

CHAPTER 1

INTRODUCTION

1.1. BACKGROUND AND MOTIVATION

In the current South African climate, the call centre industry is booming. Call centres have become an important component in being globally competitive (Read, 2001). A survey conducted by Income Data Services (1999) indicates that, in the new millennium, one in twenty within the workforce would be working in call centres. Graduates will make up at least half of this workforce.

Read (2001), defines a call centre as a place where activities such as customer service, sales and collections are performed. This occurs without the physical contact with those initiating or receiving the transactions. A call centre is comprised of people, and this is mainly due to the fact that people prefer to communicate with other people. This industry is dependent on those, which it employs to deliver excellent customer service. Mascia, Marx and Arbix (2000) established that the quality of service delivered in a customer-focused environment couldn't be separated from the "quality" of people delivering this service. How an agent treats the customer usually determines the customer satisfaction. Finding and retaining the right staff to provide service and sales is the most critical and challenging aspect of a successful call centre. When recruiting call centre agents, there should therefore be a measurement, for example, an ideal personality profile, of what makes a successful agent. Of course, this profile will vary according to call centre type and function.

A medical insurance company, having revolutionised the South African medical aid industry, whilst supported by innovative products and astute management, has one of the biggest call centres within the South Africa industry. The company expects employees to contribute to the growth of the business through superior service delivery. The culture of the company is one of hard work, perseverance, exhilaration and learning (www.discovery.co.za).

This specific company Holdings has been in the insurance industry for the past ten years. Due to the rapid growth of the company, recruitment has however been quite sporadic and formal processes and procedures have only been put into place as

recently as the last three years. Initially, the process followed included an interview, psychometric testing and a role play exercise. The psychometric testing comprised a standard numerical and verbal ability test. The company, of its own accord, decided to invest in a proper work profiling exercise. As a result of this, the role profile of a multi-skilled call centre agent was revisited and a new, innovative, generic job specification and person specification was obtained. Furthermore it was decided, in accordance with best practice, to revise the current battery of psychometric tests used for selection and recruitment purposes. During this exercise, it was determined that certain personality traits - such as problem solving, fact-finding, quality orientation, organisation, reliability and customer focus - are essential attributes for successful candidates. It was decided that a personality test, in the form of the Customer Contact Styles Questionnaire (CCSQ) - a version of the Occupational Personality Questionnaire (OPQ) - would be added as a part of the selection battery.

Best practice implies that all users of psychometric tests and questionnaires should ensure that tests are being used optimally in the selection process. According to Saville and Holdsworth Limited (SHL, 1999), individual performance on assessment instruments must be linked directly to job performance in order for these instruments to be effective. It should therefore be established whether the instrument utilised correlates with job performance. One of the aspects to be considered during the selection process is personality. Although numerous research studies have been undertaken on the relationship between personality and work performance (Anastasi & Urbina, 1997; Barrick & Ryan, 2003; Bergh and Theron, 2003; Coetzee, 2003; Furnham, 1997; Meyer, Moore and Viljoen, 1988; Saville and Holdsworth, 1999), no record of the relationship between personality and work performance of call centre agents has been established. The need thus existed to determine whether such a relationship does exist, and if so, what personality traits can be identified to be used as a basis for selection of call centre agents.

The approach to the recruitment of personnel for call centre agents has been adapted in order to select and retain new recruits. Staff members within modern call

centres are expected to carry out complex tasks and experience unforeseeable problems. As a result, call centre employees are expected to be multi-skilled. Research has indicated that personality attributes of effective call centre agents include rapport building, listening, maintaining positive behaviour, customer focus, quality consciousness and problem-solving techniques (Bagnara, Gabrielli & Martin, 2000; Malhotra & Mukherjee, 2003).

Various psychometric instruments, for example, the Occupational Personality Questionnaire (OPQ), have been designed to provide trait profiles of individuals' personalities, based on the grouping of personality traits referred to as the Big Five Personality Factors. Additionally, it has been found by Kichuk and Wiesner (1997) that, as it is possible to use psychometric instruments to measure and define certain personality traits, it is possible to determine the relationship between certain personality traits and work performance. In light of the organisational need for constant improvement of work performance, the relationship between personality traits and work performance warrants exploration.

Many studies have been undertaken and it has been proven that personality traits are valid and important predictors of work performance; especially when matched with the appropriate work performance criteria (Barrick & Ryan, 2003). Barrick and Ryan (2003), amongst others, have found that different sets of personality traits are likely to be congruent with the levels of performance found within various occupations. As organisations can no longer only take education and experience as indicators of work performance, it is necessary that the significant factor of personality and the impact it has on work performance be recognised.

In addition, most recent published research (Barrick & Ryan, 2003; Bergh and Theron, 2003; Coetzee, 2003) on the relationship between personality and work performance have found that there is a significant relationship and that certain personality traits can be used to predict successful work performance. However, very little research could be found in the specific domain of call centre environments. This study will attempt to contribute to this limited body of research.

This research holds that the contribution of the personality traits of individuals will ultimately have an impact on overall job performance. The study aims to investigate whether call centre agents who are effective in their work, can be characterised by identifiable and measurable personality traits.

1.2. PROBLEM STATEMENT

Personality traits are best determined by means of psychometric assessments. The effect of personality traits on work performance can be determined by means of a statistical analysis of the result of the psychometric assessment and work performance on a sample group. The current problem Discovery Holdings is facing is that statistical evidence is lacking to give guidelines with regard to the important personality characteristics of call centre agents, which could predict work performance. This can only be done by means of scientifically based research. Consequently, the question posed is whether a relationship exists between certain personality traits and the work performance of call centre agents.

1.3. RESEARCH QUESTION

Based on what has been presented, the following research question was formulated:

Is there a relationship between certain personality traits and the work performance of call centre agents?

1.4. AIMS

The following general and specific aims were addressed in this study:

1.4.1 General aim

The general aim was to determine whether there is a relationship between certain personality traits and the work performance of call centre agents.

1.4.2 Specific aims

The following theoretical aims were identified:

- 1) Defining and describing the concept of personality according to the trait approach.
- 2) Defining the concept of work performance.
- 3) Gaining an overview of previous research on the relationship between personality and work performance.

The following empirical aim has been identified:

- 1) Determining the empirical relationship between personality and work performance.

1.5. PARADIGM PERSPECTIVE

This research has been conducted within the field of Industrial Psychology; more specifically, in the sub-disciplines of Personnel Psychology and Psychometrics. According to Bergh and Theron (2003), Industrial Psychology is the field of study, which has as its basic aim the understanding, explanation, prediction and influence of human behaviour and experience in the work context. Psychometric assessment is used in an attempt to predict human behaviour in the work context. For this reason, personality tests are often used as assessment tools.

According to Mouton (2001), the quantitative methodological approach of the twentieth century can be regarded as modern positivism. It accepts that certain theoretical constructs, such as personality, can be utilised in personality assessment techniques to measure personality constructs. According to the quantitative approach the data gathered is furthermore subjected to statistical analysis, in order to interpret the findings.

This study will employ the modern positivistic paradigm in measuring personality as a construct by using the Customer Contact Styles Questionnaire (CCSQ) to measure

behaviour. The data will thereafter be subjected to statistical analysis in order to determine whether certain personality traits can effectively predict work performance.

1.6. RESEARCH DESIGN

This study took the form of a quantitative design. According to Leedy (1993), quantitative research is impersonally experimental, meaning that the researcher decides what factors or variables might have certain effects. This entails manipulating variables and controlling natural phenomena by constructing hypotheses and testing them against the reality of empirically obtained data.

1.6.1 Research variables

According to Mouton and Marais (1994), the independent variable is seen as the antecedent phenomenon in the cause-effect relationship and the dependent variable is referred to as the consequent phenomenon. For the purposes of this study, the independent variable will be the personality traits and the dependent variable will be the work performance of call centre agents.

1.6.1.1 The independent variable

The Customer Contact Styles Questionnaire (CCSQ) was used in this research to assess the independent variable, which are certain personality traits in this specific research.

The Customer Contact Styles Questionnaire (CCSQ) provides information about an individual's preferred or typical way of behaving in a work context. It measures sixteen (16) dimensions of personality, which are important for non-supervisory sales or customer service roles. Candidates rate each question on a five-point Likert Scale and mark which one, from the set of four alternatives, most and least describes them. There are no time limits to complete the questionnaire. The test forms part of the Customer Contact Portfolio and provides information on those aspects of personality, which are important for sales and customer service. The test is available in two formats; a normative and ipsative version. The reliability coefficients of the normative version range from 0.69 to 0.88, with a median value of

0.81, whereas the reliabilities of the ipsative version are generally a little higher, ranging from 0.79 to 0.90, with a median of 0.84. The questionnaire is suitable for sales executives, retail staff, telesales, front line customer service and call centre agents.

1.6.1.2 The dependent variable

An objective performance measure (Appendix A) was utilised as the to measure the dependent variable, which is work performance in this study, namely a Structured Call Quality Rating Form.

This rating form measures behaviours displayed by call centre agents whilst on actual calls. The agents are rated on eighteen (18) standard questions, with a “yes” or “no” response. Each question has an allocated weighting, which, in turn, determines the percentage score obtained. This will then determine the amount of performance-based incentive paid to the agent.

1.6.2 Sampling

All the agents currently employed in the call centre of the company was been tested on the Customer Contact Styles Questionnaire and it was estimated that 300 cases could be used in the study to assess the relationship between certain personality traits and work performance.

1.6.3 Data analysis

Obtained data was subjected to descriptive statistics, in the form of frequencies, percentages and means. Correlation coefficients and regression analysis were performed within and between the predictor and criteria measures. The influence of certain moderator variables was also investigated.

1.6.4 Unit of analysis

The unit of analysis is the sample of individual employees that was used for investigating the relationships between the relevant variables.

1.7. RESEARCH METHODOLOGY

The research method consisted of two phases; the conceptualisation and operationalisation phases. Conceptualisation took place via an explorative literature review. The operationalisation (the quantitative study) included the following:

- 1) Gathering of personality data by means of the Customer Contact Styles Questionnaire.
- 2) Gathering of work performance data by means of internal company data resources - the actual Call Quality Sheets and incentive data available.
- 3) Processing of the data by means of statistical analysis.

1.7.1 HYPOTHESES:

The hypotheses for this research are as follows:

H0: There is no significant relationship between the personality traits of call centre agents and their work performance.

H1: There is a significant relationship between the personality traits of call centre agents and their work performance.

1.8. CHAPTER OVERVIEW

In this chapter, a background and motivation for this specific research has been provided. The problem statement, research question, aim, paradigm perspective and research methodology have also been discussed.

Chapter 2 comprises a discussion of the theory on personality at work. Personality at work is seen as the attributes that best fit the needs of the work environment. A summary of the main personality theories is provided and focus is placed on the factor analytical approach and personality trait theory. This study will follow the trait approach by using the CCSQ to measure the independent variables, which are personality traits. This chapter furthermore entails a discussion of the approaches to personality research, as well as a research model that is relevant in this research.

Lastly, methods of personality assessment are briefly examined, with the focus placed on self-report personality inventories.

Chapter 3 comprises a description of the concept of work performance. This includes the definition of work performance management and the measurement thereof. Attention is placed on work performance measurement criteria, managing work performance measurement and the different work performance management systems. A discussion of the different approaches to work performance measurement follows. Finally, a brief discussion is to be undertaken on work performance measurement systems linked to incentive programmes.

In Chapter 4, the relationship between personality and work performance is reviewed through a retrospective overview of the literature.

Chapter 5 consists of the research design, planning and the operationalisation of the variables.

In chapter 6, the results of the empirical study, conclusions and recommendations based on the empirical research are expounded upon.

Chapter 7 included the discussion and interpretation of the results and conclusions, limitations and recommendations against the backdrop of the literature presented in the previous chapters.

CHAPTER 2

PERSONALITY AT WORK

2.1 INTRODUCTION

Over recent years, in both research and practice, the subject of personality has received increasing attention from industrial psychologists. The fact that people adjust their behaviour according to different circumstances, yet still show considerable consistency, constitutes the essence of most personality definitions (SHL, 1999).

2.2 DEFINITION OF PERSONALITY

Many definitions of personality have been recorded. Gordon Allport, however provides the most frequently used definition of personality: “personality is the dynamic organisation within the individual of those psychophysical systems that determine his unique adjustments to his environment,” [cited in Robbins (1998, p.50)]. This definition is complex and complete as it recognises the interaction of biological and psychological processes as determinants of personality. Furthermore, this definition views personality as a whole and dynamic concept that can develop, grow and change as the individual grows and learns within given situations. Personality, as a result, also motivates and directs behaviour (Bergh & Theron, 2003).

Whilst referring to a person’s typical or preferred way of behaving, thinking and feeling, personality encompasses thoughts, feelings and actions (Maddi, 1996: Saville, Cramp & Henley, 1995). According to Robbins (1998), psychologists refer to personality as a dynamic concept defining the growth and development of a person’s whole psychological system; thus the sum total of ways in which an individual reacts to and interacts with others.

Often personality is described in terms of measurable traits. It is also commonly agreed that personality can only be described accurately if the interaction between

the trait of the individual, his or her situation and the environment are all taken into consideration (Bergh & Theron, 2003). Based on the definitions and descriptions of personality, it can be said that personality factors determine the direction and limits of performance (Gulliford, 1991).

Personality at work can be coupled or associated with a wide range of aspects, including: counterproductive behaviour; contextual performance; retaliatory behaviour; retention; learning; knowledge creation and the process of knowledge sharing (Barrick & Ryan, 2003). Bergh and Theron (2003) define personality at work as the attributes that best fit the needs of the working environment; including acquired work styles, behaviours, abilities and attitudes that are required to perform successfully in a specific job or role. For the purposes of this research, this definition will be accepted and utilised throughout.

2.3 PERSONALITY THEORY

Bergh and Theron (2003) report that personality is primarily explained by the concepts and assumptions of the various personality theories. It is also explained by research undertaken with regard to personality and personality assessment. These theories and assumptions, and all related research and assessment, consequently provide the conceptual frameworks for explaining and predicting behaviour. Due to these frameworks, historically speaking, various theories relating to personality and personality research have been developed. These include theories and assumptions such as the psychodynamic, behaviouristic, humanistic/ phenomenological/ existential, factor and trait, cognitive and occupational-orientated personality theories.

Personality theories have been developed to describe, explain and predict human behaviour, and much research has been done and reported upon regarding these theories (Anastasi & Urbina, 1997; Barrick & Ryan; 2003, Bergh & Theron, 2003; Coetzee, 2003; Furnham, 1997; Meyer, Moore & Viljoen, 1988; Saville & Holdsworth, 1999). Although not all psychologists agree that any one theory is the best to explain behaviour, some theories have persisted and have guided research findings,

which have verified the theoretical concepts and their application. As many researchers have reported on the personality theories, only a brief summary of the most recognised theories, with their main assumptions, will be provided in Table 2.1 below.

TABLE 2.1
SUMMARY OF PERSONALITY THEORIES AND ASSUMPTIONS

Theory	Main Assumption	Theorists
<i>Psychodynamic theory</i>	Emphasis on people's experience of conflict between internal drives, unconscious motives, past events and the norms of society.	Freud Jung Klein Ferenzi Ericson Adler Sullivan & Horney Lacan & Hilmann
<i>Behaviouristic or learning theories</i>	Personality is characterised by responses, expectations and thoughts, as learned and rewarded in the various types of environments in which people function.	Darwin Pavlov Watson Thorndike Hull Tolman Skinner Dollard & Miller Bandura Mischel Rotter
<i>Humanistic, phenomenological, existential approach</i>	Person-centred, the human personality and self-image are best understood by their subjective existence in and unique experience of reality and the striving toward self-actualisation.	Rogers Maslow Frankl Buhler & May Allport Kelly

<i>Factor or trait theories</i>	Human behaviour is characterised by enduring and consistent patterns of behaviour described as dimensions, traits, factors and types.	Allport Catell Eysenck & Wiggins Goldberg Costa & McCrae Hough
<i>Cognitive theories</i>	People are rational and form their own personality and destiny by using cognitive powers to create and change cognitive constructs, processes and schemas about reality.	Wertheimer Koffka Kohler Heider Lewin Miller Neisser Kelly Piaget Mishel Cantor
<i>Occupational-orientated theories</i>	The idea of person-environment-fit asserts that for optimal occupational performance, employee characteristics must be congruent with the characteristics of the work environment.	Holland Dawis & Lofquist Super & Ginzberg Ketz de Vries Miller
<i>Biological perspectives</i>	Behaviour is foremost determined by genetic or biological processes and evolutionary history.	Sheldon & Kretschmer Eysenck Cattell Gray Cloninger Zuckerman

Source: Adapted from Bergh and Theron (1997)

In Bergh and Theron (2003), it is stated that trait approaches to personality emphasise individual differences and that these differences can be measured, compared and the data used to predict a person's behaviour across time and in various situations. For the purposes of the research, only the factor or personality trait theory will be discussed in further detail, as the relationship between certain personality traits and work performance (predicted behaviour) is the focus of this study.

