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**A STUDY OF FUND ADMINISTRATORS' JOB PERFORMANCE
IN A FINANCIAL INSTITUTION**

By

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DEDICATION

This thesis is dedicated to the many important, influential and wonderful people in my life. In no particular order...

To Dr Martin Birt, my supervisor,
for his wisdom, advice and 'unflappability'

To my colleagues at SHL, especially, Johan Struwig and Tina Joubert
for their continual input and valuable work experience

To my Mom, Dad, Robs, family and friends,
whom I love and treasure very dearly,
for your continued moral support and encouragement

To my husband Jeremy Ambor for his unvarying love,
support, patience and just 'being there' for me

A big thank you to you all

Kim

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EXECUTIVE SUMMARY

A STUDY OF FUND ADMINISTRATORS' JOB PERFORMANCE IN A FINANCIAL INSTITUTION

The purpose of this exploratory study was to investigate whether the nine factors identified in the literature (which purportedly influence overall job performance) were applicable to the role of Fund Administrators within an insurance company.

The sample group consisted of 107 Fund Administrators within the Employee Benefits division of one of the largest insurance companies in South Africa. Five instruments were chosen in order to try and account for the nine identified dimensions of job performance.

The five instruments used to establish whether it is possible to predict the job performance of the Fund Administrators were: an occupational personality questionnaire, a job satisfaction survey and biographical information. Job performance was measured by a job analysis based criterion-related questionnaire and Company X's internal performance appraisal results.

The overall finding of this study was that the Occupational Personality Questionnaire was able to predict the research sample of Fund Administrators' job performance by 28%, the Job Satisfaction Survey contributed 11%, whilst biographical information accounted for just 1%. Thus, the researcher was able to predict the Fund Administrators' job performance by 40%.

The results of this study may be applicable to other insurance companies employing Fund Administrators, as well as possibly benefiting other organisations employing people doing a job with the same set of competencies as those of a Fund Administrator identified within this study.

The present study can also contribute to knowledge of the predictive power of occupational personality questionnaires (and to a minimal extent, biographical information) for future selection situations. Unfortunately, as the JSS is a retrospective instrument, it cannot be used as a selection instrument.

Based on the results of the research study, further research is recommended which should include larger and more diverse representative samples. This study could also be used as a model for a more intensive investigation. Furthermore, there is great scope for future research to ascertain the relationship/s between the antecedents of job performance themselves, as well as in relation to job performance.

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CHAPTER 1

INTRODUCTION TO THE STUDY

1.1 Introduction

The realm of job performance is recognised as being both complex and multidimensional, partly as it is influenced and affected by many antecedents. Within the workplace environment, it has been recommended that organisations which aim to identify the more successful and effective performers, make use of valid psychometric assessment instruments in their selection procedures. Research has shown that a battery of valid and reliable psychometric instruments can predict job performance better than other single selection measures, such as structured and unstructured interviews (Hunter & Schmidt, 1998).

As a means of predicting job performance, occupationally based personality questionnaires and other psychometric assessment instruments have been receiving renewed attention in South Africa, especially in light of the new labour laws. The Employment Equity Act (No. 55 of 1998) dictates that all psychological instruments used for assessment purposes be valid and reliable.

Within the workplace, there are numerous factors which can affect the job performance and productivity of employees. This poses the question of whether it is of any research value to try and establish the potential effectiveness of an individual's job performance within the role/s that he/she performs within the organisation.

By gaining a great understanding of what makes some people better or poorer performers than others, can aid organisations in (a) initially recruiting and hiring more effective and productive workers (b) adapting, initiating or implementing organisation-wide policies or procedures to accommodate their employees and (c) improving or enhancing their employees' training and development, personal development and career development plans.

1.2 Statement of the problem

The costs of recruiting and selecting (potentially) more effective job incumbents in the South African market place tend to be quite high (Dalessio & Silverhart, 1994). Organisations who make incorrect hiring decisions, may find themselves incurring very high costs either in trying to retrain the poor performing employees, or undertaking corrective action (not to mention possible hidden costs and legal fees). This affects both the employer and the employee.

Therefore, if organisations understand the factors that influence the job performance of individuals, and assess the job incumbents using valid assessment instruments, they can reduce their hiring (and possible further hidden) costs and simultaneously recruit more effective and successful workers.

This study will focus on the job performance of Fund Administrators within an insurance company. It also aims to determine whether a personality questionnaire and other assessment instruments are accurate predictors of job performance. This will enable the researcher to assess, albeit via the relatively small sample size, the contribution of the chosen instruments within the South African insurance industry. It will further aid the organisation used in the study to select individuals in future selection procedures, who are likely to perform more effectively on the job.

1.3 Context of the research

Company X, one of South Africa's largest insurance companies, currently employs approximately 170 Fund Administrators in the Employee Benefits division at its Western Cape Head Office. The scope of the Fund Administrator's role has changed considerably over the past few years. What was once a very administration intensive and more 'solitary' position, has had to adapt in order to cope with the ever-changing needs of the market.

Within their role, the Fund Administrator is currently required to be more client orientated, requiring strong interpersonal skills, whilst still working steadily and

conscientiously in order to meet demanding processing deadlines. The focus of the role of a Fund Administrator, whilst not detracting from the importance of the work related tasks necessary for effective on the job performance, has shifted to also take personality factors into consideration.

The aim of this study, therefore, is to establish whether it is possible to predict the job performance of the Fund Administrators using an occupational personality questionnaire, a job satisfaction survey and biographical information. Job performance was measured by a job analysis based criterion-related questionnaire and Company X's internal performance appraisal results.

1.4 Scope of the study

The five instruments used in this study were correlated in various combinations with each other in order to determine possible relationships and linkages. The Occupation Personality Questionnaire Concept Model 4.2 (OPQ) was correlated with the results from the job analysis based criterion-related questionnaire (CRQ) and Company X's internal performance appraisal results (PAR). The Job Satisfaction Survey (JSS) was correlated with the (CRQ). The Fund Administrators' biographical information (BIO) was correlated with the CRQ and the PAR. The CRQ was correlated with the PAR.

1.5 Research objectives

The goal of this research is to determine whether there are certain antecedents that predict the job performance of Fund Administrators within an insurance company.

1.6 Rationale for the study

The world of work is rapidly changing, as are the demands being placed on people doing specific jobs. Organisations like Company X, are aware that more productive and higher performing workers are likely to add more value (and may possibly bring in more revenue) to the organisation. The rationale of this study, therefore, is to determine whether there are specific variables that

can be identified as having a more positive impact on the successful job performance of Fund Administrators.

1.7 Method of investigation

Approximately 170 Fund Administrators within Company X completed the Occupational Personality Questionnaire Concept Model 4.2 (OPQ) and a biographical questionnaire between April and August 2000. The results of which were recorded on a database within Company X.

The job analysis based criterion-related questionnaire was later developed in order to assess the job performance of the Fund Administrators. After a comprehensive debriefing session, the managers of 107 Fund Administrators were then asked to objectively complete the 48 item criterion-related questionnaire on their subordinate's job performance.

Due to the natural attrition since the beginning of the research project, and movement within the Employee Benefits department, and Company X itself, a total of 81 Fund Administrators anonymously completed the Job Satisfaction Surveys in March 2002, in order to assess their satisfaction regarding the nine factors of the Job Satisfaction Survey.

The results from Company X's annual internal performance appraisal results from September 2001 were also used in the study as it was believed to add a greater contribution to the overall results.

A forward stepwise regression analysis was then conducted in order to assess the predictive validity of the Occupational Personality Questionnaire on the Fund Administrators' job performance. The three significant personality scales emanating from the stepwise regression were then inputted into a standard multiple regression analysis, together with the Job Satisfaction Survey and biographical information in order to derive a possible total prediction of the Fund Administrators' job performance.

1.8 Overview of the study

The following chapter forms the literature discussion of the study. Chapter 3 outlines the research design and methodology, followed by Chapter 4 which reports on the results found in the study. Chapter 5 explains the interpretations of the research findings and Chapter 6 is the concluding chapter to this study.

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CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Job performance has been recognised as being a complex and multidimensional phenomenon representing a set of behaviours that is relevant to the goals of the job and/or the organisation, (e.g., Astin, 1964; Conway, 1996, 1999; Murphy, 1989, 1996; as cited in Fetzer, Fortunato, Kudisch & Eidson, 2001; Borman, Hanson, & Hedge, 1997, Campbell, 1990a, McCloy, Campbell & Cudeck, 1994, Murphy & Shiarella, 1997) as well as being a central construct in Industrial/Organisational psychology (Austin & Villanova, 1992, Bommer, Johnson, Rich, Podsakoff & MacKenzie, 1995, as cited in Welbourne, Johnson & Erez, 1997, Campbell, 1990a, Murphy & Cleveland, 1995, Schmidt & Hunter, 1992, as cited in Viswesvaran & Ones, 2000b, Tubre, Winfred, Paul & Bennett, 1996).

Campbell, Gasser and Oswald (1996) stated that even though job performance was used frequently in the Industrial/Organisational psychology literature, it was not until recently properly explicated or even defined. They added, however, that to not have a conceptual construction of performance is to adopt an extreme logical positivist view of the worst kind - that performance is whatever a 'criterion' measures. It is therefore imperative to define job performance.

2.2 Definitions of job performance

Austin and Villanova (1992, as cited in Stewart, 1999) defined job performance as a composite construct that requires successful employees to engage in a variety of behaviours (although they did not define what they meant by 'successful' employees).

Ones and Viswesvaran (1996, as cited in Stewart, 1999) viewed it as a broad, multiple-act criterion that is an aggregation of narrowly defined behaviours. Kurz and Bartram (2000) refined this line of thinking further, when they described job performance as choreographed sequences of behaviours that have a function and purpose.

Murphy & Shiarella (1997:823) defined job performance as 'a composite of multiple performance measures, such as individual job task performance and organisational citizenship behaviours.'

Meyer et al. (1989; Steers, 1977, as cited in Siders, Gerard & Dharwadkar, 2001) conceptualised job performance as consisting of an individual's overall performance/ task proficiency or as performance on specific dimensions, such as the quality and quantity of work.

Viswesvaran and Ones (2000b:216) referred to job performance as 'scalable actions, behaviour and outcomes that employees engage in or bring about that are linked with and contribute to organisational goals.'

Viswesvaran and Ones (2000b) further added that job performance is an abstract construct, which they felt implied two characteristics: firstly, one cannot point to something physical and concrete and declare that 'it' is job performance - one can only point out the manifestations of this construct. Secondly, many manifestations could indicate job performance, but the manifestations could change from job to job.

It is interesting to note how authors such as Austin and Villanova (1992, as cited in Stewart, 1999) and Ones and Viswesvaran (1996, as cited in Stewart, 1999) use the terms 'construct' and 'criterion' so interchangeably when pertaining to job performance. This gives an impression that various authors in the literature have differing views regarding the definition and concept of job performance.

From the multiplicity of the above definitions, the literature seems to suggest that a job, per se, consists of a number of logically related tasks, the completion of which, represents job performance. Thus, whilst it has typically been assumed that what constitutes performance differs from job to job (Tubre et al., 1996), the efficiency of such task completion is deemed as a measure of high or low (good or poor) job performance.

In order to derive the logically related tasks, a thorough and objective job analysis must be conducted. From the job analysis a more objective job description and person specification can be obtained, thus taking some of the

subjectivity out of the performance assessment. It can also provide a more objective basis for the assessment of job performance.

The literature further seems to imply that the execution of tasks in a job requires certain behaviours from the job holder. However, the identification of these behaviours (and their causal links) may be problematic, as a standard against which those behaviours can be compared would need to be established. Furthermore, some decisions would also need to be taken on whether the performance is good, poor or average. A further issue arises of which antecedents cause those behaviours, and that is one of the focal areas of this research.

Another area of confusion that seems to be appearing in the literature, is the debate surrounding what should be measured and measurement itself. This may be as a result of trying to get the behaviours thought needed to be measured, into categories, or to have more generalisable categories. Due to the differences of opinions regarding the broader category, researchers have used countless numbers of measures as indicators of job performance (Tubre et al., 1996).

This prompts the question of whether the concept of job performance should then be split between those behaviours which allow the conclusion to be drawn that one person's job performance is better than another's.

It appears that the literature seems to confuse the term job performance, and uses the different aspects of job performance to mean one thing in one context, and something completely different in another context.

These contentions further illustrate that job performance is indeed a multifaceted concept, yet it is hoped that this intricate web will be unravelled by the end of this chapter to reveal the factors that are believed to contribute, constitute and influence it.

2.3 Job performance in the Industrial /Organisational psychology literature

Despite the fact that job performance is possibly the most important construct in Industrial / Organisational psychology and Human Resource Management, relatively little is known about the existing, yet invisible structure of performance (Tubre et al.1996). Campbell et al. (1992) noted that performance as a construct has received very little research or theoretical attention for two reasons. Firstly, the independent variable seems to generate the most scientific interest, and secondly, there are strong and stereotypical assumptions surrounding the definition.

In order to understand the total construct of job performance, Viswesvaran and Ones (2000b) described four approaches which researchers have used either singularly or in combination in order to determine what constitutes job performance.

2.4 Four approaches used to deconstruct the concept of job performance

The first approach which researchers have utilised is to review job performance measures used in different contexts and then tried to synthesize which dimensions make up the job performance construct. The problem with this rational method is that it is likely to be influenced by the focus and interests (and possible biases) of the researchers (Viswesvaran & Ones, 2000b). Unfortunately, Viswesvaran & Ones (2000b) did not explain whether the 'job performance measures' relate to measures of what behaviours are necessary to complete the tasks or whether they are measures of how effectively the tasks are carried out.

In the second approach and by means of a job analysis, researchers have used standard analytic techniques to determine what makes up job performance. Often, however, the performance dimensions used in job analysis have differed from those obtained using other empirical methods (Welbourne, Johnson & Erez, 1997).

Thirdly, researchers (such as Lance, Teachout & Donnelly, 1992, as cited in Viswesvaran & Ones, 2000b) have developed measures of hypothesized dimensions of job performance, collected data on these measures and then factor analysed the data. Whilst this is the most direct and empirical way of assessing the dimensionality of the performance domain, it is potentially limited by the number and type of measures included in the data collection phase (Viswesvaran & Ones, 2000b).

Lastly, researchers (such as Welbourne et al., 1997) invoked organisational theories to define what the content of the job performance construct should be. As an example, Welbourne et al. (1997) used role theory and identity theory to explain the construct of job performance.

Murphy and Shiarella (1997) stressed that job performance is not a simple or unitary phenomenon, and models that treat 'performance' as a single entity without considering how the different facets of this complex construct are combined, can present a misleading picture.

Thus, using a singular method, or combination, researchers have developed several models of job performance (Viswesvaran & Ones, 2000b). Three of the most prominent models (Tubre et al., 1996, Pulakos et al., 1999, Poropat, n.d., Murphy & Shiarella, 1997, Hilliard, 1999,) will be discussed after a brief overview of the development of job performance models.

2.5 Development of models of job performance

Viswesvaran (1993, as cited in Tubre et al., 1996) noted that the literature examining the structure of job performance is fragmented and incomplete. Looking back half a century to the 1950's, there was a tendency to analyse the job into its important components, focusing heavily on task requirements and preparing a separate scale for each component. An individual's final rating was taken as the average or sum of the ratings on these specific aspects of work (Ghiselli & Brown, 1955). This is a further example in the literature where there is a mixing of performance behaviours and performance measurement.

However, with the emergence of literature on expectancy theory, many researchers began to focus on measures that reflected the effort expenditure and productivity of workers (Viswesvaran, 1993, as cited in Tubre et al., 1996). In the 1970's and 1980's, research on prosocial and organisational citizenship behaviours proliferated (e.g., Bateman & Organ, 1983) which resulted in the introduction of a variety of criterion measures such as teamwork and altruism.

Finally, in recent years, the impact of counterproductive behaviour in the workplace has been extensively studied (e.g., Collins, 1996; Ones, Viswesvaran & Schmidt, 1993, as cited in Tubre et al., 1996) and has yielded a number of criterion measures relating to honesty and integrity in the workplace.

A review of the literature pertaining to job performance and the workplace seems to suggest that there is confusion between (a) performance as a set of behaviours, (b) performance as a set of psychological factors needed to produce particular behaviours and (c) performance as a judgement of effectiveness and/or efficiency of displayed behaviours.

This issue filters through to the three models of job performance discussed below. A means to clarify the confusion between the behaviours necessary to do the job and the measurement of that performance would be to conduct a structured and thorough job analysis. An analysis of the job, per se, may also lead to further identification of the antecedents of job performance. This will be discussed after the current models of job performance.

2.6 Current models of job performance

Although multidimensional models of performance that include job and non-job dimensions have been introduced, they lack a unifying theoretical framework (Borman & Motowidlo, 1993, Campbell, 1990a, Borman & Motowidlo, 1997; Motowidlo & Van Scotter, 1994).

Campbell (1990a: 740) commented that 'We essentially have no theories of performance...' and that 'the literature pertaining to the structure and content

of performance is a virtual desert.' Campbell (1990a) subsequently developed his own model of job performance which will be discussed further on.

Binning and Barrett (1989, as cited in Viswesvaran & Ones, 2000b) noted that models that aim to uncover dimensions of job performance can differ at different levels of breadth or generality. Some of these differences can be seen via the three varying models of performance developed independently by Campbell, Viswesvaran and Borman and Motowidlo, and which are duly discussed below.

2.6.1 Campbell's model of job performance

Campbell et al's. (1993) fundamental view of job performance is that it is synonymous with behaviour. They explained that performance is what people do that can be observed and which can be measured in terms of each individual's proficiency or level of contribution. 'Performance is not the consequence(s) or result(s) of action; it is the action itself' (Campbell, 1990a: 704). Guion (1993) however, disagreed with Campbell et al's viewpoint and retorted that organisations do not hire people to behave, they hire them to perform.

2.6.1.1 The eight components of job performance

Campbell (1990a) postulated that the multiple dimensions that make up job performance manifest themselves in the form of critical incidents analyses, task analyses and other job analyses. His model posited that there are eight general factors of performance, some subset of which can describe the highest order latent variables for every job in the occupational domain.

Campbell et al. (1996) further added that the eight components do not represent orthogonal factors of job performance. Furthermore, not all of the components are necessarily present in or relevant to every job, nor are they the final word in defining the performance domain (Motowidlo & Van Scotter, 1994). They do however, account for identifying most of the behaviours needed to complete the job tasks (Campbell et al., 1996).

A critique of the model can be made to address the issue that it is not stated on what basis the components are measured. It appears that the model is

attempting to identify behaviours needed to complete the tasks. The argument is then additionally supported for the need to distinguish between what is job performance (i.e. what is needed to perform the job) and how to measure job performance.

In this study a criterion-related questionnaire and Company X's internal performance appraisal forms were used as vehicles to assess the performance of the Fund Administrators. The design of the criterion-related questionnaire is structured to identify the critical or essential components of the job, as well as to assess the Fund Administrators' proficiency of the completion thereof.

Before a detailed discussion regarding the taxonomy is presented, it is prudent to outline the eight major performance components of Campbell et al's (1992) model.

2.6.1.1.1 Job-specific task proficiency: which reflects the degree to which the individual can perform the core substantive or technical tasks that are central to the job.

2.6.1.1.2 Non-job-specific-task proficiency: which reflects the situation that in many organisations individuals are required to perform tasks that are not specific to their particular job.

2.6.1.1.3 Written and oral communication: which reflects the required proficiency individuals need to write or speak, independent of the correctness of the subject matter and is a critical component of performance.

2.6.1.1.4 Demonstrating effort: which reflects the consistency of an individual's effort on a daily basis, their levels of commitment and tenacity.

2.6.1.1.5 Maintaining personal discipline: which is characterised by the degree to which negative behaviour, such as alcohol, substance abuse at work, rule infractions and the like, are avoided.

2.6.1.1.6 Maintaining peer and team performance: which reflects the degree to which the individual supports his/her peers, helps with personal problems and is group goal orientated.

2.6.1.1.7 Supervision and leadership: which includes all the behaviours directed at influencing the performance of subordinates through face-to-face interpersonal interaction and influence.

2.6.1.1.8 Management and administration: which includes the major elements in management that are distinct from direct supervision, such as the articulation of group goals, organising people and resources, helping others, goal attainment and representing others.

Since the development of the initial performance taxonomy, additional substantive specifications for performance have been offered by several authors (such as Borman and Motowidlo, 1993; Ilgen and Hollenbeck, 1991; Murphy, 1989; Organ, 1997 as cited in Pulakos, et al. 1999).

Campbell (1996) responded by saying that the performance factors suggested by these authors could be easily integrated as sub-factors into the eight-component taxonomy, forming a latent structure of performance.

Campbell (1999, as cited in Pulakos, et al. 1999) later added that an important performance component not included in the original model, that would be a genuine addition to the taxonomy, is one dealing with how well individuals adapt to new conditions or job requirements. The concept of adding 'adaptability' to the model again emphasises the importance of linking personality aspects to the concept of job performance.

Whilst researchers such as McManus and Kelly (1999) felt that Campbell's model brought out an important distinction between behaviours that contribute to the organisation because they involve task proficiency, and behaviours that contribute to the organisation in some other way, there has been some criticism against the model, briefly outlined below.

2.6.1.2 Critique of the model

Campbell et al. (1993) do not seem to distinguish between performance in the job and the variables or constructs needed to display the performance. By way of example, the job-specific and non-job-specific-task proficiency refer to the tasks relating to a job, whereas the other six taxonomy components refer

to person specific items, or the abilities needed to do a job proficiently. The above-mentioned abilities are job specific in varying degrees for various jobs, but they are needed to perform the job-specific and non-job-specific tasks.

A second critique of the model is that it is not stated on what basis the factors/abilities are measured. The argument is then additionally supported for the need to distinguish between what is job performance (i.e. what is needed to perform the job) and how to measure job performance. Robertson & Smith (2001) iterated that there is a long way to go before research provides a common set of variables underlying work performance. Some of the difficulty, however, may lie in deficiencies in the scales used to measure work performance (Arvey & Murphy, 1998).

2.6.2 Viswesvaran's model of job performance

Viswesvaran and Ones (2000b) explained that the structure of job performance could be conceptualised as a hierarchy with the general factor at the apex and various dimensions at the lower levels. Each dimension, in turn, can be broken down into further sub-divisions.

Viswesvaran and Ones (2000b) added that because each dimension of overall job performance is complexly determined, it is consequently impossible to specify a sole cause or antecedent of a particular dimension of job performance.

In order to derive his model of job performance, Viswesvaran (1993, as cited in Viswesvaran & Ones, 2000b) used a lexical hypothesis approach. He listed 486 job performance measure descriptions used in published articles over the years. Two raters, working independently then derived ten dimensions by grouping conceptually similar measures.

The ten dimensions are: overall job performance, job performance or productivity, effort, job knowledge, interpersonal competence, administrative competence, quality, communication competence, leadership and compliance with rules (Viswesvaran & Ones, 2000b).

These dimensions provide a useful set of criteria for characterising the various ways in which individuals can be judged to be 'effective' at work (Kurz & Bartram, 2000). The ten dimensions (Viswesvaran & Ones, 2000b) are briefly explained below

2.6.2.1 The ten dimensions of job performance

1. **Overall job performance:** is the sum of all individual dimensions rated
2. **Job performance or productivity:** includes ratings of quantity or ratings of volume of work produced
3. **Effort:** are statements about the amount of work (effort) an individual expends in striving to do a good job
4. **Job knowledge:** is a measure of expertise demonstrated by the individual
5. **Interpersonal competence:** are the assessments of how well an individual gets along with others
6. **Administrative competence:** is a rating of the proficiency exhibited by the individual in handling the co-ordination of the different roles in the organisation
7. **Quality:** is an assessment of how well the job was done
8. **Communication competence:** reflects how well an individual communicates regardless of content
9. **Leadership:** is a mixture of the ability to successfully bring out extra performance from others
10. **Compliance with rules:** the perspective an individual has regarding rules and regulations

2.6.2.2 Critique of the model

Although the lexical approach used by Viswesvaran was promising, there are two potential concerns (Viswesvaran & Ones, 2000b). Firstly, due to the technical differences in definitions used, some of the important aspects of job

performance may not have been covered in the literature. Secondly, the generation of ten dimensions from a list of 486 dimensions relied upon rater judgement and conceptualisation, even though the interrater agreement was reported in the 90%'s (Viswesvaran & Ones, 2000b).

A similar critique against Viswesvaran's model (Viswesvaran & Ones, 2000b) can be made in the same manner as was that against Campbell et al's (1990a) model, because again, the first three dimensions (namely: overall job performance, job performance/ productivity and effort) appear to be measures of behaviour, whereas the balance of the other seven dimensions are causes of that behaviour. Robertson & Smith (2001) added that the phrases such as "overall job performance" which Viswesvaran & Ones (2000) used were far too vague. Secondly, the dimensions show remarkable variety and little common ground.

Viswesvaran and Ones (2000b), along with other researchers such as Kurz and Bartram (2000), Motowidlo and Van Scotter (1994), Campbell (1990a), Borman & Motowidlo (1993) and Hilliard (1999) have recognised that the two predominant constructs believed to form the concept of job performance are task and contextual performance. Borman and Motowidlo's (1993) research on the constituents of job performance, as well as their proposed model of job performance is discussed in detail below.

2.6.3 Borman and Motowidlo's model of job performance

Borman and Motowidlo (1993) maintained that job performance is made up of two major components, namely task and contextual performance, which were actually developed specifically for use in selection research (Motowidlo & Van Scotter, 1994).

Subsequent studies regarding the distinction between task and contextual performance (Borman & Motowidlo, 1997; Motowidlo & Schmitt, 1999; Organ, 1997, as cited in Hilliard, 1999) are both theoretically and practically important, because they have had significant implications for the understanding, measurement and interpretation of job performance.

Motowidlo and Van Scotter (1994:476) asserted that Borman and Motowidlo's (1993) model is different from other performance models because 'it explicitly

separates behaviours that represent proficiency in performing specific work tasks from other behaviours that are organisationally more valuable because of their interpersonal and broader motivational implications.' The distinction between task and contextual performance is outlined below.

2.6.3.1 Task performance

Task performance has been defined by Borman and Motowidlo (1993:73) as the 'proficiency with which incumbents perform activities that are formally recognized as part of their jobs; activities that contribute to the organisation's technical core either directly or by implementing a part of its technology, or indirectly by providing it with needed materials or services.' A critique of this definition is the use of the word 'proficiency.' If proficiency is referring to assessment, then the predicament still exists as to what the basis of this assessment is.

The task activities which make up task performance are those fundamental behaviours which pertain directly to the person's job functions as specified in their job description (Hilliard, 1999). Simplistically stated, task performance is the traditional notion of ability: how well workers perform and complete a specific task, for example a fire extinguished, a student taught, a story written (Borman & Motowidlo, 1993). The questions again arises as to whether Borman & Motowidlo (1993) are not confusing the term 'activity' with an assessment of proficiency of conducting that 'activity'. This is in contrast to contextual performance which is discussed below.

2.6.3.2 Contextual performance

Contextual performance consists of behaviours that do not support the technical core itself as much as they support the broader organisational, social and psychological environment in which the technical core must function. Contextual activities are thought to be similar across most, if not all jobs, whereas task activities vary from job to job (Borman & Motowidlo, 1993).

Contextual performance contributes to areas such as productivity or overall job proficiency, for example, volunteering to carry out peripheral activities that are not formally part of the job, helping and co-operating with others, following

organisational rules and procedures and endorsing, supporting and defending organisational objectives (Borman & Motowidlo, 1993, Borman, Penner, Allen & Motowidlo, 2001, Hilliard, 1999, Robertson, 1997, Robertson & Callinan, 1998). It is interesting that the definitions of contextual performance do not contain terms like 'proficiency.'

Borman and Motowidlo (1993) classified contextual performance into five general categories, namely: (1) volunteering to carry out task activities that are not formally part of the job, (2) persisting with extra enthusiasm when necessary, (3) helping and cooperating with others, (4) following organisational rules and procedures and (5) endorsing, supporting and defending organisational objectives. A question can be raised as to whether these above-mentioned general categories of contextual performance are measures of job performance as well.

