

CHAPTER 1 SCIENTIFIC REVIEW OF THE RESEARCH

This research focuses on the relationship between employees' work performance and their sense of coherence. In this chapter the background to and the motivation for conducting this research and the relevant paradigm perspectives are presented. The problem statement, the aims of the research, the research design, as well as the detailed allocation of research methodology are specified. The chapter will conclude with an outline of the chapters.

1.1 BACKGROUND TO AND MOTIVATION FOR THE RESEARCH

Banking in South Africa has undergone tremendous changes in the last few years. The increasing loss of confidence by clients and problems of non-payments of micro-loans have affected the profitability of banks.

Apart from these changes, social changes have also been abundant in South Africa. The government have passed and amended laws, such as the Basic Conditions of Employment Act, No 75 (1997), Labour Relations Act, No 66 (1995) and the Employment Equity Act, No 55 (1998).

Such changes influence the lives of individuals in that they now cannot be assured of life employment. The question can therefore be asked why certain people perform better than others under these fast-changing and difficult circumstances. It may be that those individuals have a better ability to cope with work demands. Biographical characteristics such as age, marital status, gender and tenure may also influence work performance. If the banking institution can capitalise on these biographical characteristics as well as the employees' ability to cope with work demands, it will be advantageous not only to the institution but also to the employees themselves.

The ability to cope better with work demands relates to the sense of coherence construct developed by Aaron Antonovsky (1987). According to Antonovsky (1985) the sense of coherence refers to the integrated manner of looking at one's life. The

individual with a strong sense of coherence will choose from a wide repertoire of coping strategies to appropriately deal with a confronted stressor.

Antonovsky (1979) identified the health inducing attributes of one's sense of coherence (SOC). The SOC is a way of seeing the world and oneself within the world. A supposedly stable element of the personality structure, the SOC is shaped, reinforced, and redefined throughout one's life. The stronger the SOC, the more adequately an individual is able to cope with the ever present stressors. A strong SOC lowers the probability that tension will be transformed into stress.

According to Antonovsky (1987) life is full of complexities, complications, failures and frustrations, yet individuals with a strong SOC possess a feeling of confidence that things will, by and large, work out well. A strong SOC also provides the basis for participation in health promoting behaviours and avoidance of health endangering activities. Individuals with a weak SOC have neither the motivation nor the cognitive basis to cope successfully.

It is therefore important to determine whether there is a relationship between sense of coherence and work performance.

In an endeavour to contribute to the ongoing debate about where individuals find strength to cope with stressful situations in the workplace, the researcher will investigate the relationship between sense of coherence and work performance. According to Carrell, Kuzmitz and Elbert (1992) work performance evaluation is the only human resources method that can be used to fairly reward employees in accordance with their work-related performance.

Furthermore, biographical variables such as age, gender, marital status, length of employment, level of education, functional areas and job bands seem to have an impact on a worker's work performance. For instance, Miner (1992) states that there is a close correlation between age and work performance. In jobs that require extensive physical activity older employees tend to be less productive, compared to younger employees. In jobs where verbal ability is important, older employees seem to fare better. On average

older employees with many years of work experience and higher levels of education are more productive in the workplace. This research will also attempt to investigate the relationship between biographical characteristics and work performance.

1.2 PROBLEM STATEMENT

In essence, the problem concerns the question: How do employees' work performance relate to their sense of coherence? as there is little evidence in the existing literature on how work performance relates to a worker's sense of coherence. In the South African context little research has so far been done on the relationship between work performance, and sense of coherence as well as the relationship between work performance and the employees' biographical characteristics. Furthermore, although there are many models in the field of industrial and organisational psychology which facilitate the understanding and measurement of human behaviour in the workplace, these theories are not integrated.

According to McCubbin, Thompson, Thompson and Fromer (1998) the SOC concept is still in its early stages of development, but this research intends to identify the possible relationships that might exist between work performance and SOC.

The research questions regarding the literature study are formulated as follows:

- How can the sense of coherence construct be conceptualised?
- How can work performance be conceptualised?
- How can the influence of biographical characteristics on work performance be conceptualised theoretically by using existing literature?

The research questions regarding the empirical study are formulated as follows:

- Can the sense of coherence construct be used to explain how individuals cope with work performance?

- Can the relationship between work performance and biographical characteristics be determined statistically?
- Based on the results of this research, what recommendations can be made to optimise work performance?

1.3 AIMS OF THE RESEARCH

The general, theoretical and empirical aims of this research will be discussed.

1.3.1 General aim

The general aim of this research is to determine whether there is a relationship between work performance and sense of coherence (SOC), as well as work performance and biographical characteristics.

1.3.2 Theoretical aims

The theoretical aims of this study are:

- to conceptualise SOC
- to conceptualise work performance
- to conceptualise the influence of biographical variables on work performance
- to integrate literature on SOC, work performance, biographical characteristics and the impact of biographical variables on work performance

1.3.3 Empirical aims

The empirical aims of this study are:

- to determine the relationship between SOC and work performance
- to determine the relationship between work performance and employees biographical characteristics
- to formulate recommendations based on the results

1.4 PARADIGM PERSPECTIVES OF THE RESEARCH

The research is conducted within the discipline of industrial psychology and the sub-discipline of personnel psychology, and especially within the field of organisational psychology.

The research is planned within a certain paradigm perspective. Mouton and Marais (1988, p20) maintain that “paradigms are collections of meta-theoretical, theoretical and methodological beliefs which have been selected from the intellectual climate and the market of intellectual resources of a particular discipline.” In essence, paradigmatic research is conducted within the framework or parameters of a given discipline.

Industrial Psychology

Industrial psychology studies human behaviour and psychological conditions in work-related aspects of life and the application of knowledge to minimize problems in this context. It also explains employees' behaviour in the production, manufacturing, distribution and eventual consumption of goods and services. Furthermore, it strives to predict and control work-related behaviour with a view to improve productivity and efficiency (McCormick & Ilgen, 1989).

Personnel Psychology

According to Bergh and Theron (1999) personnel psychology is the sub-discipline of industrial psychology that concerns human resources functions such as recruitment and selection, training and development and the optimal utilisation of personnel in the workplace.

Organisational Psychology

Robbins (1996, p10) defines organisational psychology as “the field of study that investigates the impact of individuals, groups, and structure on behavior within organisations for the purpose of applying such knowledge toward improving an organisation’s effectiveness.” Bergh and Theron (1999) further explain that the purpose of organisational psychology is to foster and enhance employee satisfaction and productivity and overall organisational efficiency.

This research is conducted within the salutogenesis and behaviouristic paradigm, where the sense of coherence (as a salutogenesis construct) is the stimulus and work performance the response. According to Onega (1991) Antonovsky asserts that salutogenesis is defined as the study of why people stay well. Staying well has to do with how individuals manage tension. Tension is defined as an individual's response to stressors.

Strümpfer (1990) has succinctly summarised the assumptions of the salutogenic perspective as follows:

- Greater emphasis is placed on the origins of health or well-being.
- The paradigm is mainly concerned with the general maintenance and enhancement of individuals' health or well-being.
- The view that stressors are bad is rejected. In contrast, stressors are perceived as providing opportunities for growth and development.

- The primary focus of the paradigm is on the individual's management of stress and perseverance to stay well.

Breed (1998) maintains that although the salutogenic paradigm has developed from pathogenesis it has established itself as an independent entity and recognised discipline, by developing its own research methodology, more particularly in the field of health or well-being psychology.

According to Antonovsky (1979) the salutogenesis perspective holds that human beings are primarily healthy, self-efficient and possess strength. This strength is inherited in an individual's personality of hardiness, locus of control and sense of coherence. The premise of salutogenesis is that individuals' ability to cope with unavoidable work demands or stress could lead to either illness or growth.

In his salutogenic model Antonovsky (1979) uses the term *health ease / disease continuum*. In essence, this implies that individuals fall somewhere along the continuum poles of total health and total terminal illness. The salutogenic perspective is concerned with the broad, integrative concept of successful coping which reinforces work habits, as opposed to the pathogenic perspective, which mainly concentrate on the individual's coping failures. Antonovsky (1979) asserts that the salutogenic perspective defines the problem and also searches for coping resources. Strümpfer (1995) writes that Antonovsky's concept of salutogenesis which refers to the origin of health should be broadened to include "fortigenis", which refers to the origins of psychological strength in general.

The second paradigm perspective of this research is behaviourism. Ivey and Simek-Downing (1990) summarise the basic assumptions of the behaviouristic paradigm as follows:

- It is concerned with the observable, immediate and durable action in the lives of individuals.
- The human condition can be objectively predicted.

- The success of predictions and interventions can be measured.
- An individual's behaviour is directly related to events and stimuli in the environment.
- Learning is defined in terms of changes in behaviour.
- Behaviour develops and maintains itself through a system of rewards or reinforcers and punishments.
- Behaviour change must be relevant to the individual.
- All behaviour change procedures seek to modify by increasing or decreasing the frequency of specific behaviours.

In essence, according to Statt (1994), the behaviouristic paradigm is concerned with the objective empirical testing of a hypothesis in a controlled laboratory setting. For the purpose of this research, the key to understanding and predicting employees' behaviour is to be found in the process of evaluating their work performance. Statt (1994) maintains that individuals learn a particular response to a particular stimulus. The association of the one with the other becomes the essential link or a habit, thus the stimulus of stress in the workplace may be associated with the response of lighting a cigarette. Individuals are more likely to engage in this kind of behaviour, because they find it rewarding in some way. By doing this they satisfy their need. Bergh and Theron (1999) assert that individual behaviour can be predetermined by controlling environmental factors.

Bergh and Theron (1999) posit that only when individual work performance can be accurately observed, can it be effectively assessed, controlled and eventually predicted. This scientific orientation emanates from the belief that human behaviour can be controlled, manipulated and accurately assessed. Evans and Hubbs-Tait (1991) concur that individual actions can be controlled by being eliminated or enhanced.

Work performance will be discussed in more detail in chapter 3.

1.5 RESEARCH DESIGN

According to Mouton and Marais (1990) the aim of a research design is primarily to plan and structure a given research project in such a manner that the eventual external and internal validity of the research findings is maximised.

Christensen (1994, p293) states that research design “refers to the outline, plan, or strategy specifying the procedure to be used in seeking an answer to the research question. It specifies such things as how to collect and analyse the data. One purpose of the design is to control unwanted variations, which is accomplished by incorporating one or more of the control techniques”.

The research will be explanatory in nature. Mouton and Marais (1990) maintain that the aim of explanatory studies is to indicate causality between variables or events. The causal explanation must meet the following requirements:

- A demonstratable relationship must exist between the phenomena.
- There must be a specific sequence of cause and effect.
- The specific phenomena must be the real cause of the dependent variable.

In this research, the independent variable is the respondents' sense of coherence, and the dependent variable is their work performance. The literature study will be presented in a descriptive way. The empirical study will be presented in an investigative way using quantitative methods. The measuring instruments were chosen in a responsible and representative way and presented in a standardised manner.

The unit of investigation and analysis in this research is the individual employee within a banking institution.

Validity refers to the extent that the measuring instrument successfully measures or predicts what it is supposed to measure or predict. This is related to the kind of inferences that can be based on the strength of the test score (Christensen, 1994).

Huysamen (1993) maintains that internal validity refers to the causal relationship between the dependent variable (work performance) and the independent variable (sense of coherence), which is of critical importance to the researcher.

Validity is to be proven by focussing on both the literature review and the empirical investigation.

Internal validity can be ensured by using definitions, theory and measuring instruments selected for the specific purpose of measuring the variables in a representative manner, coupled with a standardised way of presentation.

Consistency or stability of the literature review can be obtained through accurate reporting of a wide basis of literature on the subject matter. The content must be based on the findings of the originators of the concepts involved.

The reliability of the empirical investigation is related to the reliability of the measuring instruments used.

1.6 RESEARCH METHOD

The research is conducted in two phases, each consisting of various steps.

PHASE 1: LITERATURE REVIEW

STEP 1: SENSE OF COHERENCE

A literature review is done on the sense of coherence as a construct.

STEP 2: WORK PERFORMANCE AND BIOGRAPHICAL CHARACTERISTICS

A literature review is done on work performance as a construct as well as the influence of biographical characteristics on work performance.

PHASE 2: EMPIRICAL RESEARCH

STEP 1: DESCRIPTION OF THE POPULATION AND SAMPLE

The population is the employees of a bank from the following departments:

- Finance
- Personnel
- Secretariat
- Properties and Logistic Services

Subsequently, a representative sample of 100 respondents is drawn from the population by means of random sampling. According to Christensen (1994) a random sampling gives every member of the population an equal chance of being selected in the research.

STEP 2: CHOICE AND ADMINISTRATION OF THE PSYCHOMETRIC INSTRUMENTS

Antonovsky's quality of life questionnaire is chosen, in conjunction with the banking institution's work performance appraisal form as the second instrument. The work performance appraisal form is based on the Job Evaluation Manager system adapted to measure work performance.

STEP 3: DATA GATHERING

A covering letter is used to explain the purpose of the research. The questionnaires include the biographical information, the bank's work performance feedback rating, and Antonovsky's quality of life questionnaire. It is delivered to the respondents by hand.

STEP 4: DATA ANALYSIS

The SPSS Statistical package for Windows version 10.1 (1997), is used to determine the relationship between employees' work performance rating and their sense of coherence, as well as between work performance and biographical characteristics.