2.4 THE FACTOR OR PERSONALITY TRAIT THEORY

According to trait theory, personality can be broken down into a limited number of traits which are present in each individual to a greater or lesser extent. This approach forms the basis of the psychometric approach to personality analysis. This is especially true for the use of factor analysis, where the factors are readily conceptualised as measurements of traits (Heffner, 2002).

Many personality theorists are concerned with the dimensions or traits of personality. Saville and Holdsworth (1999) define a trait as anything that can be measured to show differences between people. A trait can furthermore be defined as any characteristic way of behaving, thinking, feeling or operating. Heffner (2002) assumes that traits are what make people who they are, and that these traits are the relatively permanent aspects of each individual, evidenced by the consistency in their interactions.

Bergh and Theron (2003) examine some of the main assumptions of the dimensional and trait perspectives. These assumptions include that personality consists of certain elements which direct and organise behaviour and that these elements or traits are consistent and enduring over time. Furthermore, people who display similar traits might also behave similarly across time and within given situations. These traits are usually observable, and although people may behave in a similar fashion in analogous situations, trait theorists emphasise the uniqueness of every individual. The trait approach has several important distinguishing characteristics.

As opposed to predicting one person's behaviour in a given situation, trait researchers attempt to describe how individuals, scoring on a particular segment of the trait continuum, might generally be expected to behave (Murphy & Davidshofer, 2004).

The personality trait theory differs from other personality approaches in that, while most theories represent attempts at better understanding the development of personality, trait theorists focus very little on development and more on predicting behaviour in a given situation. Trait theorists are interested in the comparison of people, and place less emphasis on identifying the mechanisms underlying behaviour (Heffner, 2002).

2.4.1 Three-factor approach to personality

This trait approach, founded by Eysenck (Bergh & Theron, 2003), and influenced by the work of Galen and Jung, implies that personality consists of three major factors. These factors are extroversion-introversion, neuroticism-stability, and psychoticism-superego functioning. Each of these three factors can be described by specific traits. These factors and specific traits are described in Table 2.2.

TABLE 2.2
PERSONALITY FACTORS AND SPECIFIC TRAITS ACCORDING TO EYSENCK

Extroversion versus introversion	Emotional stability versus neuroticism	Psychoticism versus superego functioning
Activity	Low self-esteem	Aggressiveness
Sociability	Unhappiness	Assertiveness
Risk-taking	Anxiety	Achievement orientation
Impulsiveness	Obsessiveness	Manipulation
Expressiveness	Lack of autonomy	Sensation seeking
Lack of reflection	Hypochondrias	Dogmatism
Lack of responsibility	Guilt	Masculinity

Source: Gregory (1996).

This model is supported by factor analytical research. Furthermore, the factors extroversion and neuroticism correlate with factors in the five-factor model still to be described.

Various personality questionnaires, including the Eysenck Personality Inventory, to assess the three-factor model, have been designed. This specific questionnaire is used in a variety of applications, including the description of behaviour such as smoking, sexuality and criminality. It is however used to a lesser extent in the occupational setting (Bergh & Theron, 2003).

2.4.2 Sixteen-factor approach to personality

This approach - proposed by Cattell and developed as a result of extensive factorial research on personality traits - is represented by sixteen relatively independent factors; the so-called first-order factors (Bergh & Theron, 2003). These first-order factors can be reduced to six or nine second-order factors that include; anxiety, extroversion, independence, tough-poise, control and intelligence. These are described in Table 2.3.

TABLE 2.3

SIXTEEN PRIMARY PERSONALITY FACTORS ACCORDING TO CATTELL

Reserved	Outgoing
Concrete reasoning	Abstract reasoning
Affected by feelings	Emotionally stable
Submissive	Dominant
Serious	Happy-go-lucky
Expedient	Rule-conscientious
Timid or shy	Venturesome or socially bold
Tough-minded	Sensitive
Trusting	Suspicious or vigilant
Practical	Imaginative
Forthright	Shrewd or private
Self-assured	Apprehensive

Traditional	Open to change
Group-orientated	Self-reliant
Tolerance of disorder	Controlled or perfectionist
Relaxed	Tense

Source: Carver and Scheier (1996).

This approach has resulted to the development of the Sixteen Personality Factor Questionnaires (16PF), which are used widely in the clinical, educational and occupational settings. This approach has also played an important role in the development of the Big Five Factor Model. The second-order factors are, in fact, comparable to the factors of the Five-Factor Model (Bergh & Theron, 2003).

2.4.3 Five-factor approach to personality

According to Bergh and Theron (2003), many theorists have played an integral part in the development of this approach, including theorist such as Thurstone, Tupes and Christal, Norman, Eysenck, Guilford and Cattell. The approach is seen as an integrative trait description of personality, and is based on many years of psychological research on personality theories. According to this approach, personality can be divided into five factors, which are described by specific characteristic traits. These factors, and specific traits, are described in Table 2.4.

Bergh and Theron (2003), reports that this approach is extremely popular and is currently utilised more frequently than other existing theories; especially with regard to personality assessment and personality research. Although it is effective in describing personality, this approach does not explain behaviour, especially behaviour with regard to underlying causes, internal personality dynamics and underlying motivations.

TABLE 2.4
FACTORS AND TRAIT DESCRIPTIONS FORM THE FIVE-FACTOR MODEL

Factors	Factors
Extroversion Warmth, assertiveness, activity-seeking, excitement, gregariousness, positive emotions.	Introversion Silent, unadventurous, timid, unenergetic, unassertive.
Agreeableness Trust, tender-mindedness, straightforwardness, altruism, compliance, modesty.	Antagonism Stingy, unkind, selfish, distrustful, unhelpful.
Conscientiousness Order, competence, achievement, striving, deliberation, self-discipline, dutifulness.	Lack of direction Impractical, lazy, disorganised, irresponsible, careless.
Neuroticism Hostility, anger, anxiety, impulsiveness, depression, self-consciousness.	Emotional stability Relaxed, calm, contented, unemotional, stable.
Openness to experience Values, fantasy, aesthetics, actions, feelings, ideas.	Closeness Uncreative, uninquisitive, unreflective, unsophisticated, unimaginative.

Source: Pervin and John (1996).

Various personality questionnaires such as the NEO Personality Questionnaire by McCrae and Costa (1989), and the Occupational Personality (OPQ) Questionnaire by Saville and Holdsworth (Bergh & Theron, 2003), have been developed around this model. The OPQ will be used in this study in order to measure the personality variables within this research.

2.5 APPROACHES TO PERSONALITY RESEARCH

Work-related personality research can be executed according to six different approaches (Furnham, 1997). A brief discussion of each of these approaches will be provided.

2.5.1 Classic personality theory

According to Furnham (1997), this approach, which include most of the theories on personality as discussed in table 2.1, commences with a theory of personality and relates the empirical measures to work-related behaviours, whereas the personality variable chosen can vary depending on a number of dimensions. These dimensions can include single or multiple; cognitive or biologically-based; “normal” and “abnormal”; or dynamic versus stylistic traits measured. The basis of this approach is to measure personality as the independent variable and to find out how this is relevant to work-related behaviour, such as work performance.

2.5.2 Classic occupational psychology

In contrast to the classical personality theory, this approach begins with the work-related variable and correlates it to personality. The independent variable can be measured according to various dimensions; including self-reports versus behavioural; single versus aggregate and within versus between organisational measures. This approach is usually utilised when the researcher wishes to establish how specific work behaviours correlate with personality variables (Furnham, 1997).

2.5.3 Development of a work specific individual difference measure

Furnham (1997) reports that the third approach to personality research is to develop a personality measure that is aimed at predicting work behaviour (such as work-performance) and thereafter to use this measure to predict work behaviour. These measures may be narrow versus wide in conceptualisation; may measure multiple or single traits; may be self-report versus actual behaviour, and may be attitudinal, - systematically examining work-related attitudes or beliefs, or attributional - specifically concerned with attributional styles. This approach has been developed

through a combination of both the personality and occupational psychology traditions.

2.5.4 Concept of “fit” and “misfit” at work

This approach is based on the predisposition of certain personality types to be better suited to certain occupations. The degree of fit can be measured by a comparable analysis of the personality type or traits and the specific occupation. Variations of this theme include whether the analysis is based predominately on the occupation or on the individual, meaning that both the person and job must be analysed and measured to determine the fit. A second variation relates to whether the fit is impressionistic (objective) or geometric (measurable). The final variation of the analysis is whether similar or complementary behaviour is measured (Furnham, 1997).

2.5.5 Longitudinal studies of people in work

The concept of cause is best examined longitudinally, as it forms the basis of this approach (Furnham, 1997). With longitudinal research, a multitude of variables (their changeability over time, how they relate to one another at different periods and how they predict behaviour) are examined. Longitudinal studies can be undertaken over short, medium or long term. These studies can also be performed within or between organisations and can be either retrospective or prospective. This approach is highly desirable, but can be extremely difficult, expensive and problematic if not effectively implemented.

2.5.6 Biographical or case-history research

This approach examines the detail of the life of an individual in order to identify which biographical factors predict work success. This approach too has examples that differ in criteria. When looking at the criteria of individual versus group, for example, only the lives of certain individuals can be examined, or contrarily a whole family can be considered. With the criteria of monetary versus “other” success criteria, it is often difficult to determine the criteria for success. The final criteria namely impressionistic versus scholarly is dependant on whether the story is more

important, than obtaining and understanding the facts. Although this approach appears most valid and is experienced as particularly interesting by the general public, it is uncertain to what extent it highlights the personality determinants of work success (Furnham, 1997).

This specific study investigates the relationship between certain personality traits and work performance and will therefore draw from both the classical personality and occupational approaches.

2.5.7 An integrated research model

In order to derive a theoretically-based hypothesis, which may be tested empirically, a methodical research model should be followed. For the purposes of this study, the model of Furnham (1997) will be used. This model, which is shown in Figure 2.1, attempts to describe some of the major factors that affect the relationship between personality and work behaviours (work performance). According to Furnham (1997), this model includes the previously mentioned approaches and supplements their deficiencies.

The first important point to note is that the line between personality characteristics and occupational variables is discontinuous. It is also important to remember that a whole range of other variables moderates the relationship between personality and work-related behaviour. Another fact that must be acknowledged is that the relationship is bi-directional; meaning that personality factors affect work-related behaviour and occupational variables shape and selectively reward personality functioning (Furnham, 1997).

According to Furnham (1997), the “path” in this model, which is well informed by personality theory, is the traditional occupational psychology approach. This describes some phenomena, mechanisms or processes, which cause the trait. It is also essential to take into consideration the organisational and procedural factors that mediate between the individual and the organisation for which the individual

works. Formal organisational structures and work procedures, after all, often affect an individual's work-related behaviour.

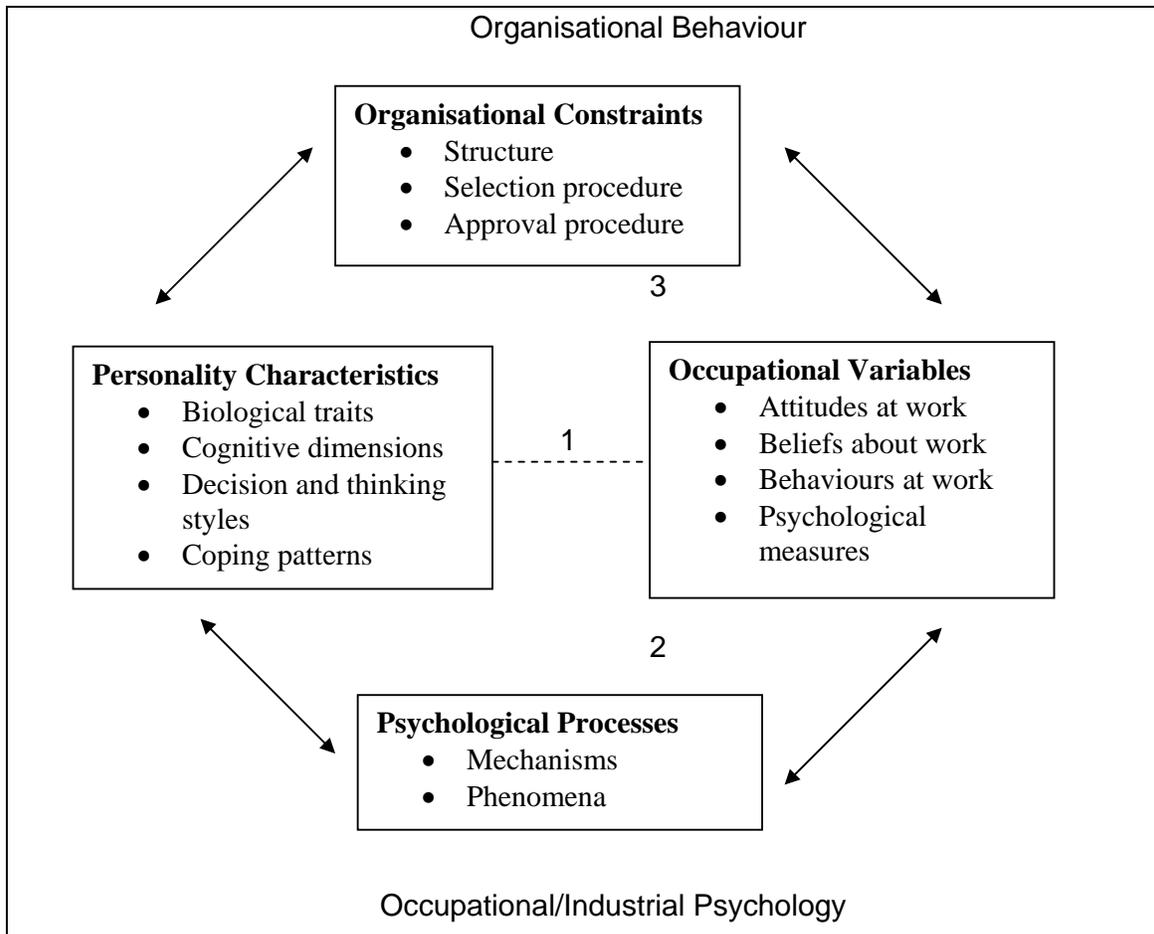


Figure 2.1: An integrated research model for examining the relationship between personality and work.

Source: Furnham (1997, p.11).

Other important aspects to take into consideration are the elements or factors in the model and how they relate to occupational behaviour. The factors are; ability, demographic factors, intelligence, motivation and personality. These factors are demonstrated in Figure 2.2 and briefly described below.

- a) Ability refers to the extent to which a person can effectively co-ordinate multiple processes in order to achieve a specified goal.

- b) Demographic factors refer to the background factors - sex, age, class and education.
- c) Intelligence refers to the individual's capacity for abstract and critical thinking.
- d) Motivation is a multi-dimensional abstract concept, which relates to the drive to cause some actions rather than others.
- e) Personality traits are associated with all fundamental traits of people that endure over time and situations (Furnham, 1997).

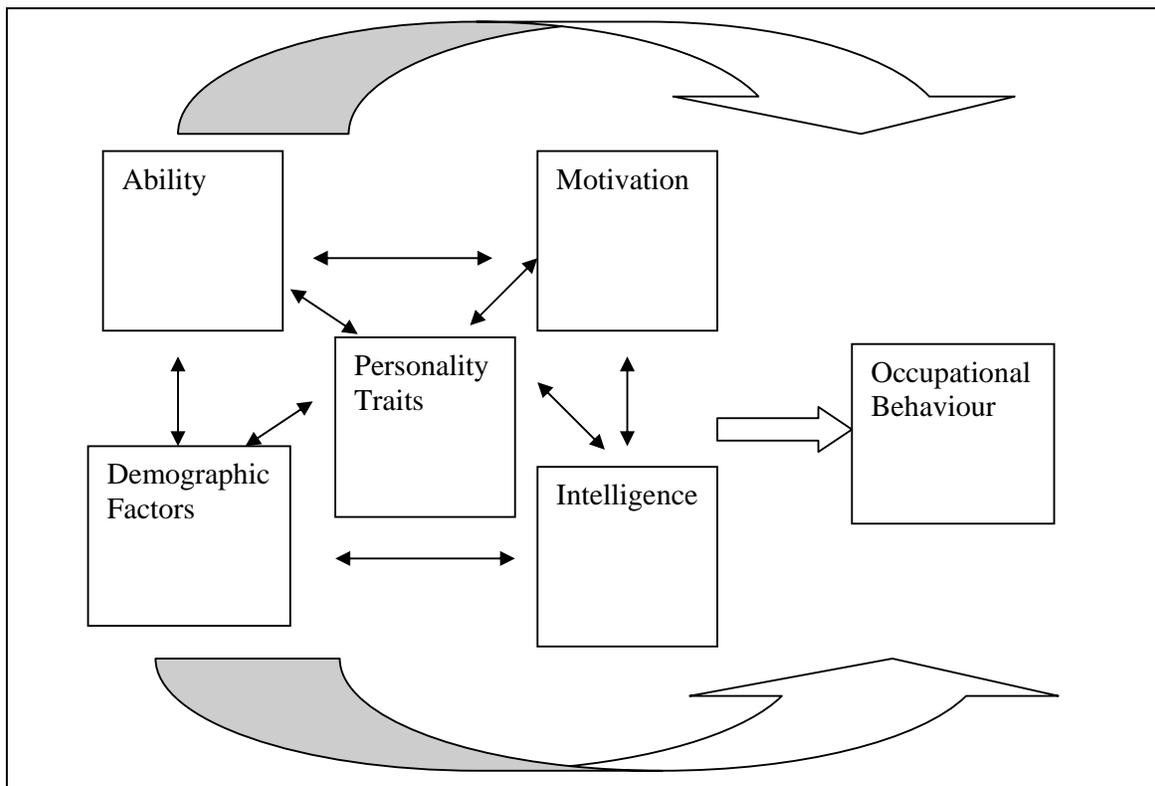


Figure 2.2 Elements that impact on occupational behaviour.

