBM initiatives?

These secondary research objectives were obtained from the literature, which indicated that these variables may have significant relationships with the trust construct and the VBM construct. Through the results found in Chapter four, the research objectives were met. The answers to the research questions are discussed in the final conclusion section that follows.

## **5.2 FINAL CONCLUSIONS**

The previous sections presented a summary of the research objectives. This section presents the findings of the present study per research objective.

### **5.2.1 Primary research objective**

Regression analysis on total average trust and total average VBM resulted in a Multiple R score of 0.61. This indicates that at a 95% confidence level, a significant strong positive relationship between total average VBM and total average trust existed. Furthermore, the R-Square score of 0.375 indicates that at a 95% confidence level, 38% of the variation in total average VBM could be attributed to the variation in total average trust. The results of the

regression analysis confirm that a significant positive relationship between the level of trust within an organisation and the successful implementation of VBM initiatives does exist. Comparing the results of the two groups as discussed in Section 4.5 found that the group with the higher levels of average trust also had a higher score for VBM. This further supports the finding of a relationship between the level of trust and the successful implementation of VBM.

### **5.2.2 Secondary research objectives**

The findings of each secondary research objective are discussed separately in the following section. First the objective is stated and then the conclusion is made.

- Is the level of hierarchy (dyadic) trust influenced by the level of trust in the ability, benevolence and integrity of management?

*Conclusion:* The simple linear regression separately completed for ability, benevolence and integrity vs. total level of average trust concluded that at a 5% level of significance there is evidence of a strong positive linear relationship between each input of trust and the total average level of trust. The level of dyadic trust is thus influenced by the level of trust in the ability, benevolence and integrity of management.

- Does the level of trust in the ability of management influence the successful implementation of VBM?

*Conclusion:* A significant strong positive relationship between the total average VBM and ability was found in Section 4.4. The strongest relationship between an input of trust and the total average VBM was that of ability as an input of trust. The level of trust in the ability of management influences the successful implementation of VBM for this research study.

- Does the level of trust in the benevolence of management influence the successful implementation of VBM?

*Conclusion:* A significant strong positive relationship between the total average VBM and benevolence was found in Section 4.4. Therefore, the level of trust in the benevolence of management influences the successful implementation of VBM.

- Does the level of trust in the integrity of management influence the successful implementation of VBM?

*Conclusion:* Again, a significant strong positive relationship between integrity and the total average VBM was found in Section 4.4. As a result, the level of trust in the integrity of management influences the successful implementation of VBM.

- Does employees' trust propensity influence their overall level of hierarchy trust?

*Conclusion:* The literature suggests that the trust propensity of an individual could influence the overall level of trust towards another individual, such as management (i.e. hierarchy trust) as discussed in Chapter two. The present study found that trust propensity had the lowest mean score out of all the sub-items of trust. In addition, the Cronbach's alpha of 0.6 indicated a moderate level of reliability which did not meet the required Cronbach's alpha measure of 0.7. Inter-item correlation at 0.15 also indicated weak correlations amongst the items within this construct. Because the data were not reliable no further analysis was conducted on the data. The research objective could not be answered and it is suggested that future research should focus exclusively on the influence of trust propensity on hierarchy trust.

- Can the consistency of elements identified be used as non-financial measurement to measure the successful implementation of VBM initiatives?

*Conclusion:* A high level of reliability and consistency across the items within this VBM section of the measuring instrument was found. The mean total VBM score declined when each of the elements used to determine the VBM total score was deleted. This provides confirmation that all elements should be utilised when determining the VBM score. Factor analysis did not find the data obtained from the measuring instrument to be construct valid and the inclusion of other elements should be considered in the future.

- Does previous exposure to the construct of VBM influence the average level of successful implementation of VBM initiatives?

*Conclusion:* The research study provides confirmation that there was no relationship between the nuisance variable (previous exposure to VBM) and the total average VBM score. The conclusion can therefore be made that for the present study previous exposure to VBM did not influence the average level of successful implementation of VBM initiatives.

The above section concluded the findings of the research study. The next section presents a discussion of the key management considerations derived from the research findings that enables management to derive the maximum value from the present study.

### **5.3 MANAGEMENT CONSIDERATIONS**

The research findings, as listed above, highlight some key management considerations for both Kaap Agri management and management of businesses in general. Firstly the management consideration for the management of Kaap Agri is discussed.