STEP 5: REPORTING ON QUANTITATIVE RESULTS

The quantitative results are reported by means of tables and graphs using frequency tables, correlations, analysis of variance and factor analysis. This is done to represent or display information with the view to show relationships among variables under investigation and to show that the quality of life questionnaire was reliable for the sample used in the study.

STEP 6: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS OF THE RESEARCH

The formulation of the conclusions will be based on the stated aims of the research.

The research limitations will be discussed with reference to the literature review and the empirical study.

Recommendations will be formulated for future research on the subject, and the organisation's management of employees work performance, taking into account how SOC can assist in improving the work performance of employees.

1.7 CHAPTER DIVISION

To achieve the aims of the research the chapters will be presented in the following manner:

Chapter 2: Sense of coherence

Chapter 3: Work performance

Chapter 4: Empirical study

Chapter 5: Results

Chapter 6: Conclusions, limitations and recommendations.

1.8 CHAPTER SUMMARY

The chapter discussed the scientific review of the research. The background to the research, the problem statement, aims, paradigm perspective, research design, research method and chapter division were presented.

Sense of coherence, as a variable will be discussed in chapter 2. The first literature aim will be addressed in this chapter.

CHAPTER 2: SENSE OF COHERENCE

The aim of this chapter is to conceptualise sense of coherence (SOC), describe the three main dimensions of SOC, discuss the dynamics of SOC, and integrate the reciprocal relationship that exist between SOC and its impact on work performance. Finally, the chapter will conclude with the summary.

2.1 CONCEPTUALISATION OF SENSE OF COHERENCE

Antonovsky (1979, p123) defines SOC as a “global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that one’s internal and external environments are predictable and that there is a high probability that things will work out as well as can be reasonable expected”. In essence, SOC can be defined as a general feeling of confidence that the individual’s internal and external environments are predictable and that things will work out as planned (Antonovsky, 1987).

Antonovsky (1987) conceptualised SOC as one of several psychological concepts that have been developed as a way of looking at individuals' personal qualities which enable them to effectively and positively respond to life's stretching challenges and demands.

According to Antonovsky (1990) the SOC construct is a dispositional orientation involving a relatively permanent cognitive structure. It is unique to every individual and can initiate personalised forms of behaviour. SOC normally develops from the time of birth until middle adulthood years. Antonovsky and Sagi (1986) maintain that development occurs in relation to the individual's experience of the universe as predictable and consistent. Individuals' abilities are also shaped by their life outcomes. SOC influences the manner in which individuals cope with experiences presented to them by their surrounding environment (Antonovsky, 1990).

Strümpfer, Danana, Gouws and Viviers (1998) conclude that SOC is a cognitive and emotional appraisal style, which is associated with effective coping, health enhancing behaviours, leading to better adjustment in social settings.

McSherry and Holm (1994) stipulate that individuals with a low SOC are more likely to feel distressed and struggle to cope with life conflicts. Individuals with a high SOC are able to confront stress in life, because they are confident that things will work out well for them. They perceive the world as a place with rhyme and reason. Flannery and Flannery (1990) state that individuals with a low SOC show symptoms of psychological distress, such as anxiety, depression and an array of physical ailments.

Virtue and Jansen (1996) have found that, within the South African context, significant negative relationships between SOC and physical symptoms of ill-health, and positive relationship between SOC and general psychological well-being exist. Fritz (1989) found that in an occupational setting, significant positive relationships existed between SOC and job satisfaction. SOC was seen to act as a potential moderator between work-related stressors and health-related outcomes.

2.2 DIMENSIONS OF SENSE OF COHERENCE

Sense of coherence is made up of three key components, namely: comprehensibility, manageability and meaningfulness (Antonovsky, 1987).

2.2.1 Comprehensibility

According to Antonovsky (1987) comprehensibility refers to the idea that things make sense to a person, that is, things that happen make sense and the world is not just a mass of random happenings. This is how the individual understands the problem. Rosenbaum (1988) explains comprehensibility as the way individuals experience events as structured, predictable and explicable. Comprehensibility exists when stimuli from the environment are perceived to make cognitive sense (Antonovsky, 1990).

2.2.2 Manageability

According to Antonovsky (1987) manageability refers to the idea that things can be handled, no matter what happens, that is, people feel that they can cope with the things that are happening in their lives. Rosenbaum (1988) argues that manageability refers to

individuals' believe that they have the resources to cope with the demands posed by changing events in their environment. Manageability occurs when stimuli are perceived as being under control by both the individual and legitimate others such as spouses, friends, professionals, formal authorities and spiritual figures (Antonovsky, 1990).

The employees' underload-overload balance has a direct link with the manageability component of the quality of life questionnaire. According to Antonovsky (1987) manageability is the extent to which individuals perceive disposable resources which are adequate to meet environmental demands posed by the stimuli that bombard them.

Individuals with a high sense of manageability are more likely to feel comfortable to deal with life experiences and events that confront them daily. They have developed the capability to cope with stressors, instead of mourning and grieving endlessly (Antonovsky, 1987).

2.2.3 Meaningfulness

According to Antonovsky (1987) meaningfulness is the motivational component, which refers to the idea that things generally have meaning for a person and the person is thus willing to invest time in and spend energy on any particular activity. Rosenbaum (1988) writes that meaningfulness refers to the way individuals perceive demands in their environment as challenges which are worth engaging with and investing energy to meet. According to Basson and Rothmann (2002) meaningfulness is experienced when stimuli are perceived as motivationally relevant, in the form of welcome challenges that are worth engaging with, and investing oneself in.

The individual's participation in work performance decision-making processes provides the basis for the meaningful component of the sense of coherence questionnaire. Antonovsky (1987) defines meaningfulness as the significance of individuals to get actively involved in the actual processes that shape their destiny and daily experiences. This third component represents the motivational element.

The component of meaningfulness refers to the sense of importance (Antonovsky, 1987). This entails the extent to which individuals feel that life makes sense emotionally. Individuals with a high sense of meaningfulness are more likely to confront life experiences such as the death of loved ones, poor work performance and dismissal from work positively. When these unpleasant life experiences are imposed on such individuals, they will take up these challenges with dedication and zeal, in order to seek meaning and to overcome these hardships with dignity.

A strong SOC contains the above-mentioned components, namely, comprehensibility, manageability and meaningfulness. When individuals have a strong SOC it does not necessarily mean that their entire world is viewed as comprehensive, manageable and meaningful. They may tend to exclude things that do not interest them such as politics and religion. The things that happen outside their set boundaries do not matter to them, and have no significant effect on their SOC. However, there are only four spheres in their lives that cannot be excluded if their strong SOC are to be maintained, and these are personal feelings, immediate interpersonal relationships, major activities such as work and existential issues of death, inevitable failures, shortcomings, conflict and isolation (Antonovsky, 1987).

2.3 THE DEVELOPMENT OF A SENSE OF COHERENCE

Strümpfer (1990) asserts that the three main components of SOC are directly linked to employees' quality of working life and job satisfaction. For instance, employees' consistent executing of tasks and functions strengthen their level of comprehensibility. Their effort to balance work overload and underload of tasks and functions strengthen their manageability, whilst their active participation in work valued decision-making processes strengthen their meaningfulness.

Antonovsky (1987) postulates that the rationale of the SOC concept as related to how individuals perceive their own world – or, better still, individuals' construction of reality – is a decisive factor in coping with health outcomes. This rationale can also be applied in the work environment to explain how employees perceive the tasks and functions they have to execute.

Antonovsky (1987) firmly believes that the individual's SOC (strong or weak) is developed from early childhood experiences, through his or her genetic make-up and socio-environmental background. Antonovsky (1990) posits that the SOC can be seen as a property or characteristic of a person, which becomes stable round about early adulthood.

Strümpfer (1995) expands on the idea of the development of SOC by maintaining that one's general level of SOC develops from time of birth until the age of about 30, after that it remains fairly stable, although some transformations may still occur – perhaps cataclysmic and intense – but gradual changes as a result of interactions with the environment are more likely.

It is clear that although Antonovsky (1987) does not believe the SOC is a personality trait, it would seem to be a phenomenon that can influence how one reacts to most events in one's life. Warr (1987) maintains that the SOC is not a personality trait or a set of traits, but an attitude towards the world that emanates from positive experiences of the world and the self. Antonovsky (1990) prefers to call it a dispositional orientation.

In describing how SOC works in relation to stressors, Antonovsky (1990) asserts that a person with a strong SOC, confronting a stressor, will feel that he or she understands the nature and dimensions of the problem (or that it can be understood), that the difficulties it poses are manageable, and that it is worth tackling.

Antonovsky (1990) contrasts this with a person with a weak SOC by stating that it is precisely the person with a weak SOC who will tend to become confused, unsure of resources, and wishing to run away from challenges or problems. These individuals are more likely to allow personality traits and tendencies to determine their behaviour, irrespective of the nature of the situation. It is clear that the SOC comes before other personality variables and is quite distinct from personality traits.

Kalimo and Vuori (1990) assert that individuals with an internalised high sense of comprehensibility will expect environmental stimuli to be more predictable, with few

unexpected surprises. They possess the ability to find structure in the events they deal with.

Antonovsky (1987) asserts that people with a high SOC tend to define stimuli as non-stressors, and they can automatically adapt to the demand. However, if the high SOC person does define the stimuli as a stressor, he or she will then appraise that stressor as non-threatening to his or her well-being. This is because he or she has confidence that, as in the past, by and large things will work out well. Thus, a person with a low SOC tends to appraise stimuli as stressors that will endanger his or her well-being.

Antonovsky (1987) explains that the extent to which one approaches the world with the general expectation that stressors are meaningful and comprehensible, lays the motivational and cognitive basis for managing and preventing the transformation of tension into stress. This shows how SOC is thought to be linked to health outcomes and how personality and disease are intertwined.

SOC is also believed to be a cross-cultural phenomenon as many studies have shown that results are reliable and valid across various cultures (Antonovsky,1985). Bowman (1996) undertook a study on 81 Native Americans and 105 Anglo-Americans and found that people from dramatically different cultures (and dramatically different socio-economic and family sizes) can, on average, develop the same level of SOC.

Strümpfer (1995) argues that at the beginning Antonovsky (1979) struggled to adequately explain the individual's sources of energy or strength. This strength covered the individual's challenge of dealing with general concerns such as finances, growing old, security conditions in the country and satisfaction with family roles, including friends and colleagues. However, Strümpfer (1995) points out that Antonovsky (1987) coined the cross-cultural concept of a 'generalised resistance resource' (GRR) to shed some light on how individuals draw strength to deal with life stressors.

The GRR includes artefactual material factors such as money, shelter and food. The cognitive factors include intelligence and knowledge, while the interpersonal factors are

social embeddedness and social support. The macro socio-cultural factors include rituals and religion (Antonovsky, 1990).

According to Antonovsky (1987) the GRR is any characteristic of the individual, group or society that facilitates avoidance or combating of a wide variety of stressors. The stronger the level of SOC, the more individuals actively mobilise and make use of their GRRs, which are the resources they have at their disposal to handle the demands and challenges in their lives (Antonovsky, 1987).

Antonovsky (1990) maintains that when an individual consistently experiences the availability of GRR, a strong SOC develops, which assists the individual to avoid or combat stressors in the environment. These experiences reinforce the SOC in a regular feedback loop. According to Antonovsky (1987, p181) the abundance of GRRs will have "consequences not only for the emergence of a strong SOC, and therefore health, but for other areas of well-being too".

The development of an individual's SOC could be directly related to other aspects of successful living, like effective work performance and career effectiveness, effective marital, parental and other interpersonal relationships, including community involvement, religious expression and economic and political functioning. All these would then contribute to general well-being (Strümpfer, 1995).

It would therefore, seem that SOC is not merely a western concept that is only applicable to some western cultures. It can be applied to the unique multi-cultural South African situation.

2.4 CHAPTER SUMMARY

The chapter discussed the concept of SOC, and its three main components, namely, comprehensibility, manageability and meaningfulness. This included amongst others, the close relations found in the three components, the dynamics of the SOC and the cross-cultural nature of the concept, and the integration of work performance and SOC. Herewith the first literature review aim has been accomplished. In the next chapter work performance will be discussed.

CHAPTER 3: WORK PERFORMANCE

The aim of this chapter is to conceptualise work performance and biographical characteristics. This chapter represents the second aim of the literature review.

To achieve this aim, the following method will be followed. Firstly, the concept of work performance will be analysed. Secondly, the purpose of work performance will be examined. Thirdly, the dynamics of work performance will be discussed. Finally, the chapter will focus on the relationship between work performance and biographical characteristics, followed by a chapter summary.

3.1 CONCEPTUALISATION OF WORK PERFORMANCE

Grote (2002) defines work performance in behavioural terms as those work-related activities which are observable; provide objective evidence and which are easily recorded in quantifiable terms. The advantages of behavioural measures are that they can be used to reduce the influence of rating bias by providing definitions and standards of work performance. The behavioural measures clearly specify what the individual should do to accomplish the required output.

Bergh and Theron (1999) concur that employees' optimal work performance requires purposefulness, productivity, responsibility, motivation, leniency, initiative, concentration, creativity and proper time management. Individuals' work performance will improve when they are focused on the present, are aware of the past without being trapped in their history, and they are also future directed. Statt (1994) defines work performance as the individual's drive to become a better person by virtue of the act of working.

Grote (2002) maintains that not all work performance is amenable to results-based, quantitative measurement. The success of some work performances depends primarily on attributes such as cooperation, dependability, customer relations and other more abstract attributes.