Smith, Organ and Near (1983, as cited in Mersman & Donaldson, 2000) asserted that contextual performance consists of two, as opposed to the above postulated five, factors. The first factor - altruism - mainly concerns other individuals in the organisation, such as being cooperative, helping others, volunteering to do extra tasks and being a team player. The second factor - generalized compliance - focuses on the organisation and includes behaviours, for example, adhering to organisational policies and procedures, being punctual and meeting deadlines.

Other researchers have separated contextual performance into 'interpersonal facilitation' and 'job dedication' (Motowidlo and Van Scotter, 1996). Their definitions of these two constructs are very similar to those of Smith, Organ and Near's concept (1983, as cited in Mersman & Donaldson, 2000) of altruism and generalized compliance.

Contextual performance has also been said to be similar to other constructs, such as prosocial organisational behaviour (Brief & Motowidlo, 1986), extra-role (versus in-role) performance (Arvey & Murphy, 1998), generic work

behaviour (Hunt, 1996), the 'good soldier' (Bateman & Organ, 1983) and organisational citizenship behaviour (OCB) (Conway, 1999).

2.6.3.3 Organisational citizenship behaviour (OCB) and contextual performance

Motowidlo (2000) pointed out that although the terms OCB and contextual performance refer to many of the same types of behaviours, they also connote differences that are arguably important enough to justify preserving a distinction between them.

A pertinent difference pointed out by Organ (1997:90, as cited in Motowidlo, 2000) between the two concepts is that contextual performance is considered to be a necessary part of one's job and something that is not optional, whereas OCB 'does not require that the behaviour be extra-role (discretionary) nor that it be non-rewarded. The defining quality of OCB is that it be 'non-task', or that it contributes to the maintenance and/or enhancement of the context of work.'

Besides differences between OCB and contextual performance, there are further differences between the two concepts of task and contextual performance, as portrayed below.

2.6.3.4 Further differences between task and contextual performance

Task performance is the proficiency with which task activities are carried out, and therefore task-related knowledge, skills and abilities are expected to determine task performance (Organ & Lingl, 1995). The literature seems to portray task performance as a set of work activities additionally being used to suggest how well the job (set of work related activities) are carried out. Furthermore, the literature also seems to use 'items' to describe work activities which seem to be causes or antecedents of those work activities.

Task activities are more role prescribed and formally recognized as part of the job (Hilliard, 1999). They are the accomplishment of duties and tasks that are

specified in a job description (Murphy, 1989, as cited in Viswesvaran & Ones, 2000).

Contextual performance, by comparison, is not likely to be role prescribed. However, it has grown in theoretical importance as a mediating variable between personality and general ratings of performance (Borman, Hanson & Hedge, 1997, Borman & Motowidlo, 1997, Konovsky & Organ, 1996, Motowidlo, Borman, & Schmit, 1997, as cited in Poropat, n.d.).

This is possibly due to the fact that contextual performance is a dimension of job performance and therefore has an influence on promotions, remuneration, raises and other organisational or supervisory rewards. Researchers such as Borman and Motowidlo (1997), Hogan et al. (1998) and Kiker & Motowidlo (1999 as cited in Bess, 2001) felt that it should consequently be a part of the performance appraisal process.

There has, however, been a call for more empirical evidence for the adequacy of the task versus contextual performance distinctions (Tubre et al., 1996).

Below are some of the findings relative to the distinctions.

2.6.3.5 Research on Borman and Motowidlo's (1993) theory

Before Motowidlo and Van Scotter's (1994) study, Borman and Motowidlo (1993) surmised that personality measures which tap interpersonal skills and motivation, may be more predictive of contextual performance, whilst ability measures, which tap task proficiency, should be more predictive of task performance.

The following year, Borman and Motowidlo's (1993) model attained empirical support, when Motowidlo and Van Scotter (1994) demonstrated that task and contextual performance contributed independently to overall performance in a sample of 421 U.S. Air Force mechanics.

In their study, Motowidlo and Van Scotter (1994) found that personality variables were, in fact, more predictive of contextual performance, but did not find that an ability measure was more predictive of task performance.

Interestingly, job experience was found to be more highly correlated with task

performance than with contextual performance (Motowidlo & Van Scotter, 1994).

Tubre et al. (1996) commented that the findings of Motowidlo and Van Scotter (1994) were logically consistent with Borman and Motowidlo's (1993) description of task and contextual performance dimensions, namely that the variation in task performance should reflect individual differences (relative to individual characteristics) in the proficiency with which task activities are carried out.

Thus, in future, individual differences in the knowledge, skills and abilities associated with a given task should be more predictive of task performance than personality characteristics (Tubre et al., 1996). On the contrary, behaviours such as co-operation, persistence and compliance would likely be more strongly related to personality variables (and therefore contextual performance) than to task performance (Tubre et al., 1996).

Two years after the Motowidlo and Van Scotter (1994) study, Conway (1996) produced evidence which showed that the distinction between task and contextual performance was clearer for non-managerial than managerial jobs.

In a more recent study on the two concepts, Alonso (2000) reported that the two facets of task and contextual performance were conceptually different, yet he also found that they empirically overlapped substantially ($r = 0.80$).

2.6.3.6 Future application of the model

The initial purpose of developing the model was for personnel selection (Motowidlo & Van Scotter, 1994). Therefore, Borman and Motowidlo (1993) stressed using both task and contextual performance criteria when developing criteria for personnel selection. Furthermore, when selecting the more effective performers, researchers should attempt to determine the best predictors of productive workers, via both task performance and contextual performance behavioural indicators (Borman et al., 1997).

2.6.4 Comparison between the three models of job performance

Researchers (such as Borman & Motowidlo, 1997 and Campbell, Gasser & Oswald, 1996) emphasised the fact that the proponents of both Viswesvaran and Borman & Motowidlo's models freely acknowledge the strengths of the alternative models and the limitations of their own.

Similarly, Poropat (n.d.) stated that when comparing the two models, Borman and Motowidlo's (1993) model is simpler but broadly comparable with Campbell et al's, and despite their different origins, they should be seen as complementary models rather than competitive ones.

Campbell et al. (1996) concurred and showed the comparative links between Borman and Motowidlo's (1993) five major categories of contextual performance, in relation to their model, as tabulated on the following page.

Table 1: The comparative links between Borman and Motowidlo's and Campbell et al's models of job performance

Borman and Motowidlo's five major categories of contextual performance	Campbell et al's model of job performance
1. Persisting with enthusiasm and extra effort as necessary to complete one's task activities successfully	Factor 4: Demonstrating effort
2. Volunteering to carry out task activities that are not formally part of one's job	Factor 4: Demonstrating effort
3. Helping and co-operating with others	Factor 6: Maintaining peer and team performance
4. Following organisational rules and procedures	Factor 5: Maintaining personal discipline
5. Endorsing, supporting and defending organisational objectives	Factor 8: Management and administration

A criticism which has been made against both Campbell's (1993) model and Borman and Motowidlo's (1993) model is that they do not fully examine the possibility of a general performance factor at the highest level of a hierarchical structure (Tubre et al., 1996). This is in contrast to the model proposed by Viswesvaran (1993, as cited in Viswesvaran and Ones, 2000b) who posited the existence of a strong general performance factor which explains substantial variation in virtually all measures of job performance that have appeared in the literature. However, there was no definition of this general factor provided.

More recently, researchers have recognized a void in these models and have called for an expansion of them to include adaptive performance components (Campbell, 1999; Hesketh & Neal, 1999; London & Mone, 1999; Murphy & Jackson, 1999, as cited in Pulakos, et al. 1999).

In summation, and despite the contention in the literature that no clear consensus exists concerning the structure of job performance, Tubre et al. (1996) stated that the models such as those provided by Campbell (1990a), Borman and Motowidlo (1993) and Viswesvaran (1993) represent a much needed foundation in the development of comprehensive theories of job performance.

Viswesvaran and Ones (2000b: 224) stressed that 'the bottom line from the existing research in this area appears to be that each performance dimension is complexly determined (jointly by ability and personality) and that it is impossible to specify a sole cause or antecedent of a particular dimension of job performance.' Similarly, research conducted by Murphy and Shiarrella (1997) found that different facets of job performance have different antecedents, which are detailed below.

2.7 Antecedents of job performance

There are several dimensions/ antecedents which have been identified throughout the extensive literature by researchers that are thought to have an effect on job performance. However, for the scope of this study, only the positive influences on job performance will be discussed.

It is interesting to note that in the plethora of research pertaining to the relationship/s between a certain antecedent and job performance, that little further research has been conducted to include the inter-relationships between the antecedents themselves, as well as in relation to job performance (Fetzer et al., 1991).

A review of the literature suggests the following positive dimensions/ antecedents, in no particular order or ranking: **job satisfaction** (Brayfield & Crockett, 1955, as cited in Fisher, 1980, Greene, 1972, as cited in Kaplan, 1990, Gross & Kissler, 1978, Lawler & Porter, 1967; Locke, 1983; Iaffaldano & Muchinsky, 1985 as cited in Selladurai, 1991, Norris & Niebuhr, 1984, Robbins, 1991, Robertson, 1997, Schwab & Cummings, 1970, Strümpfer, Danana, Gouws & Viviers, 1998 as cited in Strümpfer & Mlonzi, 2001, Vroom, 1964), **organisational commitment** (Gregersen, 1993, Mathieu & Zajac, 1990, as cited in Siders et al., 2001, Leong et al., 1994; Kalleberg & Marsden, 1995, all as cited in Yousef, 2000, Mayer & Schoorman, 1992, Mowday, Porter & Steers, 1992; O'Reilly & Chatman, 1986, as cited in Becker & Billings, 1996; Putti et al., 1990, Reichers, 1985, Yousef, 2000), **organisational citizenship behaviour** (Borman et al., 2001; Organ, 1988, as cited in Niehoff, 2000, Organ & Paine, in press, as cited in Robertson & Callinan, 1998, Smith, Organ & Near, 1983, as cited in Viswesvaran & Ones, 2000), **motivation** (Vroom, 1964; Ilgen & Hollenbeck, 1991; Campbell & Pritchard, 1983; Rush, 1971, Brown, 1973, Klein, 1964, all as cited in Kelly, 1982; Davis & Luthans, 1980; Steers & Porter, 1991, as cited in Ballantine & Nunns, 1998; Arnolds & Boshoff, 2000, Campbell et al., 1992; **biodata** (Allworth, 1999; Galton, 1902; Schneider & Schmitt, 1986, as cited in Klimoski, 1993; Henry, 1966 as cited in Mumford & Stokes, 1992; Mumford & Stokes, 1994, **job design** (Beer, 1983, Robbins, 1991, Robertson, 1997; Taylor, 1911 as cited in Beer, 1983, Vernon, 1964), **cognitive ability** (Hunter & Hunter, 1984; Hunter & Schmidt, 1998; Ree, Earles, & Teachout, 1994; Robertson et al., 1997; Sackett, Gruys & Ellingson, 1998, Schmidt et al., 1988 as cited in Kolz et al., 1998, **management style** (Fiedler, 1967, Fiedler & Chemers, 1974, Gabris & Giles, 1983; Greene, 1973; Lowin et al., 1969, Graen et al., 1972; Downey et al., 1975; Weed et al., 1976; O'Reilly & Roberts,

1978; Pritchard & Karasick, 1973; Sheridan & Vredenburg, 1978; Hampton et al., 1986; Dawson et al., 1972; Swanson & Johnson, 1975; Euske & Jackson, 1980, Euske et al., 1982 all as cited in Yousef, 2000, Likert, 1961, 1967) and **personality** (Barrick & Mount, 1991; Robertson & Kinder, 1997; Schmitt et al. 1984, Schmidt & Hunter, 1998, Tett, Jackson & Rothstein, 1991). Each of the above-mentioned antecedents will now be systematically discussed.

Model 1: Summary of the nine antecedents of job performance

<p>2.8. Personality</p>	<p>2.7.1 Job Satisfaction (JS)</p> <ul style="list-style-type: none"> ▪ JP-JS relationship ▪ Personality & situational- JS relationship 	<p>2.7.2 Organisational Commitment (OC)</p> <ul style="list-style-type: none"> ▪ OC-JP relationship ▪ OC- JS relationship
<p>2.7.8 Management Style</p> <ul style="list-style-type: none"> ▪ Management style - JP relationship 	<p>Antecedents of Job Performance (JP)</p>	<p>2.7.3 Organisational Citizenship Behaviour (OCB)</p>
<p>2.7.7 Cognitive ability</p> <ul style="list-style-type: none"> ▪ Cognitive ability - JP relationship 	<p>2.7.5 Biodata</p> <ul style="list-style-type: none"> ▪ Biodata - JP relationship <p>2.7.6 Job design</p> <ul style="list-style-type: none"> ▪ Job design – work groups 	<p>2.7.4 Motivation</p> <ul style="list-style-type: none"> ▪ Motivation - JP relationship

2.7.1 Job satisfaction

Job satisfaction and job performance are perhaps the two most often studied variables by organisational researchers concerned with understanding human behaviour in work organisations (Fisher, 1980, Gross & Kissler, 1978, Norris & Niebuhr, 1984, Schwab & Cummings, 1970, Spector, 1997).

For the most part, however, researchers have been unsuccessful in finding strong or consistent relationships between the two variables (e.g. Brayfield & Crockett, 1955, as cited in Fisher, 1980; Iaffaldano & Muchinsky, 1985 as cited in Selladurai, 1991, Vroom, 1964).

Among some of the findings, in the abundance of literature on the topic, job satisfaction is typically referred to as 'an emotional affective response to a job or specific aspects of a job' (Locke, 1976, Smith et al., 1969, as cited in Spector, 1985:695). Seven years later, Locke (1983:1300) defined job satisfaction as 'a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences.'

Authors (such as Brooke, Russell & Price, 1988 and Smith, 1992, as cited in Strümpfer & Mlonzi, 2001) seemed to simplify Locke's (1983) definition by describing job satisfaction as a positive emotional state of liking or disliking one's job.

In order to understand the relationship better between job performance and job satisfaction, the antecedents of job satisfaction needed to be identified. One researcher who has done a great amount of work, and produced a measurement survey on the elements of job satisfaction, is Spector (1985, 1997, 1998).

Spector (1997:2) who developed the Job Satisfaction Survey described job satisfaction as 'a global feeling about the job or as a constellation of attitudes about various aspects or facets of the job'

Spector (1998) proposed that job satisfaction is multi-dimensional. Through his research he concluded that job satisfaction is made up of nine facets

which include, Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards (performance based rewards), Operating Conditions (required rules and procedures), Co-workers, Nature of Work and Communication. (Expanded definitions of each dimension can be found in Appendix G).

There are *prima facie* similarities between some of Spector's (1998) facets of job satisfaction, and the elements of contextual performance (Borman & Motowidlo, 1993), for example, the definition of the job satisfaction sub-scale of Co-workers is similar to the general category of 'helping and cooperating with others' (Borman & Motowidlo, 1993). Another similarity is between the definition of the job satisfaction sub-scale of Operating Conditions and the two general categories of 'following organisational rules and procedures' and 'endorsing, supporting and defending organisational objectives' (Borman & Motowidlo, 1993).

The theories surrounding the topic of job satisfaction and its relationship with other job related variables, abound, but to keep within the scope of this study, only those studies which relate to job performance and, to a lesser extent, personality, will be briefly discussed, in that order.

2.7.1.1 The job performance - job satisfaction relationship

There has been much discussion in the literature as to which comes first, job performance or job satisfaction, and whether one variable, is a consequence of the other. There are three main divergent viewpoints associated with the job satisfaction-job performance relationship (Schwab & Cummings, 1970).

Firstly, the Human Relations view held that satisfaction led to performance. This is in opposition to the (second) view of those supporting the path goal models (such as Porter & Lawler, 1969 and Vroom, 1964) who postulated that performance leads to satisfaction. The third hypothesis is that the relationship is moderated by number of other variables. The brief discussion of some of the findings, based on the three hypotheses, follows.

Researchers, such as Brayfield & Crockett (1955, as cited in Lawler & Porter, 1967) observed, from their investigation of over 50 studies, that the common assumption in most of the organisational literature (*for 2 decades around that time*) was that employee satisfaction directly affects their on the job performance.

Brayfield & Crockett (1955, as cited in Lawler & Porter, 1967) stated that employee morale directly affects the quality and quantity of an individual's output, as well as reduces turnover, cuts down absenteeism and tardiness and lifts production. If morale is seen to be synonymous with job satisfaction, then it is not difficult to see how the assumption that high job satisfaction leads to job performance came to be popularly accepted (Lawler & Porter, 1967, Slocum, 1970).

Intriguingly, Brayfield and Crockett (1955, as cited in Lawler & Porter, 1967) pointed out that the first study on the relationship between job performance and job satisfaction obtained an insignificant relationship and found no evidence that job satisfaction can be equated with the motivation to perform well (Lawler, 1966). This corroborates with Lawler and Porter's (1967:210) statement that 'there is little theoretical reason for believing that satisfaction can cause performance.'

Of the numerous studies of job satisfaction, those generating the greatest controversy were possibly those studies which attempted to show job performance to be a consequence of job satisfaction (Greene, 1972, as cited in Kaplan, 1990), possibly due to the fact that the research designs could not prove a direction of the causal arrow (Robbins, 1991).

Subsequent empirical studies have, almost without exception, found no or little evidence of this hypothesised relationship (Greene, 1972, Locke, 1983; Mitchell, 1979, Meyer, Paunonen, Gellatly, Goffin & Jackson, 1989, as cited in Kaplan, 1990). In a meta-analysis of 74 studies, Iaffaldano and Muchinsky, (1985, as cited in Kaplan, 1990) showed the overall coefficient of the relationship between job performance and job satisfaction to be 0.17 - a figure

which accounts for less than three percent (0.17^2) common variance between them.

This finding is possibly due to the fact that there are several factors which moderate the relationship. These factors include: individual skills and ability (Carlson, 1969; Likert, 1961 and Lawler, 1966, as cited in Carlson, 1969) the organisation's reward system (Selladurai, 1991), job variety, responsibility, task difficulty and autonomy (Locke, 1976, as cited in Selladurai, 1991). It could also be due to the fact that the researchers had different understandings regarding the concepts of job performance and job satisfaction.

Approximately a decade after Brayfield and Crockett's study (1955, as cited in Lawler & Porter, 1967) Vroom's (1964) study evidenced that a low but consistent relationship exists between satisfaction and performance. Vroom (1964:186) stated that there 'is no simple relationship between job satisfaction and job performance.'

In the outline of his path goal theory of motivation, Vroom (1964) argued that job satisfaction and job performance are caused by quite different things. 'Job satisfaction is closely affected by the amount of rewards that people derive from their jobs...(whereas) job performance is closely affected by the basis of attainment of rewards' (Vroom, 1964:263). Lawler and Porter (1967) strongly questioned Vroom's lack of explanation as to *why* the relationship (even if it was small) between the two variables exists.

Vroom (1964) stated that people are satisfied with their jobs to the extent to which their jobs provide them with what they desire. Furthermore, they perform effectively in them to the extent that effective performance leads to the attainment of what they desire. Since Vroom (1964), numerous theorists have tried to deduce an explanation for why people feel the way they do with regards to their job (Yip, Goldman & Martin, n.d.), yet the relationship between job satisfaction and job performance remains unclear (Carlson, 1969).

Approximately two decades later, Selladurai (1991) added that there is still no clear evidence to support either causal relationship. Instead he stated that there appears to be a circular, continuous relationship between job satisfaction and job performance.

Recent research in the area of job satisfaction has taken a more sophisticated approach by focusing on a variety of situational and personality mediators (Baird, 1976, Carlson, 1969, Inkson, 1978, Ivancevich, 1978, Siegel & Bowen, 1971, Steers, 1975 as cited in Fisher, 1980). The relationship between personality, the situation and job satisfaction are briefly discussed below.

2.7.1.2 The personality and situational - job satisfaction relationship

Despite findings by Organ and Lingl (1995) that there are linkages between personality and job satisfaction, there is still ongoing debate regarding the relative weight and variability attached to certain factors in the shaping of work and organisational attitudes. These factors include both situational and dispositional (i.e. personality) factors (Strümpfer, Danana, Gouws & Viviers, 1998 as cited in Strümpfer & Mlonzi, 2001).

The situational perspective states that levels of job satisfaction vary because work conditions vary, whereas the dispositional perspective purports that levels of job satisfaction vary because the affective dispositions vary (Strümpfer et al., 1998 as cited in Strümpfer & Mlonzi, 2001).

Additionally, those leaning towards the dispositional side contended that work attitudes are determined by, or at least directly linked to, individual attributes whereas, those leaning towards the situational side argued that job characteristics, organisational situations and economic conditions affected attitudes much more strongly than individual differences (Strümpfer et al., 1998 as cited in Strümpfer & Mlonzi, 2001).

2.7.2 Organisational Commitment

Despite the plethora of studies of organisational commitment (OC), its nature, antecedents, consequences and correlates, the issue remains ill-defined and

ill-conceptualised (Suliman & Paul, 2000). However, the concept's popularity is increasing, and organisational commitment has received substantial attention in the past four decades (Redding, Norman & Schlander, 1994).

This is thought to have an impact on work attitudes such as job satisfaction, performance, absenteeism and turnover intentions (Benkhoff, 1997, Angle & Perry, 1981, as cited in Siders et al., 2001, Hulin, 1991, Putti et al., 1990; Mayer & Schoorman, 1992, Mowday et al., 1974, Baugh & Roberts, 1994; Ward & Davis, 1995, Brett et al., 1995, Meyer et al., 1989, Kalleberg & Marsden, 1995, Leong et al., 1994, as cited in Yousef, 2000).

Organisational commitment has been said to comprise of the relative strength of one's active identification with the employing organisation, such that one has a strong belief in and acceptance of the organisation's goals and values, is willing to exert considerable effort on behalf of the organisation, and has a strong desire to maintain membership of the organisation (Mowday, Porter & Steers, 1992; Porter, Steers, Mowday & Boulian, 1974, as cited in Strümpfer & Mlonzi, 2001). Hulin (1991) cautioned, however, that (organisational) commitment cannot be judged from behaviours alone, but that it does need to be taken into consideration.

Hulin (1991) then went on to define commitment as a construct invoked to explain consistent patterns of behaviour or courses of action. Other researchers (such as Allen & Meyer, 1990; O'Reilly & Chatman, 1986, as cited in Becker & Billings, 1996) described the concept of organisational commitment as the psychological attachment of employees to their workplaces. Mowday, Steers & Porter (1979: 226, as cited in Becker and Billings, 1996) explained that employee attachment involved 'the relative strength of an individual's identification with and involvement in a particular organization'.

According to Mowday et al.'s (1979, as cited in Yousef, 2000) definition, organisational commitment has three basic components: a strong belief in and

acceptance of the organisation's goals and values (identification), a willingness to exert a considerable effort on behalf of the organisation (involvement) and a strong intent or desire to remain with the organisation (loyalty). Borman and Motowidlo (1993) added that the concept of organisational commitment transcends job involvement and motivation to perform the specific tasks that comprise the job.

Redding et al. (1994) added that because commitment is a reaction between employee and organisation, it does not occur in a vacuum. It is influenced by personal, organisational and cultural factors and thus when studying organisational commitment, the relationship between an organisation and an individual within a particular societal context must be taken into account.

2.7.2.1 The organisational commitment - job performance relationship

Contrary to the opinion of Siders et al. (2001) who stated that researchers (such as Benkhoff, 1997; Gregersen, 1993; Mathieu & Zajac, 1990; Mowday, Porter, & Steers, 1982) have previously been unable to document the elusive organisational commitment- job performance relationship, there have been many studies between the two variables. Some of the previous research on organisational commitment is mentioned below.

Researchers (such as Mayer & Schoorman, 1992, Mowday et al., 1974; Baugh & Roberts, 1994; Ward & Davis, 1995, Brett et al., 1995, as cited in Yousef, 2000) have reported that organisational commitment and job performance are positively correlated, whereas Putti et al. (1990) merely concluded that there is a linkage between the two variables. A decade later, Somers and Birnbaum (2000) explained that there is some evidence that affective organisational commitment is positively related to job performance, but that the relationship is inconsistent across samples and measures of performance.

Meyer et al. (1989 as cited in Suliman & Paul, 2000) found that affective commitment, (which refers to identification with, involvement in and emotional attachment to the organisation), was positively correlated to job performance. They simultaneously found that continuance (which refers to commitment

based on employees' recognition of the costs associated with leaving the organisation) was negatively correlated with all measures of job performance.

Kalleberg and Marsden (1995, as cited in Yousef, 2000) discovered a modest relationship between organisational commitment and job performance, whilst Leong et al. (1994, as cited in Yousef, 2000) and Kelley (1997, as cited in Suliman & Paul, 2000) found a weak correlation between these two variables. In an alternate finding, Wright (1997 as cited in Yousef, 2000) reported a negative correlation between measures of organisational commitment and job performance. Keller (1997) found no link between organisational commitment and job performance.

Wilch (1988, as cited in Gambill, 2001) found that overall job satisfaction was positively correlated with organisational commitment, yet found no significant correlations between organisational commitment and demographic characteristics. Netemeyer, Boles, McKee and McMurrian's (1997) study found that job satisfaction was a predictor of organisational citizenship behaviour as well as the person-organisation fit.

Mathieu and Zajac's (1990:184, as cited in Becker & Billings, 1996) meta-analysis showed that the confidence interval around the mean correlation between organisational commitment and performance included zero. They thus concluded that 'commitment has relatively little direct influence on performance in most instances.'

Researchers such as Reichers (1985) have begun to view employee commitment as having multiple foci and bases. Foci of commitment are the individuals and groups to whom an employee is attached, (Reichers, 1985) whereas bases of commitment are the motives engendering that attachment to individuals and groups (O'Reilly & Chatman, 1986, as cited in Becker & Billings, 1996).

As examples of foci, employees may be differentially committed to multiple organisational coalitions, such as departments, unions and management, on the basis of their individual agreement or disagreement with the organisation's

goals and objectives. The bases of commitment could possibly be the motives behind the commitment (Reichers, 1985). Interestingly, Becker and Billings (1996) found that commitment to supervisors was positively related to performance and was more strongly associated with performance than was commitment to organisations.

2.7.2.2 The organisational commitment - job satisfaction relationship

The majority of researchers cited by Yousef (2000, including Rizzo et al., 1970, Porter & Steers, 1973, Oliver & Brief, 1977, Bedeian & Armenakis, 1981, Dubinsky & Borys, 1981; Clark & Larkin, 1992, McNeilly & Russ, 1992, Igbaria & Guimaraes, 1993, Deconinck & Bachman, 1994, Baugh & Roberts, 1994, Liou, 1995, Wong et al., 1995 and Fletcher & Williams, 1996) reported a positive association between the two variables. In contrast, Curry et al. (1986, as cited by Yousef, 2000) found no relationship between organisational commitment and job satisfaction. Unfortunately, they did not explain the possible reasons behind their finding. From the large of research cited above regarding the two variables, it can be seen that there is a positive association between organisational commitment and job satisfaction. Elements of organisational commitment (such as affective commitment), job satisfaction and perceived fairness (Robertson & Callinan, 1998) are also related to a concept known as Organisational Citizenship Behaviour (OCB), which is discussed below:

2.7.3 Organisational Citizenship Behaviour (OCB)

Smith, Organ and Near (1983, as cited in Viswesvaran & Ones, 2000) introduced the concept of Organisational Citizenship Behaviour (OCB). Organ (1988: 4, as cited in Organ & Paine, 2000) later defined OCB as 'individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization.' Niehoff (2000) added to this by stating that there does not appear to be a singular cause of OCB.

Organ and Paine (in press, as cited in Robertson & Callinan, 1998:328) described OCB as that which 'sustains or enhances the collective character of

the organisation, because it reinforces the linkages between and among individual participants.' However, there is little empirical evidence demonstrating correlations between organisational effectiveness and performance at the individual level in terms of organisational citizenship behaviour, prosocial behaviour or other contextual activities (Borman and Motowidlo, 1993, Organ, 1988, as cited in Borman and Motowidlo, 1993).