#### **5.2.3 Management considerations for Kaap Agri management**

The results of the present study provide confirmation that moderate levels of trust in senior management of Kaap Agri exists with a mean score for the total average trust at 3.79. Furthermore, the study revealed that employees indicate higher levels of trust in the ability of senior management and the lowest levels of trust in the benevolence of senior management. Management of Kaap Agri must therefore focus on acting and communicating in such a manner that will increase the levels of trust in their benevolence. Management must show employees that they are willing to do good things for them, even if no profit or benefit for the senior management or Kaap Agri exists. The score of 3.41 for trust as a verb indicates that although moderate levels of trust exist, employees are only moderately willing to act based on the level of trust. There is thus still resistance to move into actions because senior management is trusted. Senior management should ensure that employees are motivated to move into action based on the levels of trust and communicate that employees can act based on trust without fear of retribution.

The overall non-financial score of 3.94 for VBM indicates moderate levels of consistency of the VBM elements and thus successful implementation of VBM for Kaap Agri. The element with the lowest mean score of 3.4 was “consistency of organisational culture”. This provides an indication that employees are not consistent with their interpretation of what the organisational culture is or should be. Senior management must therefore focus on

communicating and implementing the organisational culture of Kaap Agri on all levels of the organisation to ensure that all employees understand and buy into the organisational culture. The financial measurement of VBM provides an indication that economic value was added to the organisation in the previous 12 months. However, if the current profit trend continues, the EVA value will decrease from the previous years, which indicates that although economic value will still be added, it will be less than in the previous year. Management must focus on adding more economic value every year to ensure that the most value is obtained from the organisation.

In comparing two different groups within Kaap Agri, the following management considerations are highlighted. Group one, the respondents from the Kaap Agri and Village Mart store reflected a lower score for trust and VBM in general. However, for the middle management specifically, group one indicated higher scores for both trust and VBM compared to group two. Senior management should thus focus on building trust with the general workers and senior management of the Kaap Agri and Village Mart stores in general. Additionally, implementing VBM should be focused on targeting general workers and senior management to ensure that more value is derived from VBM and that all employees actively participate and understand VBM. Group two, which included all the other departments of Kaap Agri, had the highest trust and VBM scores. Attention must be given to determine why the middle management indicated less trust than in group one. Workshops and interventions can be held to determine possible reasons and identify ways of building relationships and increasing levels of trust between middle management and senior management. In general, more attention should be given to improve the levels of trust and the understanding and participation in VBM by the general workers. More value can be obtained if trust and successful implementation occur at all levels of employment within Kaap Agri.

The next section presents a discussion of general management considerations for business in general.

#### **5.2.4 General management consideration**

The research findings conclude that higher levels of trust can result in higher levels of VBM, which in turn can result in more value being created, thereby increasing the net worth of the organisation. Management of organisations should therefore focus on building not only dyadic trust but also co-worker trust. Employees should also be motivated to act based on their levels of trust without fear of retribution. VBM must then be successfully implemented to

all levels within the organisation to obtain the maximum value from the initiatives. Together with higher levels of trust, VBM could be more successful and the organisation could grow in net worth. The following section provides a list of recommendations for future research studies into the field of trust and its relationship with VBM.

### **5.3 RECOMMENDATIONS**

The above section concluded that a significant positive relationship between the level of trust and the successful implementation of VBM initiatives exists. The following section provides a list of recommendations that can be used if the research study is replicated in future or if similar research studies were to be done. The recommendations are based on the findings of the present study.

The selection of the company that is used for a study is very important. It is recommended that the researcher preferably selects a listed company as their financial information is more easily available. It is also suggested that the audited and published financial statements of previous years are used to determine the EVA score before the company is selected. This will provide a financial indication of whether economic value was added by management which is a result of VBM.

The strongest correlations found between the variables of trust and VBM was between organisational governance and integrity. A significant strong positive relationship was found between organisational governance and integrity, indicating that the higher the levels of trust in the integrity of senior management are, the higher the consistency of the element of organisational governance will be. This provides insights into management setting the example by acting with integrity and employees trusting in the integrity of management and following their example. Further research can be done to explore the relationship between this input of trust, namely integrity and organisational governance.

It is recommended that future studies look to standardise the measuring instrument used for the South African context. The questionnaire used as measuring instrument was developed by Mayer and Davis (1999:136). During this research study a low Cronbach's alpha for the sub-item "trust as a verb" of 0.48 was found which indicate a lower level of reliability. Standardising this questionnaire for the South African could potential increase the reliability of the measuring instrument.