In this research work performance is operationally defined as the assessment and achievement of work-related critical activities, which are observed by supervisors during a specified period. These work-related activities are then recorded in quantifiable terms (Grote 2002).

Work performance falls under the sub-discipline of personnel psychology. Work performance is one of the many processes used to increase productivity in organisations. Riggio (1990) asserts that work performance is the most important work outcome. The success or failure of organisations primarily depends on the work performance of its employees. Biesheuvel (1985) concurs that in order to motivate employees to make the optimal effort, the manner in which they are remunerated and compensated for their effort must relate to individual differences in performance and their life experiences.

3.2 THE PURPOSE OF WORK PERFORMANCE ASSESSMENTS

Anderson (1993) maintains that the purpose of work performance assessments can be classified in three ways. Firstly, it is administratively designed to determine employees' promotions, transfers and salary increases. Secondly, it is informative in supplying data to management on the performance of employees' strengths and weaknesses. Thirdly, it is motivational, as it creates a learning experience that motivates staff to develop themselves and improve their work performance.

Grote (2002) delineated the purpose of work performance assessments as follows:

- To provide feedback to employees about their work performance.
- To facilitate layoff or downsizing decisions.
- To determine the incumbents who should be promoted.
- To encourage performance improvement.

- To motivate personnel to superior performance.
- Setting and measuring goals or standards.
- To counsel poor performers.
- To determine compensation changes.
- To encourage coaching and mentoring.
- To support manpower planning or succession planning.
- To determine individual training and development needs.
- To determine organizational training and development needs.
- To confirm good hiring decisions made.
- To provide legal defensibility for personal decisions.
- To improve overall organizational performance.

Fisher (1995) summarises the purpose of work performance as follows:

- To review past performance.
- To assess training needs.
- To help develop individuals.
- To audit the skills within the organization.

- To set targets for future performance.
- To identify potential for promotion.

According to Grote (2002) there is a close link between the purpose of work performance and the meaning of work. Bergh and Theron (1999) stipulate that, in essence, work performance is the purposeful and meaningful activities that people normally execute in order to satisfy their physical and psychological needs.

Bergh and Theron (1999) summarise the reasons leading individuals to work as follows (There is a close link between the stipulated reasons and the purpose of work performance assessment.):

- Individuals work in order to get money, so that they can provide for their basic physical needs such as food, housing, clothing and health care.
- Individuals work to acquire and execute a variety of knowledge, cognitive and social skills.
- Individuals meet their social and friendship needs by interacting with others in the work place.
- Work provides individuals with intellectual stimulation and physical activity, since they have to deal with challenging tasks and situations which require decision-making and problemsolving skills.
- Individuals execute challenging tasks to express adulthood and to fulfil a meaningful and productive role in society.
- Work provides individuals with a sense of self-esteem when they relate to their loved ones and family.

- Through work individuals acquire certain roles and status as a source of personal identity within the society and their families.
- Some individuals work for the sheer pleasure derived from working, or the achievements associated with work.
- Some individuals work to manage their time productively, and thus avoiding boredom. This gives meaning to their sense of being in the world.
- Individuals' sense of mastery and creativity is enhanced, through the use of their knowledge and skills to control events in their environment.
- Individuals work in order to ensure a better family quality of life, wealth and status to the next generation.
- Finally, individuals work as a fulfilment of their religious and moral obligation, for those in societies in which the virtues of work are taught, maintained and rewarded.

Robbins, Odendaal and Roodt (2003) posit that beside the above-mentioned reasons leading individuals to work, in these modern days employees work and manage their careers like entrepreneurs managing small businesses. They perceive themselves as being self-employed, even when employed by large organisations. Their successful careers are built by keeping abreast of opportunities and threats in their environments, and improving their skills and knowledge levels.

3.2.1 Problems with poor assessment of work performance

The implementation of accurate measures of work performance is normally surrounded by controversy. This involves the elimination of poorly designed assessment methods of work performance of the critical work behaviours. Landy (1989) posits that the reason for this is the fact that some work performance assessment methods fail to objectively measure work performance, as well as the fact that they represent the results of behaviour rather than the behaviour itself. Most organisations often depend on judgment to determine the adequacy of work performance.

Grote (2002) maintains that in many organisations poorly designed assessment methods of work performance have presented problems to managers and supervisors, since employees are not fairly rewarded for doing a job better than their colleagues. As a result more efforts have to be made to correct unfairness found in performance assessment methods.

According to Miner (1992) many poorly done work performance assessments have been referred to labour courts. Some of these court cases came to the following conclusions:

- A proper job analysis needs to be conducted to ascertain which characteristics are necessary to achieve successful work performance.
- The identified characteristics should be incorporated into a rating instrument. In addition, written definitive standards should be provided for appraisers.
- Training in the proper use of the rating instruments should be provided to appraisers. This should also include instructions on how to apply performance appraisal standards when making judgments.
- Efforts should be made to encourage formal appeal mechanisms, and the reviewing of rating by senior or even top management.

- All performance appraisal ratings, including poor work performance, should be documented to enhance their credibility.
- Performance counselling or corrective guidance should be provided to poor performers to assist them in improving their work performance.

According to Landy (1989) the problems with poor assessment of work performance is the result of inadequate judgments made to measure work performance. These judgments may take on various forms. They may be a simple comparison of one employee with another in one or more dimensions, or they may be a list of statements that are applied to each employee, or they may be some form of rating by which employees are placed on a continuum, and the individual's position is determined by the amount or degree of proficiency demonstrated.

Ivancevich and Matteson (1993) assert that apart from rectifying these problems, any developer / participant / user involved in work performance assessment should focus and adhere to the following critical success factors to ensure the successful implementation of fair and objective work performance assessment.

3.2.2 Critical success factors

According to Grote (2002) work performance assessment is a strategic tool used to manage and develop employees, with the view of improving the organisation's productivity. To achieve this objective certain measures need to be put into place.

Ivancevich and Matteson (1993) maintain that the critical success factors that are important to the success of work performance assessment, include amongst others the following:

- Assessments should be continuous.
- Assessments should focus on translating the position responsibilities into day-to-day activities.

- Assessments should focus on work performance and not on the individual concerned, that is, the assessment should not measure the employees on issues that are not relevant to their jobs.
- Assessments should weigh relevant behaviours appropriately as some behaviours are more important for job success than others.

Anderson (1993) concurs with Ivancevich and Matteson (1993) by delineating the following critical success factors for effective work performance assessment:

- The work performance assessment should be owned by line management and driven from the top of the organisation.
- Managers and supervisors must understand and accept the need to measure work performance in a consistent way at all levels.
- Managers should have the knowledge and skills needed and should be committed to manage their subordinates (and be managed) this way.
- The way consequences and rewards are managed in the organisation should reinforce this process in a consistent and positive way.
- The whole process should be transparent and employees should be able to openly challenge and defend the process.
- All the work performance targets that are set should add significant value to the business; these targets should be stretching, yet achievable.
- Managers should negotiate with each of their team members specific, measurable and stretching performance targets to which both parties are committed.

- Managers should regularly review both unit and individual work performance with those concerned, and take appropriate action to ensure that targets are reached or exceeded.
- Both manager and subordinate should accept and sign off the subordinate's work performance assessment as valid, balanced and fair.
- The recorded work performance assessments for each unit should clearly discriminate between the more effective and less effective performers.

3.2.3 Methods of work performance assessments

The methods of work performance assessment will be discussed. These methods are discussed for the purpose of describing work performance strengths and weaknesses within and between employees. Work performance assessment is generally used for administrative personnel decisions such as promotions, salary increases and employee layoffs (Landy, 1989).

Numerous methods of work performance assessments have been used by various organisations. Ivancevich and Matteson (1993) list various common and widely used methods. They include the following.

3.2.3.1 Checklist

According to Landy (1989) the checklist, used as work performance method, is judgmental in nature. In the checklist a set of statements is presented to the rater. The rater's main responsibility is to check those items that best describe the employee to be rated. Each of these items is judged and a numerical value representing the degree of work performance represented by that particular statement is given.

The main advantage of the checklist is that it provides a list of work-related behaviours that the rater should check. To do a rating, raters check those items or work-related

behaviours they consider to be descriptive of each rated employee (Ivancevich & Matterson 1993).

The disadvantage of the checklist as work performance assessment is that the rater may choose to check those items that have high social desirability but say little about work performance. To avoid such non-discriminating responses an effort was made to introduce socially desirable items systematically into the assessment procedure (Landy, 1989)

3.2.3.2 Critical incidents

Muchinsky, Kriek and Schreuder (1998) define critical incidents as employees' behaviour that result in good or poor work performance. The rater usually records employees' behaviour that greatly influences their work performance. The rater or supervisor keeps a running tally of these critical incidents as they occur, or recall them at a later stage during a particular period.

Muchinsky et al (1998) maintain that critical incidents are grouped according to the following: work performance, work knowledge, decision-making ability and leadership. The expected end result is a list of the employee's behaviours assessed as either good or bad that constitute effective and ineffective work performance. Robbins et al (2003) assert that the rater focuses on the employees' work-related behaviours that are the key to whether a task was performed effectively or ineffectively.

This technique draws the evaluator's attention to particularly significant behaviours. The advantage of this technique is that it is valuable to identify specific behavioural events (not vague events) that affect work performance. According to Freedland (1993, p501) "the appraiser records incidents of employees' positive and negative behaviour during a given period". Robbins et al (2003) concur that the critical incident performance tool consists of collecting reports of employees' behaviours that are considered critical in the sense that they influence the success or failure of a particular situation.

The main disadvantage of this tool is that employees are disempowered by not being actively involved in making judgment about the effectiveness of their work performance (Muchinsky et al, 1998).

3.2.3.3 Graphic rating scales

Muchinsky et al (2002) describe the graphic rating scale as the most commonly used method of measuring work performance. This method rates employees on the basis of a number of traits or factors. The rater assesses the degree of employee work performance in each factor. The number of factors ranges from five to twenty. The rated dimensions include quantity of work, quality of work, practical judgment, work knowledge, cooperation and motivation.

The advantage of this technique is that it lists a specific set of dimensions related to successful work performance. For each dimension the employee is rated on a 4- to 7-point rating scale, reflecting the extent to which the dimension being rated was exhibited during the period covered by the assessment (Robbins et al, 2003).

The main disadvantage of the graphic rating scale is that it is one of the oldest formats of work performance assessment method, and its relative simple process required for developing the scales (Grote, 2002). According to Robbins et al (2003) the graphic rating scale comprises a set of work performance factors which can be subjective and difficult to measure, such as attendance, initiative and loyalty.

3.2.3.4 Behaviour Anchored Rating Scales (BARS)

Muchinsky et al (2002) define the behaviour anchored rating scale as a combination of the behavioural incident and rating scale methods. Although the individual work performance is rated on a constructed scale, the scale points are anchored with behavioural incidents.

The advantage of this method is that it combines elements of the critical incidents method and the graphic scales. BARS resemble graphic rating scales in that, they both

include a number of dimensions to be rated. However, BARS are more developed since the BARS dimensions result from a thorough investigation of important areas of performance for specified work or tasks. BARS seem to have face validity for both the rater and the employee. This is the result of the fact that the anchors consist of behaviours that employees and raters have already identified as critical (Landy, 1989).

Another advantage of the BARS is that both the appraiser and the employees are involved in developing the dimensions and generating behavioural descriptions (Muchinsky et al, 2002).

Bergh and Theron (1999, p529) assert that “the assessor evaluates the employee on a scale from say, (1) very positive to (9) very negative behaviours, each of the nine scale points being defined exactly”. The benefit of BARS is that the specific and concrete scales with anchor points are relevant to the tasks being evaluated. As a result, employees’ performance feedback is most likely to lead to the reinforcement of desired work behaviour.

The disadvantage of BARS is that the technique is only valuable to measure employee's tasks that are definite, concrete and observable in the short term (Landy, 1989).

3.2.3.5 Multi-person comparisons

Landy (1989) defines the multi-person comparison work performance method as the rating procedure, whereby the rater arranges the set of ratees in order of rank from high to low on a given dimension of work performance. This process can be made easier by using an alternating procedure, in which a rater selects the best and the worst employee, sets them aside, then selects the best and worst from the remaining set of names until all the employees are ranked.

The advantage of this method is that the performance of one employee is compared with the performance of one or more other employees. This technique is therefore, a relative rather than an absolute assessment method (Robbins et al, 2003).

The multi-person comparison method is rooted in the equity theory. Employees tend to compare their job inputs in relation to colleagues. Bergh and Theron (1999, p176) maintain that “equity is perceived if the ratio of his or her inputs to outcomes corresponds to that of other individuals, such as co-workers working on the same job, that he or she uses as referents for comparison. Inequity is perceived if the outcomes in relation to inputs are either too low or too high in comparison to referents”.

The disadvantage of multi-person comparisons involves the subjective perceptions and feelings on the part of both the assessed and their referent group, doing similar tasks (Grote, 2002).

3.2.3.6 Management by objectives

This is a more recent technique of work performance assessment, whereby the supervisor and employee mutually set performance objectives that are to be achieved within a specific period. Many organisations moved from a mere trait assessment of work performance to the development of a procedure that concentrated on goal setting and made the assessment process a shared responsibility between the employee and the manager (Grote, 2002). Robbins (1996) describes management by objectives as a participative programme outlining specific goals, which are tangible, verifiable and measurable.

Grote (2002) summarises the effectiveness of management by objectives as follows:

- Work performance criticism has a negative effect on the achievement of goals.
- Management praise has minimum effect on employees.
- Work performance improves most when specific goals are established.
- Defensiveness resulting from critical work performance assessment produces inferior work performance.