Source: Furnham (1997, p.13).

The importance of this model lies in the separation of the five factors described above and the emphasis on the fact that each of them is reciprocally influential. Furthermore, the concept of personality is placed in the centre of the model and it is suggested that all the factors influence work behaviour independently or interdependently (Furnham, 1997).

2.6 METHODS OF PERSONALITY ASSESSMENT

Gulliford (1991) declares that, in recent years, personality tests have become popular with organisations seeking predictors of effective job performance and that various techniques have been developed in order to assess personality. According to Bergh and Theron (2003), personality tests and techniques can be classified into the following content areas:

- 1) Personality tests of conscious psychological behaviours, cognition and feelings. This will include abilities; personality traits and types; interests and preferences; as well as values and attitudes. These tests are usually in the form of self-report questionnaires.
- 2) Personality assessment of unconscious and underlying structures and processes through projective techniques.
- 3) Personality and behaviour assessment through observations, interviews and rating scales.
- 4) Personality assessment of psychophysiological and psychoneurological behaviours.

For this research, personality tests of conscious psychological behaviours, cognition and feelings, and self-report personality inventories were used. According to the SHL Group (2004), a self-report personality questionnaire is a means of rapidly and objectively determining a broad range of personality characteristics. The rationale for such a self-report inventory is that the individual knows him/herself and is able to judge and report on his/her preferred way of behaving (Bergh & Theron, 2003).

Several approaches have been followed in the development of personality questionnaires and, included here, are those based on factor-analytical analysis from which many factor and trait theories have developed. Most of the assessment devices that result from the trait theory are self-report type tests, entailing responses to questions from the person being tested. These tests are pre-dominantly paper and pencil, suitable for group administration or individual assessment (Anastasi & Urbina, 1997). Personality questionnaires, based on the trait theory of personality, include

Eysenck's Personality Inventory, the Sixteen Personality Factor Questionnaire (16PF), NEO Personality Inventory (NEO PI-R) and the Occupational Personality Questionnaire (OPQ) (Anastasi & Urbina, 1997; Saville & Holdsworth, 1999). In this study, extensive use will be made of the Customer Contact Styles Questionnaire - a version of the Occupational Personality Questionnaire. According to Bergh and Theron (2003), the trait model used by Saville and Holdsworth's OPQ, attempts to measure most of the factors described in the five-factor model, and to predict job success across time and in various situations and cultures. The OPQ is considered as a good personality questionnaire to be used in the work context and is supported by extensive research on thousands of employees in a multicultural database, which included South Africa (SHL, 1999).

2.7 CHAPTER SUMMARY

This chapter focuses on the applications of personality theory in the work context. Personality at work refers to the attributes that best fit the needs of the work environment. A summary of the main personality theories has furthermore been provided and focus has been placed on the factor analytical approach and personality trait theory. This study will follow the trait approach by using the CCSQ to measure the independent variable, which are personality traits. Approaches to personality research have additionally been highlighted, as has the research model relevant in this study. Lastly, methods of personality assessment have been briefly discussed, with the focus on self-report personality inventories.

CHAPTER 3

WORK PERFORMANCE

3.1 INTRODUCTION

Performance management has attracted a great deal of attention over the last few years, and recently, many human resource practitioners have conducted research in this field (Tangen, 2004). In addition, measurement of performance has gained increased interest and is a widely examined topic. The concept of work performance is however often vaguely defined and poorly understood, especially with regard to research on the relationship between personality and work performance (Barrick & Ryan, 2003; Murphy, 2002). Performance, according to the HAT dictionary, is defined as the act of performing specific tasks, the execution of, or the functions required of a person, and includes many attributes. Performance is an activity and the results of the activity; it is a process and a product; a process and an output and behaviour plus accomplishment.

3.2 THE CONCEPT OF WORK PERFORMANCE

Definitions of work performance include both process (carrying out the work) and product (the output), and therefore performance is seen as both performing a service, and the service being performed. In a work setting, the output (product or service) adds value, whereas the process adds cost. Performance can refer to the performance of an organisation (its tasks, duties, goods and services); a department (its tasks, duties, goods and services); a primary process (its tasks and duties in the production of a specific product or service); or a person (the individual's tasks, duties and all goods and services provided). The opportunity to perform is determined by variables external to the individual (Coetzee, 2003). This is confirmed by a study by Matheson (2005) on work performance, which expounds that evaluation of a person's environment, and current or future work, is required to determine work performance.

Work performance can be described as the quality and quantity of human output that is necessary to meet work goals and the standards that are required to do a specific job (Ivancevich & Matteson, 1996).

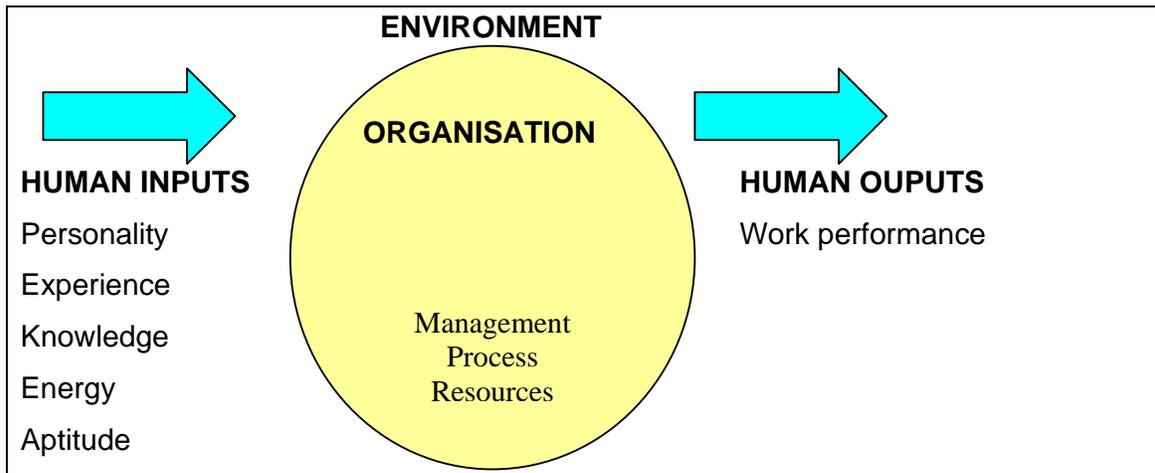


Figure 3.1 The concept of work performance in terms of the systems approach.

Based on the definition of work performance, it is of value to view the concept of work performance in terms of the systems approach. The system approach is indicated in Figure 3.1. Inputs - personality, knowledge, aptitude, management, the processes in the organisation, resources available to do the work, work experience and the environment - will have an effect on work performance (Coetzee, 2003).

Work performance can be described as a function of three variables namely knowledge and skills; motivation and workload; tools and climate (Ivancevich & Matteson, 1996). This correlates well with a model of Saville and Holdsworth that has been used to describe the determinants of successful job performance (SHL, 1998). According to the Saville and Holdsworth Model, competencies are clusters of skills and behaviours that are key to successful performance and, in general terms, these competencies are abilities, motivation, behaviour and knowledge, which the individual contributes to his/her job.

3.3 WORK PERFORMANCE MEASUREMENT

Performance, as defined by industrial psychologists, requires that the units of input be measured in some manner. It has been established that, despite the progress that has been made throughout the years, many companies are still primarily relying on financial performance measures (Tangen, 2004). This is probably due to the fact that the measurement of performance seems to be relatively simple when performance criteria are quantitative and therefore easily measured (Lewis, Goodman & Fandt, 1998). Sardana and Vrat (1987) assert that when performance is measured, three objectives should be considered.

- 1) The identification of potential improvements.
- 2) A decision as to the reallocation of resources.
- 3) The establishment of the attainment of previous goals.

Measurement requires the collection of data. The accuracy of the results will furthermore depend on the validity of the input. As performance includes factors such as quality, customer satisfaction and worker morale, factors that are not easily quantified, certain criteria must be set for performance measurement.

3.3.1 Work performance measurement criteria

Furnham (1997) indicates that the measurement of work performance may be very problematic, especially when working in interdependent teams; call centres for example. For this reason, performance measures can be divided into various types:

- 1) *Quantity* – This refers to how much is produced. It can be calculated in wholes or parts. It is usually most easily measured in terms of money.
- 2) *Quality* – Referring to the perfection of goods and services produced. This is much more difficult to calculate reliably and may be sensitive to personal bias.
- 3) *Accidents and rejects* – This refers to the amount of rejected or unacceptable products and is viewed as a more negative way of calculating productivity.

Murphy (2002) reiterates that the choice of criteria is frequently decided as a result of convenience. The attenuation or contamination arising from the use of poor criteria results is a systematic underestimation of the true validity of selection methods. The problems with criteria can however be mitigated through a more careful selection, based on task analysis or models of work performance (Murphy, 2002). The type of performance measure will also be dictated by the different evaluation situations.

Table 3.1 describes these different performance measures and the various evaluation situations.

TABLE 3.1
DIFFERENT WORK PERFORMANCE MEASURES AND THE VARIOUS
EVALUATION SITUATIONS IN INDUSTRIAL SETTINGS

Performance Measure	Training Performance	Actual Job Performance
Rate of work	Time to learn	Amount per unit time
Quality of work	Ratings	Ratings
Accidents and breakage	Accident rate	Accident rate
Money earned	Earnings	Earnings
Job knowledge	Ratings or test	Ratings or test
Job tenure	Time to learn	Length of time
Absenteeism	Number of days	Number of days
Rate of advancement	Improvement during training	Salary history/promotion history
Supervisory judgements	Ratings	Ratings
Peer judgements	Ratings	Ratings
Self judgements	Ratings	Ratings

Source: Furnham (1997, p.168).

According to Furnham (1997), each of these measures is associated with different biases and limitations and these measures are therefore not comparable. As

performance measurement is absolutely necessary in understanding worker productivity, Thomas and Baron (1994) categorise performance measurement into three different groups of measuring techniques. In table 3.2 the techniques are grouped, starting with the most complex and ending with the simplest.

TABLE 3.2
TABLE OF WORK PERFORMANCE MEASUREMENT CATEGORIES

Group	Description	Techniques
1	Complex set-up, complex implementation	Predetermined time motion-studies, Stop-watch studies, logging
2	Complex set-up, simple implementation	Self-logging, sampling, counting
3	Simpler set-up, moderate implementation	Committee, estimation

Source: Thomas and Baron (1997, p.32).

When measuring work performance according to Group 1 measurement, extensive preparation must be undertaken and the work analysed and described. Data is gathered on frequent intervals and in volumes. The Group 2 work performance measurement requires a simpler set-up. This technique is less complex, because simple measures are designed to measure performance, by those who are directly involved in the usual workflow. Although this technique is slightly more straightforward, the work must nonetheless be understood to enable the design of valid measures. Group 3 measurements are the easiest to implement, as this is a continuous process that includes both the workers and the management, in the design and evaluation of the measurement process (Thomas & Baron, 1994).

The company studied in this research uses the Group 1 measurement technique extensively for work performance, with the measurement criterion being quality of work.

3.4 MANAGING WORK PERFORMANCE MEASUREMENT

Various definitions of performance management have been provided in the literature. Performance management, by its very literal definition, implies managing performance. This definition has its root in a traditional system of autocratic and control management and, therefore, has a negative connotation for the employee; implying disciplinary action or even dismissal (Amaratunga & Baldry, 2002; Minty & Bennett, 2001; Tangen, 2004). Most writers define performance management as comprising the following dimensions.

- 1) The use of performance measurement information to effect positive change in the organisational culture, systems and processes by helping to set agreed-upon performance goals.
- 2) Allocating and prioritising resources.
- 3) Instructing management to either confirm or change current policy or programme directions to meet the goals.
- 4) Sharing results of performance in pursuing these goals.

This broad definition of performance management includes the term **measurement** as the key in determining the change required in current performance processes and in assisting management in directing its focus towards the attainment of certain goals that will inevitably lead to positive change.

The underlying assumption of performance management is therefore one of control and feedback mechanisms. It is a compulsory system that will produce commitment, reward employees extrinsically in order to establish motivation, improve individual performance, which will automatically improve organisational performance, and reliably and objectively evaluate individuals' performance through appraisal processes (Minty & Bennett, 2001).

In order to effectively implement performance measurement, some sort of performance management system must be implemented as a framework.

3.4.1 Work performance management systems (PMS)

According to Tangen (2004), a performance management system should at least adhere to the following requirements:

- Support strategic objectives.

The performance management system should be aligned with the strategic objectives of the company to ensure that actions support the strategy. This implies that, as the company strategy changes, the performance measures should also be adapted. The PMS must therefore be flexible.

- Have an appropriate balance.

It is important that performance is not only seen from a financial perspective. Various measures of performance, as agreed upon, should be included and these measures should be balanced. Balanced implies that the PMS should be focused on different types of performance criteria, including: cost, quality, delivery, flexibility and dependability. It should furthermore take into consideration various perspectives - the customer, the stakeholder and the competitors.

- Guard against sub-optimisation.

Performance measures can greatly impact on the behaviour of the employees evaluated and therefore improper measurements could lead to dysfunctional behaviour, including; decreased outputs, absenteeism, burnout, turnover, group conflicts, poor work relations and cognitive inefficiency. A PMS should guard against sub-optimisation to ensure that employee behaviour is consistent with corporate goals and in line with management's goals.

- A limited number of performance measures.

It is necessary to use a limited number of performance measures and it is therefore important to focus to limiting data requirements with regard to both the necessary detail and frequency. Large numbers of measures demand more time for analysis and increase the risk of information overload.

- Easy accessibility.

The PMS must be designed in such a way that important information is provided at the appropriate time and to the correct person. Furthermore, the information must be easily retrievable and understood by those being evaluated.

- Performance measures must have comprehensible specifications.

The definition and purpose of a performance measure should be clearly stated and should include who will use the measure, how the data will be collected, how frequently it will be undertaken and how the measurement should be acted upon.

To effectively measure work performance, all performance management systems should be based on a scientifically researched theory or approach. Some of the better-known approaches will be discussed in the following section.

3.5 APPROACHES TO WORK PERFORMANCE MEASUREMENT

Although most models of work performance are based on the analysis of work, they also incorporate work from supplementary areas of psychology and sociology. Such models focus on the effectiveness of work performance, and not too intensely on describing work. Five of the more familiar approaches or models of performance measurement will be discussed.

3.5.1 Sink and Tuttle model of work performance

According to Tangen (2004), this is a classical approach that claims that the performance of an organisation is a complex interrelationship between seven performance criteria. These seven performance criteria are shown in Figure 3.2 and are described below.

- 1) Effectiveness is expressed as a ratio of actual output to expected output.
- 2) Efficiency is the ratio of resources expected to be consumed to the resources actually consumed.
- 3) Quality is measured at six checkpoints.

- 4) Productivity refers to the ratio of output to input.
- 5) Quality of work life is essential for the system to perform successfully.
- 6) Innovation is the key element in sustaining and improving performance.
- 7) Profitability or budget ability entails the goal of any organisation.

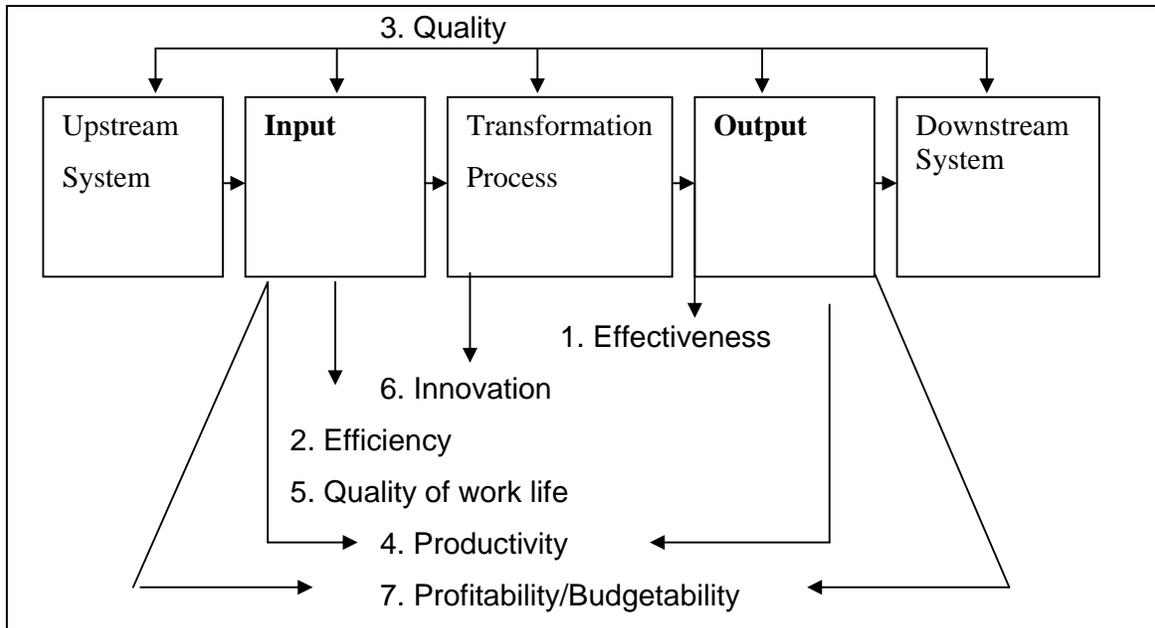


Figure 3.2 The Sink and Tuttle Model of work performance measurement.