It is recommended that the sample sizes of future studies should be increased by selecting larger organisations with multiple departments with enough potential respondents per department. This will enable more extensive comparisons between the level of trust and the success of VBM within the different departments. Findings when the different departments are compared could provide further insight into the relationship between trust and VBM and perhaps provide evidence of causality between trust and the success of VBM.

For this present study it was concluded that the elements used to measure the successful implementation of VBM can be utilised as non-financial measures. The factor analyses indicated that construct validity of the VBM measurement instrument needs further development. Future consideration should be given on how to improve the construct validity of this measuring instrument. Another recommendation is that alternative financial measurements of VBM should be used in conjunction with EVA. This could provide further insight into the extent of EVA to the organisation.

The secondary research objective of whether employees' trust propensity influence their overall level of hierarchy trust could not be answered in the present study due to data not being reliable. It is suggested that future research should be done to determine the influence of trust propensity on hierarchy trust. An expanded and reliable questionnaire should be utilised to provide reliable data.

Previous exposure to VBM was identified as a potential nuisance variable. Although it was concluded that for the present study previous exposure to VBM did not influence the average level of successful implementation of VBM initiatives, it is recommended that the nuisance variable should still be tested in future studies. This is necessary because the respondents of each research study will answer the questions differently and it should always be determined if the nuisance variable exists to ensure that it is controlled and does not influence the study.

It is also suggested that the future studies should have a narrower focus for more insightful and usable results that can be implemented in an organisation. The results of the present study indicated that trust in the ability of management had the strongest relationship with the total average VBM. Future studies could obtain valuable insights by focusing exclusively on the relationship between ability and VBM. Alternatively, the VBM element with the highest score, namely "consistency of decision-making processes and systems", or the element with the lowest mean score of 3.4 of "consistency of organisational culture" can be further

researched to understand the relationship with the success of VBM. Additionally, the relationship between trust and these two elements could be explored further.

As a researcher it is important to be passionate about your research field. Always find the element within the research study that truly interest you and complete the research study to ensure the research objectives are met and that the interesting findings are concluded. By staying passionate about the research study more focus is given to the study and it makes the research process more enjoyable.

The above section presented a discussion of the key recommendations for future research around the relationship between trust and VBM to ensure that even more value can be derived from similar future research. This chapter concluded the research study by revisiting the research objectives and describing the research conclusion for each of the objectives. The research study highlights management consideration based on the findings of the research study and concludes with recommendations for future research with regard to exploring the relationship between trust and VBM.

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**ANNEXURE A: KAAP AGRI LETTER OF CONSENT**

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22 Oktober 2012

**Aan wie dit mag aangaan**

Ek bevestig dat die Exco van Kaap Agri goedkeuring aan Maré Louw verleen het dat ons personeel op 'n vrywillige basis aan haar bedryfsleiding-navorsingsprojek mag deelneem, wat behels die voltooiing van 'n vraelys (wat vooraf met my uitgeklaar is) asook die gebruik van openbare inligting wat op die Kaap Agri webtuiste beskikbaar is.

Die uwe



JOHAN LIEBENBERG  
DIREKTEUR : MENSLIKE HULPBRONNE

## **ANNEXURE B: QUESTIONNAIRE**

August 2012

Dear Participant:

**TRUST and VALUE BASED MANAGEMENT QUESTIONNAIRE**

My name is Maré Louw and I am a MBA student at the Potchefstroom Business School of the North West University. For my final year dissertation, I am examining the relationship between trust within the workplace and the successful implementation of Value Based Management (VBM). Because you are an employee of Kaap Agri, I am inviting you to participate in this research study by completing the attached questionnaire. The data from this questionnaire will provide insight into the levels of trust within Kaap Agri as well as the consistency of VBM within Kaap Agri.

The questionnaire will only take approximately 10 minutes to complete. All information given by you will remain completely confidential and for that reason, please *do not* include your name. Please however create your own unique code that is only known by yourself as per the instructions. The results of the survey will be used as part of the research done for my MBA dissertation. Once completed, the dissertation will be published into the public domain and be available from the North-West University library.

If you choose to participate in this study, please answer all questions as honestly and completely as possible. Participation is strictly voluntary and you may refuse to participate at any time without reason or fear of retribution. Completion of the questionnaire will indicate your willingness to participate in this study. If you require additional information or have questions, please contact me at the number listed below.

Thank you kindly for taking the time to assist me in my academic endeavours.