- Work performance coaching should be a daily activity, and not only happen once a year.
- Mutual goal setting, not criticism, improves work performance.
- Interviews primarily designed to improve employees' work performance should not also weigh their salary or promotion in the balance.
- Lastly, employee participation in the goal setting procedure helps produce favourable results.

Grote (2002) delineates the advantages of management by objectives as follows:

- The appraiser and appraised routinely meet.
- They review job roles and priorities systematically.
- They focus on work performance standards that are currently articulated by management.
- They exchange feedback.
- They plan, agree, conclude and document work performance related matters using organisational forms. These are then exchanged as records and assumed agreements.

The major disadvantage of management by objectives is that the inputs of colleagues and subjects reporting to the assessed employees are unfortunately not taken into consideration. This disadvantage of this performance assessment method has necessitated the development of the 360 degree feedback, which is discussed below (Grote, 2002).

3.2.3.7 360 Degree feedback

In recent times 360 degree feedback has been used to assess work performance. This method involves all stakeholders as source of relevant information about employees' performance. These sources include supervisors, peers, subordinates, customers and self-appraisal (Robbins et al, 2003).

According to Aamodt (1996) the work performance ratings of supervisors accurately evaluate to what extent an employee contributes toward the overall success of the organisation. However, the supervisor is not in a position to observe the employee's behaviour all the time, as they merely see the end results.

Since a supervisor can only see the end result of an employee's performance, peer assessment can be helpful as they see the employee's actual work performance all the time. Conversely, subordinates can be valuable to assess the supervisor. In many instances, subordinates can provide a totally different view of their supervisor's behaviour (Robbins et al, 2003).

Aamodt (1996) argues that though it would be unlikely that an organisation would ask customers to fill out a performance appraisal instrument about an employee, organisations do value customer feedback. Informally, customers provide feedback on employee work performance by filing complaints or complimenting a manager about one of the employees. Formally, customers provide feedback by completing assessment cards.

The 360 degree performance assessment method was developed to satisfy the need to assess employees, teams and departments from the perspective of all the important stakeholders involved in a given situation (Robbins et al, 2003).

The main advantage of this method is that it prevents the bias of a single stakeholder leading to an incorrect assessment, because all the inputs of the various stakeholders are gathered and integrated in the final performance assessment. It involves more information sources as compared to the traditional manager-employee work

performance assessment. This means greater potential for identifying employees' work performance strengths, than if only the manager were involved (Bacal, 1999).

The major disadvantage of the 360 degree work performance feedback is that, compared to other assessment methods, the process involves four main stakeholders to assess employees' work performance. This makes the process more involved. Its very strength can therefore be a problem, because collecting and organising data can be time consuming, and the process tends to become mechanical and paper driven (Bacal, 1999).

In order for the above-mentioned work performance assessment methods, to be effective in organisations it is important that the use and acceptance of the assessment system are maximised, while minimising any dissatisfaction of the individuals (Grote, 2002). The discussed methods have been chosen on the basis that they are commonly and widely used by South African organisations.

Ivancevich and Matteson (1993) maintain that although formal work performance assessment, may take place on a set schedule, that is, either monthly, quarterly or annually, the effective assessment should be done on a continuous, ongoing basis. Furthermore, Grote (2002) asserts that newer work performance assessment methods should be aligned to the organisation's vision, mission statement and values. These modern designed assessment methods not only focus on problem areas, but also actively recognise and reinforce good work performance.

3.3 DYNAMICS OF WORK PERFORMANCE

Nathan, Mohrman and Milliman (as quoted in Ivancevich & Matteson, 1993) observed that virtually every organisation of at least moderate size uses a formal work performance assessment method. Assessing and providing feedback about work performance is considered essential to an employee's ability to perform work duties effectively.

The discussed methods of work performance assessment can be grouped into two categories, that is, a judgmental category and a developmental category (Ivancevich & Matteson, 1993).

According to Muchinsky et al (2002) work performance assessments with a judgmental orientation focus on past performance and provide a basis for making judgments regarding which employee should be rewarded and how effective organisational processes, such as selection and training, have been implemented.

Cascio (1998) asserts that work performance assessments with a developmental orientation are usually more concerned with improving future work performance, by ensuring that expectations are clear, and identifying ways in which employee work performance may be improved through training and development interventions.

A problem of one person, normally a manager, passing judgment on the personal worth of his or her subordinates as in BARS, Checklists, Graphic rating scales and Critical incidents are open to individual elements of subjectivity and bias (Muchinsky et al, 1998).

The employees should be involved in the designing, development and administration of the work performance assessment. Grote (1996) found that employee participation creates ego involvement and a sense of commitment to their work performance assessments. O'Nelly (1990) states that supervisors and their subjects must agree on expected results and time frames. The work performance reviews and discussions should be held regularly to evaluate results and give accurate performance feedback.

The 360 degree performance assessment, multi-person comparisons and management by objectives work performance assessments, are less problematic as the employees are actively involved in the process (Robbins et al, 2003).

Grote (2002) argues that first-line supervisors are more suitable to assess employees' work performance, because they have a good understanding of the work performance involved.

In conclusion, it should be pointed out that both the judgmental and developmental categories are not mutually exclusive, and work performance assessment can and do serve both purposes.

3.4 WORK PERFORMANCE AND BIOGRAPHICAL CHARACTERISTICS

The relationship between work performance and biographical characteristics will now be discussed.

3.4.1 Age

Bergh and Theron (1999, p70) define age as the “chronological increase in years, biological and physical changes. Ageing may result in a decline of functions, but may also relate to improvement in some functions”.

Miner (1992) states that there is a close relationship between age and work performance. In jobs that require extensive physical activity, older employees tend to be less productive compared to younger employees. In jobs where verbal ability is important, this ability could improve with age.

On average, older employees with longer years of experience and a higher level of education perform better in the workplace. An understanding of why and how individuals find strength to withstand and overcome work pressures towards increasing entropy, whereas others do not, is also likely to lead ways of increasing the numbers of those who do (Strümpfer, 1995)

Robbins (1996) asserts that there is a relationship between age and work performance. He cites that there is a widespread belief in the United States of America that employees' work performance declines with increasing age. The problem is that age can affect productivity because individuals' skills, particularly speed, strength and coordination decrease over time. Furthermore, the lack of intellectual stimulation and

work boredom can also contribute to reduced productivity and effectiveness (Cascio, 1998).

3.4.2 Marital status

The relationship between marital status and work performance has not been extensively investigated. However, Robbins (1996) stipulates that marriage in some instances may lead to increased responsibilities that may make a steady work more valuable and significant to married employees. In the same token Robbins (1996) also raises many questions relating to the relevance of marital status and work performance, such as:

- Does being divorced or widowed have an impact on the employee's work performance and satisfaction?
- Does the status of unmarried couples that live together have any relevance to work performance?

Bergh and Theron (1999) argue that working couples often experience higher levels of work experience as compared to single working parents.

3.4.3 Gender

The debate as to whether employees' gender can be attributed to either good or bad work performance has remained unresolved. Robbins (1996) argues that in the work environment there are no consistent gender differences in terms of problem solving abilities, analytical skills, competitive drive, motivation, sociability or learning ability.

The research conducted by Robbins (1996) found no significant differences between males and females that affect their work performance in any sphere and level of employment.

3.4.4 Tenure

Robbins (1996, p85) emphasises that “while past performance tends to be related to output in a new position, seniority by itself is not a good predictor of productivity”. If employees have been holding positions for longer periods, this does not necessarily mean they are more productive than their juniors.

The length of service can also be linked to the congruency between the employees' characteristics and those of their work place. Lowman (1993) as quoted by Bergh and Theron (1999) argues that employees' work dysfunctions are the result of psychological problems such as misfit relating to their interaction with their work environment. If there is a proper fit between the employees' characteristics and that of their work place this interaction will ensure satisfaction among employees, which in turn will lead to the fact that they will stay in the work environment for a long time and the employer will also want to retain them.

3.5 CHAPTER SUMMARY

In this chapter the concept of work performance was operationally defined. Furthermore, the purpose of work performance and the various methods of work performance assessments were outlined. This included the problems and benefits found in work performance assessment tools. Finally, the relationship between work performance and biographical characteristics were discussed.

Herewith the second literature aim is accomplished.

In the next chapter the empirical study will be discussed.

INTEGRATION OF LITERATURE STUDY

From the above literature, the dynamic and reciprocal theoretical relationship that exists between the sense of coherence and its impact on work performance will be discussed. This integration will be presented from the individual's cognitive, affective, conative and interpersonal characteristics.

1 Cognitive characteristics

The literature has shown that it is only through the individual's logical thinking that he or she can be creative in the performance of his or her work. However, it is too general to establish a detailed understanding of how people's work performance play a role in shaping their sense of coherence or a positive health outcome. What is crucial is the question of the social valuation of the occupations individuals are engaged in, as such evaluations are expressed in the resources like power, rewards and prestige allocated by a given society (Strümpfer, 1990).

The more individuals perceive the social valuations of their work as meeting their set criteria of equity, the more they will own their jobs (Strümpfer, 1995). According to Flannery and Flannery (1990) there is accumulating evidence that job conditions affect adult personality through a direct process of learning and generalisation. Put differently, this implies that individuals learn by performing their work that is directly related to their non-occupational realms.

The overall work performance consistency of employees has a close link to the comprehensibility component of the quality of life questionnaire.

The strong SOC person will be motivated to see the task as a challenge to impose structure and to search for appropriate resources. He or she will see the cognitive performance outcome as reasonable. Thus, assuming that the task is within the boundaries of what matters to the person, it is indeed likely that the SOC will contribute in some way to the outcome.

In summary, individuals have the ability to make cognitive sense of their work place, as being stimulating, ordered, structured, consistent and predictable. They can perceive work as consisting of experiences that are bearable, with challenges that can be met by availing oneself of personal resources or resources under the control of legitimate others (Antonovsky, 1990).

2 Affective characteristics

Individuals experience their work performance as being emotionally meaningful. They make emotional sense of work demands, as welcoming challenges, worthy of engaging in and investing their energies (Antonovsky, 1990). There is a close link between the individual with a strong SOC and the psychologically optimal functioning individual. According to Cilliers and Wissing (1993) the affective characteristics of the psychologically optimal functioning individual are openness, sensitivity to own emotions, emotional independence, feelings and needs, acceptance of full responsibility, self respect and self acceptance. The individual is free to express his or her feelings (Gibson, Ivancevich & Donnely, 1997).

In summary, Strümpfer (1995) found a close relationship between the individual's work performance and a strong SOC on the affective level, by concluding that the individual's tough arousal capability to deal with the work performance appraisal process, leads to positive characteristics of better work performance (even in complex tasks), emotional stability and stress tolerance.

3 Conative characteristics

Individuals' self-knowledge and knowledge of their personal values, needs, interests, style and work competencies and their effect on others, allow them to be flexible in managing both life and work events. They perceive events as being interesting. They have developed a repertoire of coping mechanisms such as self-control to effectively regulate events unfolding in their lives (Antonovsky, 1990). These individuals are involved in tasks (Meyer, 1996).

The research conducted by Strümpfer (1995) found a close link between the individual's work performance on the conative level and a strong SOC. The highly competent and knowledgeable employees were found to be self-directed in the execution of work tasks and functions. Robbins (1996) concurs that competent employees are normally assigned onto autonomous teams that could not merely resolve work-related problems, but also implement work-related solutions and take full responsibility for the outcomes.

4 Interpersonal characteristics

By participating freely in interpersonal experiences, the individuals are able to assist and support others to recognise and understand personal needs, values, alternatives, problems and work objectives. They are extremely committed to engage significant others in their immediate environment in effective interpersonal relationships (Strümpfer et al, 1998).

If individuals possess orientations such as the ones outlined above, then their behaviour at work will lead to productive performance, recognition, reward and promotion (Strümpfer et al, 1998).

Strümpfer (1995) found that individuals with a strong SOC had close interpersonal relationships with their supervisors. The nature and closeness of these relationships allow employees the freedom to disagree with their supervisors, to the extent to which supervisors instruct them what to do without discussing with them, the importance of doing the work, and how close the employees are supervised.

Grote (2002) writes that it is the supervisor's responsibility to create the conditions that will foster and enhance a close and effective work environment, by eliminating problems that could arise and hinder excellent work performance.

5 Formulation of the research hypotheses

The research hypotheses will be formulated as follows:

H_{01} - There is no relationship between employees work performance and their sense of coherence.

H_{11} - There is a relationship between employees work performance and their sense of coherence.

Also

H_{02} - The biographical characteristics of an employee do not influence his or her work performance.

H_{12} - The biographical characteristics of an employee influence his or her work performance.

CHAPTER 4: EMPIRICAL STUDY

The aim of this chapter is to outline the empirical research steps that have been followed. Firstly, the population and sample are discussed. Secondly, the measuring instruments are discussed and the selection of each instrument justified. Then the data gathering and processing are given. The chapter ends with the chapter summary.

4.1 POPULATION AND SAMPLE

This empirical study was conducted at a banking institution, employing a total of 2 500 banking, administrative and support staff.

The administrative and supportive functions section ($N = 1000$, 40% of the total population of 2 500) serves as the population in this study. A random sample of 100 was selected, representing all the administrative and supportive functions in departments proportionately. Every employee in the population had an equal chance of being included in the sample. Howell (1999, p21) asserts that it is crucial that “the concept of a random sample is fundamental to the process of using statistics calculated on a sample to infer the values of parameters of a population”.