Source: Adapted from Tangen (2004, p.727).

The limitations of this model include that it does not consider the need for flexibility or customer perspective. This model was later modified by researchers studying productivity issues in a manufacturing industry in which performance was viewed as the integration of the three dimensions of efficiency, effectiveness and adaptability. Although the industry has changed in many ways, the seven performance criteria remain important (Tangen, 2004).

3.5.2 Balanced scorecard of work performance

This model, developed by Kaplan and Norton in 1992 (Kaplan & Norton, 1996). The model proposes that a company should use a balanced set of measures, from four

perspectives, that allow managers a quick and comprehensive view of business (Figure 3.3). The four perspectives are as follows:

- 1) Financial perspective – This refers to how the company oversees, views or regards their shareholders.
- 2) Business perspective – This indicates what the company must excel at.
- 3) Customer perspective – This item looks at the customers by analysing them in terms of types of customer and the kinds of processes for which the company is providing a product or service.
- 4) Innovation and learning perspective includes employee training and corporate cultural attitudes relating to both individual and corporate self-improvement.

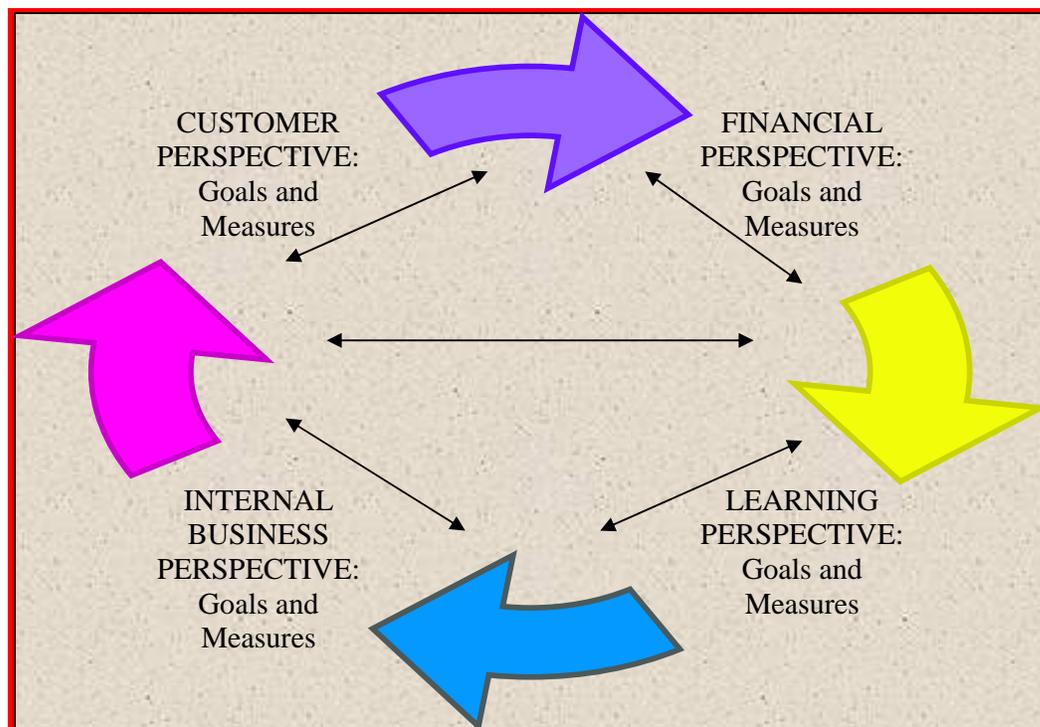


Figure 3.3 The balanced score card of work performance.

Source: Adapted from Tangen (2004, p.729).

The four perspectives are shown in Figure 3.3. This model builds on some key concepts of previous management ideas, such as Total Quality Management (TQM). According to Tangen (2004), TQM includes customer defined quality; continuous

improvements, employee empowerment and primarily measurement-based management and feedback. The model furthermore includes financial measures, which have resulted from actions already taken, whilst complementing the financial performance measure with operational non-performance measures. The advantage of this model is that it guards against sub-optimisation and minimises information overload.

The limitations of this model are that it is seen as a monitoring and control tool rather than an improvement tool. Furthermore, it provides very little guidance on how to appropriately identify performance measures and does not access the competitor's perspective (Tangen, 2004).

3.5.3 The performance pyramid of work performance

This model, referred to as the SMART system, and developed by Cross and Lynch in 1992, links organisational strategy and operations by setting objectives from the top down and measuring these from the bottom upwards. Each layer of the pyramid is vital and adds strength to the whole. It includes four levels of objectives, addressing the external effectiveness of the organisation as well as the internal efficiency. Four key performance measures, namely: quality, delivery, cycle time and waste, are measured on a daily basis. This approach is illustrated in Figure 3.4.

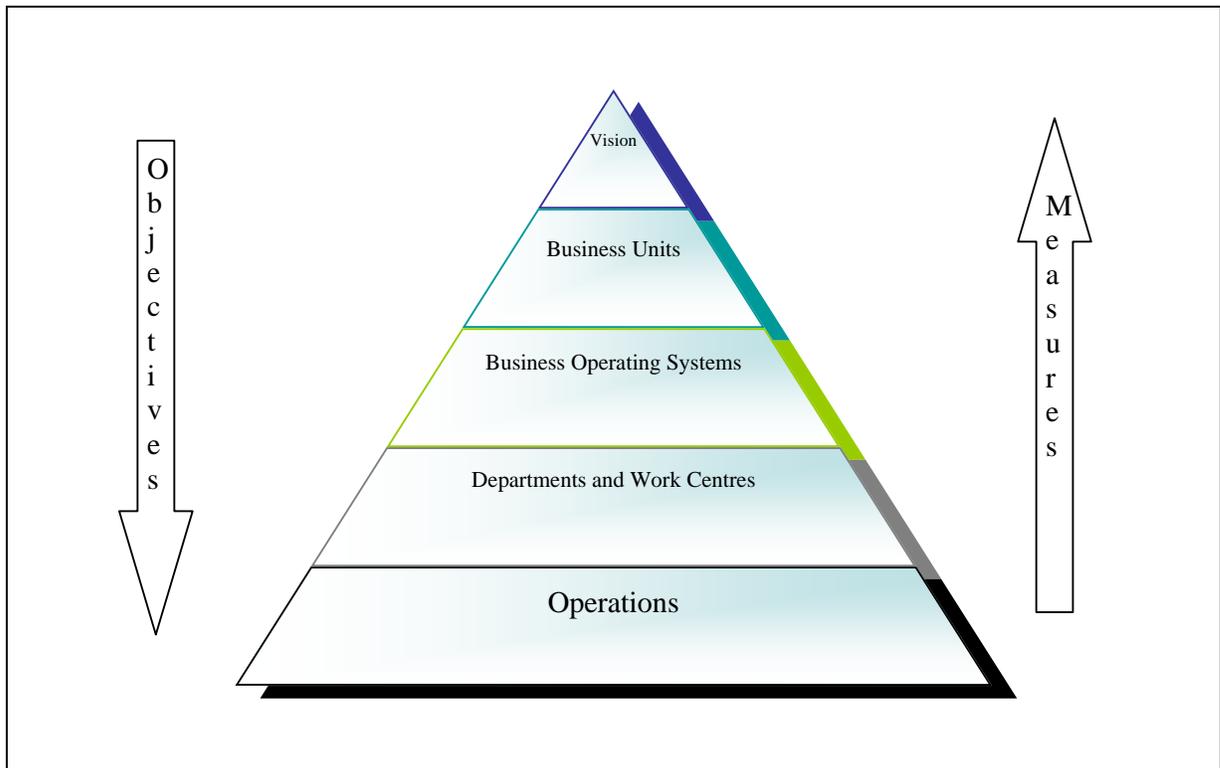


Figure 3.4 The performance pyramid of work performance.

Source: Adapted from Tangen (2004, p.730).

The first step is to define a vision with clear, concise and desirable outcomes. Once the vision has been clearly defined, specific, time-based objectives must be set for each business unit of the company. Objectives establish high-priority focus and channel resources into the highest value for the company. Subsequently, the best strategies and supporting actions in the realisation of the vision and objectives must be determined. As these action plans are implemented, performance is regularly measured.

The main limitation of this model is the failure to provide a mechanism for the identification of key performance areas and for driving continuous improvement. The main strength of this model is the integration of corporate objectives with operational performance indicators.

3.5.4 The Medori and Steeple framework of work performance

First presented in 2000, this integrated framework for auditing and enhancing performance consists of six detailed stages, as described in Figure 3.5.

The first phase usually consists of defining the company's strategy and success factors. The next phase relates to the matching of these strategies with six defined competitive priorities, namely; quality, cost, flexibility, time, delivery and future growth. In phase three, a selection of the most suitable measures is completed and phase four comprises an auditing process, during which a decision will be undertaken as to which existing measures will be retained. In the fifth phase of the model, each identified performance measure is described in terms of eight elements; title, objective, benchmark, equation, frequency, data source, responsibility and improvement. The final phase is a periodic review of the performance of the company.

The advantages of this model include that it can be exploited in order to enhance an existing performance measurement system, or for the implementation of a new performance measurement system

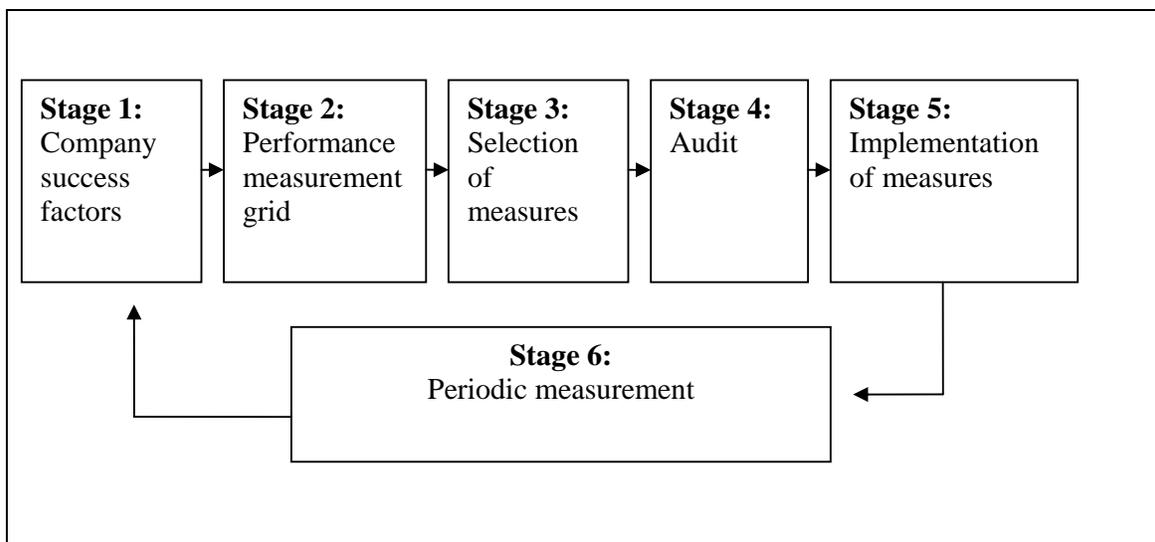


Figure 3.5 Medori and Steeple framework of work performance measurement.

Source: Adapted Tangen (2004, p.731).

An additional strength is the provision of descriptions on how work performance measures should be realised. The limitations of this model are predominately located in phase 2 - the creation of the performance grid - in that very little guidance is forthcoming with regard to the performance management system design. The grid is merely constructed from the six abovementioned competitive priorities, whereas performance measures could be divided into many other categories (Tangen, 2004).

3.5.5 The performance prism of work performance

The model recently developed by Neely (Tangen, 2004), suggests that a performance measurement system should be organised around five linked performance perspectives that follow a stepwise approach. The first step of this model is that the company must have a clear idea of who their key stakeholders are and what their requirements are. In turn, the next step is that the company must determine which strategies they choose to pursue in order to ensure that value is delivered to these stakeholders. The third step is to understand the processes required in the delivery of these strategies. The fourth step is to evaluate the capabilities available to implement these processes in the delivery of the strategies. The final step relates to determining the expectations of the stakeholders, for example, employee loyalty, long-term investments and customer profitability. These perspectives are shown in Figure 3.6 and are described below.

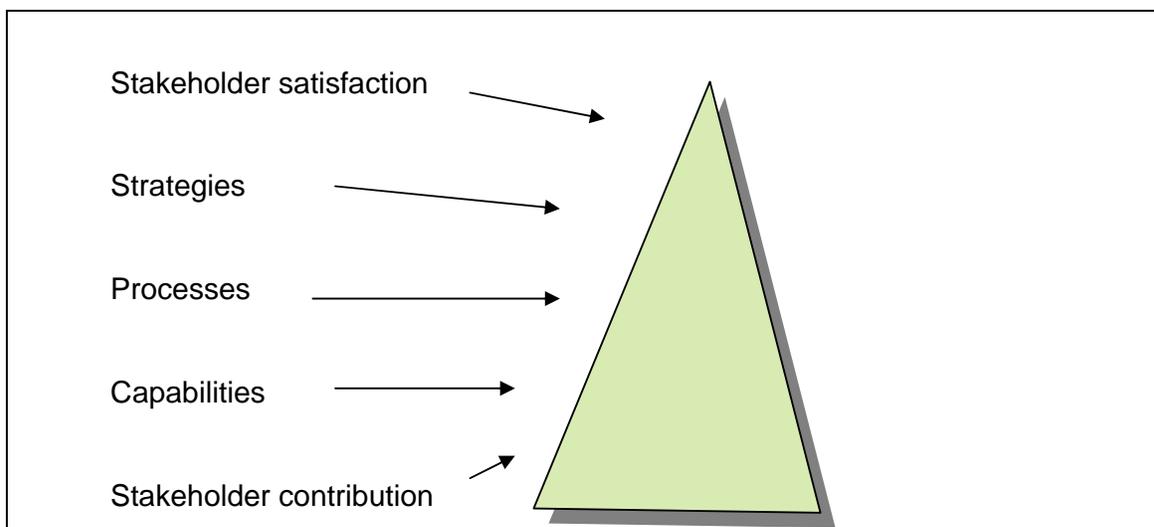


Figure 3.6 The performance prism.

Source: Adapted from Tangen (2004, p.732).

This is a clear business model that constitutes and drives good performance. The strength within this model, compared to the other frameworks, is that it comprises a far more comprehensive view of various stakeholders. The model begins by questioning the company's strategy before actually defining performance measures, thereby providing a sound foundation. This approach moreover considers the stakeholders when establishing the performance measures. The key limitation to this model is the limited guidance with regard to the actual selection and implementation of the chosen measures (Tangen, 2004).

3.6 WORK PERFORMANCE MEASUREMENT SYSTEMS LINKED TO INCENTIVE PROGRAMMES

Management, economics and accounting are all sub-disciplines incorporated in the performance measurement process. According to Tangen (2004), an organisation should take the following into consideration when deciding on a measurement technique.

- 1) The purpose of the measurement.
- 2) The level of detail required.
- 3) The time available for the measurement.
- 4) The existence of available predetermined data.
- 5) The cost of measurement.

Research has proven that incentive programmes are intended to link the behaviour of individual employees to the types of performance required within the organisation (Amaratunga & Baldry, 2002; Minty & Bennett, 2001; Read, 2001; Tangen, 2004). These programmes are most effective when aligned with customer satisfaction; when comprising clearly identified performance standards and where consistent. Furthermore, when an incentive programme is implemented, it is crucial that clear standards and expectations are established, utilising accurate information and training. Also essential is a balance between the measures reflecting the various types of behaviour and that the design of the programme enhances productivity. A

well-designed and well-implemented incentive programme may have as many as three to five variables. It would appear that uncovering the ideal combination and balance is the key to a successful programme (Read, 2001). The characteristics of an effective incentive programme, linked to a performance measurement system, include broad performance measures, reward through recognition and providing a learning opportunity.

Bateman and Zeithaml as cited in Coetzee (2003) view work performance as dependent on two factors: the opportunity to achieve performance goals - including knowledge, understanding, opportunity to participate and access to resources - and the incentive to achieve performance goals by linking rewards to objectives.