Organ (1997) suggested that Borman and Motowidlo's (1993) construct of 'contextual behaviours' provided a more tenable definition of OCB, as such actions go beyond prescribed role behaviour. Borman and Motowidlo (1993) stated that OCB involves activities which contribute to organisational effectiveness, such as: making suggestions to supervisors to improve the organisation's functioning, helping co-workers with a heavy workload, speaking positively about the organisation to outsiders, arriving early and the like.

It can therefore be said that these behaviours appear to be dominant in their relationship with organisational citizenship behaviour (Borman and Motowidlo, 1993). Borman et al. (2001) later added that personality should, in fact, be the main antecedent of organisational citizenship behaviour.

There have been links made between organisational commitment and OCB (Scholl, 1981; Weiner, 1982; Williams & Anderson, 1991 as cited in Schappe 1988). An example is researchers such as Organ and Ryan (1995) who conducted a meta-analytic review of 55 studies that investigated attitudinal and dispositional predictors of OCB. Their results indicated that satisfaction, fairness and organisational commitment were the only correlates of single-factor measures of OCB in a sufficient number of studies to warrant inclusion in the meta-analysis.

Whilst it is debatable as to whether there is a single antecedent, some distinct sub-dimensions of OCB that have been identified are: altruism, compliance, courtesy, cheerleading, sportsmanship, civic virtue and conscientiousness (Organ, 1988, as cited in Viswesvaran & Ones, 2000, Robertson & Callinan, 1998).

Likewise, as there may be more than one antecedent of OCB, there are numerous theories as to the determinants of the concept of motivation, which is discussed below.

2.7.4 Motivation

Work motivation is a difficult and ill-defined concept (Kelly, 1982), that has nevertheless been extensively discussed and researched (Ronen, 1994) among both managers and organisational researchers (Steers & Porter, 1991, as cited in Ballantine & Nunns, 1998). Therefore, even though the theories regarding the concept of motivation abound (Campbell & Pritchard, 1983), this discussion will be kept brief and pertain only to the relationship between work motivation and job performance, and motivation and job satisfaction.

Within the work environment, motivation has frequently been described by referring to what a person does (direction), how hard they work (intensity) and how long they work for (persistence) (Ilgen & Hollenbeck, 1991).

Campbell (1990a: 706) asserted that 'as a direct determinant of performance, motivation is defined as a combined effect from three choice behaviours - choice to expend effort, choice of level of effort to expend and choice to persist in the expenditure of that level of effort.'

Blunt and Jones (1992, as cited in Arnolds & Boshoff, 2000) looked at the definition from a different perspective by stating that any organisation needs employees who are willing and committed to exerting high levels of effort, but who also have the intentions to achieve optimal job performance.

Campbell et al. (1993:45) differed somewhat from Blunt and Jones's above argument, as they emphasised that performance will not occur unless there is a choice to perform at some level of effort for some specified time. They further iterated that '... consequently, motivation is *always* a determinant of performance.'

Thus, whilst motivation may be a direct determinant of performance (Campbell, 1990a), the relationship between motivation and job performance has been contested in the literature. The results are discussed below.

2.7.4.1 The motivation - job performance relationship

Kelly (1982) cited several studies (e.g. Rush, 1971, Brown, 1973, Klein, 1964) that reported either no (or extremely low) correlation between motivation scores and changes in production / error rates.

Vroom (1964) found that although there was a fairly consistent relationship between morale (motivation) and productivity, the average correlation for this relationship in over twenty studies was only 0.14. Thus, an increase in worker satisfaction and motivation could only explain about 2 percent (0.14^2) of the variance in employee productivity.

Taking this finding further, an interesting link to research is that of motivation and job satisfaction. Authors such as Orpen (1994) and Bishay (1996) have reported links between the two concepts, yet categorically shied away from postulating the direction of causality. Helmreich, Wilhelm & Runge (1981) reported an association between motivational factors (such as the preference for challenging tasks and meeting internal standards of excellence; the desire to work hard and perform well, and the desire to compete with and outperform others) and job satisfaction.

Given the paucity of research, only a distant connection can be made between the concepts of job performance, job satisfaction and motivation.

One way of possibly assessing a person's attitude towards work and motivation may be by collating their biographical and work history. This could be done via a biodata questionnaire, which is discussed below.

2.7.5 Biographical information (Biodata)

Biographical information or Biodata is a standardised method of assessing job-relevant biographical information from job incumbents (Allworth, 1999) that has

been around for just over a century. As early as 1894, Colonel Thomas Peters proposed that one way to improve the selection of life insurance agents would be for the managers to ask all the applicants standardised (biographically related) questions (Allworth, 1999).

A few years later, Galton (1902, as cited in Mumford & Stokes, 1992) made his now famous speech to the effect that people's behaviour tends to be consistent and that the best predictor of future performance is past performance.

Biodata can include aspects such as: gender, education, preferred language, race, age, religion, marital status, previous work experience, or other behaviours or activities in any aspect of life (Allworth, 1999). However, in terms of South African legislation (Employment Equity Act, No. 55 of 1998) certain biodata items, such as race, age, religion and marital status may only be included in application blanks for research and monitoring purposes only.

An advantage to using biodata as an alternative or supplement to cognitive testing, is because it predicts aspects of job performance that are not predicted by cognitive measures, such as interpersonal relationships and motivation (Crafts, 1991). The relationship between biodata and job performance is illustrated below.

2.7.5.1 The biodata - job performance relationship

Mumford and Stokes (1992) cautioned that in order for biodata to be able to predict performance, the items in the biodata questionnaire must be capable of capturing prior behaviours and experiences that impinge on the performance criterion.

Through some 25 studies at the Standard Oil Company, Henry (1966, as cited in Mumford & Stokes, 1992) believed that biodata was the single best predictor of a broad spectrum of criteria which they made use of. Unfortunately, it was not mentioned why he believed so.

Therefore, even though biodata has been said to be able to predict job-relevant behaviour, exactly why this occurs has not been extensively explained. The usual rationale offered for the validity of biodata was that of behavioural consistency - in other words the best predictor of future performance is past performance (Allworth, 1999, Owens, 1983, Guion, 1991, Klimoski, 1993, Galton, 1902 as cited in Mumford & Stokes, 1992).

To validate the above statements, several researchers have found that besides predicting job performance, biodata has been reported to have a relatively high mean predictive validity - approximately 0.30 - 0.40 - for a range of criteria including training, tenure and promotions (Hunter & Hunter, 1984, Reilly & Chao, 1982, Snell, Stokes, Sands & McBride, 1994 as cited in Allworth, 1999; Schmitt, Gooding, Noe & Kirsch, 1984).

Other researchers, such as Schneider and Schmitt (1986, as cited in Klimoski, 1993) reported criterion validities in the range of between 0.25 and 0.50, compared to reference checks (0.26), interviews (0.14 - 0.38) and academic achievement (0.11) (Allworth, 1999).

Witt (1998, as cited in Mitchell, 1998) reported criterion-related cross-validity that was substantially higher for biodata predictor scales than for cognitive or personality tests in predicting job performance factors for telebanking associates in the financial industry.

There have, however, been other areas of concern when using biodata, such as accuracy, fakeability, invasion of privacy and adverse impact (Crafts, 1991). Whilst little information exists to support or refute allegations of inaccuracy, invasion of privacy, or fakeability, Owens (1976, as cited in Crafts, 1991) reviewed investigations of adverse impact and reported that the major dimensions of biodata responses are relatively stable across cultures, age, race, and sex groups, and organisations.

Allworth (1999) disagreed with the above thoughts on fakeability, by stating that an advantage to using biodata is that it is actually less susceptible to

faking, and other forms of response distortion, in that the responses are generally verifiable.

Biodata may also give an indication of the incumbent's favoured or less preferred way of doing various tasks in previous jobs. The way that the various tasks are assembled in a job is known as job design, which is very briefly alluded to below.

2.7.6 Job design

Job design has been defined as the 'way that tasks are combined to form complete jobs' (Robbins, 1991:256), and has been said by other researchers (such as Beer, 1983, Robertson, 1997; Taylor, 1911 as cited in Beer, 1983, Vernon, 1964) to influence job performance. In this study, however, the influence of job design on job performance will not be discussed in detail, as it has mostly been held constant. This is due to the fact that the entire sample of Fund Administrators used in the study, generally do the same type of work, made up of very similar tasks. One aspect that could be included as a sub-category of job design is that of structured work groups.

2.7.6.1 Job design - work groups

Even though the Fund Administrators all work independently, they were initially all allocated to work groups, depending on the types of funds they administer. The work groups range between eight and fifteen people in each, reporting directly to a Fund Administrator Manager.

Whilst there has been little reported research conducted between the influence of work groups on individual job performance, Bishop and Scott (1997) found empirical support for a positive relationship between team commitment and job performance.

However, their hypotheses were not tested in the context of a model that considered the simultaneous effects of both team and organisational commitment. Additionally, their study did not consider the influence of 'support variables' on the commitment-outcome relationships (Bishop, Dow Scott & Burroughs, 2000). The lack of overall research in this area could give rise to further investigations.

One area where there is certainly no shortage of research is that of cognitive ability, which is examined very briefly below. The effect of cognitive ability on job performance in this study could not be determined as the participants in the current study were not required to undergo any form of cognitive ability tests in the initial selection procedure for their jobs, nor did they complete any ability tests during the project study.

2.7.7 Cognitive ability

Cognitive ability can be envisioned as a hierarchical structure with a general intelligence (*g*) at the apex, with more refined ability factors as one descends the hierarchy (Hough, Oswald & Ployhart, 2001)

The traditional view of cognitive ability is that it has been extensively and consistently demonstrated to predict job performance and that its influence remains stable over time (Fetzer et al., 2001, Hunter, 1983, Hunter & Hunter, 1984; Ree, Earles, & Teachout, 1994, Robertson & Callinan, 1998).

Ree et al. (1994) claimed that in general terms, as far as performance is concerned, higher levels of cognitive ability would produce correspondingly higher levels of performance. Robertson et al. (1997) however, cast doubt as to whether cognitive ability is valuable in all occupational areas. This is a similar view taken to Truxillo, Bennett & Collins (1998) who acknowledged that even though there is a relationship between educational qualifications, cognitive ability and job performance, it should not be presumed to predict all areas of job performance. The differing viewpoints regarding cognitive ability and job performance follows.

2.7.7.1 The cognitive ability - job performance relationship

Since the very earliest research on personnel selection, cognitive ability has been one of the major methods used to attempt to discriminate between candidates and to predict subsequent job performance (Robertson & Smith, 2001).

Schmidt and Hunter (1998) found that cognitive ability was strongly related to performance ($r = 0.51$), whilst Hunter and Hunter (1984) reported a mean validity between cognitive ability and job performance of 0.45.

Research has found that the relationship between job performance and cognitive ability remained constant despite changes in people's job experience (Murphy, 1989). Thus, whilst ability is important in determining if a person can do a job (Schmidt et al., 1988 as cited in Kolz et al., 1998), it provides little insight into whether that individual *will* do a given job (Sackett, Gruys & Ellingson, 1998)

In addition, Boesel, Alsalam & Smith (n.d.) agreed that educational qualifications were necessary for people to obtain jobs initially, but people have to prove their performance in those jobs in order to succeed and stay in organisations.

Researchers such as Becker and Billings (1996) have postulated that individuals will do their jobs (and possibly do them more effectively) if they have supportive direct managers/ supervisors. Management style duly follows.

2.7.8 Management Style

Whilst the literature abounds with theories regarding supervision along with its management styles and approaches, the focus here will purely be the findings and effect of managerial style on employee performance.

Putnam (1930, as cited in Vroom, 1964) stated that supervision is the most important determinant of worker attitudes and satisfaction (and consequently job performance). However, Herzberg, Mausner & Snyderman (1959, as cited in Vroom, 1964) felt that the importance of supervision has been overrated.

This question was later posed by Gabris and Giles (1983) as to whether certain managerial styles have an influence on, or can possibly even increase employee performance. Greene (1973) questioned whether one could, in fact, infer causality between the two variables.

2.7.8.1 The management style - job performance relationship

Greene (1973) explained that a high significant correlation found between a manager's style and subordinate performance indicates only that the two variables are related. The manager's style may have caused variance in subordinate performance or, conversely, subordinate performance caused changes in managerial behaviour (for example, the manager develops more positive attitudes towards high performing subordinates and may then be more considerate towards them). However, there may have been no causal relationship between the two variables because the correlation may have been spurious or additional variables may have caused the two variables in question to covary (Greene, 1973).

Other findings between a manager's style and employee's job performance have been mixed. Researchers (such as Lowin et al., 1969, Graen et al., 1972; Downey et al., 1975; Weed et al., 1976; O'Reilly and Roberts, 1978 all as cited in Yousef, 2000, Gabris & Giles, 1983) found no or limited linkages between managerial behaviour and job performance.

Researchers (such as Pritchard & Karasick, 1973; Sheridan & Vredenburg, 1978, Hampton et al., 1986 all as cited in Yousef, 2000) discovered a negative relationship between the two variables. In contrast, researchers (such as Dawson et al., 1972; Swanson & Johnson, 1975; Euske & Jackson, 1980 and Euske et al., 1982 all as cited in Yousef, 2000) reported a positive association between the two variables.

Yousef (2000) also found a positive relationship between the two variables and explained his finding by stating that employees who perceived their superiors as adopting a consultative or participative style were more committed to their organisations, more satisfied with their jobs and their level of job performance was high.

Likert (1967) reported that managers with a participative style tended to increase morale in subordinates, which, in turn, lead to corresponding increases in productivity. However, using the same sample groups as Likert,

Seashore and Yuchtman in December 1967 (as cited in Gabris & Giles, 1983) could only find ten out of fifty correlations which supported the relationship between participative behaviour and performance. Gabris and Giles (1983) concluded that participative management techniques have not been substantially linked to performance.

Gabris and Giles (1983) also added that the absence of participative management does not preclude individual high performance, nor does it make employees any more productive than they already are. It also does not mean that employees like working for authoritarian managers. According to the Human Relations approach, most individuals actually seem to prefer working for more participative managers (Gabris & Giles, 1983).

As management styles seem to be relatively constant, (Green, 1973) Gabris and Giles (1983) recommended that if organisations want to dramatically increase the individual's productivity, they should rather embark on interventions to provide improved structure, better planning, objective setting and a more sophisticated management information system.

Jackson (1953, as cited in Green, 1973) found that when supervisors of work groups were transferred to other groups, the new subordinates perceived them in substantially the same manner as the original group. Thus, the supervisors maintained their style of management regardless of the characteristics of the group being supervised.

It could be said that people's management style tends to remain constant as personality remains fairly constant (Robertson & Callinan, 1998). The concept of personality will now be dealt with in detail, before the personality - job performance relationship is discussed.

2.8 Personality

Allport (1960:25) stated that 'Personality is one of the most abstract words in our language, and like any abstract word, suffering from excessive use.'

The word personality originated from the Latin word 'persona' which, in its original context, was used to denote the mask worn by Greek actors attempting to portray different roles in the theatre. The word, over time gradually began to signify the characteristic being portrayed rather than the mask or role itself (Arndt, 1974).

The organisation and concept of the individual personality has been of great interest to researchers and psychologists for over a century (Allport, 1960). Currently, there is still great debate regarding the taxonomy of personality, for example, what to name the personality factors, how they should be organised and the amount of factors that can be reliably measured and what the concept of 'personality' actually entails. Below are several definitions of personality.

2.8.1 Definitions of personality

McDougall (1932:15, as cited in Digman 1990) wrote in the first issue of Character and Personality (which later became the Journal of Personality) that 'Personality may be broadly analysed into five distinguishable but separate factors, namely, intellect, character temperament, disposition and temper... each of these is highly complex and comprises many variables.'

Reber (1995:555) defined personality as 'a term so resistant to definition and so broad in usage that no coherent simple statement about it can be made...'

Vernon (1964) believed that personality is so complex that we are unlikely to be able to subject all its aspects to objective measurement.

Allport (1960:48) culled nearly fifty definitions from the literature to form his own definition of personality, which is 'the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment.'

Cattell (1950:2) defined personality as 'that which permits a prediction of what a person will do in a given situation', whereas Cronbach (1960) defined personality as behavioural posture - one's preferred style of behaviour, implying that personality is open to change.

As can be seen from the many differing definitions, personality is vast and complex. However, the focus of this discussion will be narrowed to briefly relate to personality in the workplace, followed by some of the research that has been conducted between job performance and personality.

2.8.2 The Big Five Model of personality

When earlier research was done, there was no theoretical taxonomy that researchers could use to classify personality measures and guide their research. Consequently, meaningful relations between personality constructs and criterion measures were obscured (Guion & Gottier, 1965, as cited in Ones & Mount, 1994; Schmitt et al., 1984).

Thus, the 'Big Five' framework slowly evolved by researchers such as McCrae and Costa (Costa & McCrae, 1988; McCrae & Costa, 1985, 1989, as cited in Fetzner et al., 2001, McCrae & Costa, 1987, McCrae, 1989) and became an organising framework for personality research in order to combine various personality scales and to make predictions (Barrick and Mount, 1991).

The Big Five are essentially five key analytic traits that have been identified as the major factors underlying human individual differences in personality (Robertson & Callinan, 1998). Moreover, the development of a theoretical taxonomy in the form of the Big Five has greatly enhanced research into the personality-job performance relationship.

The estimates vary as to the predictive values of each of the scales within the Big five. Extraversion has been estimated by meta-analysis to correlate with job performance with coefficients ranging from 0.14 (Barrick & Mount, 1991), to 0.16 (Tett et al., 1991). As Neuroticism generally exhibits a low to negative correlation with job performance, 0.09 (Barrick & Mount, 1991), to -0.22 (Tett et al., 1991), the polar opposite dimension of Emotional Stability is often used in its place, in order to produce correlations in a positive direction. Openness to Experience has been estimated to correlate with job performance with coefficients ranging from .04 (Barrick & Mount, 1991), to 0.27 (Tett et al., 1991).

Researchers such as Tett, et al. (1991); Hough, Eaton, Dunnette, Kamp and McCloy (1990), Mount and Barrick (1998) have shown that all Big Five personality dimensions are valid predictors of job performance when linked to appropriate job relevant criteria. It is for this reason that researchers such as Guion (1991) and Cronbach (1960) have advocated a thorough job analysis to assess the relevant criteria for the job in question, before trying to match them with the various personality traits. This could be one of the reasons why the overall validities for the Big Five constructs have been shown to differ depending on the nature of the job and the type of criteria.

As there is as much praise for using the Big Five to predict job performance, there has also been some criticism against it. These critiques are briefly dealt with below.

2.8.2.1 Critique of the Big Five Model of personality

One of the main critiques against the Big Five Model is that it is too broad and vague, and lacks sufficient evidence to accept it as an adequate personality taxonomy (Schneider and Hough, 1995, Waller and Ben-Porath, 1987). Schneider and Hough (1995) favoured using a narrower approach which involved using more specific personality factors.

Mischel (1965, as cited in Watson, 1989) expressed his concern that the five-factor structure merely represents the implicit personality theories of the subject raters and that it may have little to do with the actual organisation of an individual's personality.

Kriek and Saville (1995) too, felt that the concepts (for example, extroversion) are too broad when hypothesising on specific personality aspects to correlate well with job performance. They suggested that the Big Five are useful for rough distinctions between, and for classification at very high levels of abstractions, but do not seem to give the precision of more specific traits.

Kriek and Saville (1995) advocated the use of a more comprehensive occupational personality questionnaire, such as SHL's Occupational

Personality Questionnaire (SHL, 1999) which has 30 scales as opposed to only five, for use in an occupational environment.

2.8.3 Personality in the workplace

Within the workplace environment, Robertson (1997) stated that there is a definite relationship between work behaviour and personality and that the key to understanding that relationship is by analysing people's performance and/or effectiveness in the workplace. The situation, however, would also always have a role to play in determining individual behaviour in the workplace Robertson (1997).

Mischel (1969, as cited in Hergenhahn & Olson, 1999) posed the question of whether it was of any value to possibly establish how effective an individual's personality is in determining their success in the job. His question has been answered many times over in the form of extensive research, illustrated below.

2.8.4 The personality - job performance relationship

The relationship between personality and job performance has been the subject of formal review for over 30 years (Tett, Jackson, Rothstein & Reddon, 1999). The renewed interest in personality measures as predictors of job performance was reiterated by Borman et al. (1997: 330) who promoted research 'to discover and confirm the inter-relationships between ability, personality, experience ... and overall job performance.'

Previously, however, the opinion regarding the correlation between the two variables was rather negative, as a number of researchers had concluded that the relationship between personality measures and job performance criteria was rather low (Ghiselli, 1973; Guion & Gottier, 1965; Locke & Hulin, 1962; Reilly & Chao, 1982, as cited in Tett et al., 1991, Schmitt et al., 1984).

Barrick (2001) added that most of these reviews of personality and performance were largely narrative as opposed to quantitative, which limited

the nature of the inferences that could be drawn, namely that personality and job performance were not related in any meaningful way across behavioural or personality traits and across situations.

Guion (1965) reiterated this point by concluding that personality had not, up to that time, shown much promise for predicting job performance. However, Guion and Gottier (1965, as cited in Tett, et al., 1999) gave grounds for optimism by emphasizing the need for greater care in establishing the conceptual bases for personality-performance linkages as a means of promoting validity.

In support of Guion and Gottier's call for theory, there has been a resurgence in multiple meta-analytic quantitative reviews exploring the criterion-related validity of personality and the association with overall job performance (e.g. Barrick & Mount, 1991; Robertson & Kinder, 1997; Tett, Jackson & Rothstein, 1991; Schmidt & Hunter, 1998).

Thus, whilst many researchers (e.g., Barrick & Mount, 1991; Salgado, 1997; Tett, Jackson & Rothstein, 1991) agree that there is a definite relationship between personality and job performance, Robertson and Callinan (1998) cautioned that to attempt to link a small number of personality constructs with job performance across *all* jobs is an over simplification that can cause two major types of errors. Firstly, it is either incorrectly concluded that a particular personality construct is therefore linked to performance in *all* jobs or secondly, that it is not related to job performance at all.

Robertson (1997) suggested that there needs to be a better understanding of interaction between personality traits in predicting job performance, because overall job performance cannot be understood without developing a clear picture of the part played by specific competencies in determining overall performance. The meta-analytic studies reported on below, reflect the interaction between specific personality characteristics and overall job performance, albeit with a diverse range of overall mean validities.

2.8.5 Meta-analytic studies between personality and job performance

Chronologically, the first meta-analytic study was conducted by Schmitt, Gooding, Noe and Kirsch (1984) who investigated the overall validity of different types of predictors to predict various aspects of job performance. Schmitt et al. (1984) produced validity coefficients for predictor variables, such as personality, general mental ability, work samples and supervisor evaluations. They did this by identifying all of the studies which focused on links between personality and work performance, took all of the coefficients from these studies and, using the techniques of meta-analysis, developed by Hunter, Schmidt and Jackson (1982, as cited in Schmitt et al., 1984) produced an overall validity coefficient of 0.149 for personality in general.

A second meta-analytical study was conducted by Tett, Jackson and Rothstein (1991) to assess the overall validity of personality measures as predictors of job performance. Based on 494 studies and 97 independent samples (total N= 13521) confirmatory research studies (i.e., theoretically driven as opposed to empirically driven) produced a corrected mean personality scale validity of 0.29, which was more than twice as high as that based on studies adopting exploratory approaches (0.12). Studies that made use of job analysis explicitly in the selection of personality measures, exhibited a mean validity of 0.38.

Tett, Jackson, Rothstein and Reddon (1999) further explained that their research, using meta-analysis, found that personality measures predict job performance about twice as well when hypotheses are formed from careful consideration of the personality trait requirements of the given job. Robertson (1997) explained that confirmatory studies, designed to test specific hypotheses, also produced better results than less focused, exploratory research.

A third meta-analytic study by Barrick and Mount (1991) focused on establishing the validity for each one of the Big Five factors of personality (i.e. conscientiousness, neuroticism, extroversion, agreeableness and openness) to three job performance criteria (job proficiency, training proficiency and

personnel data) for five occupational groups (professionals, policemen, managers, sales and skilled/semi-skilled workers).

Essentially, in their study Barrick and Mount (1991) found that conscientiousness was linked to performance across all job types and was also shown to be the most generalisable predictor, with corrected correlations averaging about 0.30 (Mount & Barrick, 1995, as cited in Mount, Witt, & Barrick, 2000).

A fourth study by Robertson and Kinder (1997) produced a criterion-related validity for personality variables of up to 0.33. On face value, a criterion-related validity of 0.33 may seem a bit high, but Robertson and Kinder (1997) pointed out that the results were not corrected for unreliability, nor for restriction of range. Furthermore, they noted that the results could have suggested that personality variables added unique criterion-related information beyond that provided by ability alone.

Robertson (1997) cautioned that in meta-analytic studies, where the validity coefficients have been corrected for unreliability and range restriction, it is important to distinguish between corrected and uncorrected coefficients. With meta-analytic corrections, upper limits for the validity of personality variables against overall work performance variables are in the range of 0.25 to 0.40.

The first meta-analytic study in South Africa between the Big Five constructs of personality and job performance was recently conducted by Van der Walt, Meiring, Rothmann and Barrick (2002). Their findings were consistent with those of Hough et al. (1990) and Salgado (1997), namely that Extraversion, Emotional Stability and Conscientiousness are valid predictors of job performance across various jobs. However, in the South African study, the level of education (especially with individuals having a qualification of Grade 12 or higher) was found to be a moderating factor between personality and job performance.

Various researchers have found other personality factors to be predictive of job performance. Dunn, Mount, Barrick and Ones (1995, as cited in Hilliard,

1999) found a correlation between counter productivity and low emotional stability and low agreeableness. However, the major personality trait that has been most widely studied in causal models of job performance is conscientiousness (Hunter & Schmidt, 1998).

2.8.6 The conscientiousness - job performance relationship

Robertson, Baron, Gibbons, MacIver and Nyfield (2000) reported that some authors have proposed that conscientiousness might be the 'g' (general mental ability) of personality and predict performance in most occupational areas. The correlation between conscientiousness and job performance has been reported in the range of 0.18 (Tett et al., 1991), 0.26 (Barrick & Mount, 1991) and up to 0.38 (Schmidt & Hunter, 1998, as cited in Fetzner et al., 2001).

Mount, Witt & Barrick (2000) theorised that this is because conscientiousness is a valid predictor of overall performance in most jobs as it assesses individuals who are dependable, achievement oriented, efficient, hardworking and organised who tend to produce higher quantity and quality of output than those who are not.

Robertson's (1997) findings differed to both Barrick and Mount (1991) and McManus and Kelly's (1999) findings that conscientiousness is linked to work performance to a greater or lesser extent in all jobs. Robertson (1997) argued that the relationship is not linear throughout the whole range of conscientiousness, and that a minimum level of conscientiousness is needed for effectiveness in all jobs. He further added that higher levels of conscientiousness do not necessarily go with higher levels of performance in all jobs.

To illustrate this argument, Robertson (1997) reported the findings of his study which investigated links between conscientiousness and overall work performance for a large sample of British managers. He found that there was no relationship between conscientiousness and overall performance, possibly because conscientiousness was not a dominant factor in the managers' jobs. Robertson (1997) further added that the results, actually showed a negative

relationship ($r = -0.20$, $p < .001$) between conscientiousness and promotability ratings - the indicator used in the study to measure job performance.

Robertson's (1997) findings, in turn, conflict with Mount and Barrick's (1995) study, which reported that individuals who exhibited high levels of conscientiousness generally performed better than those who scored lower on the conscientiousness scale. Salgado (1997) further found in the European community that conscientiousness and emotional stability were valid predictors of job performance across job criteria and occupational groups.