Every employee was assigned a number, and a table of random numbers was used to select the numbers of those employees who will be included in the sample. The significance of this procedure was to ensure that every element in the population should have an equal chance of being part of the empirical research.

From this sample 80 employees responded to the invitation to participate in the research, representing 80 percent of the sample. All 37 items in the questionnaire intended to investigate the SOC, including the biographical characteristics which include the performance score of each employee were fully completed.

4.2 MEASURING INSTRUMENTS

The quality of life (QOL) questionnaire and the job evaluation manager will be discussed in terms of aspects such as the aim and rationale, administration, interpretation, validity, reliability and the justification for its inclusion in this study.

4.2.1 Quality of Life Questionnaire (QOL)

- Development of the QOL questionnaire

The QOL questionnaire was developed by Antonovsky (1987). He conducted a pilot study. Fifty-one individuals between the ages of 21 to 91 were invited to participate in the study. The two main criteria used during the interview sessions were that the individuals had experienced trauma in their lives that led to major consequences. Secondly, the individuals were selected because they functioned remarkably well and enjoyed good lives.

The designing of Antonovsky's QOL questionnaire comprised three dimensions, namely, comprehensibility, manageability and meaningfulness. These three dimensions were operationalised to refer to a wide variety of stimuli or situations.

The QOL questionnaire was designed on the basis of facet design. According to Antonovsky (1987) four facets were selected as the basis QOL questionnaire. These facets were intended to determine the stimuli and elements to be included under each facet. A process of intensive testing resulted in the development of the QOL questionnaire.

The first facet covered the modality of the stimulus (instrumental, cognitive or affective), secondly, its source (internal, external or both), thirdly, the nature of the demand it posed (concrete, diffuse or abstract), finally, its time reference (past, present or future) (Antonovsky, 1987).

- Rationale of the QOL questionnaire

Antonovsky (1987) developed the QOL questionnaire to assess where people are located on the health-disease continuum. People with a strong QOL are more likely to maintain their condition or improve on it; they tend to perceive stressful situations as less threatening.

The basic tenet of the QOL concept perceives the world as more or less ordered and predictable on the other side of the continuum. People with a weak sense of coherence are more likely to perceive stressful situations as ego threatening and anxiety provoking. Antonovsky and Sagi (1986) concur that a person with a high sense of coherence is less likely to have a tendency to perceive many situations as ego threatening and anxiety arousing (Antonovsky, 1990).

- Description of the QOL questionnaire

Antonovsky (1987) described the QOL questionnaire as a self- reporting instrument that is directed at assessing people's tendencies to apply successful coping mechanisms, or what he called *behavioural immunology*.

The QOL questionnaire consists of 29 items rated on a 7-point scale that indicates the extent to which the respondents evaluate the item as characteristic of themselves. It is a scale that moves along or between total disagreements to total agreement (Antonovsky, 1987).

According to Antonovsky (1987) the 29 items of the quality of life questionnaire consist of the three components divided as follows: Comprehensibility is measured by 11 items. The stimuli deriving from individuals' internal and external environments in the course of life are structured, predictable and explicable. Manageability is measured by 10 items. The resources are available to individuals to meet their demands posed by these stimuli. Meaningfulness is measured by 8 items. These demands faced by individuals are challenges worthy of investment and engagement.

- Dimensions of the QOL questionnaire

The concept of the QOL primarily consists of the three main dimensions which constitute the scales of the QOL. That is, comprehensibility, manageability and meaningfulness. These dimensions were fully discussed in chapter 2, point 2.2. The individual's overall score on the QOL questionnaire is the total of all their responses on the three dimensions. The scores on the three dimensions separately and on the total score on the QOL questionnaire were used in the analysis of data and reporting of the results.

- Administration of the QOL questionnaire

The QOL questionnaire is essentially self-administered. The items are printed on the answer sheet that the respondent uses to record the answers. The respondents are instructed to print their names on the answer sheet, and to carefully read the instructions. There is no time limit for answering the questionnaire. The respondents are encouraged not to omit any answers. Since the questionnaire is for the most part self-administered, it may be completed in group sessions, individually or even at home (Antonovsky, 1987).

To hand score the answer sheet; each marked sheet should first be inspected. A horizontal line should be drawn through any item where respondents gave no answer or either gave a multiple answer. Items no 1, 4, 5, 6, 7, 11, 13, 14, 16, 20, 23, 25, and 27 represent negative items and their scores must be reversed before being marked. The scoring is a straightforward clerical task. The raw scores for each item are counted to determine the sum of the respondent's responses.

The instructions appear at the beginning of the scale as follows "Here is a series of questions relating to various aspects of our lives. Each question has 7 possible answers. Please mark the number which expresses your answer, with numbers 1 and 7 being extreme answers. If the words under 1 are right for you, circle 1, if the words under 7 are right for you, circle seven. If you feel differently, circle the number which best expresses your feeling" (Antonovsky, 1987).

- Interpretation of the QOL questionnaire

Respondents with a strong QOL score significantly higher on the three scales. Respondents who have a low score on the three components would reflect that their environment seem less ordered and predictable, tasks may seem less manageable, and to a larger extent seem meaningless.

The respondent, with a high score on manageability but with a low score on the other two components, is like a punch-drunk fighter who will soon quit. In the same breath respondents who are high on comprehensibility and meaningfulness but low on manageability, are strongly motivated to search for resources that will enable them to think that they can manage (Antonovsky, 1987). The true intellectual, however, for substantive and structural reasons, is not likely to have a strong QOL. The three QOL components are basically of equal centrality. However, the motivational component of meaningfulness seems the most significant. Without it, being high on comprehensibility or manageability is likely to be temporary (Antonovsky, 1987).

Antonovsky (1987) maintains that having a strong QOL does not necessarily mean that respondents view their entire world as comprehensible, manageable and meaningful. Individuals set boundaries, some wide, some narrow, and what happens outside these boundaries does not bother them. Furthermore, Antonovsky (1987) asserts that there are four areas that cannot be excluded if the individual is to maintain a strong QOL that is, own feelings, immediate interpersonal relationships, the major area of work and existential issues such as death, inevitable failures, shortcomings, conflict and isolation.

The ability of individuals to be flexible in handling their life areas included within their set boundaries may be an effective way of maintaining their coherent view of their world. This can be done by contracting away from an area whose demands are becoming less comprehensible or manageable, or by including new areas within the set boundaries (Antonovsky, 1987).

- Validity of the QOL questionnaire

Antonovsky's (1987) QOL questionnaire meets the inherent requirements of validity. Subsequent cross-sectional empirical studies have continued to support the validity of this measure. Antonovsky (1987) adapted the measure for young children and found that hyperactive children had lower scores on the QOL questionnaire, which reflected their surrounding and immediate environment as being less ordered and predictable, the children age-appropriate tasks were less manageable and meaningful.

Rambaut (1981) in Antonovsky (1987) had independently developed a complete instrument to measure the same concept, thereby providing evidence for criterion as well as convergent and discrimination validity. Dana's study (Antonovsky, 1987) found a correlation of 0,72 between Antonovsky's QOL questionnaire and Rumbaut's 22 item QOL questionnaire.

Kalimo and Vuori (1990) conducted a study to determine any significance between the well-being of competent, satisfied individuals and incompetent and dissatisfied individuals. Their findings found that distinguished them as being job characteristics (influence), employment conditions (stability), work attitudes (appreciation of work) and health resources or QOL.

- Reliability of the QOL questionnaire

Many studies have indicated that the QOL questionnaire can be used cross-culturally, although as yet it has been used in Hebrew and English (Antonovsky, 1987).

The distribution of responses as shown by the range of scores and the standard deviations, points to an instrument that makes considerable distinction among members of different populations. The coefficients of variation, that is, standard variation and arithmetic mean is designed to indicate heterogeneity of responses are considerable from 0,10 to 0,20 even in the most homogeneous of the samples (Antonovsky, 1987).

Prior to conducting the study to measure the consistency of the QOL questionnaire to individuals, Antonovsky (1987) checked the appropriateness of the 29 items of the questionnaire with his colleagues. He used the facet design as a basis for the questionnaire construction.

The results of the preliminary testing of the reliability of the questionnaire had shown high consistent levels of Cronbach's alpha, ranging from 0,84 to 0,93 to a respectable degree of internal consistency and reliability of the questionnaire (Antonovsky, 1987).

- Motivation for inclusion of the QOL questionnaire

Antonovsky's (1987) QOL questionnaire has been chosen for this study, as it clearly operationalises the concept as discussed in chapter 2, the sense of coherence construct. McSherry and Holm (1994) in their many studies had utilised the QOL questionnaire to measure the concept. They maintained that the questionnaire was easier to administer and gave quick indication of where the respondents find themselves on the ease-disease continuum.

Rosenbaum (1988) states that the validity of the QOL questionnaire also indicates that the instrument was found to be a reliable measure of self-control behaviours. The questionnaire is related to this research, because the congruence between the theoretical views that exist in specific cognitive, affective, conative and interpersonal behaviour characteristics is linked to work performance.

More specifically, the individual's cognitive characteristics are acquired skill in self-regulation of internal responses based on their previous achievements. According to Rosenbaum (1988) their learned resourcefulness provides a basis for further learning, acting as a source of information for judgments of self efficacy in coping, as measured by the use of cognition to control emotional sensations items found in the QOL questionnaire.

Furthermore, Schultz (1994) maintains that the affective characteristics are the application of self regulation in life situations, as measured by the tendency to employ

problem-solving strategies items found in the QOL questionnaire. Rosenbaum (1988) asserts that the specific conative and interpersonal characteristics are individuals' conscious control of their lives as measured by the tendency to employ problem-solving strategies items also found in the instrument. The individuals will pursue their goals despite obstacles and anxieties towards the attainment of meaningful rewards.

The most significant factor relating to the questionnaire is that it can be used cross-culturally. According to Sullivan (1993) the consistent positive correlations between QOL and all positive health measures, while being significantly and negatively related to all illness measures, are a great motivating factor in using the questionnaire.

The employees with a high QOL will evaluate stressors at work in a positive way, because they are generally confident that both their external and internal environments are predictable and there is a high probability that things will eventually work out as expected (Antonovsky, 1987).

4.2.2 Job Evaluation Manager (JE Manager)

4.2.2.1 The development and adjustment of the J E Manager as a measure of work performance

The Job Evaluation Manager was developed by Old Mutual remuneration consulting. It is a computerised job evaluation system, which was designed to operate in the South African environment that is changing continuously at an increasing pace. The system is owned by Hay Group of South Africa (Franzsen & Orr, 2002). The system was adapted and customised to include a work performance appraisal form. It identified the key performance areas (KPAs), which were given some weighting relating to the core activities. Although it was used to measure work performance the name still stayed Job Evaluation Manager.

To identify essential key performance areas the manager and employees' decided on the competencies which were important for the specific key performance area, and these were systematically built into the JE Manager.

The competencies were classified as either hard or soft competencies. Hard competencies were the critical job functions, whereas soft competencies were the interpersonal skills. Most competencies were changing all the time due to the changing external environment. These changes were incorporated into the JE Manager.

The following broad competencies formed an integral part of the work performance appraisal: adaptability, attention to detail, impact, initiative, innovation, creativity, planning, decisiveness, organising, integrity, leadership and judgment.

In addition to identifying what key performance areas of a position are, the manager and the employee discussed how the employee's work performance will be measured and evaluated. The four general measures of work performance were quality, quantity, cost containment and timeliness. Timeliness measured adherence to schedule, meeting deadlines or milestones.

This means that while any number of jobs might have the same key performance area and outcomes, it was expected that there might be different levels for each job. The anchor point or benchmark was the level of work performance expected. The percentage weightings were built in to determine the relevant importance of each key performance area in comparison to overall departmental strategy and objectives. Each key performance area was allocated a percentage out of a 100. The manager's responsibilities after the appraisal session was to maintain work performance records, and to update objectives as conditions change on the JE Manager.

The J E Manager meets the following criteria:

- Creditability

The Job Evaluation Manager instrument is used by many South African companies, more especially in the financial and insurance industry. There is adequate professional support for its implementation and application. This is evident in the increased number of Hay South African consultants and programmers working on enhancements of the instrument (Franzsen & Orr, 2002).

- Applicability

The Job Evaluation Manager has been successfully implemented as a work performance instrument to all employees at all levels of positions in organisations. According to Franzsen and Orr (2002) the instrument has been implemented to capture the complexity of the academic jobs and specialist researchers, in addition to common positions found in the financial and insurance industry.

- Simplicity

The Job Evaluation Manager is not time consuming. It is much easier to explain to employees, and most importantly employees find it easier to understand. According to Franzsen and Orr (2002) the instrument terminology is customised to suit every organisation. The instrument facilitator can change the terminology of the instrument, without changing the logical process of appraising the employees' work performance.

- Objectivity

McCormick and Ilgen (1989) maintain that no work performance appraisal instrument can be totally objective. The Job Evaluation Manager strives to be objective, this is evident to the extent to which the instrument can yield consistent results and it is judged to be fair by users (Franzsen & Orr, 2002).

- Comparability

The results of the Job Evaluation Manager instrument can be compared with those obtained from another organisation in the same industry. McCormick and Ilgen (1989) argue that the factors used in a work performance appraisal instrument must form the basis of comparison.

- Flexibility

Unlike many work performance appraisal instruments which make use of product specific terminology that are not open to customisation, and which limits their application and can make users understanding difficult, the Job Evaluation Manager can totally be adjusted to suit unique and specific organisational requirements (Franzsen & Orr, 2002).