The company chosen for this study uses incentive programmes linked to desired behaviours to improve performance. For the purpose of this research, the definition of performance measurement that was proposed by Tangen (2004) will be adapted. Performance measurement can therefore be considered the process of quantifying the efficiency and effectiveness of action. A performance measure can be defined as a measurement used to quantify the efficiency and effectiveness of action and a performance management system is moreover defined as the set of measurements utilised to quantify the efficiency and effectiveness of an action. Based on the literature above, it has been established that the organisation used for this study, has made use of the revised framework of the Sink and Tuttle Model of performance measurement. The main focus areas of performance measurement are the three dimensions of efficiency, effectiveness and adaptability, which will be explained more operationally in Chapter 5.

3.7 CHAPTER SUMMARY

In this chapter, the concept of work performance has been described. This included the definition of performance measurement and the management thereof. Attention has been placed on work performance measurement criteria; managing performance measurement and the different work performance management systems. The various approaches to work performance measurement have been discussed and

finally, a brief discussion has been provided on performance measurement systems linked to incentive programmes. For the purposes of this study, the Sink and Tuttle approach work performance will be followed and quality of work will be used as the work performance criterion.

CHAPTER 4

PERSONALITY AND WORK PERFORMANCE: A RETROSPECTIVE OVERVIEW

INTRODUCTION

Anastasi and Urbina (1997) found that many organisations require forecasts of future job performance in order to make personnel selection and placement decisions. For many purposes, the most satisfactory type of criterion to measure validity against is actual job performance. This approach is especially used in studies where the effectiveness of a test for a specific program is evaluated, for example to evaluate a test for selecting applicants for a position.

The ability of personality assessment methods to predict job performance, have been researched since the 1920's. Studies on the relationship between personality and work performance did not show encouraging results. According to a few of these earlier studies, it was found that personality traits were not good and valid predictors of personality (Ghiselli, 1973; Guion & Gottier, 1965; Locke & Hulin, 1962; Schmitt & Hunter, 1977). In fact, Guion and Gottier (1965) reported that it was impossible to conduct a review of the criterion- related validity of personality because too few studies were available from the literature.

More recently, however, it was reported that personality measurement is a relevant and valid procedure for personnel selection (Anastasi & Urbina, 1997; Barrick & Ryan, 2003; Bergh & Theron, 2003, Salgado, 2003). Salgado (2003) reported that several meta-analyses of personality measures carried out in Europe and America, over the last twelve years, have confirmed that personality factors are valid predictors of job performance. Included in these studies are the meta-analysis by Barrick and Mount (1991), Hurtz and Donovan (2000) and Tett, Jackson and Rothstein (1991), using the five-factor model of personality, and indicating a fairly substantial basis for the use of personality measures as predictors of work performance. A great body of research on selection has been focused on understanding the relationship between personality and work performance (Barrick & Mount, 1991; Goldberg, 1990; Moy & Lam 2004; Paunonen, Rothstein, & Jackson,

1999; Tett, Steele & Beauregard, 2003). In most of the research it was proven that certain personality constructs are valid predictors of job performance, for example the personality traits referred to as conscientiousness and emotional stability (Barrick & Ryan, 2003; Hertz & Donovan, 2000; Tett et al, 2003).

For the purposes of this study a retrospective overview of previous research conducted on the relationship between personality and work performance, will be discussed.

4.2 RESEARCH PRIOR TO THE 1980'S

According to Kierstead (1998), prior to the 1980's, the link between cognitive ability and work performance was considered much more important, than the link between personality and work performance. Personality was not a popular personnel selection method. Robertson and Smith (2001) reported an initial position of skepticism concerning the contribution personality could make to effective personnel selection. Early research was characterised by a number of primary studies in which researchers investigated the relationships of individual scales from numerous personality inventories with various aspects of job performance.

Schmidt and Hunter (1977) report findings in the 1920's in which it was found that different studies conducted with the same assessment procedure gave different validity estimates for the same method and the same job. In the 1930's and 1940's it was believed that this poor validity was caused by subtle differences between jobs, which were difficult to detect by job analysts. This caused researchers to conclude that the validity of a given procedure is different, in different settings, though it often may appear to be the same job. This belief is referred to as the theory of situational specificity. This theory remained dominant until the late 1970's, when it was discovered that the differences amongst these studies was in fact a cause of statistical and measurement errors (Schmidt & Hunter, 1977).

Furnham (1997) reports that the research done by Guion and Gottier in 1965 was highly influential in the rejection of standard personality measures for personnel

selection, mainly because of the poor quality of personality tests that were used in these studies. A major criticism to the study of Guion and Gottier was that the results were not grouped according to the tests used, constructs upon which they were based or the organisational criteria needed. Another statistical and measurement error mentioned by Schmidt and Hunter (1977) was the simple sampling variation caused by the use of small samples in the studies.

Generally the 1970's and early 1980's were known as the era of crisis in personality theory. This era was characterised primarily by studies examining the links between work performance and individual scales from a wide variety of personality instruments. In 1968, Mischel launched an attack on personality traits. Mischel (1968) argued that the traits measured in personality tests showed little consistency across different situations, suggesting that behaviour was too situation specific to be seen as a consistent trait. Correlation coefficients of 0.2 – 0.3 were reported between the measured traits and observable behaviour.

Barrick and Mount (1991) reported that the outcomes of most of the abovementioned studies were that personality and work performance are not significantly related across traits and situations. Barrick (2001) found that there were a few explanations for these pessimistic conclusions. Firstly, the sheer number of personality traits that were being investigated, made a review of the research findings almost impossible. Secondly, the relationship of all the personality scales on the personality inventories were correlated with all the criteria investigated in these studies. Finally, Barrick (2001) also found that the prior studies were narrative qualitative reviews based on interviews and observations, rather than quantitative statistical empirical studies, which limited the nature of the inferences that could be drawn. Based on all three of these evident factors it was difficult to identify consistent relationships between personality traits and work performance.

However, in the late 1980's and early 1990's the tides seemed to change and some positive results were reported. In South Africa, Barnard (1987) did a study on the relationship between personality and work performance of 60 men in a variety of

careers. Significant differences were found between high and low groups on seven of the sixteen personality factors of the 16PF. The seven factors were less intelligent versus more intelligent, humble versus assertive, expedient versus conscientiousness, practical versus imaginative, conservative versus experimenting, group-dependent versus self-sufficient, and casual versus control. A major breakthrough was the development and application of meta-analysis to summarise the relationship between factors of personality and work performance across studies (Barrick & Mount, 1991).

4.3. RESEARCH IN THE 1990'S

The 1990's saw a huge increase in the use of personality assessments and research studies designed to evaluate the role of personality to predict job performance. According to Robertson and Smith (2001) researchers and practitioners moved into a position where there was more confidence that personality could play a role in personnel selection. These included studies by Barrick and Mount (1991), Frei & McDaniel (1997), Salgado (1998) and Tett, Jackson & Rothstein (1991), and were all conducted as meta-analytical studies. Positive evidence for the criterion-related validity of personality was provided in all of these studies.

Barrick and Mount (1991) presented 11 articles and 4 conference presentations on the studies they conducted on personality – performance relationships. A meta-analysis of 177 studies involving 23 994 subjects was conducted by Barrick and Mount (1991), to establish whether work performance was predictable based on the measurement of the “Big Five Factor” personality traits. The performance criteria used in the studies included job proficiency, training proficiency and personnel data. Through the studies the dimension of conscientiousness proved to have consistent relations with the three identified criteria measures and across the occupational groups. The biggest advantages of these studies were the relatively large numbers of studies, and the acceptance of the Big Five Model for measuring personality.

Tett, Jackson and Rothstein also conducted a meta-analytical study in 1991. They found that agreeableness ($r = .33$), conscientiousness ($r = .18$), emotional stability (r

$r = .22$) and extroversion ($r = .15$) had small to moderate correlations with work performance. Although this study provided support for four of the five Big Five personality traits, it did not specify which should be used when. This is one of the reasons why this study is not cited as often as the studies by Barrick and Mount, which was also executed in 1991 (Tett et al, 1991).

Another study by Hough et al. (1990) reviewed the criterion-related validities of personality traits. This study included six traits (instead of five) namely, agreeableness, extroversion, openness to experience, emotional stability, dependability and achievement. Results indicated that a correlation of .13 existed between emotional stability and dependability and work performance.

In 1998, Salgado completed meta-analyses, which included only European samples. He hypothesised that conscientiousness and emotional stability would be the best predictors of job performance. This hypothesis was based on the previous research by Barrick and Mount (1991); Hough et al.(1990) and Tett et al. (1991). The results indicated correlations of .25 between conscientiousness and work performance and correlations of .19 between emotional stability and work performance. These findings confirmed the results of the work conducted by the previous researchers.

According to Saville and Holdsworth (SHL, 1999), competencies form the basis for selection practices in organisations. Personality is one of the factors determining behaviour on a given competency, however validity is the key issue for the reviewer of a personality questionnaire. A personality questionnaire is valid to the extent that it measures what it was designed for, or is being used to measure, in other words, the extent of the relationship of the measured personality factors to some criterion of work performance. SHL conducted research studies that specifically investigated personality profiles that would predict performance (SHL, 1999).

In the South African context, the Customer Contact Styles Questionnaire (CCSQ) was used to test the relationship between personality and work performance of 172 trainee brokers. Significant correlations were reported between certain personality

traits and work performance. With correlations between 0.24 and 0.35 with p values between 0.01 and 0.05, it was determined that personality could definitely be used as predictor of the work performance for trainee brokers (SHL, 1998). Furthermore a number of research studies to validate the Occupational Personality Questionnaire (OPQ) as predictor of work performance, have been carried out by SHL (1998). The studies included study number V015, which researched the relationship between the personality profile and work performance of 35 call centre operators. Coefficients of higher than 0.20 were reported, and therefore it could be concluded that the instrument could be used reliably in the selection of call centre agents in order to predict work performance. In another study on 162 call centre agents from a large national bank in the United Kingdom, eight dimensions of the OPQ32i proved to have a significant relationship with work performance (www.shl.co.za).

A longitudinal study of job offers and job success of 83 MBA students was done by O'Reilly, Chatman and Caldwell (1999). These students were selected on the basis of an ideal managerial personality template. It was found that the students with personality profiles that match to the ideal profile were generally more successful in their jobs. The personality template could therefore be used as a predictor for successful job performance. From the abovementioned studies and findings several other interesting questions arose. This included the level of analysis that should be used when utilising personality for selection and assessment purposes.

The debate on personality and work performance once again changed focus in the late 1990's. Whereas the attention was very much on whether or not to use personality assessments as predictors of work performance in the 1980's & 1990's, the question now was whether broad or narrow measures of personality should be used to predict work performance. Ones and Viswesvaran (1996) argued that broad personality factors were preferable when predicting work performance, as work performance itself was a broad and complex criterion. They reported that broad multidimensional variables are more useful for behaviour explanation than are narrow undimensional variables.

However, several other researchers had contrary arguments, and argued that the Big Five Model of personality may be too broad to predict work performance, as this model is sensitive to situational influences (Paunonen et al, 1999). Paunonen et al. (1999) argues that the use of multiple undimensional personality traits are always to be preferred as predictors of work criteria, as it improves the accuracy in predicting job performance and the psychological meaningfulness of explaining work behaviour.

4.4. RESEARCH IN THE 2000'S

Research on the utility of personality as predictor of work performance still continues. In a study in South Africa, Doman (2000) researched the relationship between the personality traits and work performance of 74 supervisors. Significant differences were reported between high and low performers on six of the first order factors and one of the second order factors, as measured by the 16PF. The first order factors included more intelligent, emotionally stable, trusting, placid, and relaxed.

Hurtz and Donovan (2000) conducted another major meta analysis, making a number of statistical refinements to the earlier work of Barrick and Mount (1991) and Tett et al. (1991). In their study, Hurtz and Donovan (2000) used both the task and contextual components of performance, and were careful to use only studies that used self-report inventories that were based on the Big Five personality dimensions. They furthermore continued the efforts of the earlier meta-analytical studies, by breaking down the results they found into broad occupational categories, in the quest to determine if different traits were better predictors of different job types. These occupational categories were sales, customer service, management, as well as skilled and semi-skilled jobs. The results supported the findings of the previous researchers as significant relationships between work performance and conscientiousness ($r = .22$), as well as emotional stability ($r = .14$), was reported.

Barrick (2001) reported that research on personality and the impact of personality on behaviour in the workplace is extraordinarily active, which is evident in the increase in submissions to *The Journal of Research in Personality*, every year since 1996, the number of conference presentations, other journal submissions and student interest in personality.

In 2003 Salgado conducted a psychometric meta-analysis for each of the Big Five personality dimensions using two independent pools of validity coefficients, namely studies conducted using inventories developed within the Five Factor model and another pool of studies conducted using non- Five factor model based inventories. He found that conscientiousness and emotional stability, once again, showed larger construct validity when the Five Factor Model based inventories was used, as compared to the non-Five factor models such as Eysenck and Cattell's models. These results concur with the findings of Hertz and Donovan (2000) that conscientiousness was one of the best predictors of work performance.

Salgado's findings also contributed to the debate on broad versus narrow personality traits as predictors of job performance. According to Paunonen et al. (1999), broad personality measures and narrow personality measures can be thought of as points on a continuum, where this continuum is one of varying dimensionality. On this continuum the types of measures represent a greater or lesser degree of multidimensionality. For example in the five factor model of personality, conscientiousness is more multidimensional than for example achievement, a narrow measure that was identified by McCrae and Costa (1989). Other examples of narrow measures include effort, technical job proficiency and irresponsible behaviour. The average validity of the narrow measures was represented by the construct validity at scale level on the non-Five factor model inventories, which were proven to be consistently lower. Therefore Salgado (2003) supported Ones and Viswevaran's view that broad personality measures are more favorable when using work performance ratings as criteria.

Tett, Steele and Beauregard (2003) also conducted two studies that compared specific versus broad measures in linking personality with work performance. In both their studies significant linkages between broad personality and the criterion variables are explained by stronger relationships among relatively few specific variables. They also found that greater specificity of the broad measures by using the five factor model could improve prediction of job performance and understanding of trait-behaviour relationships.

The relationship between personality traits and work performance criteria recently had a renewed interest. Focus is placed especially on work performance criteria and the importance of properly defining and formulating specific criteria. The importance thereof lies in the fact that well-defined work performance criteria will correlate significantly better with specific performance measurements (Barrick & Ryan, 2003; Murphy & Davidshofer, 2004). Although much research has been done on this topic, this is an ongoing debate, with no simple solution.

4.5. CHAPTER SUMMARY

In this chapter a retrospective overview of research on the relationship between personality and work performance over the last thirty years was given. Although research prior to the 1980's was not very encouraging, a more optimistic view was taken in the 1990's. During this period significant correlations were reported between the personality traits in general, especially conscientiousness and emotional stability and work performance. Recently many studies have proven the predictive validity of personality assessments of work performance, and the focus of the research has now changed to whether broad or narrow measures of personality traits, and well defined and formulated work performance criteria, should be used.

CHAPTER 5 RESEARCH DESIGN

5.1 INTRODUCTION

In this chapter the operationalisation of the research in the context of the call centre in the medical insurance company, will be described, after which the actual process followed to conduct the research, will be explained.

Christensen (1985) defined a research design as the outline plan or strategy specifying the procedure to be used in seeking an answer to the research question. This study takes the form of a quantitative design. According to Leedy (1993) quantitative research is impersonally experimental, manipulating variables and controlling natural phenomena, by constructing hypotheses and testing them against the hard facts of reality. Christensen (1985) also highlights that if the purpose of an investigation is to describe the degree of relationship, which exists between variables, this approach is the appropriate one to use.

5.2 POPULATION AND SAMPLE

The population for the study was 300 call centre agents currently employed in the call centre of a medical insurance company. The agents had been in their role for a period longer than six months at the time when the performance data was obtained.

**TABLE 5.1
THE SAMPLE**

Sample size	Gender	Area	Type of sampling
N=300	Male N=137 Female N=163	Gauteng and immediate regions	Convenience

The subjects were full-time employees of Discovery that participated in the study on a voluntary basis, during working hours. The sample was not distributed throughout South Africa, but selected only from the Gauteng and immediate regions, and therefore is a sample of convenience rather than a random sample (Table 5.1).

5.3 RESEARCH PROCEDURE

With regard to the research procedure the motivation for the use of the measuring instruments, methods to ensure reliability and validity, evaluation of feasibility, data collection and data analysis are discussed in the sections that follow.

5.3.1. Motivation for the use of the measuring instruments

The motivation for the use of the measuring instruments is based on the independent and dependent variable.

5.3.1.1. Measuring personality – the independent variable

This specific study investigated the relationship between certain personality traits and work performance, and will therefore be drawing on both the classical personality and occupational personality approaches. For the purposes of this research, the content will be personality tests of conscious psychological behaviours, cognition and feelings, and therefore the focus will be on self-report personality questionnaires. Several approaches have been followed in the development of personality questionnaires, and among them are those based on factor analysis and factor and trait theories.