Sincerely,

**Maré Louw**

Student Nr: 22546669

Cell: 079 9819 727 / Email: [louwmare@gmail.com](mailto:louwmare@gmail.com)

**Study Leader: Mrs. Marita Heyns**

Potchefstroom Business School: North-West University

Tel: 018 299 1494 / Email: [Marita.Heyns@nwu.ac.za](mailto:Marita.Heyns@nwu.ac.za)

## TRUST AND VALUE BASED MANAGEMENT: QUESTIONNAIRE

INTRODUCTION: The questions below investigate perceptions of trust and trustworthiness in an organisational context. The second group of questions focuses on investigating employees' understanding of Value Based Management (VBM) within the organisation.

You are requested to construct a personal code by following the instructions given below. This code will ONLY be known to you, and thus presents no danger of harming your anonymity or the confidentiality of the information given herein. If there would be a future trust measurement data-gathering you will be asked the same question, in order for you to reconstruct your code. This code will enable the researcher to study the development of trust over time, while you still remain anonymous. The code is made up of the following:

	Example	Your code
1. Give the first and last letter of the city or town in which you were born	Johannesburg = JG	
2. Give the first and last letter of your mother's maiden name (surname before she got married)	Mnisi = MI	
3. Give the first and last letter of your Father's name	John = JN	

### SECTION A: BIOGRAPHICAL INFORMATION

Please complete by marking with an X the appropriate answer.

1 Year of birth 19\_\_\_\_\_

2 Gender  2.1 Male  2.2 Female

3 Educational qualifications (Mark only the highest level of education)

- 3.1  Grade 12 (Matric)  
 3.2  Post matric qualification (diploma)  
 3.3  University degree (BA, Bcomm, Bsc)  
 3.4  Postgraduate degree (Honours, Masters or Doctorate)

4 Select your demographic group:

- 4.1  Black  
 4.2  Coloured  
 4.3  Indian  
 4.4  White  
 4.5  Other

5 Which of the following best describes your employment status?

- 5.1  Permanent  
 5.2  Part time

6 Name the department where you currently work:

7 Level of employment

- 7.1  Executive / Senior management  
 7.2  Middle / Line management  
 7.3  General worker

8 How many years have you been working in the current position (as in question 5)?

8.1  years

## Think about Kaap Agri's top management or senior management team.

**Top management:** Sean Walsh, James Matthee and Johan Liebenberg

**Senior management:** Gerhard Victor, Charl Graham, Leopold Human, Reinhard Kostens, Pieter Steyl, Francois Swanepoel, Francois Loots, Wian Beukes, Werner van Zyl, Kobus Jacobs, Hennie Smit, Johan de Lange, Ian Schooling, Joe du Toit, Ronelle Breytenbach and Johann Engelbrecht

### SECTION B: TRUST

For each statement, SELECT (X) the number that best describes how much you agree or disagree with each statement.

		1	2	3	4	5
		Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
<b>Part A</b>						
1	Top management is very capable of performing its job.	1	2	3	4	5
2	Top management is known to be successful at the things it tries to do.	1	2	3	4	5
3	Top management has much knowledge about the work that needs to be done.	1	2	3	4	5
4	I feel very confident about top management's skills.	1	2	3	4	5
5	Top management has specialized capabilities that can increase our performance.	1	2	3	4	5
6	Top management is well qualified.	1	2	3	4	5
<b>Part B</b>						
1	Top management is very concerned about my welfare.	1	2	3	4	5
2	My needs and desires are very important to top management.	1	2	3	4	5
3	Top management would not knowingly do anything to hurt me.	1	2	3	4	5
4	Top management really looks out for what is important to me.	1	2	3	4	5
5	Top management will go out of its way to help me	1	2	3	4	5
<b>Part C</b>						
1	Top management has a strong sense of justice.	1	2	3	4	5
2	I never have to wonder whether top management will stick to its word.	1	2	3	4	5
3	Top management tries hard to be fair in dealings with others.	1	2	3	4	5
4	Top management's actions and behaviours are not very consistent.	1	2	3	4	5
5	I like top management's values.	1	2	3	4	5
6	Sound principles seem to guide top management's behaviour	1	2	3	4	5
<b>Part D</b>						
1	If I had my way, I wouldn't let top management have any influence over issues that are important to me.	1	2	3	4	5
2	I would be willing to let top management have complete control over my future in this company.	1	2	3	4	5
3	I really wish I had a good way to keep an eye on top management.	1	2	3	4	5
4	I would be comfortable giving top management a task or problem which was critical to me, even if I could not monitor their actions.	1	2	3	4	5
<b>Part E</b>						
1	One should be very cautious with strangers.	1	2	3	4	5
2	Most experts tell the truth about the limits of their knowledge.	1	2	3	4	5
3	Most people can be counted on to do what they say they will do.	1	2	3	4	5
4	These days, you must be alert or someone is likely to take advantage of you.	1	2	3	4	5
5	Most salespeople are honest in describing their products.	1	2	3	4	5
6	Most repair people will not overcharge people who are ignorant of their specialty.	1	2	3	4	5
7	Most people answer public opinion polls honestly.	1	2	3	4	5
8	Most adults are competent at their jobs.	1	2	3	4	5

Part A to E: Mayer & Davis, 1999:136.