The measurement of work performance was defined as follows:

1 – Poor work performance was defined as the achievement of key performance area below 40 percent.

2 – Below the expected work performance was defined as the achievement of KPA between 41 and 79 percent.

3 – Standard or average work performance was defined as the achievement of KPA between 80 to 100 percent.

4 – Good or above average work performance was defined as the achievement of KPA between 101 to 119 percent.

5 – Excellent work performance was defined as the achievement of KPA above 120 percent.

4.2.2.2 Rationale of the Job Evaluation Manager

The ever-changing nature of the business environment in South Africa has necessitated organisations to respond to new demands in terms of assessing positions and work performance.

According to Franzsen and Orr (2002) the rationale of the Job Evaluation Manager as a work performance appraisal instrument to organisations are as follows:

- Re-alignment in the environment to become market driven and customer orientated, leading to re-structuring in the organisation.
- Development of more flexible remuneration structures and practices based on work performance appraisal.

- Greater involvement and participation by employees in their own work performance appraisal and in determining career structures in the organisation.
- Decentralisation of decision making in the organisation.
- Strengthening of the organisational human resources component.

4.2.2.3 Description of the Job Evaluation Manager

The Job Evaluation Manager is a computerised job evaluation system. The positions within an organisation are placed in a systematic structure according to their relative value. It is easy to use and operate under Windows 98, 2000 NT or XP versions. All the screens are clear and easy to read when doing work performance appraisals (Franzsen & Orr, 2002).

The major significant of the instrument is that all evaluators operate from the same frame of reference and interpretation of questions. Work performance appraisals are conducted by a click of a button, and the instrument is user friendly.

The instrument is used by human resource practitioners and line managers customised for the specific requirements of the organisation. All users are trained on how to use the instrument and supported by consultants and programmers provided by the Hay Group South Africa. Its built-in audit procedure ensures consistency of evaluations between organisational units. It allows only the deviations from the benchmark positions to be validated by a panel for verification.

4.2.2.4 Administration of the Job Evaluation Manager

The administration of the Job Evaluation Manager is done by an accredited specialist, together with line managers, the employee acting in the position and the human resources manager. It is a transparent process in that the employees and their managers are directly involved in the appraisal process. Because the system is

computerised the same process is followed throughout and the interpretation of the information is therefore consistent and scientific in nature.

The overall analysis of all the positions is delineated according to their relative importance in the following six job bands:

A	Top management level
D	Senior management level
G	Junior management level
J	Supervisory level
P	Administrative & clerical level
M	Elementary positions such as cleaning and security services

4.2.2.5 Interpretation of the Job Evaluation Manager work performance appraisal

The process involved in the Job Evaluation manager when doing work performance appraisals is to link the achievements of employees key performance areas in relation to the accomplishment of the broader organisational goals. The whole process also includes principles of identifying shortfalls and the accompanying development plans designed to address these inadequacies. Throughout the process the employees are encouraged to assess their work performance accomplishments against the set targets.

4.2.2.6 Validity of the Job Evaluation Manager

The Job Evaluation Manager was developed by job evaluation specialists and industrial psychologists. The instrument has been adapted to measure work performance and subjected to rigorous testing in terms of job evaluation and work performance appraisal principles, which have been developed and verified over the last 60 years internationally (Franzsen & Orr, 2002).

Franzsen and Orr (2002) further maintains that the Job Evaluation Manager currently hold about fifty two percent of the South African major companies. It follows the same logic as other well established systems such as Hay and Patterson. The Job Evaluation

Manager has achieved satisfactory and dependable results. Because of the above mentioned and the current use of the Job Evaluation Manager in the organisation the research was conducted in, it was decided to use the instrument in this study.

The instrument is quicker, easier to use, more relevant and has higher face validity with employees. In addition it links very well to the measurement of work performance. There are built in checks and balances in the instrument to ensure validity of job evaluation results and work performance appraisal results. The checks and balances are random auditing done on the system to ensure that it measures what it is intended to measure by the auditing team. By using these checks and balances the instrument has shown to measure the work performance of the employees.

McCormick and Ilgen (1989) assert that when an instrument is able to establish some important variable, such as work performance or behaviour it is said to have predictive validity. However, the validation process would require more empirical investigation, and is representative and customised to specific organisations as an ongoing process.

4.2.2.7 Reliability of the J E Manager

The Job Evaluation Manager follows the same logic and its customised interpretations apply to all the positions, to ensure consistency of the instrument. The built in checks and balances in the instrument ensure reliability of the job evaluation results and the measured work performance (Franzsen & Orr, 2002).

The Job Evaluation Manager is basically more objective as compared to manual work performance appraisal processes, because of the system's consistent probing, consistent logic and an automatic audit procedure built into the instrument. Using the rating scale from one to five as a set standard, the Job Evaluation Manager has shown to be reliable across different job categories and departments.

4.2.2.8 Motivation for inclusion of the Job Evaluation Manager

The Job Evaluation Manager as a customised work performance appraisal instrument was used as it offered an ideal synergy between work performance assessment or rating and the categorisation of positions according to their relative importance. Work performance was measured and valued using a common set of factors. It also ensured consistency throughout the organisation, and improved the efficiency and transparency of the work performance appraisal process.

Franzsen and Orr (2002) maintain that it is generally accepted that there is not a single instrument that is totally objective. However, the Job Evaluation Manager is more objective as compared to other instruments, because of the extent to which it can yield consistent results, and users consider it to be fair.

4.2.3 Biographical characteristics

The employees' biographical characteristics were also investigated through a biographical questionnaire to determine their relationship with work performance, in terms of age, marital status, gender, qualifications and tenure distributions.

4.3 DATA GATHERING

The following procedure was used to gather data.

- The covering letter was drawn up, indicating the aim of the research, the fact that the responses would remain confidential, instructions for completing the QOL questionnaire and the return date of the completed questionnaire.
- The biographical questionnaire was drawn up containing questions on the following variables: age, marital status, gender, qualifications, total years of experience, position level and the department in which the respondent served. The respondents were also asked to indicate their work performance score on the biographical questionnaire.

- The covering letter, biographical questionnaire, and the QOL questionnaire were placed in an envelope, addressed to each employee personally and their names and departments were stated.
- The envelopes were delivered by hand to each employee on the sample (Sample: N=100).
- 80 completed questionnaires were returned by hand.
- The QOL questionnaires were marked.
- In the interpretation of data in chapter 5 the sample was divided between the highest scores on SOC and the lowest scores on SOC, in comparison to the total work performance rating score received.

4.4 DATA PROCESSING

The responses of the 80 employees to each of the questions/items of the research questionnaire were captured electronically for statistical analysis purposes. The statistical analyses performed in the research are discussed below.

4.4.1 Descriptive statistics

In the case of the biographical variables such as age and tenure, it is usual that the sample be described by giving frequency distributions of the responses. According to Christensen (1994) such descriptions give an idea of the kind of population, which the sample may be representative of. The need to provide descriptive statistics for biographical variables was not limited to these variables. It was necessary to give descriptive information concerning SOC data. This was done by giving the mean, standard deviation, minimum score and maximum score of the SOC scale scores of the total sample.

4.4.2 One-way analysis of variance

For the purposes of establishing whether biographical variables relate to the work performance score of an employee, the biographical variables were used to divide the sample into subgroups. For example, the variable gender was used as a basis for dividing the sample into male and female employees. The biographical variables used this way and the work performance score, are typically referred to as independent variables and the various subgroups that are to be compared to, are typically referred to as the dependent variables.

The statistical strategy used in the research, to compare different subgroups with regard to their mean work performance score, is known as one-way analysis of variance. This is appropriate when two or more groups are being compared with regard to their mean scores on some interval scaled variable (Howell, 1999).

4.4.3 Factor analysis of variance

Factor analysis is an excellent technique to investigate the underlying structure of a questionnaire. Factor analysis procedure is especially useful when the purpose is to uncover dimensions in a questionnaire (Howell, 1999). Those items that refer to the same dimension or share the same dimension, should correlate highly with one another and factor analysis uses this to uncover these factors or dimensions. In the research it was decided in advance that the QOL questionnaire will be used as a single scale. In accordance with factor analysis theory, it was assumed that a single factor underlies the QOL questionnaire. In the research, a single factor solution was therefore forced. According to Kerlinger (1986) the research of such a solution has the following advantages:

- Each item loading (correlation) with the underlying factor is displayed. If such loadings are between $-0,3$ and $+0,3$, they usually do not contribute to the internal consistency reliability of the test and should be omitted from the scale.

- Some items are bound to load negatively while others load positively. From the solution one may decide which items are to be reverse-scored (by recording the items computationally).

Besides these advantages, the factor analysis procedure gives a so-called Ascree plot of the eigenvalues. The eigenvalues associated with the underlying possible factors, are plotted against the factors numbers and allows one to perform Catell's so-called Ascree plot, which involves studying the slope of the plotted eigenvalues (Kerlinger, 1986).

The eigenvalues of a factor indicate the amount of variance a factor explains of the data. The larger the eigenvalue of a factor, relative to size of the eigenvalues of the other factors, the more variance the factor explains. Stevens (1992) suggests that one should extract factors that account for the majority of the variability in the original data. An inspection of the eigenvalues usually reveals that the initial drop in the eigenvalues of the first one or two consecutive factors (Factors 1 and 2 for instance) is larger, but becomes less and less as more factors are considered.

When the drop in eigenvalue appears to have become insignificant one should note the number of the factor where this happens. This then gives a clue as to the number of factors to be extracted. Even though a single factor solution was obtained in this research, the scree plot is informative as it might indicate that more than one factor (sub-scale) exist.

4.4.4 Reliability analysis of the QOL questionnaire

After the single factor solution of the QOL scale was studied, and a decision was made about the items, which were to be included in the QOL scale, and all the items were scaled to measure in the same direction, an item analysis was performed. This analysis reported the Cronbach Alpha coefficient for the scale as a whole as well as the Cronbach Alpha for the scale should any of the items be either omitted or deleted from the scale.

4.4.5 Pearson correlation coefficient

The Pearson correlation coefficient was used to investigate the relationship between QOL and its main components and work performance in table 5.19.

4.4.6 Level of statistical significance

Howell (1999) maintains that conventionally, the levels 0,05 and 0,01 are used by most researchers as levels of significance for statistical tests performed. In choosing a level of significance for this research, the following viewpoints were taken into account:

- In the social and behavioural sciences, researchers are concerned about missing a significant result or making a Type-II error as they are about falsely concluding a significant result (the Type I error). Howell (1999) asserts that when both types of errors (Type I and Type II) are equally important, significant levels such as 0,20 (and possibly even 0,30) are more appropriate than the conventionally used 0,05 and 0,01 levels.
- As the total number of statistical tests to be performed on the same sample increases, the probability of a Type I error also increases (Howell,1999). One approach to counter this accumulating effect is to set the level of significance smaller for the individual statistical test so as to compensate for the overall Type I error effect. For instance, if the overall research significance level is 0,30, then the significance level for the individual test might be 0,05 or 0,01. There is no easy way to come to a decision as to what exactly this level of significance should be.

In view of all these considerations, it was decided to use significance levels of 0,01 and 0,05 for any one particular statistical test in this research.

4.5 CHAPTER SUMMARY

The chapter discussed and described the population and sample. The two measuring instruments were discussed in terms of their development, rationale, administration,

interpretation, validity and reliability. The data-gathering and data-analysis were discussed. In the next chapter the results of the empirical research will be presented.

CHAPTER 5 RESULTS

The aim of chapter 5 is to present the respondents' biographical data, work performance, to determine the relationship between biographical data and work performance, factor analysis and correlation between sense of coherence and work performance. Finally, the chapter ends with an integration of the results and a chapter summary.

5.1 BIOGRAPHICAL DATA

The biographical data will be presented for age, gender, marital status, qualification, tenure, department and job category.

TABLE 5.1: AGE DISTRIBUTIONS OF RESPONDENTS

Age	Frequency	Percentage
20 - 30 yrs	37	46
31 - 40 yrs	35	44
41 - 50 yrs	7	9
51 and older	1	1
Total	80	100

The results in table 5.1 indicate that most of the respondents were between the ages 20 to 50 years (99%), with only one respondent being above 50 years old. It seems that the organisation had employed relatively young employees.

TABLE 5.2: MARITAL STATUS DISTRIBUTION OF RESPONDENTS

Marital Status	Frequency	Percentage
Single	35	44
Married	35	44
Widowed	1	1
Divorced	8	10
Deserted	1	1
Total	80	100

The results in table 5.2 indicate that most respondents were either single (44%) or married (44%) with only 12 percent being widowed, divorced or deserted. Robbins (1996) asserts that marital status does not have any significant impact on work performance. Secondly, there were few research projects that have been conducted on the effect of marital status on productivity.

TABLE 5.3: GENDER DISTRIBUTION OF RESPONDENTS

Gender	Frequency	Percentage
Male	17	21
Female	63	79
Total	80	100

The results in table 5.3 indicate that the majority of employees were females (79%). The male respondents constituted 21 percent of the gender distribution. The gender distribution disparity in the sample was in line with the overall general population of the organisation, where females were in the majority, especially in the lower echelons of the organisation.

As a result of the previous employment of mainly men in middle to top management positions, there has been a massive employment of female employees in the organisation, in order to comply with the stipulation of the Employment Equity

legislation. Robbins (1996) argues that over the last 25 years significant changes have taken place, in terms of increasing women participation in the work place. Their traditional role of looking after children and being secondary breadwinners has radically changed.