Most of the assessment devices that result from the trait theory are self-report questionnaires, where the person being tested responds to multiple-choice questions. Personality questionnaires that were developed according to the trait theories of personality include Eysenck's Personality Inventory, the Sixteen Personality Factor Questionnaire (16PF), NEO Personality Inventory (NEO PI-R), and the Occupational Personality Questionnaire (OPQ) (Anastasi & Urbina, 1997, Saville & Holdsworth, 1999).

In this study use will be made of the Customer Contact Styles Questionnaire (CCSQ 7.2), which is a version of the OPQ. According to Bergh and Theron (2003), the trait model used by Saville and Holdsworth's OPQ, attempts to measure most of the "Big Five Factors" of the five-factor model, and to predict job success across time and in various situations and cultures. Therefore the CCSQ 7.2 is considered the best

personality questionnaire to use in the work context, and is backed by extensive research on thousands of employees in a multicultural database (SHL, 1998).

5.3.1.2. Measuring work performance – the dependent variable

The company used in this study, make use of incentive bonus programmes linked to desired behaviours, to improve performance. Based on the literature review (see Chapter 3), it was deduced that the company used in this study use the revised framework of the Sink and Tuttle model of work performance measurement. Therefore, the main focus areas of performance are the three dimensions of efficiency, effectiveness and adaptability. The QualityCall system ensures an objective performance measurement based on specific defined and formulated performance criteria, and is therefore used as measuring instrument for the dependant variable.

5.3.2 Methods to ensure reliability and validity

According to Mouton and Marais (1994), the reliability of observations or data can be influenced by the researcher, the participants, the research contexts and the measuring instruments. All of these influences were addressed during this study. The researcher acted in accordance with the ethical principals as prescribed in the Ethical Code for Psychologists (Psychological Society of South Africa, 1996). Confidentiality was maintained at all times. With regard to the context, complete biodata was collected for all participants in an attempt to identify possible moderator variables that could influence the relationship between personality and work performance. The participants were informed that the data collected would only be used for research purposes. An additional request was made that the candidates should complete the assessment process as honest and discerning as possible. The measuring instruments used for measurement was thoroughly investigated for validity and reliability, as well as fairness and objectivity. Furthermore, the performance was measured over a three months period to allow for any *ad hoc* influences such as illness, training or leave.

5.3.3 Evaluation of feasibility

When researchers conduct criterion related validity studies, the feasibility of the studies should be determined by the following aspects (Psychological Society of South Africa, 1998).

- Stability of the specific job used in the study.
- Quality of the criterion.
- Representativeness of the sample.
- Statistical power.

In the current research project, the specific job of the call centre agent has been similar and stable for the last six years. The measures of performance were implemented approximately three years ago and have been revisited on a yearly basis. Upon investigation, the performance measures seemed to be relevant, reliable, unbiased and free from contamination (Eyeretel Client Education Manual, 2001). Although the sample consisted of all the call centre agents in the medical insurance company, the results would not be generalisable to the total South African context, as the sample only consisted of members in the Gauteng and immediate area. According to Coetzee (2003), the bigger the sample, the higher the statistical power of the study will be. For the purposes of this study the maximum sample that could be used, based on convenience, was used (see section 5.2).

5.3.4 Data collection and analyses

For the purposes of the study, data was collecting according to the following steps.

- Step 1: Gathering of data that relates to the independent variable by means of the Customer Contact Styles Questionnaire.
- Step 2: Gathering of data that relates to the dependent variable by means of internal company data resources, the CallQaulity system.
- Step 3: Processing data by means of statistical analysis.

5.3.4.1 Data collection of the independent variable by means of the CCSQ 7.2

Three different information sessions were held on three different occasions to inform management and staff of the intended study and how the data would be collected and used. Time sheets were sent out via e-mail to all the consultants, where they could book themselves into an assessment slot that was most convenient to the individual and that suited the business needs. The agents were given two weeks to ensure that they were scheduled to attend an assessment. Because the CCSQ was a newly implemented assessment tool, no previous data had been available and all agents had to be tested. Actual testing took place at the company premises, over an 8-week period. The researcher and two colleagues conducted all the assessments. The candidates were tested in groups of ten and best practice testing conditions were adhered to at all times. All the results were stored on a common database to ensure that access was available to the test administrators at all times, and to make the retrieval of data more user friendly.

5.3.4.2 Data collection of the dependent variable by means of internal company data resources, the CallQuality system

The dependent variable, namely work performance was measured by retrieving the incentive data and actual call quality ratings for the call center agents, for three consecutive months. An average of incentive earned over three months was used, as well as the percentage obtained on the call quality sheet of seven random calls per month. The researcher combined all the information retrieved into an Excel Spreadsheet, to ensure easier statistical analysis. In order to avoid possible errors, the database was checked and verified by two other colleagues.

5.3.4.3 Processing data by means of statistical analysis

Descriptive statistics, correlation coefficients and regression analysis was performed among and between the predictor and criteria measures. The influence of moderator variables was also investigated.

Data gathered for both the dependent and independent variable, was subjected to descriptive statistics in the form of frequencies, percentages, minimum and maximum scores, standard deviations and means.

According to Howell (1999), when dealing with the relationship between variables, consideration should be given to the correlation, and that the degree of strength of this relationship will be indicated by the correlation coefficient. For the purposes of this study the Pearson product-moment correlation coefficient (r) was used. It is important to note that the correlation coefficient was interpreted cautiously. This coefficient is simply a point on a scale between -1.00 and +1.00, and the closer it is to either of those limits, the stronger the relationship between the two variables (Howell, 1999). Attention is given to factors that could affect the correlation, and includes the restriction of range, non-linearity of the relationship, and the use of heterogeneous sub-samples.

Howell (1999) describes regression as the study of the relationship between variables to cover the situation in which the researcher wants to predict one variable from the knowledge of the other variables. To determine concurrent validity, regression analyses are performed using the incentive bonus (see 5.3.2) as the dependent variable. This is done to determine the optimal formula that would explain the most variance of the respective competencies. A forward stepwise regression was performed to evaluate the contribution of the predictor variables. Stepwise regression is a procedure that iteratively adds and deleted one independent variable at a time, based on the incremental explanatory power the can add to the regression model, and only those independent variables that make a statistically significant contribution to predicting the dependent variable are included in the model (Hair, Anderson, Tatham and Black, 1995). All statistical analyses are reported on in Chapter 6.

5.4 MEASURING INSTRUMENTS

The independent variable was measured by the Customer Contact Styles Questionnaire (CCSQ7.2) and measurement of the dependent variable by the completion of the Call Quality sheet.

5.4.1 The CCSQ 7.2

The independent variable in this study is personality, which was measured by the Customer Contact Styles Questionnaire (CCSQ 7.2). This instrument was chosen on account of the quality of the instrument and for the practical reason that it was implemented recently as one of the tools used by Discovery for selection and development purposes.

This version of the instrument was selected to measure the independent variable (personality) for the purposes of this research, taking into consideration the context and nature of the call centre industry. The CCSQ forms part of the Customer Contact Portfolio of SHL's assessment techniques, and can be used for training and development, restructuring initiatives as well as selection and recruitment of staff (SHL, 2004).

5.4.1.1 The rationale of the instrument

The CCSQ 7.2. is a self-report questionnaire designed to assess the typical or preferred behaviour of individuals in a way that is relevant to the world of work. The respondent answers a number of multiple-choice questions on their preferred behaviour and personal style. This questionnaire is especially popular because it is culture fair, comprehensive, has proven validity and reliability, has a variety of uses, is user-friendly and is easy to administer (SHL, 1998).

The questionnaire is based on the Saville and Holdsworth model of personality (SHL, 1999). In this model it is proposed that personality is concerned with three domains namely:

- 1) The **relating domain**, characterised by traits such as persuasiveness, self-control, and empathy;
- 2) The **thinking domain**, characterised by traits such as analytical thinking, innovation, flexibility and structure;
- 3) and the **feeling domain**, characterised by traits like resilience, energetic and results orientated.

The CCSQ personality questionnaire is focussed on customer service and sales elements. Various reliability, validity and fairness tests have been done on this instrument with positive results (SHL, 1998). Furthermore the CCSQ 7.2 is based on the factor analytical approach of personality and accepts the following basic assumptions.

1) Individual differences.

People vary in their behaviour and there are demonstrable individual differences between people.

2) The stability of personality.

The differences in human behaviour are consistent, and behaviour has certain stability. This stability is dependent on many interacting variables, including the situation and biological state of the individual.

3) Nature-nurture debate.

This debate is concerned with the importance of genetic and environmental influences on personality. The OPQ approach takes the stance that behaviour is an interaction between constitutional influences such as genetic, physiological and hormonal influences.

4) State versus trait characteristics.

Highly stable aspects of personality are termed traits, while those, which are largely depended on circumstances, are called states (SHL, 1998).

5.4.1.2. Scales of the instrument

SHL (1998) based the CCSQ 7.2 on more specific areas of work, following a proper job analysis procedure. The CCSQ 7.2 is a version of the Occupational Personality Questionnaire (OPQ) that was developed in 1996.

TABLE 5.2
16 PERSONALITY DIMENSIONS IDENTIFIED BY THE CCSQ

RELATING DOMAIN

Persuasive - enjoys selling, negotiating and gaining commitment.

Self-Control - restrained in showing irritation or annoyance; rarely criticises others openly; remains patient.

Empathic - sensitive and understanding towards others; prepared to go out of their way to help.

Modest - reserved about personal achievements and disinclined to talk about self.

Participative - enjoys teamwork and wants to develop constructive relationships.

Sociable - sociable, talkative and confident with different types of people; livens up group activities.

THINKING DOMAIN

Analytical - enjoys analysing information; working with data; probing the facts and solving problems.

Innovative - comes up with a wide range of ideas and offers imaginative or novel solutions.

Flexible - open to new approaches and readily adapts to different circumstances.

Structured - plans ahead; considers preparation, priority setting and structure to be important.

Detail Conscious - ensures accuracy by checking details carefully and by being neat and tidy.

Conscientious - willing to persevere, to keep firmly to deadlines and to make sure that tasks are completed.

FEELING DOMAIN

Resilience - copes with external stresses and pressures by being calm, thick skinned and looking on the bright side.

Competitive - needs to win at all costs, hates to lose and likes to be the best.

Results Orientated - sets ambitious personal targets; stimulated by challenging targets; keen to improve own performance.

Energetic - enjoys being active; keeps busy; sustains a high level of energy over a long time.

The questionnaire is designed to measure 16 dimensions of personality identified in non-supervisory sales and customer service roles. The 16 dimensions are described in table 5.2. In this model certain attributes of personality are measured and then linked to groups of competencies. When the scale definitions of the questionnaire were derived, personality traits suggested by different job analysis techniques, together with those that had been found in validation studies to be predictive of job performance, were considered. In table 5.3 a description of these competencies and attributes, and how they are linked, is given.

TABLE 5.3
CUSTOMER CONTACT COMPETENCIES

Domain	Competencies	Attributes
People Focus	Relating to customers	Sociable
		Self-control
	Convincing	Empathic
		Persuasive
		Results orientated
		Sociable
		Competitive
	Communicating Orally	Modest
		Persuasive
	Communication in writing	Sociable
Structured		
Analytical		
Team Working	Persuasive	Participative
		Empathic
	Team Working	Self-control
		Sociable
Information Handling	Fact Finding	Analytical
		Detail conscious

	Problem Solving	Innovative Analytical Results orientated
	Business Awareness	Results orientated Competitive
	Specialist knowledge	Analytical Results orientated
<hr/>		
Dependability	Quality Orientation	Detail conscious Conscientious Structured
	Organisation	Structured Conscientious Detail conscious
	Reliability	Conscientious Detail conscious Structured
<hr/>		
Energy	Customer Focus	Self-control Empathic
	Resilient	Resilience Flexible Self- control
	Results Driven	Results orientated Energetic Competitive
	Using Initiative	Results orientated Innovative Energetic
<hr/>		

According to SHL (1998) aptitudes and abilities are easy to distinguish, but there is often confusion between personality and competency domains. Where personality is seen as preferred ways of behaving, thinking and feeling, competencies are seen as clusters of skills and behaviours key to successful work performance. However there is no direct measuring instrument of a person's competencies, and therefore personality and abilities can be used to build a picture of potential (SHL, 1998). The CCSQ was developed as a way of assessing the personality traits relevant to customer contact competencies. For the purposes of this study, the empirical analyses were done working with these competencies.

5.4.1.3 Reliability and validity of the CCSQ 7.2

SHL (1998) refers to reliability as the concern with accuracy of measurement, and provides information on how consistent results from the instrument are likely to be on different occasions. In table 5.4 the reliability data for the CCSQ 7.2 is indicated. The table is based on the standardisation samples for the instrument. These consisted of customer service and sales staff in a variety of organisations, levels and roles. The reliabilities of the scales range from 0.79 to 0.90 with a median of 0.84.

Furthermore, validity refers to the extent to which an instrument actually measures what it has been designed to measure, in other words the relevance of the assessment (SHL, 1999). According to SHL (1998) validity was considered throughout the development of the Customer Contact Portfolio. Evidence of validity includes the following.

- 1) Integrated results of criterion related validity studies and interpretation of correlations.
- 2) Specific concurrent validity studies.
- 3) Construct validity studies.

TABLE 5.4
INTERNAL CONSISTENCY RELIABILITY AND SEM OF THE CCSQ

Scale	Alpha	Mean	Sd	SEm raw	SEm Score	Sten
Persuasive	0.79	34.86	6.54	3.0	0.9	
Self-Control	0.87	42.86	8.76	3.1	0.7	
Empathic	0.84	47.07	7.09	2.8	0.8	
Modest	0.87	37.72	9.21	3.3	0.7	
Participative	0.90	45.15	10.09	3.2	0.6	
Sociable	0.79	39.56	7.54	3.5	0.9	
Analytical	0.79	39.88	6.76	3.1	0.9	
Innovative	0.90	39.88	6.76	3.1	0.9	
Flexible	0.80	35.74	5.62	2.5	0.9	
Structured	0.85	37.98	7.79	3.0	0.8	
Detail Conscious	0.84	34.11	7.27	2.9	0.8	
Conscientious	0.86	37.29	6.38	2.4	0.8	
Resilience	0.81	36.90	8.33	3.6	0.9	
Competitive	0.82	28.74	8.00	3.4	0.9	
Results Orientated	0.79	36.42	6.30	2.9	0.9	
Energetic	0.87	33.43	7.01	2.5	0.7	

5.4.2 QualityCall rating system

An objective performance measure was utilised to measure work performance, which is the dependent variable in this study. A system called QualityCall, more specifically - a structured call quality rating form, was used to measure the work performance.

5.4.2.1 Rationale of the instrument

QualityCall is a database system developed by Eyretel. The database is used as an analysis application, which allows users to retrieve recorded calls based on business criteria and analyse their content for the purposes of quality or performance monitoring. It enables companies to develop call centre agents so that they have the skills they need. By scoring and monitoring performance across a whole range of media, QualityCall can evaluate the performance of an agent or team at any moment. Different agents, teams or contact centres can be compared. The scoring baseline can also be reset to preserve historical data. This instrument has the following characteristics and features (Eyretel Client Education Manual, 2001):

- QualityCall is a software application that acts as a sieve or filter.
- This enables the user to retrieve and filter calls stored in a database.
- Calls are “pulled” from the database using criteria specified within QualityCall.
- Once retrieved the calls may be replayed and scored based on scoring criteria.
- The scoring criteria allow the user to create a “model” against which calls can be compared.
- Report tables and graphs can be displayed giving information about the effectiveness of agents and strategies.

5.4.2.2. Scales of the instrument

At the medical insurance company, a system of specific scoring criteria for calls, was put in place to discover how well they are handled and whether customers are satisfied with the service they receive. It is also used to ensure best practice and to pinpoint aspects of the customer experience that need improving. This structured rating form, the call quality sheet, measures behaviours displayed by call centre agents whilst on actual calls. The agents are rated by their team leaders on eighteen standard questions with a yes or no answer. To obtain a score on a call quality sheet, the minimum qualifiers as stipulated by the company must be met. These qualifiers are described in table 5.5.

TABLE 5.5
CALL SHEET QUALIFIERS

QUALIFIERS	DESCRIPTION	WEIGHTING
Integrity	Did the agent act with integrity? The answer would be no for any situation that the assessor, Team Leader, Manager and Service Excellence Manager unanimously agree is unacceptable behaviour by the consultant during a call. eg. dropping of call, rudeness etc.	100%
Confidentiality	Get the callers details, and adhere to confidentiality protocols.	100%
Behave efficiently	Do not have the caller on unnecessary hold. Have justified hold times.	100%
Real time resolution	Ensure first time resolution. Gives accurate information and follows the process appropriately.	100%

Once the qualifiers have been scored the second part of the actual call quality sheet is scored. The call quality sheet will only be completed for agents who scored a 100% on all four of the qualifiers, in other words the answer to all four qualifying questions was "yes". Each question on the call quality sheet has an allocated weighting ranging between 6% and 17%. These weighting, in turn, determine the total call score. This score is then calculated in terms of a percentage. The percentage score obtained is then used to determine the amount of performance-based incentive bonus paid to the agent. Therefore top performers are more likely to earn larger incentive bonuses than average or poor performers. The criteria for the call quality sheet are described in table 5.6. For the purposes of this study the total call score as well as the amount earned on the incentive bonus, will be used as criterion scores to assess the relationship between the dependent and independent variable. The reason for this being that a small variance in percentage on the call

quality score, does have a greater impact on the amount of incentive paid to the call centre agent.