**SECTION C: VALUE BASED MANAGEMENT**

For each statement, SELECT (X) the number that best describes how much you agree or disagree with each statement.

1	2	3	4	5
Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly

<b>Part A</b>		<b>Consistency of Elements of VBM</b>				
1	KAAP Agri's organisational mission can be described as:					
1.1	We do business in agriculture and related retail markets in Southern Africa to realize an operating profit that significantly outperforms inflation.	1	2	3	4	5
1.2	We do business in agriculture and related retail markets in Southern Africa to realize an operating profit that meets the expectations of our shareholders.	1	2	3	4	5
2	KAAP Agri's organisational communication is always:					
2.1	Our communication is directed towards reinforcing our company values.	1	2	3	4	5
2.2	Our communication is directed towards reinforcing a positive corporate image.	1	2	3	4	5
3	KAAP Agri's organisational governance can be described as:					
3.1	We maintain highly ethical business principles and practices.	1	2	3	4	5
3.2	Our business principles and practices adheres to applicable legislation.	1	2	3	4	5
4	The decision making process and systems of KAAP Agri is best described as:					
4.1	We are focused on exceptional quality through reliability, accuracy and fast response.	1	2	3	4	5
4.2	We are focused on exceptional customer service through reliability, accuracy and fast response.	1	2	3	4	5
5	Consistency of organisational strategy					
5.1	We follow strategies that are adaptable and that can quickly respond to change and innovation.	1	2	3	4	5
5.2	We follow strategies that are formalised, ensuring consistency and the achievement of business objectives.	1	2	3	4	5
6	Consistency of organisational culture					
6.1	We have a culture that is built on a solid value system and that will not change.	1	2	3	4	5
6.2	We have a culture of adaptation, ensuring quick response to change and innovation.	1	2	3	4	5
7	Consistency of arrangement/structure of the organisation					
7.1	Our structure follows our strategy.	1	2	3	4	5
7.2	Our structure adapts to market conditions.	1	2	3	4	5
8	Consistency of performance management processes and systems					
8.1	We continuously measure our business processes and our people - by measuring, we create energy!	1	2	3	4	5
8.2	We continuously measure our business results and company value - by measuring, we create energy!	1	2	3	4	5
<b>Part B</b>		<b>Defining Value Based Management (VBM): Choose for each statement, the most appropriate answer (X) (Choose ONLY 1 answer per statement)</b>				
1	Value-Based Management (VBM) can be defined as...					
1.1	A management control system that encourages and supports the creation of net worth.					
1.2	A management control system that adds value to the quality of its employees' lives.					
1.3	A management control system that focuses on the values of the organisation.					
1.4	I am not familiar with the term "value-based management".					
2	The ultimate goal of Value-Based Management is to...					
2.1	maximize profits in the short term.					
2.2	create value by focussing on better decision making.					
2.3	create value by focussing on productivity and increasing profits.					
2.4	I am not familiar with the goals of "value-based management".					
3	An example of a standardised Value-Based Management measurement is...					
3.1	level of company debt.					
3.2	economic value added.					
3.3	consistency of the organisation's values.					
3.4	I am not familiar with the measurements of Value-Based Management.					
4	Indicate to what extent you have had previous exposure to the concept of VBM:					
4.1	In-depth knowledge of VBM					
4.2	Limited exposure to VBM					
4.3	I have not had any exposure to VBM					

## **ANNEXURE C: LETTER OF LANGUAGE EDITING**

54 Trichardt Street

Welgemoed

Bellville

7530

1 November 2012

To Whom It May Concern

RE: LANGUAGE EDITING OF DISSERTATION

This serves to confirm that the attached dissertation by Maré Louw (student number: 22546669) for the degree Masters in Business Administration (MBA) was subjected to professional language editing.

Kind regards,

A handwritten signature in black ink, appearing to read 'Marinda Kotzé', with a stylized flourish at the end.

**Marinda Kotzé**

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