Conscientiousness, as a dimension of personality, could be measured by an occupationally based assessment instrument, such as an occupational personality questionnaire. The use of personality questionnaires in personnel selection is briefly discussed below.

2.8.7 Personality questionnaires and personnel selection

Occupational personality questionnaires have gained popularity and support as valid predictors of job performance (Fetzer et al., 2001). This may be one of the reasons why there has been a dearth of occupational personality questionnaires developed for, and clinical personality questionnaires adapted to, the work environment (Cronbach, 1960, Pervin, 1996).

One of the differences between an occupational and clinical personality questionnaire is that clinical personality inventories are often associated with a medical model and measure a broad spectrum of characteristics (Schmidt, 1999), whereas occupational questionnaires were developed for use in the working environment. A common element between the two could be that both clinical and occupational personality questionnaires are diagnostic in nature as there are both elements of cause and effect.

Whilst some clinical models have been introduced into the working environment they have been unsuccessful because many of the characteristics do not relate to job performance, for example, only three of the

16 traits in the 16PF instrument predict job performance (Schmidt, 1999). Thus, even those measures whose total scores predict work performance tend to have their predictive validity diluted by non-predictive scales (Schmidt, 1999).

This is possibly why Schmidt (1999) found that clinical personality inventories had a validity of around 0.23, whereas occupational personality instruments had a higher validity of around 0.35. Schmidt (1999) advocated several other reasons for using occupationally based instruments as opposed to clinical instruments within the work environment. These are briefly mentioned below.

Firstly, occupational assessments are better able than clinical instruments to explain individual performance that is not explained by ability and can, secondly, assess traits that tend to be valuable as jobs and organisations change.

Thirdly, occupational assessments tend to be linked to the competency level of abstraction (such as leadership, planning & organising, quality orientation etc) and can therefore be more flexible over time, compared to some rigid assessments linked to the more micro Knowledge/ Skills/Attributes level (Schmidt, 1999).

A question that has arisen is whether job incumbents also have a 'work' and 'non-work' personality (Hogan, in press, as cited in Barrick & Mount, 1991). It is thus recommended that organisations that aim to extract as much relevant personality and other job related information from the potential job incumbents make use of reliable and valid occupationally based assessment instruments. The collated results of the various selection tools, together with a thorough job analysis, should aid the organisation in optimising an initial person-job match fit, which will further enhance the probability of recruiting and maintaining higher performing individuals.

The aim of trying to understand the relationships between the variables that constitute and possibly predict job performance is precisely what is being attempted in the current study. There is great scope for future research to investigate the relationship/s between the variables themselves, as well as in

relation to each other. Future research may also find other factors thought to influence job performance which were not identified in this study.

2.9 Summary

Job performance has been recognised as being a complex and multi-dimensional phenomenon that has intrigued many researchers into studying its various components as well as its inter-relationships with other work related variables.

One of the reasons that the outcomes of the various findings is so diverse is possibly due to the fact that the numerous researchers did not, in fact, all have the same understanding of the concept of job performance. Evidence for this argument is substantiated by the multitude of definitions cited in the beginning of this chapter. There also seems to be some confusion in the literature regarding the behaviours that are necessary to do the job and the measures of how well or poorly the job incumbents perform them.

A method to overcome this confusion is via a thorough job analysis. By breaking the job per se, into its postulated components gives researchers insight into the antecedents of the construct of job performance. Researchers such as Campbell et al., Viswesvaran and Borman and Motowidlo have developed comprehensive models of job performance to explain the concept. Again, in discussing these three models, the researchers do not always clearly distinguish between (a) performance as a set of behaviours, (b) performance as a set of psychological factors needed to produce particular behaviours or (c) performance as a judgement of effectiveness and/or efficiency of displayed behaviours.

Whilst researchers such as Campbell et al., Viswesvaran and Borman and Motowidlo attempted to deconstruct the concept of job performance, other researchers have tried to ascertain the antecedents of job performance. To recapitulate, the nine antecedents that have been shown by a multitude of

researchers to have an effect or influence on job performance, in no particular order were: job satisfaction, organisational commitment, organisational citizenship behaviour, motivation, biodata, job design, cognitive ability, management style and personality.

Whilst there has been little research conducted between the antecedents themselves, and in relation to job performance, there have been several meta analytic studies conducted personality and job performance in the workplace. most of the studies referred to in this chapter used the Big Five Model of personality against which to correlate job performance. Some of the criticism against the Big Five Model stated that it was too vague and broad, and thus a more comprehensive model with more personality scales was suggested when correlating personality and job performance.

Irrespective of which instruments researchers or trained personnel in organisations use to assess people, it is imperative to make use of reliable and valid occupationally based assessment instruments to aid in the optimisation of a person-job match fit and also obtain a greater probability of recruiting and maintaining higher performing individuals. The following chapter on research design outlines how each of the nine antecedents is accounted or controlled for in the current study.

CHAPTER 3

RESEARCH DESIGN

3.1 Introduction

Given the multi-faceted nature of the antecedents of job performance identified in the literature review and the literature on job performance, the concept of job performance will be approached from the perspective that the constituent tasks of a job can be identified, classified in order of importance and can be measured.

In this study, the tasks of the Fund Administrator will be identified via a structured and thorough job analysis technique known as the Work Profiling System (WPS) (SHL, 1994). The proficiency of the Fund Administrators performing the work-related tasks will be measured by a criterion-related questionnaire, based on the WPS. The results of the criterion-related questionnaire will be correlated with Company X's internal performance appraisal results to ensure that both instruments are, in fact, measuring job performance.

The influence of personality on job performance will be assessed by a valid and reliable 30 scale occupational personality questionnaire (the OPQ), as models such as the Big Five Model have been thought to be too vague and broad to determine specific results of the correlations between personality and job performance (Schneider and Hough, 1995, Waller and Ben-Porath, 1987; Kriek and Saville, 1995).

The influence of job satisfaction, management style, motivation, organisational commitment and the work groups sub-category of job design were measured by various sub-scales of the Job Satisfaction Survey (Spector, 1998).

The biographical information of the Fund Administrators was assessed via the Biodata Sheet in order to determine if there were any biographical variables that had an influence on their job performance.

3.2 Research procedure and method

Mouton & Marais (1991:144) define a quantitative approach to research as 'research in the social sciences that is more highly formalised as well as more explicitly controlled, with a range that is more exactly defined, and which in terms of the methods used, is relatively close to the physical sciences.'

The format of the investigation as well as the nature of all the instruments used in this study, are numerically and statistically orientated, and thus shape this study into a quantitative one. This research by nature will be exploratory research. It is also partially a predictive validity study.

3.2.1 Research instruments

The researcher used three assessment instruments, namely the Occupational Personality Questionnaire, the Job Satisfaction Survey and Biographical information, in order to ascertain the influence of the proposed job related variables as identified in the literature review on the job performance of 107 Fund Administrators currently working in one of South Africa's largest insurance companies. The job performance of the Fund Administrators was measured by a criterion-related questionnaire and Company X's internal performance appraisal results.

From the literature review, it was found that there are nine variables purported to influence job performance. In no specific order, these are: personality, job satisfaction, organisational commitment, organisational citizenship behaviour, motivation, cognitive ability, job design, management style and biodata.

The instruments were chosen very carefully for this study, and were all thoroughly researched before implementation in order to assess their validity and reliability. Additionally, to prevent the Fund Administrators and their managers from having to complete a barrage of instruments, the ones used in this study aimed to account for as many of the nine antecedents as possible.

3.2.2 Time scales of the project

Approximately 170 Fund Administrators completed the Occupational Personality Questionnaire Concept Model 4.2 and Biodata sheet between April and September 2000, the results of which were recorded on an internal computerised database within Company X.

In order to assess the proficiency of the logically related tasks of the Fund Administrators' job performance, a criterion-related questionnaire was developed by SHL. The criterion-related questionnaire was based on a structured and integrated job analysis system, approximately one year later in order to assess the Fund Administrators' job performance. 107 of the 170 Fund Administrators were randomly selected by Company X's internal Human Resources department as the sample group. After a comprehensive debriefing session, the managers of 107 Fund Administrators were then asked to objectively complete the 48 item criterion-related questionnaire on their subordinate's job performance.

Due to the natural attrition since the beginning of the research project, and movement within the Employee Benefits department, and Company X itself, a total of 81 Fund Administrators anonymously completed the Job Satisfaction Surveys in March 2002, in order to assess their satisfaction regarding nine factors of their jobs. Although the surveys were completed anonymously, the researcher was able to match all the relevant data by the Fund Administrator's employee numbers.

The results from the Fund Administrators internal performance appraisals from September 2001 were used as a further measure and added a greater contribution to the overall results of the study.

3.3 The population and the sample

Reber (1995:580) defined a population as 'the total number of cases about which a specific statement can be made' and a sample as 'an observed or selected subset of a population.'

Guion (1991) noted that the research sample should generally be representative of the population to which findings should generalise. In this study the population consisted of 170 Fund Administrators within Company X, whereas the sample consisted of 107 Fund Administrators whose performance was rated by their direct manager. The sample of the 107 Fund Administrators could therefore be taken as being representative of the population of Fund Administrators. The sample size to assess the nine antecedents of job performance was 81 Fund Administrators.

3.4 Instruments

Five separate assessment instruments were used in this study. The first three instruments, detailed below, namely Biographical information (biodata), the Occupational Personality Questionnaire and the Job Satisfaction Survey were used to predict the job performance of the Fund Administrators. The other two instruments, which follow the discussion, namely the criterion-related questionnaire and Company X's internal performance appraisal results were used as measures of the Fund Administrators' job performance.

3.4.1 Biographical information (Biodata)

Biographical information was gained from 107 Fund Administrators in the form of a structured biodata sheet (see Appendix I) which the Fund Administrators filled in when they completed the OPQ. Biodata of the Fund Administrators was obtained to see whether there were any biographical variables that had an influence on their job performance. The distribution of the Fund Administrators' Age, Language, Gender, Race and Level of Education of the Fund Administrators is tabulated on the following page.

Table 2: Distribution of Fund Administrators' biographical information

Variable	Groupings	N (%)
Gender	Female	94 (87.85%)
	Male	13 (12.15%)
Race	Coloured	71 (33.64%)
	White	36 (66.35%)
Language – first	Afrikaans	93 (86.92%.)
	English	14 (13.08%)
Language – second	Afrikaans	14 (13.08%)
	English	93 (86.92%.)
Education level	Standard 8 & 9	4 (3.7%)
	Standard 10 (Matric)	84 (78.5%)
	Qualifications above Matric	16 (15.0%)
	Unspecified	3 (2.80%)

The sample included 87.85% females and 12.15% males. The sample comprised of 33.64% Coloureds and 66.35% Whites. English was the first language for only 13.08% of the sample and the second language for 86.92%. In the same light, English was thus the second language for 13.08% of the sample, whereas Afrikaans was the first language for 86.92% of the sample.

The qualifications of the sample ranged from Grade 10 (Standard 8) to a postgraduate degree. Most of the sample (82.2%) had a qualification of Matric or lower, 15% had qualifications above Matric, and 2.8% of the sample did not stipulate their level of education. The average number of years in their position as a Fund Administrators was approximately 6.32.

The ages of the sample ranged from 19 to 56, with an average age of 30.33 years (sd=7.22). Age distribution of the sample is shown in the table on the following page.

Table 3: Age distribution of the sample

Grouping	n	Percentage
< 21	1	0.93%
21 – 29	55	51.40%
30 – 39	38	35.53%
40 – 49	11	10.28%
50 >	2	1.86%
Total	107	100%

3.4.1.1 The reliability of the Biodata Sheet

The reliability of the Biodata Sheet is clearly a reflection of how accurately the Fund Administrators completed the forms. However, as a precautionary measure, the biographical information of the Fund Administrators was cross-checked with Company X's internal database, and no discrepancies were found.

3.4.1.2 The contribution of Biodata to this study

In terms of the nine antecedents of job performance identified in the literature review, the antecedent of Biodata was assessed via SHL's Biographical Data Form.

3.4.1.3 Cognitive ability

As there were no cognitive ability tests used in Company X's initial selection procedure, the 'Educational Qualifications' section of the Biographical Data Form was used as an indirect measure and an almost crude indicator of cognitive ability.

In the literature, cognitive ability has been assumed to be correlated with education (Heckman & Vytlačil, 2001; Truxillo, Bennett & Collins, 1998; Boissiere, Knight & Sabot, 1985). In Company X's screening process when the Fund Administrators were initially employed, the minimum qualification requirement was a Matric (or the equivalent thereof). Since most of the Fund Administrators had qualifications between Grade 10 and Matric, it was

assumed that they therefore had the theoretical ability to do the job, although this was not necessarily an indication of whether they also had the motivation to perform (Sackett, Gruys & Ellingson, 1998).

If further research emanating from this study is to be used in future, it is recommended that cognitive ability tests be added to the battery of selection instruments.

3.4.1.4 Correlation with other instruments

The biographical information of the Fund Administrators was correlated with the criterion-related questionnaire and Company X's performance appraisal results to assess whether there were any biographical characteristics which had an influence on their job performance. The results and interpretation of these findings will be discussed in Chapters 4 and 5 respectively.

3.4.2 The OPQ

The Occupational Personality Questionnaire is a self-report measure of a person's preferred way of behaving in the workplace (SHL, 1993: 2). Vernon (1964:266) defines a self-report questionnaire as one which 'contains a considerable number of items which have been shown by item analysis to be relevant to the central concept or attitude.'

The advantages of a self-report questionnaire is that it is convenient, easily scored, can give a more reliable indication than random interview questions and 'can be easily normed or standardised for equal comparison to others of his kind' Vernon (1964:266).

The theoretical basis of the OPQ is similar to that of other trait-based measures of personality, and proposes that cross-situational, stable differences in temperament and disposition which play some role in determining behaviour, can be identified and measured with the aid of self-report questionnaires (Robertson & Kinder, 1997).

A study by Stanton, Mathews, Graham and Brimelow (1991) showed that the Big Five personality factors could be identified in the 30 scales of the Occupational Personality Questionnaire (SHL, 1999) tabulated below:

Table 4: The Big Five and the OPQ

Big Five	OPQ scales used to compute the Big Five
Openness to experience	Conceptual (+) Artistic (+) Innovative (+)
Agreeableness	Caring (+) Democratic (-) Competitive (+)
Conscientiousness	Detail conscious (+) Conscientious (+) Forward planning (+)
Extroversion	Outgoing (+) Affiliative (-) Emotional control (+)
Emotional stability	Relaxed (-) Worrying (+) Tough minded (+) Optimistic (+)

+ is on the positive side of the scale,

- is on the negative side of the scale

3.4.2.1 Format of the OPQ Concept Model 4.2

The OPQ CM 4.2 has 30 scales, each measuring a different construct of personality, which have been empirically tested and refined to provide a detailed description of personality (Drakeley, Hallmark, Robertson & Bartram, 1995). (See Appendix A for a sample OPQ CM 4.2 profile).

These 30 scales are grouped into nine dimensions designed to tap psychological constructs into three broad areas, namely relationships with people, thinking style, and feeling and emotions (Drakeley, Hallmark, Robertson & Bartram, 1995). (See Appendix C for a description of the OPQ CM 4.2 scales).

The format of the OPQ CM 4.2 is ipsative in nature, thus requiring candidates to make a forced choice between elements of their preferred working environment as presented by a 100 sets with four items in each set (SHL, 1993). Clemens (1966, as cited in Saville & Wilson, 1991:220) deemed a questionnaire to be ipsative when 'the sum of scores obtained over the attributes or scales for each respondent is a constant.'

3.4.2.2 The Concept Models of the OPQ

There are two versions of the OPQ Concept Models: the OPQ CM 4.2 completed by all the Fund Administrators in this study and the OPQ CM 5.2 (Appendix B) which is a normative (Likert scale) version. The Concept Models are primarily appropriate for use with professional and managerial groups, in applications such as selection, recruitment and development (Drakeley et al, 1995). It has further been suggested that ipsative instruments, such as the OPQ CM 4.2 be used more for assessment, recruitment and selection, whilst normative versions, such as the OPQ CM 5.2 be used more training, development and counselling purposes (SHL, 1999).

The overall purposes of the OPQ are to (a) predict how a person might behave in the workplace (b) to help managers know themselves better (c) to understand relationships between personality and occupational groups (d) to assist in career counselling and (e) for personnel selection (Haladyna, 1991). The OPQ is also used to aid in selection interviews, for statistical validation, as an input to an assessment centre, training, individual development, 360° degree feedback, team building and development, counselling and research (SHL, 1993).

3.4.2.3 Development of the OPQ

The OPQ was developed by SHL in the United Kingdom between 1981 and 1984 (SHL, 1993: 2). The three main objectives that guided the development of the OPQ were: that it was designed specifically for the world of work, it avoided clinical psychological constructs and provided a comprehensive measurement of personality (Drakeley et al, 1995).

Since the original launch of the OPQ in 1984, the OPQ Concept Model has been used successfully in over 40 countries and 27 languages worldwide (Schmit, Kihm & Robie, 2000, SHL, 1999).

3.4.2.4 Internal consistency reliability of the OPQ CM 4.2

Internal consistency reliability is a measure of the accuracy or consistency with which a set of questionnaire items measure one particular scale of personality (SHL 1993: 6:3).

SHL used Cronbach's coefficient alpha which indicates the extent to which the items in the scale are measuring the same construct, or the mean coefficient for all the possible split half pairings of the items in the scale (Viswesvaran & Ones, 2000a). SHL (1993) reported coefficient alphas for the 30 OPQ scales (n=146) ranging between 0.68 (for both the Modest and Achieving scales) and 0.88 (for the Artistic scale).

The OPQ scales display high internal consistency and there is good convergent and discriminant validity at the item level, with each item loading on its own scale higher than it does on any other scale (Robertson & Kinder, 1997). Swinburne (1985 as cited in Robertson & Kinder, 1997) further added that the reliability of measurement for the scales is good, with psychometric properties at least as good as those of other widely used personality measures, such as the 16PF.

3.4.2.5 Test-retest reliability of the OPQ CM 4.2

Test-retest reliability is concerned with the stability of a measure of personality over time. Test-retest reliability involves correlating results on personality scales on one occasion with results for the same group at least some time later (SHL 1993: 6:4).

SHL conducted a test-retest reliability study using the OPQ Concept Model of Human Resource Professionals (n=108) with an average period of 15 months between the two test sessions. With levels of significance all at the 1% level, the scales ranged between 0.48 (for the Change Orientated scale) and 0.73 (for the Data Rational scale), with a median of 0.64 (SHL 1993: 6:5).

3.4.2.6 OPQ and the South African market

Before 2001, the OPQ was classified as a 'Level C test' by the Health Professions Council of South Africa (HPCSA website). In October 2001 it was deemed to be a 'psychological instrument' by the HPCSA (Health Professions Council of South Africa test classification and review certificate).

As the South African culture is so unique, a recent study was conducted to assess the adaptation of the OPQ CM 4.2 for the South African working environment. A study conducted by SHL (1999b) found, from two sample groups (made up of 158 and 205 people respectively from mixed occupational and educational levels and titles) that the South African coefficient alpha and mean scores compared well with those of the UK. It was concluded that the OPQ CM 4.2 South African version could be used with confidence among South African populations.

3.4.2.7 Validity of the OPQ

SHL has conducted, and still undertakes, intensive research on its assessment instruments on a regular basis. In 1993, Robertson & Kinder conducted a meta-analysis of the validity of the OPQ across 21 validity studies and occupational groups. Whilst there were some methodological limitations with their study (Salgado, 1996), the results that Robertson & Kinder (1993) found were useful in providing 'what are probably lower bound estimates of the OPQ validities' (SHL 1993: 9:9).

3.4.2.8 Administration of the OPQ

The administration of the OPQ to the Fund Administrators took place under standardised testing conditions (Guion, 1991) using trained and experienced SHL psychometrists only. All the data was collect on answer sheets that were firstly error checked and then scored by an optical scanner, thus reducing data entry errors and processing time. The Biodata sheets were also completed during the test sessions which took place between April and September 2000.

3.4.2.9 The contribution of the OPQ to this study

In terms of the nine antecedents of job performance identified in the literature review, the OPQ was used to assess the variable of personality.

3.4.2.10 Correlation with other instruments

The OPQ was correlated with both the criterion-related questionnaire and Company X's performance appraisal results to determine if there were any personality characteristics of the Fund Administrators that had an influence on their job performance. The results and interpretation of these findings will be discussed in Chapters 4 and 5 respectively.

3.4.3 The Job Satisfaction Survey (JSS)

Spector (1985, 1998) researcher and developer of the Job Satisfaction Survey, described the JSS as being a 36 item, nine-facet scale used to assess employee attitudes about the job and aspects of the job. The JSS measures nine aspects of job satisfaction which were chosen from an extensive literature review on job satisfaction dimensions (Spector 1985). (See Appendix E for the Job Satisfaction Survey).

The nine aspects or subscales of the JSS include:

1. **Pay:** Pay and remuneration
2. **Promotion:** Promotion opportunities
3. **Supervision:** Direct supervision
4. **Fringe benefits:** Monetary and non-monetary fringe benefits
5. **Contingent Rewards:** Appreciation, recognition and rewards for good work
6. **Operating Conditions:** Operating policies and procedures
7. **Co-workers:** People one works with
8. **Nature of Work:** Job tasks themselves
9. **Communication:** Communication within the organisation

Job satisfaction has been assumed to represent a cluster of evaluative feelings about the job, and the JSS was designed to measure them individually, as well as give an overall attitude score as a combination of individual facets (Spector 1985). Although the JSS was originally developed for use in personnel service, public and non-profit sector organisations, it is applicable to all organisations (Spector 1998).

3.4.3.1 Format of the JSS

Each facet of job satisfaction is assessed with four items, and a total score is computed from all 36 items. A summated Likert type rating scale format is used, with six choices per item ranging from 'strongly disagree' to 'strongly agree.' Each of the items is a statement that is either favourable (written positively) or unfavourable (written negatively) about an aspect of the job (Spector 1998).

Scores on each of the nine subscales, based on four items each, can range from 4 to 24; while scores for total job satisfaction, based on the sum of all 36 items, can range from 36 to 216. The nine facets are Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards (performance based rewards), Operating Conditions (required rules and procedures), Co-workers, Nature of Work and Communication. (Expanded definitions of each dimension can be found in Appendix F). Added together, these nine facets represent an overall score of job performance.

Researchers (such as Aldage & Brief, 1978; Quinn & Mangione, 1973; Wanous & Lawler 1972, as cited in Spector, 1985:695) have noted that although it is not universally accepted that the overall attitude about a job is a combination of specific aspect attitudes, there is considerable empirical evidence that a linear combination of satisfaction aspects is an adequate overall satisfaction measure.

Gilmore & Beirman (1999) affirmed that Spector selected the above-mentioned job dimensions because they were the most meaningful and frequently chosen topics related to job satisfaction. Furthermore, the Job

Satisfaction scale has been found to be simple to understand and thorough (Vyskocil-Czajkowski & Gilmore, 1992, as cited in Gilmore & Beirman, 1999).

3.4.3.2 Reliability of the JSS

The internal consistency or co-efficient alphas from a sample of 3067 people who completed the questionnaire, ranged from 0.60 for the co-worker subscale to 0.91 for the total scale (Spector 1998), which the author previously described as 'a reasonable internal consistency' (Spector 1985:705). The widely accepted minimum standard for internal consistency is 0.7 (Nunnally, 1970), and thus the co-worker subscale of 0.60 was somewhat lower than the researcher (Spector) was hoping for.

The test-retest reliability (which reflects the stability of the scale over time) was only conducted once on a very small sample of 43 employees, eighteen months apart. The reliabilities ranged from 0.37 to 0.74, which Spector (1997) found remarkable as the organisation had undergone massive changes.

3.4.3.3 Validity of the JSS

In a comparative study of the JSS and the Job Description Index (JDI) (Smith, Kendall & Hulin, 1969, as cited in Spector, 1997), using the same sample of candidates, it was found that only five of the nine JSS subscales (Pay, Promotion, Supervision, Co-workers and Nature of work) correlated well with corresponding subscales of the JDI (Spector, 1997). The positive correlations, which were quite strong, ranged from 0.61 for Co-workers to 0.80 for Supervision (Spector, 1997).

3.4.3.4 Administration of the JSS

The JSS was completed by a total of 81 Fund Administrators in March 2002. Although the surveys were completed anonymously, the researcher was able to match all the relevant data by the Fund Administrator's employee numbers.

3.4.3.5 The contribution of the JSS to this study

Whilst it is acknowledged that some of the linkages between the JSS subscales and the antecedents of job performance may be rather tenuous at times, the JSS was chosen for this study as the total score, as well as some of its subscales were able to broadly account for four of the identified nine antecedents of job performance. The details of the relationships are mentioned below:

1. The **'Total' scale** of the JSS was used to assess the antecedent of **job satisfaction**. The Total scale is the sum of all the nine sub-scales.
2. The **'Co-workers'** sub-scale was used to assess the sub-category of **job design**, namely **work groups**. As an identified antecedent, job design per se, was not assessed, as all the Fund Administrators generally perform the same job tasks and functions. However, the four items in the JSS making up the sub-scale of co-workers to assess satisfaction with work groups, are numbers 7,16,25 and 34 respectively.
3. The **'Supervisor' sub-scale** was used to assess the antecedent of **management style**. The four items in the JSS making up the sub-scale of supervisor to assess satisfaction with management style, are numbers 3,12,21 and 30 respectively.
4. Researchers such as Orpen (1994), Bishay (1996) and Helmreich, Wilhelm & Runge (1981) have shown that there is a link between motivation and job satisfaction. Whilst this is not a consensus view on the relationship between job satisfaction and motivation, a tentative connection between the two variables can be made using the **'Total' scale** of the JSS, to broadly accommodate the Fund Administrators' level of motivation in the workplace.
5. Organisational Citizenship Behaviour has been shown to be linked to Organisational Commitment (Organ & Ryan, 1995, Scholl, 1981; Weiner, 1982; Williams & Anderson, 1991 as cited in Schappe, 1998). To

recapitulate, Organisational Commitment has been said to comprise of the relative strength of one's active identification with the employing organisation, such that one has a strong belief in and acceptance of the organisation's goals and values, is willing to exert considerable effort on behalf of the organisation, and has a strong desire to maintain membership of the organisation (Mowday, Porter & Steers, 1992; Porter, Steers, Mowday & Boulian, 1974, as cited in Strümpfer & Mlonzi, 2001).

Wilch (1988, as cited in Gambill, 2001) found that overall job satisfaction was positively correlated with organisational commitment. It could thus be said that the '**Operating Conditions**' scale (operating policies and procedures) (Spector, 1998) of the JSS was used to crudely accommodate the part of **Organisational Commitment** that covers the acceptance of the organisation's goals and values (Mowday, Porter & Steers, 1992, as cited in Strümpfer & Mlonzi, 2001). Within the JSS, the four items making up the sub-scale of operating conditions, to tenuously assess Organisational Commitment, are numbers 6,15,24 and 31 respectively.

3.4.3.6 Correlation with other instruments

The JSS was correlated with the criterion-related questionnaire to determine if there is a relationship between the job satisfaction and job performance of the Fund Administrators. The results and interpretation of these findings will be discussed in Chapters 4 and 5 respectively.

3.4.4 Job Analysis and the criterion-related questionnaire

The criterion-related questionnaire accommodated some of the job-related issues that were raised in the literature review regarding the models of job performance. Essentially, as the criterion-related questionnaire was derived from the WPS job analysis technique, the specific task and non-task (Campbell et al, 1992) related activities that make up the performance of the Fund Administrators, could be identified.

Furthermore, as the direct supervisors of the Fund Administrators rated the specific individuals on their performance proficiency, a distinction was therefore made between identifying the behaviours needed to do the job and how well that individual performed in that job.

There is also, evidence of the distinctions between task and contextual performance (Borman & Motowidlo, 1993) of the Fund Administrators that can be identified in the criterion-related questionnaire. The ten essential task activities the Fund Administrators perform in their jobs is outlined in Appendix E.