TABLE 5.6
CALL QUALITY RATING SHEET

CALL RATING	Weighting	Score
Connect	17%	100%
Greet	Yes	6%
Meet	Yes	6%
Maintain	Yes	9%
Use of ordinary Words	Yes	8%
Understand	17%	100%
Listen	Yes	8%
Understanding	Yes	8%
Empathy	Yes	5%
Resolve	17%	100%
Own the contact	Yes	8%
Loading of information	Yes	17%
Keep in touch	Yes	8%
Exceed	17%	100%
Promoting solutions	Yes	8%
Update information	Yes	8%
Turn around times	Yes	8%
Pro Active	Yes	8%
Comprehensive	Yes	17%

Be efficient	17%	100%
Respond promptly	Yes	17%
Wrap up	17%	100%
Ask your client	Yes	4%
A warm good bye	Yes	8%
	Call Score	Incentive amount

5.4.2.3 Reliability and validity of the QualityCall system

The foundation of QualityCall is the scoring plan, which although fully flexible ensures a consistent process and consistent measurement. The use of “yes” and “no” answers, as opposed to arbitrary scoring scales, helps achieve this consistency. To provide a check, the same call can be scored independently by two people or by the same person on separate occasions. These features are particularly valuable if the company operates several contact centres or divide the responsibility for scoring among several people.

The team leaders at Discovery Holdings have access to a “pool of calls”, from which they retrospectively select those contacts that match the particular business rules, using a selection plan. The team leaders assess 7 calls per consultant per month for incentive purposes, as well as coaching purposes. The Development Services of Discovery team then cross assesses 15 random calls per team leader. This is to ensure objectivity, fairness and quality. All variances are captured and addressed in monthly meetings. In addition, the Development Services team also do specific call assessments. These assessments are based on specific call criteria such as duration, specific key words and other similar criteria.

5.5. ETHICAL CONSIDERATIONS

The researcher maintained scientific objectivity throughout the study, recognising the limitations of her competence. Every person involved in the study was entitled to the right of privacy and dignity of treatment, and no personal harm was caused to

subjects in the research. Information obtained was held in strict confidentiality by the researcher. All assistance, collaboration of others and sources from which information was drawn is acknowledged. The following ethical considerations were at the base of this research.

- 1) Fairness.
- 2) Honesty.
- 3) Openness of intent.
- 4) Disclosure of methods.
- 5) The ends for which the research was executed.
- 6) Respect or the integrity of the individuals.
- 7) The obligation of the researcher to guarantee unequivocally individual privacy.
- 8) Informed willingness on the part of the subjects to participate voluntarily in the research activity.

Finally, all research findings will be presented honestly, without distortion.

5.6 CHAPTER SUMMARY

This chapter consisted of a discussion of the research design. The constitution of the sample was discussed, the research procedure was discussed, including methods to ensure reliability and validity, evaluation of feasibility, data collection and data analysis. The Customer Contact Styles Questionnaire and QuallityCall were discussed as measuring instruments for the independent and dependent variables, and lastly ethical considerations were mentioned.

CHAPTER 6

RESULTS

6.1 INTRODUCTION

In this chapter, the results of the empirical study are reported. Results are presented in respect of the relationship between personality traits and the work performance of call centre agents. The results will provide the basis for rejection or confirmation of the research hypothesis indicated in chapter 1.

The following empirical aims have been identified:

- 1) Determine the empirical relationship between personality and work performance.
- 2) Measurement of the personality traits that can be used to predict good work performance for a call centre agent.

The hypotheses are as follows:

H₀: There is no significant relationship between the personality traits of call centre agents and their work performance.

H₁: There is a significant relationship between the personality traits of call centre agents and their work performance.

In this chapter the results of the empirical research will be reported and discussed in the following order:

1. Descriptive statistics:
 - The sample.
 - The moderator variables of age, race, gender and qualification.
 - The independent variable (personality).
 - Dependent variable (work performance).

2. Correlations:
 - Relationship between personality and work performance.
 - The relationship between the moderator variables and work performance.

3. Regression analysis:
 - Multiple regression analysis with personality variables as predictors and work performance as the dependent variable.
 - Regression analysis of moderator variables with work performance.

6.2 RESULTS

The effectiveness of using the Customer Contact Styles Questionnaire (CCSQ) in the selection of call centre operators was assessed by means of concurrent validation. The data was analysed to determine whether significant relationships existed between test scores of certain personality traits and current assessments of work performance. The results include a summary of the biographical and demographic information on the candidates, as well as results pertaining to the validation of the assessment instruments.

6.2.1 Descriptive statistics

Howell (1999) reported that whenever the purpose of interpretation is merely to describe a set of data, descriptive statistics are employed. Because data is of no value merely as data the extraction of meaning from the accumulated data is necessary. Descriptive statistics simply report the measures that describe average latency scores or their variability (Leedy, 1993).

6.2.1.1 The sample

The sample was chosen on the basis of convenience. Table 6.1 describes the results of the descriptive statistics for the sample.

TABLE 6.1
DESPRIPTIVE STATISTICS OF THE SAMPLE

Sample size	Gender	Race	Mean age	Highest qualification
N=300	Male N=137 (45.67%)	Africans N=110 (36.67%)	27.70 (SD5.01)	Grade 12-higher degree
	Female N=163 (54.33%)	Asians N=83 (27.67%)		
		Coloureds N=40 (13.33%)		
		Whites N=67 (22.33%)		

The sample consisted of 300 call centre operators and included 137 (45.67%) males and 163 (54.33%) females. The ages of the respondents ranged from 19 to 58, with a mean age of 27.70 (SD = 5.01) years. The sample comprised of 110 (36.67%) Africans, 83 (27.67%) Asians, 40 (13.33%) Coloureds and 67 (22.33%) Whites. The highest qualifications of the sample ranged from Grade 12 to a higher degree.

6.2.1.2 The moderator variables

Research has proven that differential predictability is often observed when the correlation between a predictor and a criterion varies as a function of classification on some third variable, namely the moderator variable (Guilford, 1965). For the purposes of this research, age, race, qualification and gender were investigated as moderator variables (See table 6.1).

6.2.1.3 The independent variable (personality)

In table 6.2 below, the descriptive statistics of the independent variable in terms of the CCSQ competencies are presented.

TABLE 6.2.
MEANS AND STANDARD DEVIATIONS FOR THE CCSQ COMPETENCIES
(N=300)

CCSQ Competencies	Mean	SD	Min	Max
Relating to customers	6.28	1.87	1	10
Convincing	4.98	2.12	1	10
Communicating orally	5.08	2.15	1	10
Communicating in writing	5.51	1.80	1	10
Team working	6.69	2.04	1	10
Fact finding	6.88	1.74	1	10
Problem solving	6.80	1.89	1	10
Business awareness	6.04	2.10	1	10
Specialist knowledge	7.09	1.67	1	10
Quality orientation	6.70	1.75	1	10
Organisation	6.71	1.80	1	10
Reliability	6.63	1.84	1	10
Customer focus	6.88	1.72	1	10
Resilient	5.92	1.86	1	10
Results driven	6.07	1.84	1	10
Using initiative	6.25	1.83	1	10

The mean score on all the competencies was above average, which indicates that the sample group obtained high scores on most of the competencies.

6.2.1.4 Dependent variable (work performance)

Two types of criteria were collected for this research, namely the call quality sheet score and the incentive bonus based on performance. In tables 6.3 and 6.4, the descriptive statistics for the dependent variable are presented. From table 6.3 it is evident that the mean scores for the areas measured in the call quality sheet are

very high. Based on a frequency analysis it was determined that on average 80% of the group obtained a score of 100% on the different areas. There is, therefore, very little variance in this criterion. Guilford (1965) cites that "the size of r " (correlation) is very much dependent upon the variability of measured values in the correlated sample. The greater the variability, the higher the correlation will be, everything else being equal. Cascio (1991) also explains that "any predictor measure will be no better than the criterion used to establish its validity".

TABLE 6.3
MEANS AND STANDARD DEVIATIONS FOR THE AREAS MEASURED IN THE
CALL QUALITY SHEET SCORES (N=300)

Call Quality Sheet Score	Mean	SD	Min	Max
Total Score	91.03	18.34	0	100
Connect	93.62	16.99	0	100
Understand	96.09	13.82	10	100
Resolve	91.83	26.97	0	100
Exceed	89.01	20.27	0	100
Be Efficient	95.17	15.35	0	100
Wrap Up	98.50	6.29	50	100

As a result of the restriction of range in this criterion, it was decided it would not be technically feasible to include the call quality sheet scores in further analysis. However the incentive bonus as determined by the call quality score was still be used as criteria in further analysis.

TABLE 6.4
MEAN AND STANDARD DEVIATION OF THE INCENTIVE BONUS (N=300)

Incentive Bonus	Mean	SD	Min	Max
Bonus	3362.65	1404.21	-220.00	8459.11

6.2.2. Correlations

Coetzee (2003) reports that when considering the correlation between the independent variable (personality) and the dependent variable (work performance), the larger the magnitude of the correlation, the stronger the linear association. The standard correlation coefficient is Pearson's r , which applies primarily to variables distributed more or less along interval or ratio scales of measurement. However when one variable is measured on a continuous scale and one variable is measured as a dichotomy, the correlation produced is called the point biserial correlation. A dichotomised variable is a variable that has two or more levels for example gender could be male or female, race could be black or white. Although special formulae exist for calculating the point biserial correlation, the same results can be accomplished by just calculating the Pearson's correlation coefficient. The only difference is that the coefficient, is referred to as the Point biserial coefficient instead of the Pearson product coefficient, to point out the nature of the data on which it was computed (Howell, 1999).

6.2.2.1 Correlations between personality and work performance

Correlations between the incentive bonus (work performance) and each of the CCSQ competencies (personality) are presented in table 6.5.

TABLE 6.5
CORRELATION COEFFICIENTS BETWEEN PERSONALITY AND THE WORK PERFORMANCE

CCSQ COMPETENCIES	INCENTIVE BONUS
Relating To Customers	0.07
Convincing	0.03
Communicating Orally	-0.01
Communicating In Writing	0.13*
Team Working	0.07
Fact Finding	0.28**
Problem Solving	0.14*
Business Awareness	0.09

Specialist Knowledge	0.27**
Quality Orientation	0.26**
Organisation	0.24**
Reliability	0.29**
Customer Focus	0.14*
Resilient	0.08
Results Driven	0.04
Using Initiative	0.06

** indicates correlation coefficients with p values ≤ 0.01

* indicates correlation coefficients with p values ≤ 0.05

In table 6.5 it is indicated that low to moderate correlations are found between the CCSQ competencies and the incentive bonus. Fact finding, specialist knowledge, quality orientation, organisation and reliability correlated significantly with the incentive bonus.

6.2.2.2 The relationship between the moderator variables and work performance

In table 6.6 the moderator variables were correlated according to the Pearson product correlation, with work performance to identify any significant relationships. As discussed in paragraph 6.2.2. a normal Pearson product correlation was done.

TABLE 6.6
CORRELATIONS OF THE MODERATOR VARIABLES WITH WORK
PERFORMANCE

Moderator variable	TOTAL
Age	-.22**
Race	.06
Qualification	.03
Gender	-.02

** indicates correlation coefficients with p values ≤ 0.01

* indicates correlation coefficients with p values ≤ 0.05

From table 6.5 and table 6.6 it can be deduced that age had a significant negative correlation with the work performance. Based on this information it was decided to repeat a correlation study on between the personality and work performance, taking the effect of age out of the equation. Thus a partial correlation was done, and is described in table 6.7.

TABLE 6.7

PARTIAL CORRELATION OF PERSONALITY AND WORK PERFORMANCE

Age partialled out (N=280)	TOTAL
Relating to customers	.08
Convincing	-.02
Communicating orally	-.04
Communicating in writing	.08
Team working	.09
Fact finding	.26**
Problem solving	.13
Business awareness	.07
Specialist knowledge	.26**
Quality orientation	.26**
Organisation	.25**
Reliability	.28*
Customer focus	.16*
Resilient	.09
Results driven	.03
Using initiative	.04

** indicates correlation coefficients with p values ≤ 0.01

* indicates correlation coefficients with p values ≤ 0.05

It is important to note that the sample sizes between the normal correlation and partial correlation differs due to some candidates not completing their age group in the biodata.

6.2.3 Regression analyses

Concurrent validity is a type of criterion-validity that indicates the degree to which a new measure is related to current measures of the construct (Terre Blance & Durheim, 2002).

6.2.3.1. Multiple regression analysis with personality and work performance

To determine concurrent validity, regression analyses were performed using the incentive bonus as the dependent variable. This was done to determine the optimal formula that would explain the most variance of the respective competencies. A forward stepwise regression was performed to evaluate the contribution of the independent variables (see table 6.8). To obtain the results reported in table 6.8, the *F to enter* value was set to 1.

TABLE 6.8

INCENTIVE BONUS REGRESSED (STEPWISE) ON ALL THE COMPETENCIES

Competency	Parameter Estimate		Multiple R	Multiple R ²	p value
	b	Beta			
Intercept	1618.06				
Reliability	216.56	0.28	0.29	0.08	0.000
Specialist Knowledge	370.32	0.44	0.31	0.09	0.049
Problem Solving	-212.01	-0.29	0.34	0.11	0.0102
Organisation	-130.17	-0.17	0.35	0.12	0.155

A total of 12% of the variance of job success could be explained. The multiple correlation coefficient (R=0.35) obtained a moderate effect size, which should be visually observable.

6.2.3.2 Regression analysis with moderator variables and work performance

In the following regression analysis, the standard regression method was used to calculate the contribution of age to the regression after personality was entered.

The results are displayed in table 6.9. All the CCSQ competencies were entered into the regression analyses, and after that age was added. The purpose was to determine the variance caused by age.

TABLE 6.9
REGRESSION ANALYSIS TO DETERMINE THE EFFECT OF AGE ON WORK PERFORMANCE

Step	Multiple R	Multiple R-square	R-square change	F – to entr/rmove	p-level	Variables included
0	0.38	0.14				16
AGE 1	0.42	0.18	0.04	12.35	0.01	17

It was found that only 4% variance was explained by age as moderator variable, whereas the independent variable (personality) accounted for 14% of the variance.

6.3 CHAPTER SUMMARY

In this chapter results were discussed in terms of descriptive statistics, correlations and regression analyses.

CHAPTER 7

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

7.1 DISCUSSION AND CONCLUSION

In this study the CCSQ scales of fact finding, specialist knowledge, quality orientation, organisation and reliability appeared to be good predictors of work performance as expressed in competency terms (see table 5.2).

The fact-finding scale of the CCSQ7.2 relates to the extent to which an individual can retrieve relevant information, check facts and absorb key points. People with high scores on this scale, will be able to probe and seek out relevant information, notice gaps or changes in data and absorb and remember key facts. Personality traits that link into this scale include analytical thinking (problem solving) and detail consciousness. These traits are understood to be the most important for customer service roles where it is critical to establish that facts and ask the right questions in a short space of time. Furthermore people who enjoy working with detail will be able to spot important gaps or missing information in their knowledge and understanding (SHL, 1998). Other researchers have found problem-solving techniques essential for a call centre agent (Bagnara, Gabrielli & Martin, 2000; Malhotra & Mukherjee, 2003).

Specialist knowledge refers to the extent to which individuals have the knowledge, skills and expertise associated with their own product and service area, and the extent to which the individual keeps up to date with product advances. Due to the nature of the world of work, specialist knowledge will be different in each job. However, individuals with the personality trait of analytical thinking, and result orientated, are more likely to increase their knowledge in order to improve their performance. This concurs with the findings of Hough, Eaton, Dunnette, Kamp and Mcloy (1990), who found that achievement was one of the traits that positively predict work performance.

The quality orientation scale is concerned with the extent to which individuals

maintain and pay attention to the issues of quality and high standards. The most important personality traits contributing to this scale is the extent to which an individual prefers paying attention to detail and accuracy (detail consciousness), as well as the willingness to persevere and see something through (conscientiousness). Organisation is concerned with the extent to which individuals plan, organise and structure their time and activities. Typical personality traits that link to this scale are structured, conscientious and detailed conscious behaviours. The findings that quality orientation and organisation appear to be good predictors of the dependent variable in this study, correlate with the findings of Mascia, Marx and Arbix (2000), namely that the quality of service delivered in a customer focussed environment, cannot be separated from the “quality” of the people delivering this service. It furthermore correlates with the findings of Bagnara, Gabrielli and Martin (2000) that quality consciousness is one of the attributes required by an effective call centre agent.

The reliability scale refers the individual’s commitment and respect for the organisation and its procedures. Being punctual, following instructions and seeing task through, are particularly important for those individuals performing in a customer service role. Once again individuals who have the traits of conscientiousness, detail consciousness and structure, will score high on this scale. Reliability can also be seen as dependability, and previous research results by Hough et al., have also confirmed this as a valid predictor of job performance.