TABLE 5.4: QUALIFICATION DISTRIBUTION OF RESPONDENTS

Qualifications	Frequency	Percentage
Grade 11 or less	3	3,8
Grade 12	50	62,5
Undergraduate degree	25	31,3
Post-graduate degree	2	2,5
Total	80	100

The results in table 5.4 indicate that a total of 3,8 percent of the respondents were in possession of Grade 11 or a lower qualification. The majority of the respondents were in possession of Grade 12 (62,5%). Approximately 33,8 percent of the respondents were in possession of either an undergraduate or postgraduate qualification. This qualification distribution augurs well with the skills complexity of the financial industry.

The organisation is rendering sophisticated products and services to middle and upper social classes, as a result, adequately qualified employees were employed to execute these tasks. Furthermore, the organisation was doing business in an intensified competitive environment using advanced technological equipment and tools.

TABLE 5.5: TENURE DISTRIBUTION OF RESPONDENTS

Tenure	Frequency	Percentage
0 - 5 yrs	44	55
6 - 10 yrs	28	35
11-15 yrs	6	8
16-20 yrs	1	1
21 yrs and more	1	1
Total	80	100

From the results in table 5.5 it is clear that most respondents (approximately 90%) have been in the organisation for 10 years or less, with only ten percent having more than ten years tenure.

Robbins (1996) maintains that tenure is related to age, and seniority by itself cannot be regarded a good predictor of productivity. This implies that there are no apparent reasons to believe that employees who have been in a position longer are more productive than those with less seniority.

TABLE 5.6: DEPARTMENTAL DISTRIBUTION OF RESPONDENTS

Department	Frequency	Percentage
Financial	51	63,8
Personnel	19	23,8
Secretariat	6	7,5
Properties	4	5,0
Total	80	100

The results in table 5.6 indicate that the majority of the respondents, approximately 87,6 percent, were from the Financial and Personnel departments respectively, with only 12,5 percent from the Secretariat and Properties departments.

The response rate in the Secretariat and Properties departments were lower, as a result of their relocation to new premises during the period of the empirical investigation.

TABLE 5.7: JOB CATEGORY DISTRIBUTION OF RESPONDENTS

Job Category	Frequency	Percentage
M	59	74
P	1	1
J	15	19
G	5	6
Total	80	100

The results in table 5.7 indicate that 74 percent of the respondents' jobs graded as M-band (Clerical and administration positions). Nineteen percent of respondents were from J-band (Supervisory and junior management positions). Six percent of respondents were from G-band (Middle management positions). Only one percent of respondents were from P-band (Elementary functions such as messengers and cleaners).

5.2 THE OVERALL WORK PERFORMANCE RATING OF RESPONDENTS

Table 5.8 below contains the overall work performance rating of the respondents.

TABLE 5.8: PERFORMANCE RATING OF RESPONDENTS

Performance Rating	Frequency	Percentage
2	1	1
3	40	50
4	34	43
5	5	6
Total	80	100

The results in table 5.8 show the performance rating of respondents. A 5-point rating scale was used. Nobody received a rating of 1, which represents poor performance. A

small percentage, only one percent, of the respondents received a 2 rating which was below average performance standard. It is clear from the table that the majority of respondents, approximately 93 percent, received ratings of 3 and 4, which is average and above average performance respectively. Six percent of the respondents received a 5 rating, which was excellent work performance.

5.3 COMPARISON OF GROUPS BY MEANS OF AN ANALYSIS OF VARIANCE ON BIOGRAPHICAL DATA

The analysis of variance is presented for the biographical data grouped as age, marital status, gender, qualification, tenure, department and job category.

As discussed in the previous chapter the statistical method used in the present study to compare different sub-groups, with regard to their mean performance score, is known as one-way analysis of variance. Howell (1999) asserts that this statistical method is appropriate when two or more groups are being compared with regard to their mean scores on some interval-scale variable. The 0,05 level of significance was used.

TABLE 5.9: PERFORMANCE RATING AND AGE: ANALYSIS OF VARIANCE

Age groups	<i>N</i>	Mean	Std. Deviation	<i>F</i>
30 years and younger	37	3,3784	0,5940	4,510
31 years and older	43	3,6744	0,6444	
Total	80	3,5375	0,6353	
<i>Sig*</i>	0,037			

The results in table 5.9 contain the *p*-value of the one way variance *F*-test on the correlation between age groups and work performance. It could be interpreted that age plays an important role in work performance. Clapham and Fulford (1997) have supported the results of the research when they found that candidates who were 40 and over received significantly lower performance ratings than candidates younger than 40 years old.

Saks and Waldman (1998) have, however, studied the relationship between age and work performance for new employees at entry level positions in public accounting firms, and found a negative relationship between their age and work performance.

TABLE 5.10: PERFORMANCE RATING AND MARITAL STATUS: ANALYSIS OF VARIANCE

Marital Status	N	Mean	Std. Deviation	F
All Singles combined	45	3,4667	0,6606	1,283
Married	35	3,6286	0,5983	
Total	80	3,5375	0,6353	
Sig*	0,261			

The results in table 5.10 contain the p -value of one way variance F -test of marital status and work performance. It seems that none of the marital status categories differ significantly from each other in respect to work performance. This indicates that marital status does not have a bearing on work performance.

According to Robbins (1996) not enough studies have been undertaken to draw any inferences about the effect of marital status on work performance. However, consistent research indicated that married people have reported fewer absences, less turnover and are found to be more satisfied with their jobs as compared to unmarried employees. Furthermore Robbins (1996) indicates that there is no difference between the employees' marital status and work performance.

TABLE 5.11 PERFORMANCE RATING AND GENDER: ANALYSIS OF VARIANCE

Gender	N	Mean	Std. Deviation	F
Male	17	3,4706	0,6243	0,237
Female	63	3,5556	0,6420	
Total	80	3,5375	0,6353	
Sig*	0,628			

The results in table 5.11 contain the p -value of the one way variance F -test of the employee gender. It appears that the groups do not differ significantly regarding their mean level. It could be interpreted that there is no direct relationship between gender and work performance.

In a study to investigate gender differences in the work place, Rosenthal, Guest and Peccei (1996) found that gender differences had a casual attribution for performance, the nature of which had deleterious consequences for women's career progression in management positions. Igbaria and Baroudi (1995) assert that there is no significant gender difference in work performance rating, however, women are perceived to have less favourable chances for promotion than men. They found that the effect of work performance on attributions is stronger among males than females. Halpert, Wilson and Hickman (1993) conclude that women have still not achieved parity with men in the work place.

TABLE 5.12 PERFORMANCE RATING AND QUALIFICATIONS: ANALYSIS OF VARIANCE

Qualifications	N	Mean	Std. Deviation	F
Up to Grade 12	53	3,4528	0,6375	2,855
Post Grade 12 Qualifications	27	3,7037	0,6086	
Total	80	3,5375	0,6353	
Sig*	0,095			

The results in table 5.12 contain the p -value of one way analysis of variance F -test for employees' qualifications and work performance. It seems that all the qualification categories do not differ significantly regarding their mean level. This indicates that the qualifications have no strong bearing on work performance. However, the literature found a strong relationship between qualifications and work performance. Dejong (1999) has found a significant relationship between work performance and the skill and education levels of employees. Lippitt (1997) emphasizes the significance of education to improve work performance, by maintaining that training has been narrowly defined as what happens in the classroom, but the significant element of any training is how it is applied on the job. Thus, the literature does not support the findings of this research.

TABLE 5.13 PERFORMANCE RATING AND TENURE: ANALYSIS OF VARIANCE

Tenure	N	Mean	Std. Deviation	F
5 years and less	44	3,5227	0,6283	4,052
6 years and more	36	3,5556	0,6522	
Total	80	3,5375	0,6353	
Sig*	0,820			

The results in table 5.13 contain the p -value of one way analysis of variance F -test of the relationship between tenure and work performance. The employees' length of service shows no significant bearing on work performance. According to Allen, Russell, Poteet and Dobbins (1999) job tenure can be positively linked to work performance and employees' perceptions of hierarchical plateauing. The literature supports this finding.

TABLE 5.14 PERFORMANCE RATING AND DEPARTMENTS: ANALYSIS OF VARIANCE

Department	<i>N</i>	Mean	Std. Deviation	<i>F</i>
Financial	51	3,4314	0,6084	3,353
Personnel	19	3,7368	0,6534	
Total	70	3,5143	0,6311	
<i>Sig*</i>	0,071			

The results in table 5.14 contain the p -value of the one way analysis of variance F -test of employees' departments and work performance. The employees' functional areas did not show a significant bearing on work performance. The researcher did not find supporting literature for this finding; this may constitute a new dimension to future research.

TABLE 5.15 PERFORMANCE RATING AND JOB CATEGORY: ANALYSIS OF VARIANCE

Job Category	<i>N</i>	Mean	Std. Deviation	<i>F</i>
M	59	3,3729	0,6130	1,235
J	15	4,0667	0,2582	
Total	74	3,1535	0,6247	
<i>Sig*</i>	0,000			

The results in table 5.15 contain the p -value of the one way analysis of variance F -test of employees' job category and work performance. It seems there is a strong and significant relationship between the employees' job category and work performance. However, the researcher did not find supporting literature on this finding. This could represent a new dimension for future research.

5.4 FACTOR ANALYSIS RESULTS

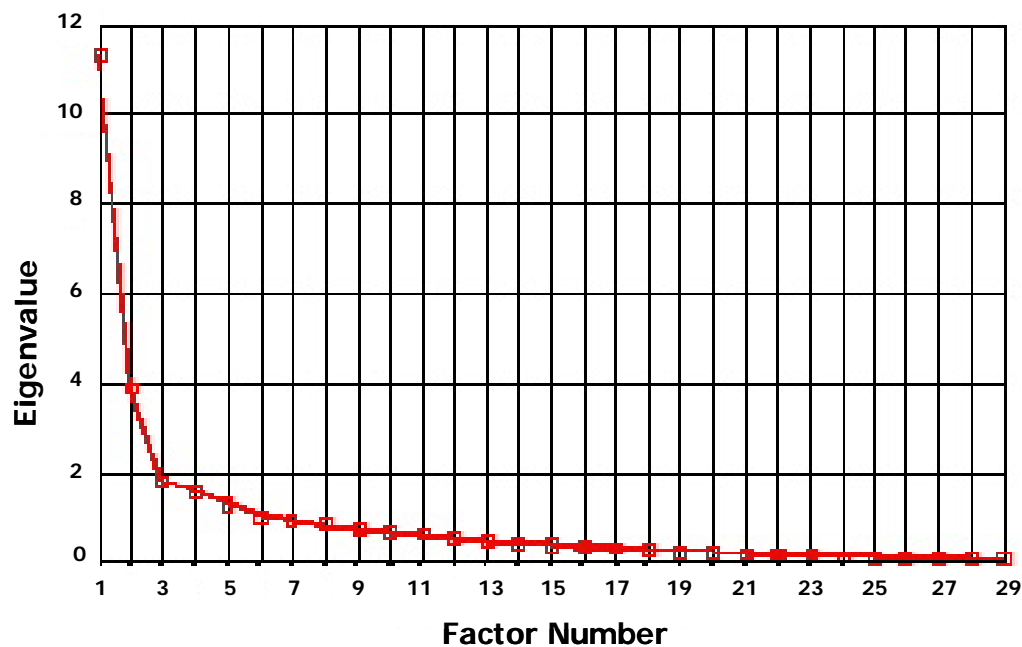
Although the general reliability and validity of the QOL questionnaire have already been determined, a factor analysis was done to determine the reliability and validity of the QOL questionnaire for the sample in this research. This will satisfy the purpose of presenting a more scientific research analysis of the research.

According to Kerlinger (1986) factor analysis is an experimental design in which every level of variable is paired with every level of each other variable. The primary purpose of a factorial design is to include all combinations of all levels of the independent variable.

The consistent positive correlation between SOC and all positive health measures, while being important and negatively related to all illness measures, was a great motivator to use the questionnaire, as it relates to work performance. Furthermore, the questionnaire can be used cross-culturally.

The 29 items of the QOL questionnaire items were subjected to factor analysis. As a result a single factor solution was obtained in order to ascertain the items with an absolute loading smaller than 0,30, which were omitted from the final scale, in order to increase the internal consistency reliability of the scale.

FIGURE 1: PLOT OF EIGENVALUES OF THE CORRELATION MATRIX OF ITEMS OF THE SOC ($N=80$)



The Ascree plot in figure 1 shows that two or three factors might have been extracted as the size of the eigenvalue levels off only after three factors. The goal of the researcher was to use the QOL questionnaire as a single scale. In table 5.16, below the single factor solution for QOL questionnaire is presented.

TABLE 5.16: SINGLE FACTOR SOLUTION FOR QOL QUESTIONNAIRE (N=80)

Items		Factor Loading			
ITEM01	0,582	ITEM14	0,533	ITEM27	0,591
ITEM02	0,444	ITEM15	0,531	ITEM28	0,606
ITEM03	0,465	ITEM16	0,609	ITEM29	0,641
ITEM04	0,508	ITEM17	0,649		
ITEM05	0,741	ITEM18	0,687		
ITEM06	0,788	ITEM19	0,776		
ITEM07	0,590	ITEM20	0,563		
ITEM08	0,575	ITEM21	0,707		
ITEM09	0,487	ITEM22	0,557		
ITEM10	0,509	ITEM23	0,589		
ITEM11	0,634	ITEM24	0,718		
ITEM12	0,586	ITEM25	0,628		
ITEM13	0,602	ITEM26	0,557		

Items with positive loadings were reverse scored so that they score in the same direction as the other items and a high score on the test would indicate a high Sense of Coherence.