The items in the criterion-related questionnaire can also be linked to the ten dimensions of Viswesvaran & Ones's (2000b) model of job performance. With the possible exception of the Leadership dimension, the other nine dimensions that can be identified in the criterion-related questionnaire are: Overall job performance, Job performance or productivity, Effort, Job knowledge, Interpersonal competence, Administrative competence, Quality, Communication competence and Compliance with rules.

As there were no appropriate or applicable questionnaires in the South African market to assess the job performance of such a specialised job, within a specific industry, an instrument to assess the job performance of the Fund Administrators warranted development. The criterion-related questionnaire was therefore developed for this study (See Appendix D). It consisted of two phases.

3.4.4.1 Phase 1 of the criterion-related questionnaire development

In the first phase, seven Fund Administrator Managers in the role of subject matter experts contributed in the job analysis process of a generic Fund Administrator position. Borman et al. (1997) stated that a job analysis is the first critical step in selection research and practice. A structured job analysis questionnaire, namely the Work Profiling System (WPS), was utilised.

The Work Profiling System (WPS) is an integrated job analysis system designed to give a structured, comprehensive and detailed picture of a job's requirements and the human attributes likely to be needed in a job holder in order to fulfil those requirements (SHL, 1994). In other words, it defines the behaviours needed to perform the job.

Information is collected from the subject matter experts about a job in a structured and systematic way by means of a detailed questionnaire. The information is then computer analysed to meet a variety of objectives, including, providing a profile of job tasks and context as well as the human attributes required for effective job performance (SHL, 1994).

The WPS process usually takes between two to four hours, and follows the same systematic procedure (SHL, 1994) as outlined below. In this case, the subject matter experts were all asked to do the following:

1. Agree upon the main objectives of the Fund Administrator's job.
2. Select a number of set tasks grouped together by function, which describe the job.
3. Rate the tasks (included within the selected task categories) to indicate their importance to achieving their job objectives.
4. Rate the same items to indicate the proportion of time spent performing those tasks.
5. Rank the selected task categories according to their overall performance.
6. Provide responses to indicate the context (background and environment) in which the tasks are performed.

As there was much discussion between the Fund Administrator Managers, the WPS session took just over four hours. A job description report was then generated outlining and detailing the various aspects and tasks of a Fund Administrator's job (See Appendix D). The WPS results were then validated with the Fund Administrator Managers.

The structured nature of the WPS job analysis process is initially more task orientated. However, a computerised person specification report (Robertson & Smith, 2001) can be generated to show the essential, important and relevant personality characteristics and some of the other contextual factors needed to do the job (for example, of a Fund Administrator) more proficiently.

From the WPS, the ten most important tasks that a Fund Administrator does were encapsulated by six overall dimensions, namely: Managing Tasks, Receiving Information, Working with Information, Communicating, Administering and Physical Activities.

3.4.4.2 Phase 2 of the criterion-related questionnaire development

Dr Liesl Korff and Professor Hennie Kriek, from SHL, designed and developed a criterion-related questionnaire, based on their extensive research and experience with such questionnaires.

The criterion-related questionnaire encapsulated the essential tasks of the job which had emerged from the WPS. In other words, the results of the criterion-related questionnaire provided a mechanism for the assessment of proficiency of the Fund Administrators' job performance.

The format of the criterion-related questionnaire, based on job relevant questions, has 48 questions relating to specific work related behaviour and overall job performance, and is in the form of a five point Likert scale (Mitchell & Jolley, 1992, Ghiselli, Campbell & Zedeck, 1981).

The names and performance data of 110 of the 170 Fund Administrators working in Company X were given to the researcher by the internal HR Department. After an intensive training and debriefing session with consultants and the project leader, the managers of the selected Fund Administrators were then asked to objectively complete the 48 item criterion-related questionnaire on their subordinate's on-the-job performance.

The training was done in order to minimise rating errors (Latham, Wexley & Pursell, 1975, Smith, 1983) when the managers of the selected Fund Administrators filled in the criterion-related questionnaire. Almost 95% of the criterion-related questionnaire forms were completed by the Fund Administrators' managers.

The Fund Administrator managers were required to rate their employees on a number of statements relating to certain behaviours that are critical to the employee's job performance. The statements were categorised according to two sections; namely specific work related behaviour and overall job performance.

The criterion-related questionnaire incorporated six dimensions, covering ten critical tasks (45 items) of the Fund Administrator's job. The six dimensions are: Managing Tasks, Receiving Information, Working with Information, Communicating, Administering and Physical Activities. The last three questions in the criterion-related questionnaire related to overall employee performance.

3.4.4.3 Reliability of the criterion-related questionnaire

One of the pre-limitations of the research was the fact that even though SHL had, in the past, developed and designed many similar criterion-related questionnaires, the criterion-related questionnaire used in this study had not been previously validated.

Link (1924, as cited in Guion, 1983) strongly recommended that tests should be empirically evaluated. Therefore, a post completion statistical analysis using alpha co-efficients was conducted to determine the internal consistency. Internal consistency reliability is a measure of the accuracy or consistency with which a set of questionnaire items measure one particular scale (SHL, 1999:3).

Overall, the alpha coefficients of five of the six dimensions of the criterion-related questionnaire ranged between 0.87 and 0.96. The sixth dimension

only had one item and was thus not analysed. Further discussion of the findings of the criterion-related questionnaire are found in Chapter 5.

3.4.5 Performance appraisal results

The standardised performance appraisal form is used throughout Company X at least once, and sometimes twice a year as the official Performance Appraisal system. It is quite a detailed form (see Appendix H) for the direct managers/ superiors of the job incumbent to complete. The front page details the employee information, appraiser (and co-appraiser) information as well as instructions for completing the form.

3.4.5.1 Format of the performance appraisal results form

The form is divided into three sections. Section 1 details the outputs and contracted performance areas, which are weighted and scored. Section 2 pertains to job related behavioural dimensions / competencies. Raters are asked to fill in the six most important critical behavioural dimensions/ competencies of the Fund Administrator (which is a similar process to the job analysis Work Profiling System), rank them, fill in an appraisal score and give examples to explain the score given. Section 3 is the total of the contracted performance areas and the competency ratings.

The total performance appraisal scale results in a five point system, namely:

- 1 = Far less than contracted standards
- 2 = Less than contracted standards
- 3 = Measure up to contracted standards
- 4 = Higher than contracted standards
- 5 = Much higher than contracted standards

The researcher obtained the most recent performance appraisal data pertaining to the Fund Administrators' performance in 2001. Subsequent to this, several Fund Administrators had either been promoted / moved within the company / left the department. There were also two Fund Administrators who had not been in their positions long enough to have participated in a

performance appraisal. Thus, the performance appraisal data of only 94 Fund Administrators was utilised.

3.4.5.2 Correlation with other instruments

As the criterion-related questionnaire had not been previously validated before using it in this study, it was correlated with Company X's performance appraisal results to determine if both instruments were, in fact, measuring the same thing - in other words the job performance of the Fund Administrators. The results and interpretation of these findings will be discussed in Chapters 4 and 5 respectively.

3.5 Personality scale predictions

Based on the results of the structured job analysis (WPS), some of the personality scales which could possibly emerge as strong predictors of job performance, are discussed below.

1. Fund Administrators need to be extremely meticulous, precise and accurate when filling in administrative records, thus a higher score on the Detail Conscious scale is anticipated. A 'higher' sten (standard ten) score is one that falls within the range between seven and ten on the ten point scale.
2. Fund Administrators are required to see routine tasks through from beginning to end, as well as be deadline driven, thus a higher score on the Conscientious scale is expected.
3. Fund Administrators must be able to logically and critically evaluate the information/data given to them, thus a higher score is expected on the Data Rationale scale.
4. The nature of the job requires Fund Administrators to be very practical, operate, plan and think in the present, thus a lower score is anticipated on the Forward Planning scale. A 'lower' sten score is one that falls within the range between one and four on the relevant scale.
5. Fund Administrators need to be very client focussed, having a strong ability to persuade clients, understand their motives/behaviour as well as

- being confident when speaking to clients. Therefore, a higher score is expected on the Persuasive, Socially Confident and Behavioural scales.
6. Even though Fund Administrators interact with their clients (predominantly by telephone), they essentially work by themselves, thus a lower score is anticipated on the Affiliative scale.
 7. Ideally Fund Administrators are required to keep calm and stay focussed if they find themselves in stressful situations, thus a lower score is anticipated on the Worrying scale. In other words, they do not get easily flustered in stressful situations.

3.6 Statistics (Analysis of data)

The data analysis was processed using the Statistica software package, Version 5 (1997) installed on the main network server at SHL South Africa. Descriptive statistics (such as means, standard deviation, alpha coefficients and skewness) were used to describe the sample and results. Alpha values of 1% ($p < 0.01$) and 5% ($p < 0.05$) were used as the levels of significance. A forward stepwise and a standard multiple regression analysis was conducted between the various instruments, however, more details regarding the regression analysis is found below.

3.7 Regression Analysis

Regression is used to understand the relationship between one or more independent/predictor variables and a dependent/criterion variable (Statsoft, 2002). However, the major conceptual limitation of all regression techniques is that whilst relationships can be ascertained, the underlying causal mechanism may not always be confirmed. There are four underlying assumptions of regression analysis.

3.7.1 Four assumptions of regression analysis

The first underlying assumption of the regression analysis is that the relationship between the dependent and independent variables is linear (Osborne & Waters, 2002). Whilst in practice this assumption can virtually never be confirmed; it is fortunate that multiple regression procedures are not greatly affected by minor deviations from this assumption (Statsoft, 2002).

The second assumption is that the residuals (predicted minus observed values) show a normal distribution pattern. The third assumption is that the variables have been reliably measured, and fourthly, that the variance of errors is the same across all levels of the independent variable (Osborne & Waters, 2002).

3.7.2 Regression analysis in this study

In this study, an initial exploratory multiple forward stepwise regression analysis was conducted in order to assess whether any OPQ scales predicted job performance. In a forward stepwise regression analysis, the number of predictors to be selected and the order of entry are both statistically (e.g. entry or removal criterion), and not theoretically determined (MIT University Senior Survey Report, 1994).

From the forward stepwise regression, three significant OPQ scales were found. The three scales were then inputted into a standard multiple regression analysis, together with the Job Satisfaction Survey data and Biographical information to assess further potential relationships. The results of both the forward stepwise and standard regression analysis are discussed in the following chapter.

All the dichotomous variables in the standard regression were numeric data which were reduced to binary codings, the key of which is tabulated below. The only variable - age - which is a continuous (as opposed to a dichotomous) variable, was not reduced to binary coding. Instead, Pearson's Product Moment Coefficient of Correlation was used as a measure of the existence, strength and direction of the association between two variables (Levin, 1990). A debate exists around using Pearson's Product Moment correlation for determining the relationship between continuous (e.g. age) and dichotomised (e.g. male and female) variables as used in this study.

Howell (1995) explained that the Pearson coefficient (r) can be calculated as usual, although it is labelled the point-biserial coefficient (r_{pb}). Thus,

algebraically, $r_{pb} = r$, where one variable is dichotomous and the other is roughly continuous and more or less normally distributed in arrays. Guilford (1965) confirmed this and stated that if there are only two class intervals and they were treated as genuine categories, then a product-moment r could be computed with Pearson's basic formula. He further stated that the result would be a point-biserial r . 'Computer programs for giving Pearson r 's from score data automatically yield point-biserial r 's between continuous and dichotomised variables' (Guilford, 1965: 322).

It seems, therefore, that the Pearson Product Moment correlation method can be used, but that the characteristics of the data must be taken into account when interpreting the correlation coefficient.

Table 5: Key to binary coding of dichotomous variables

Variable	Binary Coding
Gender	Males = 0 Females = 1
Language	Afrikaans = 0 English = 1
Race	Coloureds = 0 Whites = 1
Qualifications	Less than Grade 12 (Matric) = 0 Grade 12 (Matric) or higher = 1

3.8 Other job performance factors to account for

The six antecedents that have been shown to influence job performance are personality, job satisfaction, management style, organisational commitment, biodata and job design (co-workers). The three remaining antecedents that have been shown to influence job performance, yet were only indirectly accounted for by the assessment instruments, and which also need to be considered are: organisational citizenship behaviour, motivation and cognitive ability.

As was previously mentioned, motivation was indirectly and crudely measured by the Total JSS scale and the part of Organisational citizenship behaviour that covers the acceptance of the organisation's goals and values (Mowday, Porter & Steers, 1992, as cited in Strümpfer & Mlonzi, 2001) was indirectly and crudely measured by the Operating Conditions sub-scale of the JSS. Whilst there were no ability tests conducted in this study, cognitive ability was indirectly and crudely measured by the Education Qualifications section of the Biodata sheet.

The factor of job design was held constant as the entire sample of Fund Administrators used in the study, generally do the same type of work, made up of very similar tasks, and thus should not influence their overall job performance.

3.9 Summary

Nine antecedents of job performance were identified in the literature review as having an influence of job performance. In order to assess whether these nine antecedents did, in fact, have an influence on the performance of the Fund Administrators in the study, several instruments were used.

The three instruments that were chosen to assess whether the job related variables of job satisfaction, management style, motivation, organisational commitment and the work groups sub-category of job design had an influence on the Fund Administrators' job performance, were the Occupational Personality Questionnaire, the Job Satisfaction Survey and Biographical information.

The Fund Administrators' performance was measured by a criterion-related questionnaire (based on a thorough and structured job analysis) and Company X's internal performance appraisal results.

A regression analysis was conducted to assess whether any of the identified antecedents had a stronger influence on job performance than the others. The results of this finding may be able to establish a purer relationship between

job performance and that/those antecedent/s. The results of all the findings of the study are comprehensively discussed in the following chapter.

University of Cape Town

CHAPTER 4

PRESENTATION OF RESULTS

4.1 Introduction

The results of the research presented in this chapter, have the ultimate aim of establishing whether the original research question (of whether there are certain variables that influence the performance of Fund Administrators in the insurance industry) can be answered.

4.2 Research objectives

There were two research objectives that were formulated within this study. The first objective is to determine whether there is a relationship between the nine identified antecedents and the job performance of Fund Administrators, and the second objective is to try and determine the relationship between them.

The results of the study were derived from the various combinations of correlations between the Occupational Personality Questionnaire Concept Model 4.2 (OPQ CM 4.2), the Job Satisfaction Survey (JSS), Biographical information, the criterion-related questionnaire, and Company X's internal performance appraisal results, as well as via two regression analyses.

4.3 Data analysis

The reporting of the data analysis contains descriptive statistics of the data in various forms, including means, frequencies, standard deviations, skewness and alpha coefficients. The relationships between the OPQ, the JSS, Biographical information, the criterion-related questionnaire and Company X's internal performance appraisal results were analysed by means of Pearson Product Moment correlations. A forward stepwise multiple regression procedure was used to determine the significance and weight of the contribution of the different scales of the OPQ in predicting job success, which was measured by the dependent variable, namely, the total of the criterion-related questionnaire.

The results from the forward stepwise multiple regression were then inputted into a standard multiple regression, together with the Job Satisfaction Survey and the biographical information in order to potentially predict the job performance of the Fund Administrators within this study.

4.4 Statistical significance

In order to rule out the possibility of obtaining the results by chance, the researcher used the concept of statistical significance to be confident at either the 95% or 99% level. The level of significance is denoted by 'p' and is written as $p \leq 0.01$ (for the 99% level) or as $p \leq 0.05$ (for the 95% level).

Anastasi (1976) advocated the use of Pearson's Product Moment Correlation of Coefficient Significance levels to explain statistical significance. For a sample size of 100 (the approximate number of Fund Administrators data to be used in this study), the correlation between the predictor and criterion must be at least 0.16 at the 5% level (p values ≤ 0.05) or at least 0.23 at the 1% level (p values ≤ 0.01) for the results to be statistically significant. The levels of significance are clearly denoted throughout the Results chapter.

4.5 Discussion of results

The relationship between the OPQ, the JSS, Biographical information, the criterion-related questionnaire and Company X's internal performance appraisal results is systematically reported below.

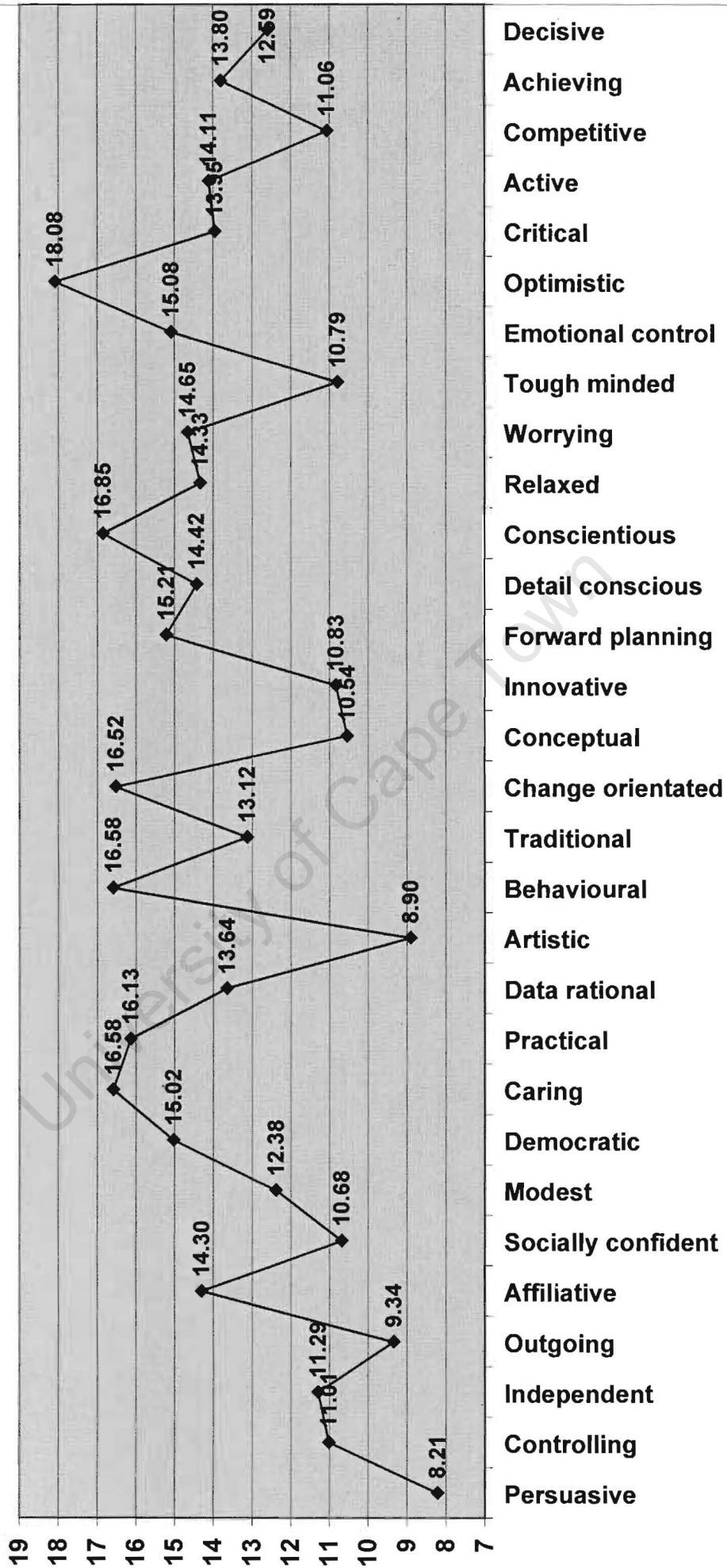
4.5.1 The OPQ

In table 6 on the following page, the means, standard deviations and skewness of all 30 OPQ scales are presented. A profile analysis chart is shown after the table, which graphically depicts each of the 30 OPQ scales, together with their mean scores.

Table 6: Means, standard deviations and skewness of the OPQ scales
(n= 107)

OPQ CM 4.2	Mean	SD	Skewness
R1 – Persuasive	8.21	3.41	0.99
R2 – Controlling	11.01	4.37	0.31
R3 – Independent	11.29	3.59	0.33
R4 – Outgoing	9.34	4.17	1.12
R5 – Affiliative	14.30	4.31	- 0.29
R6 – Socially confident	10.68	3.97	0.75
R7 – Modest	12.38	3.08	0.42
R8 – Democratic	15.02	3.08	0.01
R9 – Caring	16.58	3.74	- 0.30
T1 – Practical	16.13	2.50	- 0.60
T2 – Data rational	13.64	5.11	- 0.01
T3 – Artistic	8.90	3.83	0.62
T4 – Behavioural	16.58	3.62	- 0.14
T5 – Traditional	13.12	2.91	- 0.08
T6 – Change orientated	16.52	3.62	- 0.08
T7 – Conceptual	10.54	3.17	0.31
T8 – Innovative	10.83	3.17	0.36
T9 – Forward planning	15.21	3.33	- 0.37
T10 – Detail conscious	14.42	3.51	- 0.07
T11 – Conscientious	16.85	3.19	- 0.32
F1 – Relaxed	14.33	4.13	- 0.62
F2 – Worrying	14.65	3.89	- 0.54
F3 – Tough minded	10.79	3.98	0.06
F4 – Emotional control	15.08	4.61	- 0.01
F5 – Optimistic	18.08	4.13	0.21
F6 – Critical	13.95	2.90	- 0.07
F7 – Active	14.11	3.99	0.26
F8 – Competitive	11.06	3.04	0.73
F9 – Achieving	13.80	3.26	- 0.30
F10 – Decisive	12.59	4.14	0.31
D1 – Consistency	4.35	0.78	

Profile analysis chart of the OPQ (n=107)



As can be seen from table 6, the means of the OPQ scales range from the lowest scale of 8.21 (Persuasive) to the highest scale of 18.08 (Optimistic). The standard deviations range from the lowest scale of 2.50 (Practical) to the highest scale of 5.11 (Data rational). The mean of the overall consistency scale is 4.35. The consistency scale of the OPQ represents how consistently the candidate/s answered the questions throughout, compared to the norm group (Professional & Managerial, SHL, 1994)

The normal distribution of Professional & Managerial norm group tends to fall between a four and seven on the ten-point scale, with the extreme scores to be found between a one and three and an eight and ten respectively.

The range of skewness lies between -0.62 and 1.12 . Skewness is defined as asymmetry in the distribution of the sample data values. Values on one side of the distribution tend to be further from the 'middle' than values on the other side. Data from a positively skewed (i.e. data skewed to the right of the curve) distribution have values that are clustered together below the mean, but have a long tail above the mean. The opposite occurs with data that is negatively skewed (Prophet StatGuide glossary, 1997).

It was also found in the data that there were four outliers amongst the 30 OPQ scales. An outlier is an observation in a data set which is far removed in value from the others in the data set. It is an extreme case which is an unusually large or small value compared to the others. Outliers can seriously bias the results by "pulling" or "pushing" the regression line in a particular direction, thereby leading to biased regression coefficients (Statsoft, 2002).

An outlier might be the result of an error in measurement, or, if it is genuine, might indicate an extreme of behaviour of the process under study. A value is deemed to be an outlier if it lies above 0.7 or below -0.7 on a normal distribution curve (Statistics GLA website). The four outliers amongst the 30 OPQ scales were Competitive (0.73), Socially Confident (0.75), Persuasive (0.99) and Outgoing (1.12).

4.5.2 The criterion-related questionnaire

The criterion-related questionnaire was designed from the structured job analysis technique, known as the Work Profiling System (WPS). The results of the WPS showed that there were six all encompassing dimensions within the role of a Fund Administrator.

Each performance dimension was evaluated by a different number of items in the criterion-related questionnaire: Five items in the criterion-related questionnaire related to Managing Tasks, ten items related to Receiving Information, fifteen items related to Working with Information, nine items related to Communicating, five items related to Administering, whilst Physical Activities measured only one item.

Table 7 below depicts the means and standard deviations of the criteria items.

Table 7: Means and standard deviations of the criterion dimensions

Dimensions	Items	Mean	SD	Co-efficient Alpha
Managing Tasks	5	3.49	0.88	0.91
Receiving Information	10	3.73	0.68	0.95
Working with Information	15	3.56	0.78	0.96
Communicating	9	3.82	0.69	0.92
Administering	5	3.86	0.70	0.87
Physical Activities	1	3.95	0.97	-

As can be seen from table 7 above, the means of the criterion items ranged from the lowest of 3.49 (Managing Tasks) to the highest of 3.95 (Physical Activities) with all the criteria items means falling between a 3 (measure up to contracted standards) and a 4 score (higher than contracted standards). The standard deviations range from the lowest of 0.68 (Receiving Information) to the highest of 0.97 (Physical Activities).

Table 7 also shows that the alpha coefficients of five of the six dimensions did in fact lie above the 0.6 to 0.8 range, producing the following results: Managing Tasks (0.91), Receiving Information, (0.95) Working with Information (0.96), Communicating (0.92) and Administering (0.87). Physical Activities was not included as it was only measured by one item.

4.5.2.1 Inter-correlation between the six criterion dimensions.

Table 8 below depicts the inter-correlation between the six criterion dimensions of the criterion-related questionnaire.

Table 8: Inter-correlation between the criterion dimensions

Dimensions	A	C	E	F	G	I
Managing tasks	1.00					
Receiving information	0.84**	1.00				
Working with information	0.87**	0.91**	1.00			
Communicating	0.71**	0.79**	0.77**	1.00		
Administering	0.69**	0.71**	0.72**	0.59**	1.00	
Physical activities	0.45**	0.54**	0.56**	0.43**	0.31**	1.00
Criterion total	0.90**	0.95**	0.97**	0.87**	0.78**	0.55**

** indicates correlation coefficients with p values ≤ 0.01

Key:

- A Managing tasks
- C Receiving information
- E Working with information
- F Communicating
- G Administering
- I Physical activities

High values of Cronbach's co-efficient alpha indicate a more homogenous scale content (SHL 1999:10:2). Paradoxically, however, scales with very high alpha co-efficients can be too narrow in their focus and therefore lack bandwidth. This could result in the effect of reducing the validity for measuring broad personality traits (SHL 1993:6:3). A case could therefore be made that optimum alpha co-efficients should lie between the range of 0.6 to 0.8 (SHL 1993:6:3). Therefore, the high alpha co-efficients in Table 7 could possibly have had an effect on the reduction of the validity for measuring broad personality traits.

As can be seen from Table 8, consistent moderate to high correlation coefficients were found between the different criterion items. As a result it was therefore decided to collapse them into one total score. As the alpha coefficients are quite high, it can be expected that all of the dimensions correlate very highly with each other as well as with the criterion total, and thus a high internal consistency reliability of the criterion-related questionnaire.

4.5.2.2 Correlation between the predictors and criteria

Table 9 below shows the correlation of the criteria dimensions of the criterion-related questionnaire with each of the 30 OPQ scales. As the inter correlations between the different criteria dimensions were quite high, the total score of the correlation can be solely used, instead of using all six dimensions individually.