It is evident from the above that the personality traits of analytical thinking or problem solving, structuredness, conscientiousness and detail consciousness are good predictors of work performance in the customer care, more specifically the call centre, environment. Once again conscientiousness appears to be one of the most valid predictors of work performance, linking into all the above scales. In this regard, Salgado (1998), Hurtz and Donovan (2000), Barrick and Ryan (2003); Tett, Jackson and Rothstein (2003), also found that conscientiousness in general seems to be a good predictor of work performance, and across occupations.

Although moderator variables like sex, age and education need not bear any direct relationship to the independent or dependent variable, they do moderate the relationships between the dependent and independent variable. The only moderator variable found to make a significant contribution to this study was age. It was found that younger call centre agents performed better than the older agents.

In summary, if the statistically significant relationships are considered, there were four personality traits that show a significant relationship with work performance.

- 1) **Analytical thinking (Problem solving)** – the degree to which an individual enjoys using information, working with data, probing the facts and solving problems.
- 2) **Detail consciousness** – the extent to which individuals like to be accurate in their work, check details carefully and are neat and tidy.
- 3) **Conscientiousness** – An individuals willingness to persevere, keep firmly to deadlines and to see tasks through to completion.
- 4) **Structuredness** – the extent to which individuals plan ahead and how far they prepare, prioritise and structure their work.

Taking the research findings and literature presented into consideration, the null hypothesis is rejected based on the relationship found between personality traits and the work performance of call centre agents. The *H1* hypothesis, which stated that there is a significant relationship between the personality traits and work performance of call centre agents, can therefore be accepted.

7.2 LIMITATIONS

The researcher did experience some limitations to the study

1) Literature review

In respect of the literature review, very little information on the call center industry in South Africa could be found.

2) The measuring instrument for the dependent variable

As a result of the restriction of range in this criterion, it was decided it would not be technically feasible to include the call quality sheet scores in further analysis. Therefore only the incentive bonus could be used as a work performance criteria.

3) Sample

The conclusion cannot be generalised to the South African population due to the convenience sampling that only included individuals from the Gauteng region. Furthermore the study was only conducted within the business unit of one specific organisation.

4) Pre selection of candidates

Only employees that were already working at the medical insurance company for more than six months were included in this study.

Despite these limitations, it is the opinion of the researcher that this study adds to the research field and provides evidence that there is a relationship between the personality traits and work performance of call centre agents.

7.3 RECOMMENDATIONS

The following recommendations are given to researchers in this field.

- 1) Future research in this field should be supported by a sample in other business units and organisations, to enable more generalisable conclusions.
- 2) Future researchers may want to improve the measurement of the dependent variable, work performance, by finding more appropriate measuring instruments.
- 3) This research should be repeated in a similar environment, including ability tests and then studying the relationships and correlations when ability test scores are included.

7.4 CHAPTER SUMMARY

This chapter included the discussion and interpretation of the results and conclusions, limitations and recommendations against the backdrop of the literature presented in the previous chapters. It was found that there is a relationship between certain personality traits and the work performance of call centre agents.

REFERENCE LIST

Amaratunga, D. and Baldry, D. (2002). Moving from performance measurement to performance management. *Facilities (20)* 5/6, 217-223.

Anastasi, A. & Urbina, S. (1997). *Psychological testing* (7th ed.). Upper Saddle River, NJ: Prentice-Hall.

Bagnara, S., Gabrielli, F. & Martin, P. (2000). Human work in call centres. *Proceedings of the Human Factors and Ergonomics Society – Annual Meeting 1*, 553-557.

Barnard, P.C. (1987). *Persoonlikheid as determinant van werkprestasie*. Unpublished M.A Dissertation. UNISA: Pretoria.

Barrick, M.R. (2001). Personality testing, controversial no more. *4th Annual Industrial Psychology Conference, 7 June 2001*.

Barrick, M.R. & Mount, M.K. (1991). The big five personality dimension and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1-26.

Barrick, M.R. & Ryan, A.M. (2003). *Personality and work: Reconsidering the role of personality in organisations*. Pfeiffer: John Wiley and Sons.

Bergh Z.C & Theron, A.L. (2003), *Psychology in the work context* (2nd Ed.). Cape Town: Oxford University Press.

Cascio, W.F. (1991). *Applied psychology in Personnel Management*. Englewood Cliffs: Prentice-Hall.

Carver ,C.S. & Scheier, M.F. (1996). *Perspectives of personality*. (3rd ed). Boston: Allyn & Bacon.

Chatman, J.A., Caldwell., D.F. & O'Reilly, C.A. (1999). Managerial personality and performance: A semi-idiographic approach. *Journal of Research and Personality*, 33(4), 514 – 545.

Christensen, L.B. (1985). *Experimental Methodology* (3rd Ed.). Boston: Allyn and Bacon.

Coetzee, O. (2003). *The relationship between personality variables and work performance of credit controllers in a bank*. Pretoria: UNISA

Doman, F. (2000). *Die verband tussen persoonlikheid en toesighouersukses in die suiwelbedryf*. Unpublished Mcom dissertation. UNISA: Pretoria.

Eyeretel Client Education Manual, 2001.

Frei, R.L. & McDaniel, M.A. (1997). Validity of customer service measures in personnel selection: a review of criterion and construct evidence. *Human Performance*, 11, 1-27.

Furnham, A. (1997). *The psychology of behaviour at work: the individual in the organisation*. Hove East sussex: Psychology Press.

Ghiselli, E.E. (1973). The validity of aptitude tests in personnel selection. *Personnel psychology*, 26, 461-477.

Gregory, R.J. (1996). *Psychological testing: history, principles, and applications*. (2nd ed). Boston: Allyn & Bacon.

Goldberg, L.R. (1990) An alternative description of personality: The Big Five structure. *Journal of Personality and Social Psychology*, 59(6), 1216 – 1229.

Guilford, J.P. (1965). *Fundamental Statistics in Psychology and Education*. (4th ed). New York: McGraw-Hill.

Guion, R.M. & Gottier, R.F. (1965) Validity of personalty measures in personnel selection. *Personnel Psychology*, 18, 135 – 164.

Gulliford, R.A. (1991). The Role of Personality is Assessing Management Potential. *Personnel Review*, 20(1), 25 – 32.

Halr, J.F., Anderson, R.E. Tatham, R.L. & Black, W.C. (1995) *Multivariate data analysis with readings* (4th ed.). Prentice Hall: Englewood Cliffs.

Heffner, C.L. (2002). *Personality theories*. Retrieved 1 April 2005 from the World Wide Web: <http://www.apa.com>

Hough, L.M., Eaton, N.K., Dunnette, M.D., Kamp, J.D., & McCloy, R.A. (1990). Criterion-related validities of personality constructs and the effect of distortion on those validities. *Journal of applied psychology* 75 (5), 581 – 595.

Howell, D.C. (1999). *Fundamental Statistics for the behavioural sciences*. (4th Ed). USA: Brooks/Cole Publishing Company.

Hurtz, G.M. & Donovan, J.J. (2000). Peronality and job performance: The Big Five revisted. *Journal of Applied Psychology*, 85, 869-879.

Income Data Services Survey. (1999). *Education and Training* 41 (1), 50-51.

Ivanchevich, J.M. & Matteson, M.T. (1996). *Organisational Behaviour and Management*. (4th Ed.) Chicago: Irwin.

Kaplan, R.S & Norton, D.P. (1996). *Translating strategy into action: The balanced scorecard*. United States of America: President and Fellows of Havard College.

Kichuk, S.L. & Wiesner, W.H. (1997). The Big Five personality factors and team performance; implications for selecting successful product design teams. *Journal of Engineering and Technology management*, 14, 1995 – 221.

Kierstead, J. (1998). Personality and job performance: a research overview. Retrieved on 2 June 2003 from the World Wide Web: <http://www.psc.cfp.gc.ca>

Leedy, P.D. (1993). *Practical Research: Planning and design*. New York: Macmillan Publishing.

Lewis, P.S., Goodman, S.H. & Fandt, P.M. (1998). *Management challenges in the 21st Century*. Cincinnati: South –Western College Publishing.

Locke, E.A. & Hulin, C.L. (1962). A review and evaluation of validity studies of vector analysis. *Personnel Psychology*, 15, 25 –42.

Maddi, S.R. (1996). *Personality theories: A comprehensive analysis*. (6th ed). Pacific Grove: Brooks Publishing Company.

Malhotra, N. & Mukherjee, A. (2003). The relative influence of organisational commitment and job satisfaction on quality of customer contact employees in banking call centres. *Journal of Service Marketing*, 18(3), 162-174.

Mascia, F.L., Marx, R. & Arbix, G. (2000). Old paradigms for new job in call centres. *Proceedings of the Human Factors and Ergonomics Society – Annual Meeting 2*, 543-547.

Matheson, L.N. (2005). *Work Performance Clinical Laboratory*. Retrieved on 24 March 2005, from the World Wide Web: <http://www.ot.wustl.edu.com>

McCrae, R.R. & Costa, P.T (1989). Reinterpreting the MBTI from the perspective of the Five-Factor model of Personality. *Journal of personality*, 57, 17 -40.

Meyer, W.F., Moore, C. & Viljoen, H.G. (1988) *Personality theories – from Freud to Frankl*. Johannesburg: Lexikon.

Minty, H. & Bennett, K. (2001). Performance Management in the Age of Participation. *People Dynamics*, May 2001, 20-23.

Mischel, W. (1968). *Personality assessment*. New York: Wiley Publishers.

Mouton, J. (2001). *How to succeed in your Master's and Doctoral Studies*. Pretoria: Van Schaik.

Mouton, J. & Marais, H.C. (1994). *Basic concepts in the methodology of the social sciences*. Pretoria: HSRC.

Moy, J.W. & Lam, K.F. (2004). Selection criteria and the impact of personality on getting hired. *Personnel review*, 33(5), 521-535.

Murphy, K.R. (2002). Impact of assessments of validity generalisation and situational specificity the science and practice of personnel selection. *International journal of Selection and Assessment*, 8, 194 –215.

Murphy, K.R. & Davidshofer, C.O. (2004). *Psychological testing – Principles and applications* (3rd Ed). New Jersey: Prentice Hall, Englewood Cliffs.

O'Reilly, C.A., Chatman, J.A. & Caldwell, D.F. (1991) People and organization culture: a profile comparison approach to assessing the person-organisation fit. *Academy of Management Journal*, 34, 487 – 516.

Ones, D.S. & Viswesvaran, C. (1996). Bandwidth delimitation dilemma on personality measurement for personnel selection. *Journal of Organisational Behaviour*, 17, 609 – 626.

Paunonen, S.V. , Rothstein, M.C. & Jackson, D.N. (1999). Narrow reasoning about the use of broad personality measures for personnel selection. *Journal of organisational psychology*, 20, 389 – 416.

Pervin, L.A & John, P.J. (1997). *Personality: theory and research*. (7th ed). New York: Wiley.

Pickett, L (2000) People make the difference. *Industrial and commercial training* 32 (6), 225-229.

Psychological Society of South Africa (Society for Industrial Psychology). (1998). *Guidelines for the validation and use of assessment procedures for the workplace*. Auckland Park: Author.

Psychological Society of South Africa. (1996) *Ethical Code for psychologists*. Pretoria: Author.

Read, B.B. (2001). *Designing the best call centre for your business: a complete guide for location, services, staffing and outsourcing*. San Francisco: Calif.

Robbins, S.R. (1998). *Organisational Behaviour: Concepts, controversies and applications*. New Jersey: Upper Saddle River,

Robertson, I.T. & Smith, M. (2001). Personnel selection. *Journal of Occupational and Organisational Psychology*, 74(4), 441-473.

Salgado, J.F. (1998). Big Five personality dimensions and job performance in army and civil occupations: a European perspective. *Human Performance*, 77, 266.

Salgado, J.F. (2003). Predicting job performance using FFM and non-FFM personality measures. *Journal of Occupational and Organisational Psychology*, 76 (3), 323-338.

Sardana, G.D. & Vrat, R. (1987). A model for productivity measurement in a multiproduct organization using programming and multiattribute utility theory. *Productivity Management Frontiers*, 3548.

Saville, P. , Cramp, L. & Henley, S. (1995). *OPQ Course handbook*. Thames Ditton: Saville & Holdsworth.

Schmidt, F.L. & Hunter, J.E. (1977). Development of a general solution to the problem of validity generalization. *Journal of Applied Psychology*, 62, 529 – 540.

SHL (1998). *Customer Contact Competency Inventory User Manual*. London: SHL.

SHL (1999). *Best Practice in occupational assessment*. Groenkloof: SHL.

SHL (1999). *OPQ Course notes*. Surrey: Author.

SHL (2004). *Occupational Personality Questionnaires: Access Personality*. Groenkloof: SHL.

Society for Industrial Psychology. (1998). *Guidelines for the validation and use of assessment procedures for the workplace*. Retrieved on 14 September 2004 from the World Wide Web: <http://www.psussa.co.za>

Tangen, S. (2004). Performance Measurement: From philosophy to practice. *International Journal of Productivity and Performance Management*, 53(8), 726-737.

Terre Blance, M. & Durheim, K. (2002) *Research in practice: Applied methods for the social sciences*. Cape Town: University of Cape Town Press.

Tett, R, Jackson, D.N & Rothstein, M. (1991). Personality Measures as predictors of Job Performance: A Meta- analytic review. *Personnel Psychology*, 44, 703 – 739.

Tett, R. P., Steele, J. R. & Beaugard, R.S. (2003). Broad and narrow measures on both sides of the personality-job performance relationship. *Journal of organizational behaviour*, 24(3), 335.

Thomas, B.E. & Baron, J.P (1994). Evaluating knowledge worker productivity: Literature review. *USACERL Interim Report*. Retrieved on 10 June 2005 from the World Wide Web: <http://www.cecer.army.mil>

www.discovery.co.za

APPENDIX A

Call Quality Assessment		-	-
	<i>Mem./Pr.No.:</i>	<i>Date:</i>	
		<i>Time:</i>	
<u>Call Quality Indicators</u>	Call 1 <u>Assessor's Remarks</u>	Call 1 <u>Classification</u>	1 <u>Score</u>
QUALIFIERS		0%	0
Integrity	This covers any situation that the assessor, Team Leader, Manager and Service Excellence Manager unanimously agree is unacceptable behavior by the consultant during a call. eg. Dropping of call , rudeness etc.	Yes	100%
Confidentiality	Get the callers details , and adhere to confidentiality protocols	Yes	100%
Behave efficiently	Do not have the caller on unnecessary hold. Have justified hold times.	Yes	100%
Real time resolution	Ensure first time resolution.Gives accurate information and follows the process appropriately	Yes	100%
		<u>Classification</u>	<u>Score</u>
Connect		17%	100%
Greet	Consultant greeted the caller in a friendly and helpful manner. "Good day you are speaking to....., how can I assist you" "Good morning this is how can I help you	Yes	6%
Meet	Did the consultant acknowledge the members language and background and adjusted his tone , pace and level of communication appropriately. ensure at all time that the caller feels comfortable with the conversation at hand	Yes	6%
Maintain	The consultant maintained his level of communication, pace throughout the call. He did not interrupt the caller and reflected genuine interest in resolving the callers issue. say please when asking for information, thank you when getting information	Yes	9%
Use of ordinary Words	Consultant does not use jargon or overuse slang	Yes	8%
Understand		17%	100%
Listen	Consultant paying attention , listening to what the callers is saying. Using confirmation of listening skills eg Repeating info given. Acknowledgement by using phrases eg. Yes, I understand,ok etc.	Yes	8%
Understanding	Get to the real underlying problem. Ensure that you understand the caller by	Yes	8%

	Using appropriate questioning techniques. Eg Mr Dlainini , do I understand your concern correctly....?		
Empathy	Consultant openly display empathy. e.g.. I can understand why you are frustrated I am sorry for your loss	Yes	5%
Resolve		17%	100%
Own the contact	Do not lay blame	Yes	8%
Loading of information	Load interactions . Loaded an interaction whereby you can determine what the call was about	Yes	17%
Keep in touch	Get back to your client if the query has not yet been resolved Use the SMS or E-mail notification facility on Gateway Make a call back if you promised to do so	Yes	8%
Exceed		17%	100%
Promoting solutions	Offer caller alternative options e.g.. Discovery world , Fact File, Health Style Portfolio	Yes	8%
Update information	Verify contact details , update CRM flags	Yes	8%
Turn around times	Give caller sla for resolution and ensure you maintain and exceed them. Follow up	Yes	8%
Pro Active	Give all relevant information to avoid future call back. Be pro active and address all other	Yes	8%
Comprehensive	Give comprehensive information to ensure the caller has a full understanding and get all the information	Yes	17%
Be efficient		17%	100%
Respond promptly	Avoid silences, always keep the caller in the loop on what you are doing and how long it will be	Yes	17%
Wrap up		17%	100%
Ask your Client	Have I fully resolved your enquiry? May I help you with anything else?	Yes	4%
A warm good bye	Thank you for calling goodbye Enjoy the rest of your day , bye It has been nice speaking to you , bye.	Yes	8%
		Call Score	100.00%