The results in table 5.16 indicate that all the items have high absolute loadings in a single factor solution and it can thus be expected that all the items would contribute to the internal consistency of the SOC scale. The items were now all scaled such that they all measure SOC from a low score indicating low SOC to a high score indicating high SOC. An item analysis was performed and the Cronbach Alpha computed as an index of the internal consistency of the scale. The results of the item analysis are given in Table 5.17 below.

TABLE 5.17: ITEM-ANALYSIS STATISTICS FOR THE SOC SCALE (N=80)

Item	Corrected Item – Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Item 1	0,5666	0,7889	0,9411
Item 2	0,4499	0,6831	0,9416
Item 3	0,4669	0,7758	0,9411
Item 4	0,4916	0,7497	0,9420
Item 5	0,7106	0,8785	0,9394
Item 6	0,7569	0,8270	0,9388
Item 7	0,5723	0,8281	0,9411
Item 8	0,5732	0,7434	0,9411
Item 9	0,4687	0,6275	0,9411
Item 10	0,4892	0,9022	0,9420
Item 11	0,6292	0,9032	0,9405
Item 12	0,5830	0,7682	0,9409
Item 13	0,5843	0,8005	0,9409
Item 14	0,5272	0,8361	0,9415
Item 15	0,5009	0,7472	0,9418

Item 16	0,6080	0,7995	0,9407
Item 17	0,6028	0,9136	0,9407
Item 18	0,6527	0,7946	0,9401
Item 19	0,7431	0,8630	0,9392
Item 20	0,5619	0,6586	0,9411
Item 21	0,6705	0,7788	0,9399
Item 22	0,5492	0,6325	0,9413
Item 23	0,5843	0,7456	0,9409
Item 24	0,6932	0,8073	0,9396
Item 25	0,5988	0,7597	0,9408
Item 26	0,5388	0,8190	0,9414
Item 27	0,6022	0,7755	0,9407
Item 28	0,5750	0,6954	0,9410
Item 29	0,6222	0,7337	0,9405
Cronbach Alpha = 0,9420			

When the last column in Table 5.17 above is inspected, it is clear that all the items contribute to the internal consistency of the total scale as no item, if omitted or deleted would lead to a relatively higher alpha value. The Cronbach Alpha value was found to be 0,94, which indicates a high internal consistency reliability.

It was subsequently decided to include all the items in constructing a SOC scale. A linear transformation was then performed on the total score of each subject such that the scale scored from 0 (very low Sense of Coherence) to 100 (very high Sense of Coherence). The descriptive statistics for SOC thus obtained for the sample as a whole is given in Table 5.18 below.

TABLE 5.18: DESCRIPTIVE STATISTICS OF SOC SCALE

N	Minimum	Maximum	Mean	Std. Deviation
80	34,48	98,28	65,2945	16,0252

On a scale from 0 to 100, the mean score of 65,29 appears to be high so that one may conclude that the general level of SOC of the sample as a whole, is reasonably high.

5.5 CORRELATION BETWEEN SOC AND WORK PERFORMANCE

The results of the empirical study are subsequently reported and interpreted.

TABLE 5.19 CORRELATION BETWEEN SOC AND WORK PERFORMANCE

		Comprehension	Manageability	Meaningfulness	SOC
PERFORMANCE RATING	<i>r</i>	-0,122	-0,032	-0,075	-0,087
	Sig. (2-tailed)	0,281	0,779	0,509	0,441
	<i>N</i>	80	80	80	80

The results in table 5.19 indicate that there is no significant relationship between work performance and SOC, or any of its three components, that is, comprehension, manageability and meaningfulness. In view of this the null hypothesis is not rejected.

In light of the negative relations, the result may be explained by the sample size. The sample size, although large enough for the study, was not representative of all the levels in the organisation. Firstly, the age group of respondents, their marital status, gender, qualifications, tenure, departments and job category are not representative of the organisation's biographical distribution. Secondly, the work performance rating do not include high and low scores, which are not representative of the dimensions of work performance. This may have influenced the SOC score of the sample.

This finding concurs with the research conducted by Strydom (2000), which found no significant relationship between pharmacists' work performance and their SOC. This implied that employees who understood (comprehensibility) the work demands and perceived them as manageable and meaningful were not better performers when compared to employees with a weak SOC.

The research conducted by De Wet (1998) to determine the relationship between sense of coherence and work performance in the nursing profession, found that all psychological processes of members of an occupation undergo modification, more especially for people who had stayed in the same occupation for a longer period. Antonovsky (1987) stipulated that an individual job shapes one's SOC or a positive health outcome. Antonovsky (1987) as quoted by De Wet (1998) maintains that there is a close relationship between SOC and work. This relates to the manner in which individuals attach value to their work, as expressed in terms of power, rewards and prestige.

Furthermore, Strümpfer (1990) asserts that there is accumulating evidence that SOC has a direct impact on how individuals approach and execute their work or tasks. Strümpfer (1990), as quoted by De Wet (1998), has hypothesised that a strong SOC would result in productive performance, recognition, reward and promotion.

Strümpfer (1990) has postulated the following three hypotheses for individuals with a strong SOC at work:

- They make a cognitive sense of the workplace, perceiving its stimulation as clear, ordered, structured, consistent and predictable.
- They perceive work as consisting of experiences that are bearable and challenging.
- Lastly, they make emotional and motivational sense of the work demands, and accept work challenges as worthy of engaging in and investing energy in.

These research findings contradict the literature.

5.6 CHAPTER SUMMARY

In this chapter the quantitative results were reported, interpreted and integrated with the existing literature review. Herewith, the primary research aims of the study are met.

In chapter 6, the conclusions, limitations, and recommendations will be presented.

CHAPTER 6: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In the previous chapter the research results of the empirical study were tabled and the findings discussed in detail. This chapter provides an overview of the study. Final conclusions are drawn and recommendations made. The limitations of the research are also discussed.

6.1 CONCLUSIONS

The conclusions of the research will be presented in terms of the literature review and the empirical objectives. Conclusions will also be formulated in terms of the central theme of the research.

Chapter 2 (sense of coherence) and chapter 3 (work performance) primarily addressed the aims of the literature review.

In chapter 2 the literature review conceptualised sense of coherence. The SOC was defined as a general feeling of confidence that individual's internal and external environments are predictable and that things will work out as planned. (Antonovsky, 1987). The dimensions of sense of coherence, namely, comprehensibility, manageability and meaningfulness were discussed. Antonovsky (1987) defined comprehensibility as the degree to which an individual perceives the world as predictable, ordered and explicable. Manageability was defined as the degree to which individuals believe that they have the personal and social resources to handle external demands. Lastly, meaningfulness was defined as the individuals belief that their demands are challenges that are worthy of their investment and commitment.

Antonovsky (1987) maintained that the meaningful component of SOC was the most important of the three components, because it provided the individuals with the motivation to seek for resources available in their environment to manage their faced demanding tasks.

In chapter 3 the literature review conceptualised work performance, highlighting the different performance appraisal tools used to measure work performance. This was followed by the discussion to ascertain the relationship between work performance and biographical characteristics such as age, gender, tenure and marital status.

Work performance in this research was definable as a concept. According to Cascio (1992) work performance is defined as the extent to which an employee accomplishes assigned tasks. Work performance is the time and energy put into work and the productivity of the employee. Thus, one can conclude that a definition of work performance should take into consideration factors other than the task being performed, such as the individual characteristics of the person doing the task, as well as issues external to the individual such as time frames.

Work performance was discussed in detail as primarily a multi-dimensional construct that indicated how well employees were executing their tasks. This included the initiative they take, their resourcefulness to solve work-related problems, the extent to which they complete tasks and usage of available resources and time at their disposal (Boshoff & Arnolds, 1995). In essence, work performance incorporated a set of behavioural patterns and functions such as knowledge, technical competencies, management competencies, conscientious and conceptual abilities, relevant to the organisational goals and objectives (Murphy & Shiarella, 1997).

Chapter 4 (empirical study) and chapter 5 (results) primarily addressed the research aims through empirical testing and statistical analysis of the data.

In this study the following were found. There was no significant evidence found supporting relationships between work performance and sense of coherence. There were no significant relationships found between work performance and marital status, gender, qualifications, tenure and functional departments. However, a significant relationship was found between work performance and job category and between work performance and age.

6.1.1 Age and work performance

The research found significant differences between the employees' age groups and their work performance. This research finding is in accordance with other research findings. Clapham and Fulford (1997) found that, the performance of employees who were 40 years old and over was average as compared to employees who were below 40 years old. Furthermore, Saks and Waldman (1998) in their research found that the work performance of young and recently graduated accounting employees in public firms were below average as compared to older employees. Hackett, Bycio and Hausdorf (1994) conducted a research study to investigate the effect of age and tenure on the components of work performance and commitment, and they concluded that age had a profound impact on the general commitment of older employees.

6.1.2 Marital status and work performance

The research found no significant relationship between marital status and work performance. According to Robbins (1996) only a few studies have been undertaken to investigate the effect of marital status on work performance. However, Robbins (1996) indicated that married people have reported less absenteeism and reduced turnover as compared to unmarried employees.

6.1.3 Gender and work performance

The research found no significant difference between male and female employees. This indicated that there is no direct relationship between gender and work performance. In a study conducted to investigate gender differences in the work environment Rosenthal et al (1996) found that gender differences had a casual positive relationship to work performance, the nature of which had deleterious consequences for women career progression in management positions. In the same breath Igbaria and Baroudi (1995) maintained that there were no significant gender differences in work performance ratings, however, women were perceived to have less favourable chances for promotion as compared to men. According to Halpert et al (1993) women in the work place have not yet achieved parity with men.

6.1.4 Level of education and work performance

The research found that the employees' level of education had no significant bearing on work performance. In the research conducted by Dejong (1999) he concluded that a significant relationship existed between work performance and the skill and educational level of employees. Lippitt (1997) has subsequently emphasized the importance of further education to improve work performance, by asserting that training has been narrowly defined as what happens in a classroom situation, but the significant element of any training was its application on the job.

6.1.5 Tenure and work performance

The research found that variations in employees' length of service did not indicate significant linkage to work performance. However, previous investigations done by Allen et al (1999) found that job tenure was positively linked to work performance and employees' perception of hierarchical plateauing.

6.1.6 Functional departments and work performance

The research found that employees' functional departments could not be linked significantly to work performance. The researcher did not find supporting literature for this finding.

6.1.7 Job category and work performance

The research found a significant relationship between employees' job category and work performance. No supporting literature was found to either support or negate this finding.

6.1.8 Work performance and SOC

The conclusion drawn from the empirical study, was that there is not a significant relationship between work performance and SOC.

The results of the research concur with findings of Strydom (2000), which found no significant relationship between pharmacists' work performance and their SOC. This implies that employees who understand work demand and view them as manageable and meaningful are not better performers in comparison with those with a weak SOC.

6.2 LIMITATIONS

The limitations of the research are discussed with regard to the literature review and empirical investigation.

There was limited literature available on the relationship between SOC and work performance, specifically regarding the SOC dimensions.

A limited amount of literature was available with reference to the Job Evaluation Manager tool.

The first of the limitations of the empirical investigation relates to the choice of the sample. The generalisation of the results was limited, because the sample was small and taken from only one organisation.

The organisation's performance rating system could also have included peers of the appraisee, subjects reporting to the appraisee, and self-appraisal from the appraisee, such as the 360 degree questionnaire, instead of only one supervisor being involved in the evaluation of work performance, which may have provided only a one-sided view of the subordinates' performance.

6.3 RECOMMENDATIONS

In light of the above, the following recommendations are made on the relationship between sense of coherence and work performance respectively:

6.3.1 Recommendations applicable to the organisation

- Research should be continued in many job categories including a wide scope of departments other than those used in this study to achieve a more generalised understanding.
- By studying a broader sample of employees within the organisation, more reliable results could be obtained for ensuring an effective work performance appraisal process.

6.3.2 Recommendations on further research

- Additional research is required to examine the relationship between sense of coherence and work performance as conceptualised by the Job Evaluation Manager, as well as between work performance and biographical characteristics. Stronger results could be obtained by exploring a broader sample to confirm the actual strength of relationships.
- This study incorporated one salutogenic construct. A vast array of related instruments and constructs are available within the salutogenic paradigm. These instruments were not taken into consideration from the onset. A wider scope of salutogenic construct measurement instruments would yield more insightful conclusions, as some of these constructs might be influenced by work performance and biographical characteristics to a greater or lesser extent.
- As the instrument used for measuring sense of coherence was based on self-reporting, subjectivity must be provided for. The findings yielded by the instrument were related to perceived truths which could differ from reality. The research should endeavour to counter subjectivity by incorporating a wider variety of other salutogenic measuring instruments.

- This research should be regarded as a preliminary study. Further research is needed to determine whether sense of coherence could predict work performance, to clarify the relationship between these variables in a wider context.
- Lastly, it is recommended that since this research focused on particular areas of interests, more research need to be undertaken to investigate relationship between SOC, burnout, job satisfaction and work performance as they are closely related constructs in the field of industrial and organisational psychology.

6.4 CHAPTER SUMMARY

The chapter presented the research conclusion, in terms of the central theme based on the literature review and the empirical investigation. The limitations of the research were also highlighted, and lastly the recommendations were made pertaining to the literature review and the empirical investigation.

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