Table 9: Correlation coefficients between the OPQ and the criteria dimensions

	A	C	E	F	G	I	Total
R1 – Persuasive	-0.11	0.00	-0.09	-0.01	-0.14	0.02	-0.07
R2 – Controlling	0.25*	0.25*	0.26**	0.30**	0.17	0.03	0.27**
R3 – Independent	0.05	0.06	0.06	0.03	0.05	-0.04	0.05
R4 – Outgoing	-0.08	-0.06	-0.08	0.03	-0.21*	-0.02	-0.08
R5 – Affiliative	-0.21*	-0.23*	-0.20*	-0.15	-0.15	-0.04	-0.20*
R6 – Socially confident	0.06	-0.02	-0.04	0.13	-0.19*	0.09	0.00
R7 – Modest	-0.12	-0.07	-0.03	-0.14	-0.05	0.10	-0.08
R8 – Democratic	-0.11	-0.05	-0.05	-0.01	-0.14	0.11	-0.06
R9 – Caring	-0.41**	-0.28**	-0.29**	-0.09	-0.30**	-0.13	-0.29**
T1 – Practical	-0.04	-0.05	0.01	-0.09	0.16	-0.13	-0.02
T2 – Data rational	0.01	-0.01	0.01	-0.06	-0.05	0.10	-0.01
T3 – Artistic	-0.26**	-0.23*	-0.23*	-0.19*	-0.24*	-0.13	-0.24*
T4 – Behavioural	-0.19	-0.20*	-0.17	-0.11	-0.11	-0.05	-0.17
T5 – Traditional	-0.03	0.10	0.06	0.05	0.22*	-0.05	0.08
T6 – Change orientated	-0.02	-0.09	-0.07	-0.06	-0.01	0.08	-0.06
T7 – Conceptual	0.02	0.02	0.00	0.04	-0.11	0.13	0.01
T8 – Innovative	0.04	-0.04	-0.03	0.03	-0.18	-0.14	-0.04
T9 – Forward planning	0.26**	0.20*	0.18	0.15	0.16	0.09	0.20*
T10 – Detail conscious	0.16	0.20*	0.19	0.04	0.27**	0.02	0.18
T11 – Conscientious	0.38**	0.32**	0.29**	0.16	0.34**	0.08	0.31**
F1 – Relaxed	0.15	0.08	0.08	0.08	0.08	-0.04	0.09
F2 – Worrying	-0.07	-0.04	0.00	-0.22	0.12	-0.03	-0.06
F3 – Tough minded	0.05	0.05	0.03	0.02	0.01	-0.05	0.03
F4 – Emotional control	-0.12	-0.08	-0.09	-0.06	0.02	-0.04	-0.08
F5 – Optimistic	0.10	0.10	0.07	0.14	0.07	-0.01	0.10
F6 – Critical	-0.05	-0.05	-0.05	-0.09	-0.04	-0.06	-0.06
F7 – Active	0.01	-0.01	0.06	0.08	0.09	-0.07	0.05
F8 – Competitive	0.05	0.03	-0.01	-0.08	0.10	0.15	0.01
F9 – Achieving	0.20**	0.11	0.10	0.00	0.16	0.04	0.11
F10 – Decisive	0.05	0.05	0.07	0.02	0.05	0.01	0.05

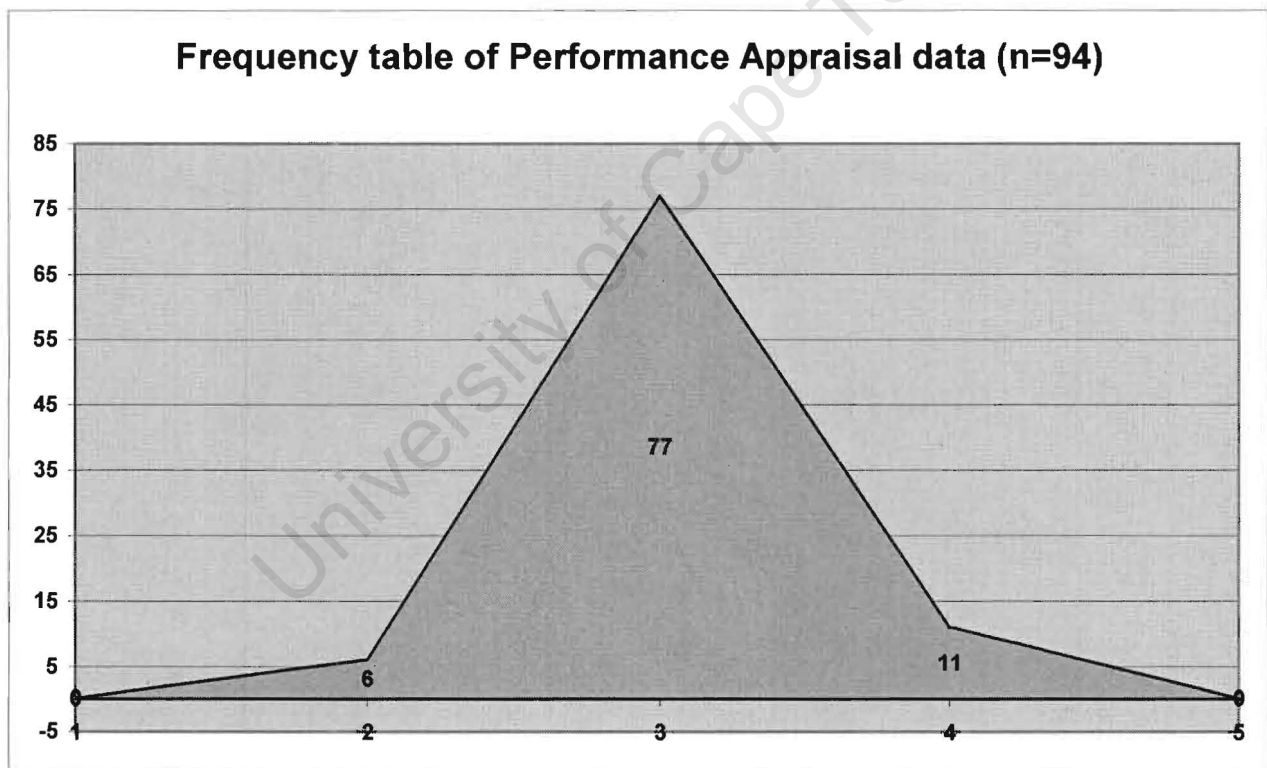
** indicates correlation coefficients with p values ≤ 0.01 * indicates correlation coefficients with p values ≤ 0.05

It can be seen in table 9, that the OPQ dimensions correlating the highest with the criterion are Controlling (0.27), Affiliative (-0.20), Caring (-0.29), Artistic (-0.24), Forward Planning (0.20) and Conscientious (0.31). Whilst the two scales of Behavioural (- 0.17) and Detail Conscious (0.18) do not quite reach the 5% significance level, their scores can possibly also contribute to the final results.

4.5.3 Company X's internal performance appraisal results

The performance appraisal data pertaining to 94 of the 107 Fund Administrators' performance in 2001 was obtained. The results are illustrated by a frequency table in Table 10 below.

Table 10: Frequency table of performance appraisal data



As can be seen from the frequency table above, there were no Fund Administrators who scored a 1 (far less than contracted standards) or a 5 (much higher than contracted standards). The majority (82%) received a 3, meaning that they measured up to the contracted standards. On the lower end of the scale, 6.3% of the Fund Administrators scored a 2 (less than contracted standards) whilst 11.7% received a 4 (higher than contracted standards).

4.5.3.1 Company X's internal performance appraisal results and the OPQ

Due to three incomplete forms, the scores of 91 Fund Administrators internal performance appraisal results were correlated with the OPQ. Table 11 below details of the results of the findings.

Table 11: Correlation between the performance appraisal results and the OPQ (n=91)

Persuasive	-0.03
Controlling	0.28*
Independent	0.09
Outgoing	0.02
Affiliative	-0.12
Socially confident	-0.12
Modest	-0.18
Democratic	-0.06
Caring	-0.13
Practical	-0.03
Data rational	-0.01
Artistic	-0.22
Behavioural	0.01
Traditional	-0.08
Change orientated	-0.19
Conceptual	-0.06
Innovative	0.03
Forward planning	0.03
Detail conscious	0.01
Conscientious	0.13
Relaxed	0.04
Worrying	0.01
Tough minded	-0.01
Emotional control	-0.02
Optimistic	0.07
Critical	-0.05
Active	-0.05
Competitive	0.06
Achieving	0.18
Decisive	0.31*

* indicates correlation coefficients with p values ≤ 0.05

As can be seen from table 11 above, there were only three significant findings at the 5% level ($p < 0.05$) that were found. The Controlling (0.28) and Decisive scales 0.31) were positively correlated, whilst the Artistic scale was negatively correlated (-0.22) with Company X's internal performance appraisal scores.

4.5.3.2 Company X's internal performance appraisal results and the criterion-related questionnaire

Company X's internal performance appraisal results of the Fund Administrators were correlated with the criterion-related questionnaire to determine whether both instruments were in fact measuring the same thing - the job performance of the Fund Administrators. Table 12 below illustrates the details of the significant findings.

Table 12: Significant correlations between the criterion-related questionnaire and Company X's performance appraisal results (N=91)

	Performance appraisal results
TOTAL	0.39**
Clerical/Administrative Functions	0.34**
Checking	0.35**
Developing Relationships	0.22*
Handling Information/Instructions	0.40**
Analysing/ Integrating/Interpreting	0.33**
Planning/ Implementing	0.39**
Collecting Information	0.33**
Deciding	0.31**
Using Machinery/Equipment	0.24*
Orally Informing/Investigating	0.39*

** indicates correlation coefficients with p values ≤ 0.01

* indicates correlation coefficients with p values ≤ 0.05

As can be seen from table 12 above, all ten tasks from the job description (including the Total criterion-related questionnaire scale, 0.39) namely: Clerical/Administrative Functions (0.34), Checking (0.35), Developing Relationships (0.22), Handling Information/Instructions (0.40), Analysing/Integrating/Interpreting (0.33), Planning/Implementing (0.39), Collecting Information (0.33), Deciding (0.31), Using Machinery/Equipment (0.24) and Orally Informing/ Investigating (0.39) were positively correlated with the performance appraisal results. Eight of the tasks, as well as the Total score

were significant at the 1% level ($p < 0.01$) level, whereas the other two tasks were significant at the 5% level ($p < 0.05$) level.

4.5.4 Job Satisfaction Survey

Table 13 below shows the means, minimum, maximum, standard deviations and skewness of the Job Satisfaction Survey.

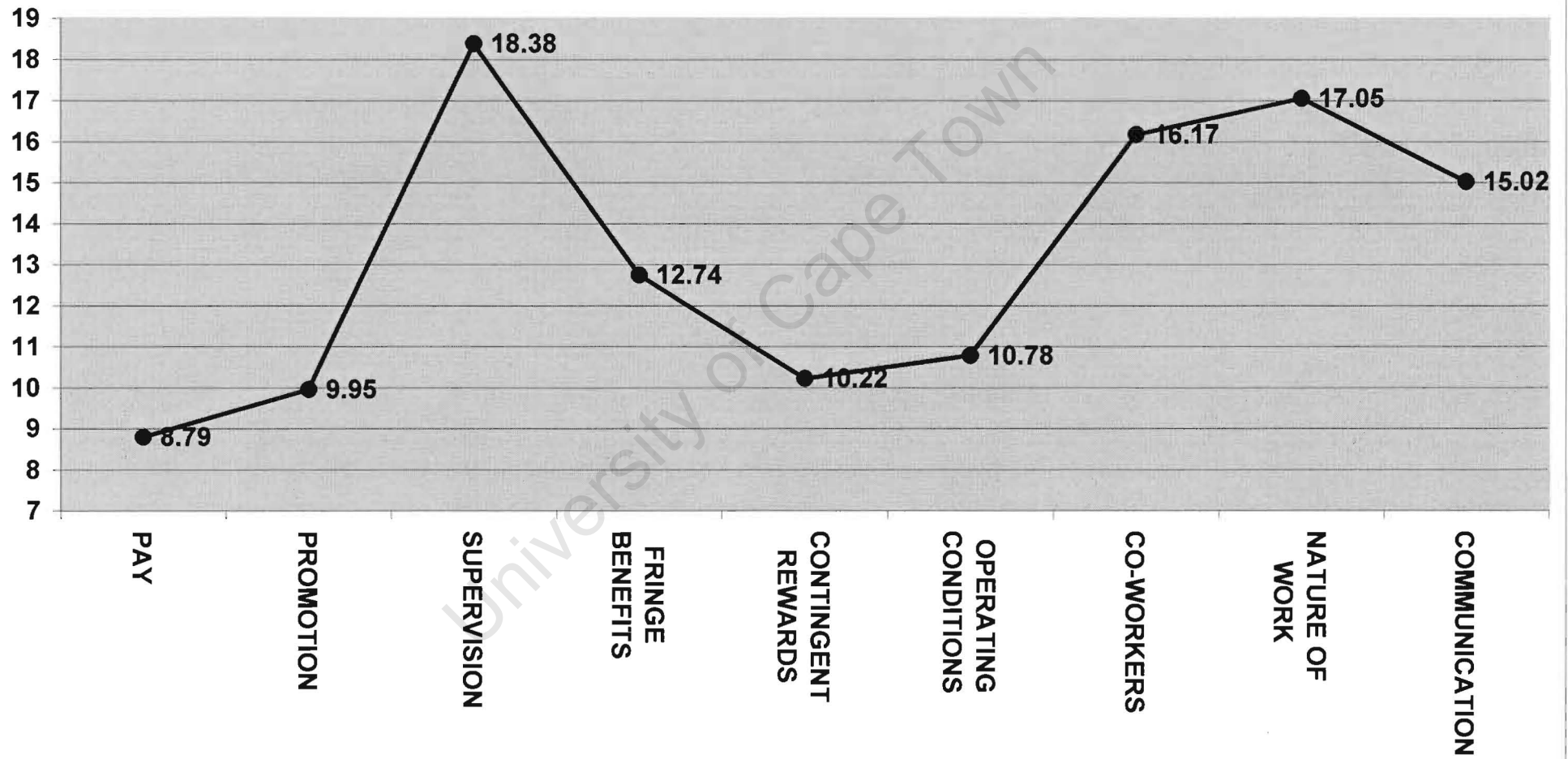
Table 13: Means, minimum, maximum, standard deviations and skewness of the Job Satisfaction Survey (n = 81)

	Mean	Minimum	Maximum	Std.Dev.	Skewness
Total Job Satisfaction	119.11	66	184	23.00	
Pay	8.79	4	17	3.71	0.43
Promotion	9.95	4	20	4.16	0.07
Supervision	18.38	5	24	4.38	-0.98
Fringe Benefits	12.74	4	24	4.87	0.39
Contingent Rewards	10.22	4	20	3.79	0.44
Operating Conditions	10.78	4	22	2.97	0.58
Co-Workers	16.17	4	24	3.66	-0.42
Nature of Work	17.05	4	24	4.79	-0.72
Communication	15.02	6	24	4.36	-0.01

As can be seen from table 13 above, the overall mean for Total job satisfaction is 119.11, indicating a relative satisfaction of the Fund Administrators with their jobs. The means of the other nine scales range from the lowest of 2.97 (Operating Conditions) to the highest of 4.87 (Fringe Benefits). The standard deviation of the total JSS was 23.00. The standard deviations of the other nine scales range from the lowest of 8.79 (Pay) to the highest of 18.38 (Supervision). The skewness ranged from -0.98 to 0.58. The two outliers were Supervision (-0.98) and Nature of Work (-0.72).

A profile analysis chart is shown on the following page which graphically depicts each of the nine subscales of the Job Satisfaction Survey, together with their mean scores.

Profile analysis chart of the Job Satisfaction Survey (n=81)



4.5.4.1 The Job Satisfaction Survey and the criterion-related questionnaire

From the WPS job analysis, a job description was compiled which identified the ten most essential tasks performed by the Fund Administrators (see Appendix E). The ten tasks were derived from criticality ratings when the managers of the Fund Administrators completed the WPS. Criticality ratings of the WPS take into account both the importance of the task in meeting job objectives and the time spent performing the task. The ten tasks were:

1. Clerical / administrative functions
2. Checking
3. Public relations / developing relationships
4. Handling information / instructions
5. Analysing / integrating / interpreting
6. Planning / implementing
7. Collecting information
8. Deciding
9. Using machinery / equipment
10. Orally informing / investigating

Each of the ten tasks identified from the job analysis was correlated with the nine subscales of the Job Satisfaction Survey, the results of which are tabulated on the following page. The ten tasks were encompassed by the broader six dimensions of the criterion-related questionnaire, namely Managing Tasks, Receiving Information, Working with Information, Communicating, Administering and Physical Activities.

Table 14: Correlation between the Job Satisfaction Survey and the criterion-related questionnaire (n=81)

10 essential job tasks from the job analysis	Pay	Promotion	Supervision	Fringe Benefits	Rewards	Conditions	Co-workers	Nature of Work	Communi-cation
Total	0.26*	0.07	0.22	0.23*	0.15	0.15	0.19	0.14	0.30**
Clerical / Administrative Functions	0.18	0.09	0.12	0.20	0.05	0.15	0.10	0.11	0.32**
Checking	0.26*	0.13	0.15	0.22*	0.12	0.21	0.09	0.12	0.28*
Developing Relationships	0.22*	0.04	0.22*	0.06	0.13	0.03	0.28*	0.11	0.24*
Handling Information/ Instructions	0.17	0.05	0.17	0.25*	0.12	0.11	0.13	0.17	0.26*
Analysing/ Integrating/ Interpreting	0.29**	0.07	0.23*	0.26*	0.15	0.22	0.14	0.15	0.32**
Planning/ Implementing	0.21	0.09	0.18	0.21	0.14	0.13	0.16	0.07	0.26*
Collecting Information	0.27*	0.07	0.23*	0.23*	0.15	0.15	0.20	0.12	0.29**
Deciding	0.27*	0.05	0.20	0.21	0.24*	0.15	0.15	0.12	0.17
Using Machinery / Equipment	-0.12	-0.22*	0.05	-0.02	-0.11	-0.04	0.05	0.00	-0.04
Orally Informing / Investigating	0.24*	0.01	0.18	0.18	0.16	0.08	0.21	0.15	0.27*

** indicates correlation coefficients with p values ≤ 0.01

* indicates correlation coefficients with p values ≤ 0.05

As can be seen from table 14 above, the significant correlations between the JSS and criterion-related questionnaire are: The Total criterion-related questionnaire scale (0.26), together with Checking (0.26), Developing Relationships (0.21), Analysing/ Integrating/ Interpreting (0.29), Collecting Information (0.27), Deciding (0.27) and Orally Informing/ Investigating (0.24) were positively related to Pay.

Using Machinery/ Equipment (-0.22) was negatively related to Promotion. Developing Relationships (0.22), Analysing/ Integrating/ Interpreting (0.23) and Collecting Information (0.23) were positively related to Supervision.

The Total criterion-related questionnaire scale (0.23), together with Checking (0.22), Handling Information/Instructions (0.25), Analysing/Integrating/Interpreting (0.26) and Collecting Information (0.23) were positively related to Fringe Benefits. The scale of Deciding (0.24) was positively related to Rewards, whilst Developing Relationships (0.28) was positively related to Co-workers.

The Total criterion-related questionnaire scale (0.30), together with Clerical/Administrative Functions (0.32), Checking (0.28), Developing Relationships (0.24), Handling Information/Instructions (0.26), Analysing/ Integrating/Interpreting (0.32), Planning/Implementing (0.26), Collecting Information (0.29) and Orally Informing/ Investigating (0.27) were positively related to Communication.

Of the nine JSS scales, the two scales that showed no significant correlation with the criterion-related questionnaire were Conditions of work and Nature of work.

4.6 Biographical variables

The biographical variables of Language, Age, Qualifications, Gender and Ethnicity were correlated with the criterion-related questionnaire. The results are tabulated below.

Table 15: Biodata and the criterion-related questionnaire (n=104)

10 essential job tasks from the job analysis	LANGUAGE	AGE	QUALIFICATION	GENDER	RACE
TOTAL	-0.01	0.05	-0.07	0.14	0.16
Clerical/admin functions	-0.11	0.16	-0.12	0.15	0.24*
Checking	-0.09	0.14	-0.04	0.14	0.21*
Developing relationships	0.09	0.07	-0.05	-0.03	0.00
Handling information/ instructions	-0.06	-0.04	-0.07	0.21*	0.16
Analysing/ integrating / interpreting	0.00	0.02	-0.08	0.17	0.18
Planning/implementing	0.01	0.03	-0.01	0.04	0.11
Collecting information	-0.05	0.05	-0.05	0.14	0.12
Deciding	0.05	-0.02	-0.04	0.14	0.14
Using machinery / equipment	0.16	-0.27**	0.01	-0.05	-0.05
Orally informing/ investigating	-0.02	0.02	-0.08	0.21*	0.14

** indicates correlation coefficients with p values ≤ 0.01

* indicates correlation coefficients with p values ≤ 0.05

As can be seen from table 15 above, of the five biodata variables, only Age, Gender and Race correlated with the criterion-related questionnaire. There was no significant correlation between Language, Qualifications and the criterion-related questionnaire.

Age was negatively correlated (-0.27) with Using Machinery/Equipment. Gender was positively correlated (0.21) with Handling Information/Instructions and (0.21) Orally Informing / Investigating. Race positively correlated (0.23) with Clerical/ Administrative Functions and (0.20) with Checking.

4.6.1 Biodata and Company X's internal performance appraisal results

All five biodata variables, namely: Language, Age, Qualifications, Gender and Race were correlated with the Company X's internal performance appraisal results, and the results are tabulated below.

Table 16: Biodata and Company X's internal performance appraisal results (n=91)

	Job performance
Language	-0.06
Age	0.05
Qualification	-0.01
Gender	0.06
Race	0.17

** indicates correlation coefficients with p values ≤ 0.01

* indicates correlation coefficients with p values ≤ 0.05

As can be seen from table 16 above, there were no significant correlations between biodata and job performance results.

4.7 Regression Analysis

A stepwise forward regression analysis was conducted between the OPQ and the criterion-related questionnaire in order to understand the relationship between personality and job performance, and to further refine and confirm the initial personality predictions. In the stepwise regression, every scale on the OPQ was correlated with every dimension on the criterion-related questionnaire, in order to ascertain which OPQ scales had the most (or least) influence on job performance.

Only variables meeting the F criteria of being greater than 3.1 (i.e. $F > 3.100$) were retained in the final regression equation. The results are illustrated in table 17 below:

Table 17: Summary of forward stepwise regression between the OPQ and criterion-related questionnaire

OPQ scale	OPQ Scale	Step +in/-out ¹	Multiple R ²	Multiple R-square ³	R-square change ⁴	F - to entr/rem ⁵	p-level ⁶ (significance)	Variables included ⁷
T11	Conscientious	1	0.312	0.097	0.097	10.990	0.001	1
R2	Controlling	2	0.420	0.176	0.079	9.669	0.002	2
R9	Caring	3	0.448	0.200	0.024	3.045	0.084	3

Overall, the three OPQ scales that were found to be significant were Conscientious, Controlling and Caring (negative). All three scales met the criteria where $F > 3.100$, thus 3¹ 'steps' were used in the regression. The multiple R² is the multiple correlation between the predictors and the criteria, whilst the multiple R-square³ value is an indicator of how well the model fits the data (Statsoft, 2002). The R-square change⁴ indicates the increase in the R-square when the second predictor is added. The R-square change is tested with an F-test⁵, which is referred to as the F-change. A significant F-change means that the variables added in that step significantly improved the prediction (IOA website). The P level⁶ is the level of significance.

4.7.1 Regression analysis results

From the above table 17, in the R-square change column (converted to a percentage), the three most significant OPQ scales can be identified. The scale of Conscientious contributed the most - almost 10% ($0.097 \times 100\%$) to overall job performance. Controlling and Caring added an extra 8% ($0.079 \times 100\%$) and 2% ($0.024 \times 100\%$) variance respectively to the prediction.

The three OPQ scales that showed significant results were then inputted into a standard multiple regression analysis, together with the Job Satisfaction Survey and Biodata results, which are illustrated in table 18 below. The standard multiple regression analysis was selected as the researcher determined which predictors (OPQ scales) to use, based on the previous stepwise regression analysis.

In the regression analysis, the OPQ was used to assess whether the Fund Administrators' personalities had an influence on their job performance, whilst biodata was used to assess whether there were any biographical influences on the Fund Administrators' job performance.

The 'Total' scale of the JSS was used to assess the antecedent of job satisfaction. Four of the JSS sub-scales were used as crude measures of the following antecedents of job performance, namely: motivation, organisational commitment, work groups and management style. However, in the regression analysis, the total Job satisfaction score was used to represent all nine sub-scales, as it had a greater predictive power than if each of the sub-scales were used individually.

Table 18: Summary of standard multiple regression analysis between the OPQ, the JSS and Biodata results

9 variable(s) entered in single step							
	Step	Multiple R	Multiple R-square	R-square Change	F - to entr/rem	p-level	Variables included
OPQ	0	0.527	0.278				3
JSS	1	0.626	0.392	0.114	1.379	0.216	12
Biodata	1	0.634	0.401	0.009	0.236	0.917	16

The nine variables are made up of the three OPQ scales (Conscientious, Controlling and Caring), the Total JSS scale, and the five biographical items (age, language, race, gender and level of education). From table 18 above, it can be seen that the Multiple R for the OPQ is approximately 0.53 (0.527), which means that the OPQ can predict the on-the-job performance of the Fund Administrators by 28% (0.53²). Likewise, the Multiple R-square of the JSS is 39% (0.62²). This means that the JSS contributed 11% (39%-28%) to the prediction of the Fund Administrators' job performance. Similarly, the biodata results added 1% to the prediction of the Fund Administrators' job performance. The results indicate that neither the JSS nor biodata significantly explain the variance in the dependent variable not explained by the three OPQ variables.

4.8 Summary

In this chapter of the study, the main findings of the various combinations of correlations between the OPQ, the JSS, Biographical information, the criterion-related questionnaire and Company X's internal performance appraisal results were presented.

The results of the forward stepwise regression analysis between the Occupational Personality Questionnaire and the criterion-related questionnaire showed that the three most significant personality scales which contributed the most to job performance were Conscientious, Controlling and Caring.

From the standard regression analysis between the OPQ, JSS and Biodata, it was found that the OPQ can predict 28% and the JSS and Biodata can respectively predict 11% and 1% of the Fund Administrators' job performance. Thus 40% of the Fund Administrators' overall job performance could be predicted by three of the instruments used in the research study. The interpretation of the above-mentioned findings is discussed in the following and penultimate chapter.

CHAPTER 5

INTERPRETATION OF RESULTS

5.1 Introduction

This chapter will discuss and explain the results of the study. The researcher will attempt to establish whether there is a relationship between the nine antecedents identified in the literature review and job performance in the role of a Fund Administrator.

The three instruments used were: the Occupational Personality Questionnaire (OPQ), the Job Satisfaction Survey (JSS) and Biographical information. The two instruments that measured the performance of the Fund Administrators were the criterion-related questionnaire and Company X's internal performance appraisal results.

5.3 Initial personality - job performance hypotheses

There were initial *a priori* hypotheses stated in Chapter 3 which postulated that several personality scales would be either positively or negatively correlated with the job performance of Fund Administrators. To recapitulate, the expected positive correlations were: Detail Conscious, Conscientious, Data Rationale, Persuasive, Socially Confident and Behavioural, whilst the expected negative correlations were: Forward Planning, Affiliative and Worrying.

The personality related hypotheses were tested via a correlation and a forward stepwise regression analysis between the OPQ and the criterion-related questionnaire, whilst the overall hypotheses were tested via inter-correlations and a multiple standard regression analysis. The results of all the findings are detailed below.

5.3 Summary of results

The OPQ was correlated with the CRQ and Company X's internal performance appraisal results. Similarly, the CRQ was correlated with the

OPQ, the JSS, Company X's internal performance appraisal results and Biodata. The JSS was correlated with the CRQ. The results were as follows:

5.3.1 The OPQ

The means of the lowest (Persuasive) to the highest (Optimistic) of the 30 OPQ scales can be interpreted as the Fund Administrators generally do not enjoy selling, changing the opinions of others, convincing with arguments or negotiating with others, yet are, on the whole, cheerful, happy and keep their spirits up despite setbacks.

When completing the OPQ, the Fund Administrators answered it almost as consistently as the norm group (Professional & Managerial, SHL, 1994) that they were compared to. Thus, even though the OPQ is a self-report questionnaire, the answers that the Fund Administrators provided can be considered to be as honest and truthful as the norm group.

5.3.2 The criterion-related questionnaire

The means of the criteria items in the criterion-related questionnaire all fell between a rating of three and four, meaning that the performance of the Fund Administrators tends to either measure up to contracted standards (i.e. a 3 rating) or slightly exceed the contracted standards (i.e. a 4 rating). Overall, the performance of the Fund Administrators could be described as average.

5.3.2.1 Correlation between the OPQ and the criterion-related questionnaire

In an initial correlation, the OPQ scales of Controlling (+), Affiliative (-), Caring (-), Artistic (-), Forward Planning (+) and Conscientious (+) were found to correlate with the criterion-related questionnaire at either the 1% or 5% level of significance. In other words, Fund Administrators who displayed to a certain degree (or did not display to a certain degree, in the case of a negative correlation) certain personality traits received higher ratings from their direct managers on their job performance.

The implications of these findings can be a useful guide in future selection of Fund Administrators. Furthermore, the results of these findings, together with the meta-analytic research (to a lesser extent) discussed in the literature review can also contribute to Company X's capacity to select better performers.

A case in point to illustrate is that Fund Administrators who showed a preference for taking charge, organising others, prepared well in advance, set targets, planned for contingencies, completed jobs timeously and persevered with routine and structured tasks tended to receive higher performance ratings from their direct managers.

The results of some of these findings are similar to researchers such as Mount and Barrick (1991) and Mount, Barrick and Strauss (1999) who reported a correlation between conscientiousness and job performance, and Salgado (1997) who found that conscientiousness and emotional stability were valid predictors of job performance across job criteria and occupational groups in the European Community.

In the opposite scenario, Fund Administrators who liked to constantly be around people, got involved in other people's problems, were appreciative of the arts and culture, tried to analyse the behaviour of others and were too sympathetic towards others tended to receive lower performance ratings from their direct managers.

The results for Affiliative and social aspect of these findings were corroborated with Mount and Barrick's (1991) finding that the personality scale of Agreeableness was not an important predictor of job performance, even in those jobs containing a large social component, such as sales or management roles.

5.3.3. Correlation between the OPQ and Company X's internal performance appraisal results

Three significant findings at the 5% level ($p < 0.05$) were found when Company X's internal performance appraisal scores (of the Fund Administrators) were correlated with the OPQ. The two positive correlations were controlling and decisive, and the negative correlation was artistic. This could be interpreted as Fund Administrators who showed a preference for taking charge, organising others, quickly arriving at conclusions, weighed decisions up rapidly, and could 'think on their feet' appeared to obtain higher performance ratings from their managers than their co-workers who delayed making decisions, or relied on their managers for answers to their queries.

On the other hand, Fund Administrators who displayed an appreciation for arts and culture, showed artistic skills and were sensitive towards visual arts and music, tended to receive poorer evaluations from their managers, possibly because the role of a Fund Administrator is very structured and conventional and there is little room for artistic talents or creativity.

5.3.4. Company X's internal performance appraisal results and the criterion-related questionnaire

Company X's internal performance appraisal scores of the Fund Administrators were correlated with the criterion-related questionnaire in order to ascertain whether both instruments were measuring the same thing, namely the job performance of the Fund Administrators. All ten tasks from the job description were positively correlated with the performance appraisal results.

It can thus be inferred that the scores that the Fund Administrators received on the criterion-related questionnaire were consistent with the scores that they received on their internal performance appraisal results, even if they had possibly been assessed by different raters. The conclusion that can be derived is that the better performers scored consistently higher (or in the case of poorer performers, consistently lower) in both assessment instruments that

were used to determine effective levels of job performance. This could also be said to add value to the usage of both instruments.

5.3.5 The Job Satisfaction Survey

To recapitulate from the results of the research, the order of the Fund Administrators job satisfaction, among the nine scales, from most satisfied to least satisfied were: Supervision (18.38), Nature of work (17.05), Co-workers (16.17), Communication (15.02), Fringe benefits (12.74), Operating conditions (10.78), Contingent rewards (10.22), Promotion (9.95) and Pay (8.79).

Albany (2002) noted that distributions of job satisfaction ratings are usually skewed as most people tend to report being satisfied. However, compared to an American private sector norm group (n=5974), the Fund Administrators were less satisfied. The private sector norm group received an overall mean for Total job satisfaction of 142.0 (Spector, 1997).

These findings are similar to a survey conducted by Hewitt Associates (1997, FACES website) who found that, of 46 500 employees from 38 companies, 74% reported general satisfaction with their work. Nature of work and co-workers received the highest satisfaction ratings, whilst advancement opportunities, recognition and pay issues ranked the lowest.

5.3.5.1 Correlation between the Job Satisfaction Survey and the criterion-related questionnaire

Seven of the nine JSS scales that showed a significant correlation with the criterion-related questionnaire were: Pay, Promotion, Supervision, Fringe benefits, Rewards, Co-workers and Communication. The two scales that showed no significant correlation with the criterion-related questionnaire were Operating Conditions and Nature of work.

From the significant findings of the JSS, it could be said that Fund Administrators who are satisfied with their pay, tended to receive higher performance ratings from their managers, covering seven specific of the ten essential tasks (as identified in the job description) necessary in performing the role of a Fund Administrator.

Also, it seems that Fund Administrators who were able to make effective decisions regarding a course of action were more satisfied with the rewards they receive. Similarly, the Fund Administrators who showed an overall affinity for checking, handling, analysing/ integrating/ interpreting and collecting information tended to be satisfied with the fringe benefits of their jobs.

In terms of communication within the Employee Benefits Division, it appears that Fund Administrators who work well, and focus on establishing a rapport or relationship with others, were more satisfied with their co-workers. In terms of broader organisational communication, it could be said that Fund Administrators who performed more effectively in eight specific of the ten relevant job tasks were more satisfied with overall communication in the organisation.

On the negative side, it could be inferred that Fund Administrators who were not as competent as their colleagues in using their computers and other office related machinery tended to be less satisfied with their opportunity for promotion.

Of the nine JSS scales, the two scales that showed no significant correlation with the criterion-related questionnaire were Conditions of work and Nature of work. From these results it seems that the satisfaction of the conditions in which the Fund Administrators work in, as well as the nature of work they do, did not influence their levels of job performance.

5.4 Biographical variables

The biographical variables of Language, Age, Qualifications, Gender and Ethnicity were correlated with the criterion-related and Company X's internal performance appraisal results. These respective results of these correlations are interpreted below:

5.4.1 Biodata and the criterion-related questionnaire

Of the five biodata variables, only Age, Gender and Race correlated with the criterion-related questionnaire. There was no correlation between Language or level of Education and the criterion-related questionnaire.

In terms of age it could be surmised that the older Fund Administrators are not as comfortable with using new technology and computers as the younger ones, and thus received lower scores from their managers.

In terms of gender, it seems that female Fund Administrators received higher scores from their managers when it came to tasks relating to communication and information handling.

In terms of race, the White Fund Administrators tended to obtain higher results from their managers on clerical/ administrative/ checking type tasks than their Coloured counterparts.

5.4.2 Biodata and Company X's internal performance appraisal results

All five biodata variables were correlated with the Company X's internal performance appraisal results. However, as no significant correlations between biodata and job performance results were found, it can be concluded that language, age, qualifications, gender and race had no significant impact on the performance of Fund Administrators.

5.5 Regression analysis

5.5.1 Forward stepwise regression analysis between the OPQ and the criterion-related questionnaire

A forward stepwise regression analysis was conducted between the OPQ and the criterion-related questionnaire in order to further refine and confirm the initial personality related hypotheses. Only variables meeting the $F > 3.100$ were retained in the final regression equation.

From Table 17 in the Results chapter, it can be seen that the three most significant OPQ scales that contributed the most to job performance were the scales of Conscientious, Controlling and Caring. As can be seen from the 'R-square change' column, Conscientiousness on its own, contributed 10% (0.10) to overall job performance. In other words, only 10% of personality would predict job performance, if Conscientiousness was the only scale used as a predictor. Therefore, if the next most significant scale of Controlling is added to Conscientiousness, it will add an extra 8% (0.08) variance to the prediction. Similarly, the third scale of Caring added another two percent (0.02) variance to the overall prediction.

In order to attain the total contribution of personality to the prediction of job performance, the three individual OPQ scales in the Multiple R column were added in a step-by-step manner. The total stepwise regression resulted in a finding of approximately 0.53, meaning that the OPQ was found to predict the on the job performance of the Fund Administrators by 28% (0.53²).

5.5.2 Multiple standard regression analysis between the OPQ, the JSS and Biodata

A standard regression was then performed between the OPQ, JSS and Biodata to further refine the overall results. It was found that the JSS contributed 11% to the prediction of the Fund Administrators' job performance, whilst the biodata results only added an extra 1% to the prediction. Thus, it was found that overall job performance of the Fund Administrators could be predicted by approximately 40%.

5.6 Other job performance related factors

To recapitulate, the antecedent of personality was measured by the OPQ, biodata was measured by the Biodata Sheet, job satisfaction was measured by the Total JSS score, and the three antecedents of management style, organisational commitment, and work groups were measured by the JSS sub-scales of 'Supervision, Operating Conditions, and Co-workers' respectively.

The three remaining antecedents that have been shown to influence job performance, yet were only indirectly accounted for by the assessment instruments, and which also need to be considered are: organisational citizenship behaviour, motivation and cognitive ability.

In the study, motivation was indirectly and crudely measured by the total JSS scale and Organisational citizenship behaviour was indirectly and crudely measured by the Operating Conditions scale of the JSS. Cognitive ability was indirectly and crudely measured by the Education Qualifications section of the Biodata sheet.

Therefore, as the JSS and to a much lesser extent, Biodata, was found to be able to predict job performance, it could be said that organisational citizenship behaviour, motivation and cognitive ability were indirectly accounted for by the JSS.

The factor of job design was held constant as the entire sample of Fund Administrators used in the study, generally do the same type of work, and thus should not influence their overall job performance.

5.7 Overall results

The finding of the OPQ being able to predict the Fund Administrators' job performance by 28% confirmed the original personality related hypotheses which stated that several OPQ scales would be either positively or negatively correlated with the job performance of Fund Administrators.

Similarly, the 11% and 1% contributions of the JSS and Biodata respectfully, together with the 28% OPQ findings therefore negate the Null hypothesis, which stated that there is no relationship between specific personality scales, other job related variables and job performance.

5.8 Further findings

In terms of overall performance prediction of the Fund Administrators in this study, the OPQ, the JSS and Biodata have been shown to collectively predict job performance by 40%. Whilst it is virtually impossible to predict an

individual's total potential job performance to the 100% level, the other 60% of the equation could possibly be made up in varying degrees of the above-mentioned antecedents that were indirectly accounted for. It could also be attributed to other variables beyond the control of the researcher or the scope of discovery of this study.

5.9 Summary

In the penultimate chapter of this study, the main findings and results of the five instruments and their respective correlations were interpreted and discussed. Other potentially influencing factors were briefly alluded to, before the overall results and further findings were presented.

To conclude the essence of this study, it was found that OPQ, the JSS and Biodata can collectively predict job performance of the Fund Administrators by 40%.

University of Cape Town

CHAPTER 6

CONCLUSION

As with any academic study, there are limitations which need to be accounted for. The possible limitations to this study are systematically discussed below:

6.1 Limitations of the study

Firstly, it could be said that one of the main limitations of the nature of this research study is that by generalising to an applicant population, a sample of convenience was used, as the study focused on one organisation with a homogeneous sample of employees, performing similar tasks. The limitation is thus that the results may not possibly be generalisable to the broader population. However, this being said, it opens the door for future studies to assess the external validity of the obtained results by replication of this study in other organisational settings.

Secondly, is the fact that the Fund Administrators were pre-selected by the internal recruitment screening process by Company X when they were first employed in their positions, which needs to be accommodated with the final results of the study.

Thirdly, and also relating to the recruitment process, when the Fund Administrators were initially employed, they were not required to write (cognitive) ability tests. Researchers such as Hunter & Hirsh (1987 as cited in Murphy & Shiarella, 1997) and Hunter & Hunter (1984) found and reported that there is considerable evidence that a combination of both general cognitive ability and broad personality tests are relevant in predicting wide range job success. If ability tests had been used in the initial screening of the Fund Administrators, the results could possibly have been different. If ability tests had been used in combination with the OPQ (and to a minor extent, Biodata), the study could possibly have predicted a higher percentage of job performance. Similarly, if more precise instruments were used in the

assessment battery, it is possible that more antecedents could have been accounted for.

Fourthly, the Occupational Personality Questionnaire and the Job satisfaction Survey were administered in English and not in the predominant home language (Afrikaans) of the Fund Administrators. This could possibly have led to some of the participants misunderstanding some of the questions/ wording. The two main reasons why the questionnaire and survey were not translated were that (i) the language was at a level of English which they should be proficient in, within their work environment, and (ii) as this might have led to distorted meanings in the translation, specifically idiomatic expressions (Bluen, 1986, as cited in Ballantine & Nunns, 1998).

Fifthly, even though the Job Satisfaction Survey contributed to the overall prediction of the Fund Administrators' performance, it cannot be used retrospectively. In other words, it cannot be used as a selection instrument in future, firstly, because people have to have been in the position of Fund Administrator for a reasonable amount of time, in order to complete the questionnaire, and secondly, because the JSS is situation and environmentally specific.

Sixth, it could be argued that, for example, if one or two of the sub-scales of the JSS was extremely high or low, it may have a moderating effect on the Total JSS score. However, researchers such as Ash, Johnsen, Dandridge, Kovel, Petr and Politoske (1999) and Mohajeri-Nelson (1998) have solely used the Total JSS score as an indication of overall job satisfaction. This supports a possible counter-argument that the individual sub-scales do not have as strong a predictive power as an overall measure of job satisfaction.

Seventh, Robertson & Smith (2001) stated that even though work performance tends to be dynamic, job performance is measured as a static phenomenon, for example, via performance appraisal systems.

Eighth, the researchers, as discussed in the literature review, may have had dissimilar understandings of job performance, per se. Therefore, the research they conducted in order to identify and report on the antecedents of job performance in the literature may not have used comparable job performance criteria.

Ninth, due to the proposition that each dimension of overall job performance is complexly determined, it is consequently impossible to specify a sole cause or antecedent of a particular dimension of job performance (Viswesvaran and Ones, 2000b).

The final limitations are the variables and factors that were beyond the control of the researcher, which may have had a possible influencing effect over the results of this study. These could include things like job performance influencing factors or variables that have not yet been established or uncovered. There may have also been unknown environmental issues unknown to the researcher.

6.2 Contribution of this study

Besides contributing valuable information regarding current and potential future performance in Company X, the results of this study may be applicable to other insurance companies employing Fund Administrators. The research could also possibly benefit other organisations employing people doing a job with the same set of competencies as those of a Fund Administrator identified within this study. The present study can also contribute to knowledge of the predictive power of occupational personality questionnaires (and to a minor extent, Biographical information) for future selection situations.

6.3 Recommendations and further research

The results of the literature review confirmed that there are several factors that play a role in determining overall job performance in the workplace. In the diverse South African environment, however, there appears to have been very few predictive validation studies. Therefore, a continuation of such validation

is necessary in determining the job performance of the diverse natures of employees' personalities within the South African workplace.

Secondly, based on the results of this exploratory research study, further research is recommended which should include larger and more diverse representative samples. This study could also be used as a model for a more intensive investigation. However, it would then be recommended to add further instruments to the assessment battery to try and ascertain a more conclusive relationship between the antecedents of motivation, organisational commitment, cognitive ability and job performance.

Thirdly, as a recommendation to the organisation, the researcher suggests that in future Company X should consider adding ability tests to its test battery in their initial screening process of Fund Administrators, in order to obtain more rounded results.

6.4 Summary

In the final chapter of this study, the potential limitations of the research were discussed. This was followed by the contribution of this study, as well as recommendations regarding further research.

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APPENDIX A: EXAMPLE OF AN OPQ CM 4.2 PROFILE CHART

(Ipsative version)

PROFILE CHART												
Scale	SS	1	2	3	4	5	6	7	8	9	10	
RELATIONSHIPS WITH PEOPLE												
R1	3	•	▬			•	•	•	•	•	•	Persuasive - Enjoys selling, changes opinions of others, convincing with arguments, negotiates
R2	2	▬		•	•	•	•	•	•	•	Controlling - Takes charge, directs, manages, organises, supervises others	
R3	3	•	▬			•	•	•	•	•	Independent - Has strong views on things, difficult to manage, speaks up, argues	
R4	5	•	•	•	▬			•	•	•	Outgoing - Fun loving, humorous, sociable, vibrant, talkative, jovial	
R5	7	•	•	•	•	•	▬			•	Affiliative - Has many friends, enjoys being in groups, likes companionship, shares things with friends.	
R6	3	•	▬			•	•	•	•	•	Socially confident - Comfortable with strangers, likes to put others at ease	
R7	7	•	•	•	•	•	▬			•	Modest - Reserved about achievements, avoids talking about self	
R8	7	•	•	•	•	•	▬			•	Democratic - Encourages others to contribute, consults, listens and refers to others	
R9	3	•	▬			•	•	•	•	•	Caring - Considerate to others, helps those in need, sympathetic, tolerant	
THINKING STYLE												
T1	6	•	•	•	•	▬			•	•	Practical - Likes repairing and mending things, enjoys using hands	
T2	9	•	•	•	•	•	•	▬			Data Rational - Likes to work with data, operates on facts, enjoys assessing and measuring	
T3	4	•	•	▬			•	•	•	•	Artistic - Appreciates culture, sensitive to visual arts and music	
T4	6	•	•	•	•	▬			•	•	Behavioural - Analyses thoughts and behaviour, psychologically minded, likes to understand people	
T5	8	•	•	•	•	•	▬			•	Traditional - Preserves well proven methods, prefers the orthodox, disciplined, conventional	
T6	5	•	•	•	▬			•	•	•	Change orientated - Enjoys doing new things, seeks variety, prefers novelty to routine, accepts changes	
T7	6	•	•	•	•	▬			•	•	Conceptual - Theoretical, intellectually curious, enjoys the complex and abstract	
T8	4	•	•	▬			•	•	•	•	Innovative - Generates ideas, shows ingenuity, thinks up solutions	
T9	7	•	•	•	•	•	▬			•	Forward planning - Prepares well in advance, enjoys target setting, forecasts trends, plans projects	
T10	7	•	•	•	•	•	▬			•	Detail conscious - Methodical, keeps things neat and tidy, precise, accurate	
T11	7	•	•	•	•	•	▬			•	Conscientious - Sticks to deadlines, completes jobs, perseveres with routine, likes fixed schedules	
FEELINGS AND EMOTIONS												

F1	8	• • • • • • • 	Relaxed - Calm, relaxed, cool under pressure, free from anxiety, can switch off
F2	7	• • • • • • • 	Worrying - Worries when things go wrong, keyed-up before important events, anxious to do well
F3	5	• • • 	Tough minded - Difficult to hurt or upset, can brush off insults, unaffected by unfair remarks
F4	5	• • • 	Emotional control - Restrained in showing emotions, keeps feelings back, avoids outbursts
F5	6	• • • • • 	Optimistic - Cheerful, happy, keeps spirits up despite setbacks
F6	5	• • • 	Critical - Likes probing the facts, sees the disadvantages, challenges assumptions
F7	5	• • • 	Active - Has energy, moves quickly, enjoys physical exercise, doesn't sit still
F8	5	• • • 	Competitive - Plays to win, determined to beat others, poor loser
F9	4	• • 	Achieving - Ambitious, sets sights high, career centred, results orientated
F10	2		Decisive - Quick at conclusions, weighs things up rapidly, may be hasty, takes risks

Norm: Professional & Managerial (1994)

D1	7	• • • • • • • 	Consistency
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This report was generated using the Concept Model - part of the SHL® Human Resource Management System. Use of the Concept Model OPQ® Expert System is limited to persons who received specialist training in the use and interpretation of the SHL® Occupational Personality Questionnaires. The report herein is generated from the results of a questionnaire answered by the respondent and substantially reflects the answers made by the respondent. Due regard must be taken of the limitations of any self-report questionnaire in the interpretation of this data. This report has been generated electronically - the user of the software can make amendments and additions to the text herein - SHL can accept no liability for the consequences of the use of this report and cannot guarantee that the contents are the unchanged output of the computer system.

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**APPENDIX B: EXAMPLE OF AN OPQ CM 5.2 PROFILE CHART
(Normative version)**

PROFILE CHART

Scale SS 1 2 3 4 5 6 7 8 9 10 **RELATIONSHIPS WITH PEOPLE**

R1	7	•	•	•	•	•	•	•	•	•	Persuasive - Enjoys selling, changes opinions of others, convincing with arguments, negotiates Controlling - Takes charge, directs, manages, organises, supervises others Independent - Has strong views on things, difficult to manage, speaks up, argues
R2	6	•	•	•	•	•	•	•	•	•	
R3	4	•	•	•	•	•	•	•	•	•	
R4	8	•	•	•	•	•	•	•	•	•	Outgoing - Fun loving, humorous, sociable, vibrant, talkative, jovial Affiliative - Has many friends, enjoys being in groups, likes companionship, shares things with friends. Socially confident - Comfortable with strangers, likes to put others at ease
R5	5	•	•	•	•	•	•	•	•	•	
R6	7	•	•	•	•	•	•	•	•	•	
R7	3	•	•	•	•	•	•	•	•	•	Modest - Reserved about achievements, avoids talking about self Democratic - Encourages others to contribute, consults, listens and refers to others Caring - Considerate to others, helps those in need, sympathetic, tolerant
R8	4	•	•	•	•	•	•	•	•	•	
R9	4	•	•	•	•	•	•	•	•	•	

Scale SS 1 2 3 4 5 6 7 8 9 10 **THINKING STYLE**

T1	9	•	•	•	•	•	•	•	•	•	Practical - Likes repairing and mending things, enjoys using hands Data Rational - Likes to work with data, operates on facts, enjoys assessing and measuring Artistic - Appreciates culture, sensitive to visual arts and music Behavioural - Analyses thoughts and behaviour, psychologically minded, likes to understand people
T2	9	•	•	•	•	•	•	•	•	•	
T3	2	•	•	•	•	•	•	•	•	•	
T4	5	•	•	•	•	•	•	•	•	•	Traditional - Preserves well proven methods, prefers the orthodox, disciplined, conventional Change orientated - Enjoys doing new things, seeks variety, prefers novelty to routine, accepts changes Conceptual - Theoretical, intellectually curious, enjoys the complex and abstract Innovative - Generates ideas, shows ingenuity, thinks up solutions
T5	2	•	•	•	•	•	•	•	•	•	
T6	8	•	•	•	•	•	•	•	•	•	
T7	7	•	•	•	•	•	•	•	•	•	Forward planning - Prepares well in advance, enjoys target setting, forecasts trends, plans projects Detail conscious - Methodical, keeps things neat and tidy, precise, accurate Conscientious - Sticks to deadlines, completes jobs, perseveres with routine, likes fixed schedules
T8	7	•	•	•	•	•	•	•	•	•	
T9	6	•	•	•	•	•	•	•	•	•	
T10	8	•	•	•	•	•	•	•	•	•	
T11	9	•	•	•	•	•	•	•	•	•	

APPENDIX C: LABELS AND SUMMARY DEFINITIONS FOR OPQ SCALES

Relationships with people

R1 Persuasive - Enjoys selling, changes opinions of others, convincing with arguments, negotiates

R2 Controlling - Takes charge, directs, manages, organizes, supervises others

R3 Independent - Has strong views on things, difficult to manage, speaks up, argues, dislikes lies

R4 Outgoing - Fun-loving, humorous, sociable, talkative, jovial

R5 Affiliative - has many friends, enjoys being in groups, likes companionship, shares things with friends

R6 Socially confident - Puts people at ease, knows what to say, good with words

R7 Modest - Reserved about achievements, avoids talking about self, accepts others, avoids trappings of office

R8 Democratic - Encourages others to contribute, consults, listens and refers to others

R9 Caring - Considerate to others, helps those in need, sympathetic, tolerant

Thinking style

T1 Practical - Down-to-earth, likes repairing and mending things, better with the concrete

T2 Data rational - Good with data, operates on facts, enjoys assessing and measuring

T3 Artistic - Appreciates culture, shows artistic skills, sensitive to visual arts and music

T4 Behavioural - Analyses thoughts and behaviour, psychologically minded, likes to understand people

T5 Traditional - Preserves well-proven methods, prefers the orthodox, disciplined conventions

T6 Change-orientated - Enjoys doing new things, seeks variety, prefers novelty to routine, accepts changes

T7 Conceptual - Theoretical, intellectually curious, enjoys the complex and abstract

T8 Innovative - Generates ideas, shows ingenuity, thinks up solutions

T9 Forward planning - Prepares well in advance, enjoys target setting, forecasts trends, plans protests

T10 Detail conscious - Methodical, keeps things neat and tidy, precise, accurate

T11 Conscientious - Sticks to deadlines, completes jobs, perseveres with routine, likes fixed schedules

Feelings and emotions

F1 Relaxed - Calm, relaxed, cool under pressure, free from anxiety, can switch off

F2 Worrying - Worry when things go wrong, keyed-up before important events, anxious to do well

F3 Tough-minded - Difficult to hurt or upset, can brush off insults, unaffected by unfair remarks

F4 Emotional control - Restrained in showing emotions, keeps feelings back, avoids outbursts

F5 Optimistic - Cheerful, happy, keeps spirits up despite setbacks

F6 Critical - Good at proving the facts, sees the disadvantages, challenges assumptions

F7 Active - Has energy, moves quickly, enjoys physical exercise, doesn't sit still

F8 Competitive - Plays to win, determined to beat others, poor loser

F9 Achieving - Ambitious, sets sights high, career-centred, results-orientated

F10 Decisive - Quick at conclusions, weighs things up rapidly, may be hasty, takes risks

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APPENDIX D: THE CRITERION-RELATED QUESTIONNAIRE

Strictly confidential

Evaluation of Fund administrator

1 BACKGROUND INFORMATION

Kindly complete the following:

Surname and initials of manager / supervisor: _____

Telephone number of manager: _____
(code)

Surname and initials of employee: _____

For office use only

1-30

31-40

41-70

2 INSTRUCTIONS

In order to ensure that the occupational assessment practices of Company X comply with the current labour legislation, we are conducting a study to confirm the validity of our assessment procedures. You are required to rate some of your employees on a number of statements relating to certain behaviours that are critical to his/her job performance. The statements are categorised according to two sections, namely specific work related behaviour and overall job performance. Please ensure that you rate the employee in both sections. Use the scale outlined on the next page as a guide or norm to indicate to what extent the statements describe the employee's work performance. Please study the descriptions carefully before giving a rating.

It is important to remain as **honest and objective** as possible. This information will only be used **for research purposes**, is confidential and will in no way effect the current position and status of the employee. In order to rate the employee as objectively as possible, the following guidelines should be followed:

- ◆ Avoid one overall impression; rather rate each statement independently
- ◆ Avoid rating all employees high (or low)
- ◆ Use the full scale of 1 to 5; try to avoid middle ratings.

Thank you for your assistance.

Rating scale	Percentage
1	Circle if it is never or almost never true . Development is needed. Improvement is essential immediately. Doubt if person is capable of meeting expectations.
2	Circle if it is usually not true . Development and improvement are needed. Dedication and effort is necessary for this person to be successful.
3	Circle if it is sometimes true . Adequate, but could improve. Improvement is not essential, although ongoing learning and development are desirable.
4	Circle if it is usually true . A strength. Fully meets expectations, sustained over time and is successful.
5	Circle if it is always or almost always true . A strength. Superior to others in meeting expectations. Widely recognised throughout the organisation as superior to others.

SECTION 1: SPECIFIC WORK RELATED BEHAVIOUR

Indicate your answer by circling the appropriate rating scale number.

How well does the employee perform each of the following activities?

- 1 Efficiently completes routine administration tasks
Almost never 1 2 3 4 5 Almost always
- 2 Keeps detailed records of transactions
Almost never 1 2 3 4 5 Almost always
- 3 Maintains an effective filing system
Almost never 1 2 3 4 5 Almost always
- 4 Finds information quickly when requested
Almost never 1 2 3 4 5 Almost always
- 5 Accurately captures data
Almost never 1 2 3 4 5 Almost always
- 6 Competently checks the accuracy of captured information
Almost never 1 2 3 4 5 Almost always
- 7 Accurately proof-reads records
Almost never 1 2 3 4 5 Almost always
- 8 Correctly checks that work has been carried out to specification
Almost never 1 2 3 4 5 Almost always
- 9 Finds errors quickly and corrects them
Almost never 1 2 3 4 5 Almost always
- 10 Thoroughly checks the accuracy of calculations
Almost never 1 2 3 4 5 Almost always

Coding
for office
use only

101

102

103

104

105

106

107

108

109

110

Rating scale	Percentage
1	Circle if it is never or almost never true . Development is needed. Improvement is essential immediately. Doubt if person is capable of meeting expectations.
2	Circle if it is usually not true . Development and improvement are needed. Dedication and effort is necessary for this person to be successful.
3	Circle if it is sometimes true . Adequate, but could improve. Improvement is not essential, although ongoing learning and development are desirable.
4	Circle if it is usually true . A strength. Fully meets expectations, sustained over time and is successful.
5	Circle if it is always or almost always true . A strength. Superior to others in meeting expectations. Widely recognised throughout the organisation as superior to others.

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Indicate your answer by writing the appropriate rating scale number.

How well does the employee perform each of the following activities?

11	Maintains good public relations Almost never 1 2 3 4 5 Almost always	111
12	Answers the telephone in a professional manner Almost never 1 2 3 4 5 Almost always	112
13	Deals with telephone queries in a competent fashion Almost never 1 2 3 4 5 Almost always	113
14	Understands client needs Almost never 1 2 3 4 5 Almost always	114
15	Establishes good relationships with difficult individuals Almost never 1 2 3 4 5 Almost always	115
16	Makes polite conversation with clients Almost never 1 2 3 4 5 Almost always	116
17	Accurately enters information on computer Almost never 1 2 3 4 5 Almost always	117
18	Effectively follows instructions to operate a system Almost never 1 2 3 4 5 Almost always	118
19	Understands written instructions Almost never 1 2 3 4 5 Almost always	119
20	Completes tasks successfully for which verbal instructions were given Almost never 1 2 3 4 5 Almost always	120
21	Takes accurate notes in meetings and proceedings Almost never 1 2 3 4 5 Almost always	121

Rating scale	Percentage
1	Circle if it is never or almost never true . Development is needed. Improvement is essential immediately. Doubt if person is capable of meeting expectations.
2	Circle if it is usually not true . Development and improvement are needed. Dedication and effort is necessary for this person to be successful.
3	Circle if it is sometimes true . Adequate, but could improve. Improvement is not essential, although ongoing learning and development are desirable.
4	Circle if it is usually true . A strength. Fully meets expectations, sustained over time and is successful.
5	Circle if it is always or almost always true . A strength. Superior to others in meeting expectations. Widely recognised throughout the organisation as superior to others.

Indicate your answer by writing the appropriate rating scale **number**.

How well does the employee perform each of the following activities?

- 22 Analyses numerical information successfully
 Almost never 1 2 3 4 5 Almost always
- 23 Detects errors in information
 Almost never 1 2 3 4 5 Almost always
- 24 Explains information to others in a clear manner
 Almost never 1 2 3 4 5 Almost always
- 25 Can integrate large amounts of data to the basic essentials
 Almost never 1 2 3 4 5 Almost always
- 26 Thoroughly evaluates alternatives before making a choice
 Almost never 1 2 3 4 5 Almost always
- 27 Interprets and follows rules correctly
 Almost never 1 2 3 4 5 Almost always
- 28 Acts proactively in anticipation of potential problems.
 Almost never 1 2 3 4 5 Almost always
- 29 Performs duties in a logical manner.
 Almost never 1 2 3 4 5 Almost always
- 30 Adjusts activities in the face of unanticipated changes
 Almost never 1 2 3 4 5 Almost always
- 31 Prioritises activities
 Almost never 1 2 3 4 5 Almost always

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122

123

124

125

126

127

128

129

130

131

Rating scale	Percentage
1	Circle if it is never or almost never true . Development is needed. Improvement is essential immediately. Doubt if person is capable of meeting expectations.
2	Circle if it is usually not true . Development and improvement are needed. Dedication and effort is necessary for this person to be successful.
3	Circle if it is sometimes true . Adequate, but could improve. Improvement is not essential, although ongoing learning and development are desirable.
4	Circle if it is usually true . A strength. Fully meets expectations, sustained over time and is successful.
5	Circle if it is always or almost always true . A strength. Superior to others in meeting expectations. Widely recognised throughout the organisation as superior to others.

Indicate your answer by writing the appropriate rating scale number.

How well does the employee perform each of the following activities?

32 Sifts through information to establish what is essential and relevant
Almost never 1 2 3 4 5 Almost always

33 Accurately carries out instructions
Almost never 1 2 3 4 5 Almost always

34 Asks appropriate questions in order to verify information
Almost never 1 2 3 4 5 Almost always

35 Is able to summarise arguments
Almost never 1 2 3 4 5 Almost always

36 Listens accurately to instructions
Almost never 1 2 3 4 5 Almost always

37 Detects inconsistencies in information
Almost never 1 2 3 4 5 Almost always

38 Acts on own initiative when faced with tough decisions
Almost never 1 2 3 4 5 Almost always

39 Consults on a course of action with others
Almost never 1 2 3 4 5 Almost always

40 Makes sound judgements after evaluating options
Almost never 1 2 3 4 5 Almost always

41 Thinks clearly when under time pressure
Almost never 1 2 3 4 5 Almost always

42 Uses computer equipment effectively
Almost never 1 2 3 4 5 Almost always

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132

133

134

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139

140

141

142

Rating scale	Percentage
1	Circle if it is never or almost never true . Development is needed. Improvement is essential immediately. Doubt if person is capable of meeting expectations.
2	Circle if it is usually not true . Development and improvement are needed. Dedication and effort is necessary for this person to be successful.
3	Circle if it is sometimes true . Adequate, but could improve. Improvement is not essential, although ongoing learning and development are desirable.
4	Circle if it is usually true . A strength. Fully meets expectations, sustained over time and is successful.
5	Circle if it is always or almost always true . A strength. Superior to others in meeting expectations. Widely recognised throughout the organisation as superior to others.

Indicate your answer by writing the appropriate rating scale number.

How well does the employee perform each of the following activities?

- 43 Can explain information clearly
 Almost never 1 2 3 4 5 Almost always
- 44 Can report back accurately to a supervisor
 Almost never 1 2 3 4 5 Almost always
- 45 Skilfully briefs individuals on a situation
 Almost never 1 2 3 4 5 Almost always
- 46 Competently gives information over the telephone
 Almost never 1 2 3 4 5 Almost always

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145

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SECTION 2: OVERALL JOB PERFORMANCE

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Please rate the employee's **overall job performance** using the following scale:

It is essential that the employee's performance <u>improve drastically</u> .	1
The employee's performance <u>must still improve</u> .	2
The employee's performance is <u>acceptable but can still improve</u> .	3
The employee's performance is of a <u>high standard</u> .	4
The employee's performance is <u>outstanding</u> .	5
Overall job performance rating	

147

Please rate the employee's **suitability to function at a higher level** in Company X:

The employee is suitable to function at a higher level	No	1
	Yes – immediately	5
	Yes – within 1 year	4
	Yes – within 1-2 years	3
	Yes – in 2+ years	2
Rating indicating suitability to function at a higher level		

148

Are there any other comments you would like to make?

	149
	150
	151
	152
	153

Thank you for your honest and objective ratings in the above sections, as well as your contribution to research and fair assessment practices in Company X

APPENDIX E: JOB DESCRIPTION REPORT OF THE FUND ADMINISTRATOR



WORK PROFILING SYSTEM JOB DESCRIPTION REPORT

INTERNATIONAL EDITION - Version 1.4

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Fund Administrator

JOB TITLE

Organization: *Company X*
Location: *Cape Town*
Reports to: *Funds Administrator Manager*

MAIN PURPOSE OF JOB

To create, update, maintain member records, administer and pay benefits and do the billing and collection for administration.

JOB OBJECTIVES

To create, update, maintain member records
To administer and pay benefits
To do the billing and collection for administration
To timeously react to ongoing changes, with regard to client profile, products etc.
To do daily and weekly progress reports
To document all correspondence with clients according to SEB & PF90 requirements
To finalise quotations within X amount of days, and complete and file all the background paperwork

BACKGROUND REQUIREMENTS

Level of education: Standard 10 / Grade 12 / University Entrance
Job related formal training: 1-3 months
Job related work experience: 4-6 years
Other requirements: N/A

IMPORTANT NOTICE

This report was generated using the Work Profiling System module of the SHL® Human Resource Management System. The report is computer-generated from the results of one or more job analysis questionnaires answered by subject matter experts and substantially reflects the answers provided by them. Due regard of this must be taken in the interpretation of this data. This report has been generated electronically - the user of the software can make amendments and additions to the text herein - SHL cannot accept any liability for the consequences of the use of this report and cannot guarantee that the contents are the unchanged output of the computer system.



JOB DESCRIPTION REPORT	Work Profile
Fund Administrator	02/05/2003 Page 2

ESSENTIAL WORK ACTIVITIES



Essential activities are defined as task statements with ratings equal to or greater than 60 on a 100 point scale of task criticality. Criticality ratings take into account the importance of the task in meeting job objectives and the time spent performing the task. These ratings were provided by people who know this job well. See WPS Technical Report for details.

G1: CLERICAL / ADMINISTRATIVE FUNCTIONS

Maintaining detailed records
Completing routine administration
Finding records in manual system
Physically filing information
Searching individual files

E3: CHECKING

Checking work has been carried out to specification
Verifying the accuracy of calculations
Checking correct recording on computer printout
Checking correct recording in reports, documents, etc.
Proof reading typed or printed material

F5: PUBLIC RELATIONS / DEVELOPING RELATIONSHIPS

Working well with others in the team
Maintaining good public relations
Responding to complaints timeously
Acting as a reception point for telephone inquiries
Establishing relationships with antagonistic individuals
Establishing rapid rapport with a new contact
Making polite conversation not directly job relevant

C2: HANDLING INFORMATION / INSTRUCTIONS

Following written instructions
Follow logical instructions to operate a system
Entering details into a computer
Following printed diagrams
Entering details into non-computer records
Following instructions given orally
Taking short notes

E1: ANALYZING / INTEGRATING / INTERPRETING

Speaking a second language
Interpreting information (e.g., to simplify or explain)
Analysing numerical information
Interpreting rules, laws, agreements, etc.
Evaluating alternatives prior to choice
Critically examining information for accuracy / quality



JOB DESCRIPTION REPORT	Work Profile
Fund Administrator	02/05/2003 Page 3

A1: PLANNING / IMPLEMENTING

Anticipating problems
Deciding work priorities
Revising plans to account for changed circumstances
Planning a logical sequence of events or tasks

C1: COLLECTING INFORMATION

Listening to arguments or evidence
Receiving instructions via the phone
Inquiring into claims or disputes
Listening to verbal reports from colleagues
Listening to verbal instructions from superiors
Asking questions to establish information required
Establishing information for proof, validation or evidence

E4: DECIDING

Making decisions after thorough evaluation
Making quick decisions under time pressure
Deciding a course of action in conjunction with others
Deciding a course of action on own initiative

I3: USING MACHINERY / EQUIPMENT

Reading from a Visual Display Unit
Using an alphanumeric keyboard other than for typing
Using a numeric keyboard for arithmetic calculations

F2: ORALLY INFORMING / INVESTIGATING

Providing clear spoken information
Making a verbal report to a supervisor or manager
Briefing individuals on tasks or situations

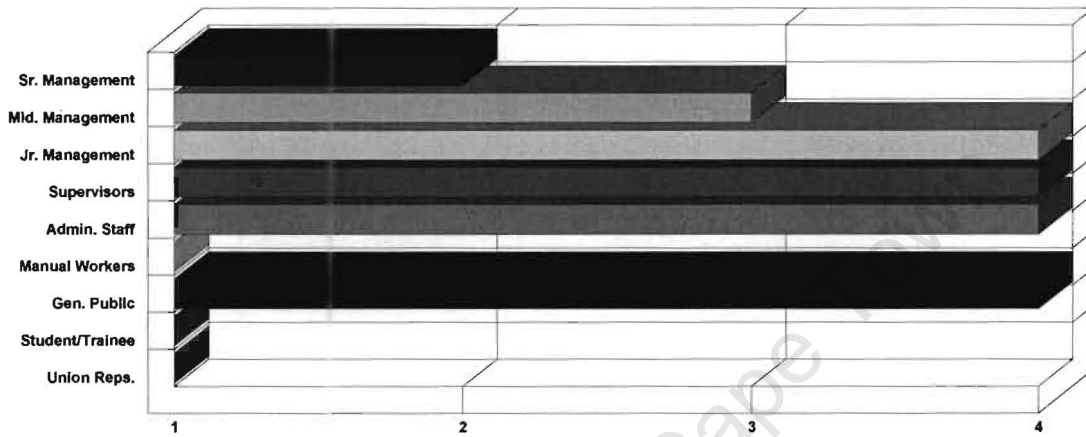


INTERPERSONAL CONTACT

The graphs below show the nature, type and frequency of interpersonal contact required by the job.



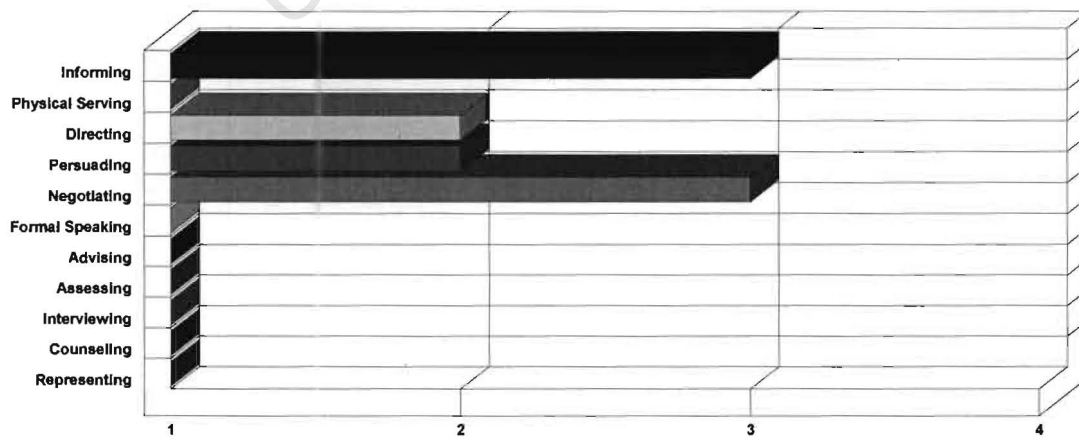
CONTACT WITH WHOM?



Key

- 1: None
- 2: Occasional (1-9% of time)
- 3: Moderate (10-20% of time)
- 4: Frequent (21% + of time)

TYPE OF CONTACT



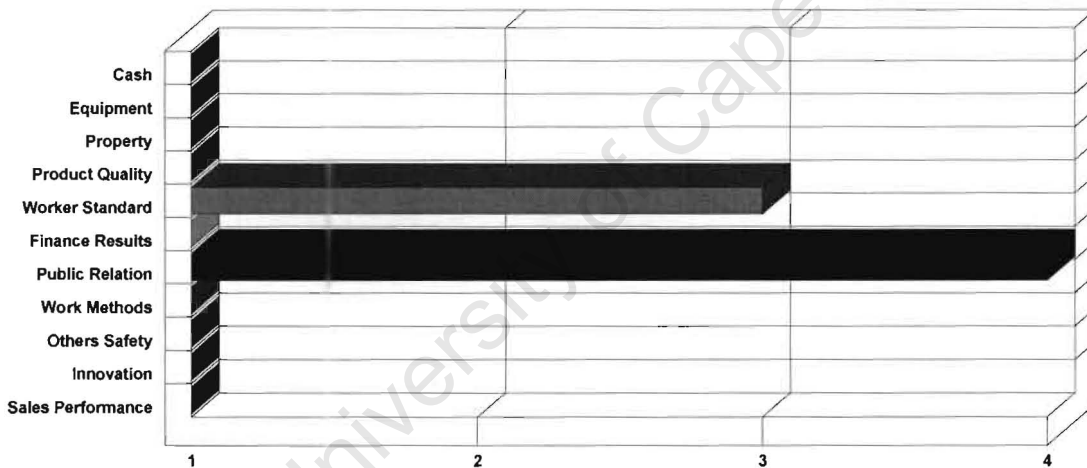


RESPONSIBILITIES

Responsibility for Resources:	None
Financial Impact:	Large, R60,000 - R599,000
Functional Impact:	Supervises moderate impact routine
Breadth of Job Knowledge:	One main function but much other
Demands of Change:	New situations occur occasionally
Time Span of Impact:	Moderate term - 1 to 3 months

SPECIFIC ACCOUNTABILITIES

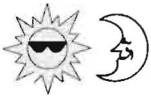
The graph below shows the level of specific accountabilities for this job.



Key	
1:	None
2:	Low
3:	Moderate
4:	High

WORK CONTEXT AND ENVIRONMENT

Type of Working Hours



Regular
Usually day time working

Working Hours



Normal weekly hours..... 40
 Paid overtime hours 0
 Unpaid overtime hours 5
 Total weekly hours 45

Travel



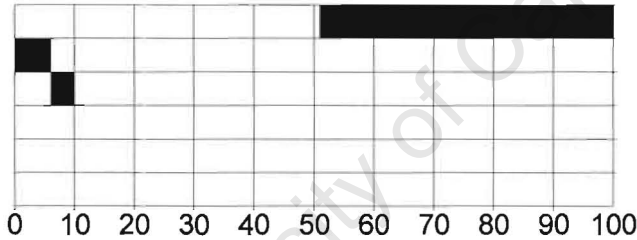
Time spent travelling (excl. from/to work)..... < 11%

Time Away from Home



Nights within home country None
 Nights in other countries None

Posture: Percent Time Spent ...



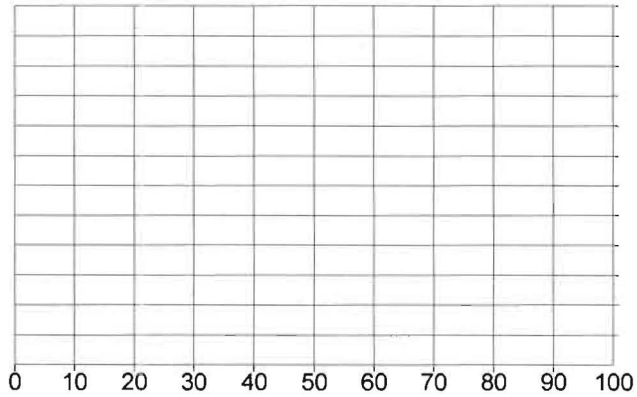
sitting
 standing
 walking
 running
 stooping/kneeling
 climbing

Physical Danger



Minor physical injury..... Almost no risk
 Serious physical injury..... Almost no risk

Physical Environment: Percent Time Spent ...



out of doors
 at high temperature
 at low temperature
 in contaminated air
 in noisy conditions
 in dirty environment
 in a restricted space
 with inadequate lighting
 with machine vibration
 with ear protection
 with eye protection
 with breathing apparatus



JOB DESCRIPTION REPORT	Work Profile
Fund Administrator	02/05/2003 Page 7

PROJECT DETAILS SECTION

DESCRIPTION

The Project Details Section contains the most important details of this WPS Project, including the List of JAQs and any applicable project caveats. This information is important for documentation purposes.

PROJECT DETAILS

Project Name	Fund Administrator
Project Id. Number	1
Project Description	
Job Title	Retirement Fund Administrator
Questionnaire Type	102
Created by WPS User	1
Created on	6/19/2002 10:28:15 AM
Last Edited on	6/19/2002 10:28:15 AM
Task Sections Reranked	Reranked (default)

ANALYST CONTEXT VARIABLES

Type of Organization	Insurance
Size of Organization	500 to 999
Ease of Finding Qualified Staff	Ample supply of qualified people
Regional Availability	No regional variations in availability
Site Locations	No demographic constraints

JOB PURPOSE & OBJECTIVES

Listed below are the Job Main Purpose and up to 10 Job Objectives

Main Purpose	Pls see above
Job Objectives	Pls see above

JAQS IN THIS PROJECT

Total JAQs in this Project: 1			
JAQ Id.	Respondent Name	Respondent Job Title	Last edit:
1	Yvette Fourie	FA Manager	6/19/2002

QUESTIONNAIRE STRUCTURE

Below are the Activity Categories of this Questionnaire. Task Categories are grouped according to this structure.

1	SECTION A: MANAGING TASKS
2	SECTION B: MANAGING PEOPLE
3	SECTION C: RECEIVING INFORMATION
4	SECTION D: THINKING CREATIVELY
5	SECTION E: WORKING WITH INFORMATION
6	SECTION F: COMMUNICATING
7	SECTION G: ADMINISTERING
8	SECTION H: SERVING
9	SECTION I: PHYSICAL ACTIVITIES

SYSTEM INFORMATION

Report generated on:	2/5/2003 9:19:02 AM
WPS User:	SuperUser
WPS Systemdatabase ID:	101

END OF REPORT

APPENDIX F: JOB SATISFACTION SURVEY

Company X employee number: _____ Identity number: _____
 (Essential) (Essential)

Research is being conducted by external consultants on the role of a Fund Administrator in order to improve assessment and development initiatives within Company X. You have been identified as part of a random sample to be included in this study. Part of the study is to obtain feedback on various factors of job satisfaction. Your responses will remain entirely confidential, so please be as honest and discerning as you can. Your employee and identity number is required by the external consultants only for identification purposes. No individual results will be given to Company X and your answers will not influence your position within Company X. The consultants will only report collated results on general trends. This questionnaire take you about 5 minutes to complete. If there are any questions, please call Kim on (021) 914 7386 or 082 674 0787. Your participation is greatly appreciated! Thank you.

	Instructions: Please circle the one number for each question that comes closest to reflecting your opinion about it. Please fill in <u>all</u> the questions	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
1	I feel I am being paid a fair amount for the work I do.	1	2	3	4	5	6
2	There is really too little chance for promotion on my job.	1	2	3	4	5	6
3	My supervisor is quite competent in doing his/her job.	1	2	3	4	5	6
4	I am not satisfied with the benefits I receive.	1	2	3	4	5	6
5	When I do a good job, I receive the recognition for it that I should receive.	1	2	3	4	5	6
6	Many of our rules and procedures make doing a good job difficult.	1	2	3	4	5	6
7	I like the people I work with.	1	2	3	4	5	6
8	I sometimes feel my job is meaningless.	1	2	3	4	5	6
9	Communications seem good within this organisation.	1	2	3	4	5	6
10	Raises are too few and far between.	1	2	3	4	5	6
11	Those who do well on the job stand a fair chance of being promoted.	1	2	3	4	5	6
12	My supervisor is unfair to me.	1	2	3	4	5	6
13	The benefits we receive are as good as most other organisations offer.	1	2	3	4	5	6
14	I do not feel that the work I do is appreciated.	1	2	3	4	5	6
15	My efforts to do a good job are seldom blocked by red tape.	1	2	3	4	5	6

	Instructions: Please circle the one number for each question that comes closest to reflecting your opinion about it. Please fill in <u>all</u> the questions	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
16	I find I have to work harder at my job because of the incompetence of people I work with.	1	2	3	4	5	6
17	I like doing the things I do at work.	1	2	3	4	5	6
18	The goals of this organisation are not clear to me.	1	2	3	4	5	6
19	I feel unappreciated by the organisation when I think about what they pay me.	1	2	3	4	5	6
20	People get ahead as fast here as they do in other places.	1	2	3	4	5	6
21	My supervisor shows too little interest in the feelings of subordinates.	1	2	3	4	5	6
22	The benefit package we have is equitable.	1	2	3	4	5	6
23	There are few rewards for those who work here.	1	2	3	4	5	6
24	I have too much to do at work.	1	2	3	4	5	6
25	I enjoy my co-workers.	1	2	3	4	5	6
26	I often feel that I do not know what is going on with the organisation.	1	2	3	4	5	6
27	I feel a sense of pride in doing my job.	1	2	3	4	5	6
28	I feel satisfied with my chances for salary increases.	1	2	3	4	5	6
29	There are benefits we do not have which we should have.	1	2	3	4	5	6
30	I like my supervisor.	1	2	3	4	5	6
31	I have too much paperwork.	1	2	3	4	5	6
32	I don't feel my efforts are rewarded the way they should be.	1	2	3	4	5	6
33	I am satisfied with my chances for promotion.	1	2	3	4	5	6
34	There is too much bickering and fighting at work.	1	2	3	4	5	6
35	My job is enjoyable.	1	2	3	4	5	6
36	Work assignments are not fully explained.	1	2	3	4	5	6

If you would like your individual results, please fill in your details below:

Name: _____

Telephone & Cell phone numbers: _____

E-mail address: _____

If you have any other comments, please write them on the back of this form.

APPENDIX G: JOB SATISFACTION SURVEY SCALE DESCRIPTIONS

Scale	Description
Pay	Pay and remuneration
Promotion	Promotion opportunities
Supervision	Immediate supervisor
Fringe Benefits	Monetary and non-monetary fringe benefits
Contingent Rewards	Appreciation, recognition and rewards for good work
Operating Conditions	Operating policies and procedures
Co-workers	People you work with
Nature of Work	Job tasks themselves
Communication	Communication within the organization
Total	Total of all facets of job satisfaction

APPENDIX H: COMPANY X'S INTERNAL PERFORMANCE APPRAISAL FORM

PERFORMANCE MANAGEMENT ANNUAL APPRAISAL - 200_

Employee Information :

Paycode	:	_____
Surname	:	_____
Initials	:	_____
Job Title	:	_____
Job Category	:	_____
Jobcat. No.	:	_____
Job Grade	:	_____
Paypoint	:	_____

Appraiser's Information :

Initials	Surname	Paycode
_____	_____	_____

Signed : _____ Date : ___/___/___ Ext : _____

Co-appraiser's Information :

Initials	Surname	Paycode
_____	_____	_____

Signed : _____ Date : ___/___/___ Ext : _____

Instructions :

Before the appraisal

1. Hand the preparation document to the appraisee at least one week before the appraisal discussion.
2. Refer to any interim performance discussions / appraisals in preparation for completing the appraisal document.
3. Appraisals should be checked for consistency by the co-appraiser.

During the appraisal discussion

1. Set the context for the appraisal by asking the appraisee the following :
In which areas of work do you feel you have done well/would like to have done better? Discuss strengths and areas needing development.
2. Review performance and decide on appropriate ratings based on the performance discussions.
3. Write in BLOCK CAPITALS, legible and clearly.
4. Check that all your calculations add up.

After the appraisal discussion

1. If the appraisees expressed dissatisfaction with the process (i.e. the person refuses to sign the appraisal), they should draft a letter explaining the reasons for their dissatisfaction. The letter must be sent to your HR Manager for actioning.
2. **Please retain a copy of the appraisal for your own record of the discussion. The appraisee must be given a copy of the signed document.**

SECTION 2 : JOB RELATED BEHAVIOURAL DIMENSIONS / COMPETENCIES

In this section the incumbent is appraised in respect of the various behavioural dimensions / competencies of their jobs.

- You are required to :
1. Fill in the **SIX MOST IMPORTANT** critical behavioural dimensions / competencies in column 1.
 2. Write down the appropriate ranking in column 2.
 3. Indicate your appraisal score (e.g. 75, 97, 100, 110 or 128) in column 3.
 4. Indicate examples (one or two) of behaviour for each dimension / competency to motivate your score, in column 4.
 5. Indicate the overall behavioural dimensions / competencies appraisal score in column 5 by adding your points and dividing by the number of competencies assessed.

Note :

See Page 4 for the appraisal scale.

	1 Behavioural dimensions / competencies	2 Ranking	3 Appraisal of behavioural dimensions/competencies in terms of contracted standards	4 Examples of behaviour
1				
2				
3				
4				
5				
6				

SUMMARY : JOB RELATED BEHAVIOURAL DIMENSIONS/COMPETENCIES

5. Appraisal of behavioural dimensions/competencies in terms of contracted standards

APPENDIX I: STRUCTURED BIODATA SHEET

University of Cape Town

