

**THE RELATIONSHIP BETWEEN MANAGERIAL MOTIVATION AND
SENSE OF COHERENCE**

by

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SUMMARY

THE RELATIONSHIP BETWEEN MANAGERIAL MOTIVATION AND SENSE OF COHERENCE

by

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The purpose of this research is to determine whether a relationship exists between two constructs, namely managerial motivation and sense of coherence and to determine whether any variance exists between two groups of people in terms of the mentioned constructs.

The study was conducted on a total sample of 124 employees of the Agricultural Research Council (ARC) which was divided into two groups, namely managers and supervisors in view of the position they held at the Agricultural Research Council. The results of the study indicated that a significant positive relationship exists between the dimensions of managerial motivation and the dimensions of sense of coherence of the total sample. There is also a significant variance in terms of two dimensions between the two groups, namely power motive as dimension of managerial motivation and meaningfulness as dimension of sense of coherence.

KEY TERMS: managerial motivation; sense of coherence; attitude towards authority figures; competitiveness; assertiveness; power motive; desire for a distinctive group role; willingness to conduct administrative functions; meaningfulness; comprehension; manageability.

CHAPTER 1

SCIENTIFIC OVERVIEW OF THE RESEARCH

The purpose of this chapter is to give an explanation of the need and motivation for this research. Firstly the background and motivation for the research as well as the problem statement will be given. The objectives of the research will be stated, while the paradigm perspective of the research will be explained. The research model as well as the research design and methodology and finally the division of chapters will then be explained. Finally the chapter division and the chapter conclusion will be presented.

1.1 BACKGROUND AND MOTIVATION FOR THE RESEARCH

The Global Competitiveness Report (1999), a report issued by the World Economic Forum, assessed and found South Africa to be ranked 47th from 59 countries evaluated during 1999 in terms of growth competitiveness. As management was one of the eight factors or attributes to be taken into account in the compilation of the mentioned report, one could assume that management, although this is broadly speaking, is seen as one very important factor that could influence the competitiveness of a country and definitely also that of a company. Although the Global Competitiveness Report (2000) ranked South Africa 33rd from 59 countries during 2000, and management *per se* was, in relation to some other factors, not regarded as the worst attribute regarding South Africa's competitiveness, the ranking for management though, indicated that it would be difficult for South Africa to compete in the global market, especially with first world countries. These findings implicated that South Africa's performance in regard to management could be significantly enhanced.

Another disturbing factor regarding management is that the composition of a management echelon in any given company is likely to change dramatically over the next few years with the promulgation of the Employment Equity Act (Act 55 of 1998). In this regard the Breakwater Monitor Report (1999:12) indicates that the percentage

of Blacks in management has only increased by 2% over the last three years and the percentage of women in management by 4% over the same period. This scenario and the promulgation of the said Act might have as consequence the rapid entering of new managers from especially the designated groups into the management echelon, which might in turn lead to less trained and skilled managers. This statement is not meant in a derogatory sense, but is seen against a background of lesser opportunities that were part of the life of the groups at which the said Act is aimed.

A very important given is the fact that managers, and especially new managers in any given company will experience stress on a continuous basis. The aggregate of managers who have not yet acquired sufficient coping mechanisms, who are experiencing extreme stress due to managerial responsibilities will therefore dramatically increase in a relatively short period. In this regard Spangenberg and Orpen-Lyall (2000:7) examined the relationships between stress levels and stressor appraisal, coping strategies and biographical variables amongst 107 managers. Results of this research indicated that the mean stress level of the total group was within the normal range. Two homogeneous clusters were however identified, and it was found that the one cluster, consisting of 52 participants, experienced high stress levels. According to Spangenberg and Orpen-Lyall (2000:8), this finding corresponds with findings from Strümpfer during 1989 and Van Zyl during 1993 in that many South African managers suffer from high stress levels. Another finding of the study by Spangenberg and Orpen-Lyall (2000:9) is that avoidance as coping strategy is often used and that avoidance itself probably contributes to high stress levels.

Spangenberg (1990:68) mentioned that it appears that overall managerial motivation correlates significantly and positively with certain criteria for managerial effectiveness, namely, performance appraisal, job grade, number of subordinates and managerial level. It also appears that overall managerial motivation is significantly and positively related to overall managerial potential. Spangenberg (1990:68) mentioned that it was also found that a significantly positive relationship exists between managerial motivation and managerial satisfaction and satisfaction with managerial work and advancement. Enhanced managerial motivation amongst

managers would then probably lead to improved managerial competence in a company and ultimately to better performance of that company. Such enhanced performance could ultimately lead to a better rating on global competitiveness.

The assumption that stress could influence managerial motivation and managerial performance makes it imperative to consider and determine whether managerial motivation has any bearing on the effective handling of stressors. Strümpfer (1990:265) mentions that sense of coherence is an approach or model which focuses on successful coping with omnipresent stressors in human existence and indicated that psychology and other social sciences function mainly in a paradigm of pathogenic thinking directed at finding out why someone is ill. The viewpoint therefore seems at finding a way to heal someone. In contrast to the pathogenic paradigm, the salutogenic paradigm exists, where the emphasis is on the explanation of why people tend to stay healthy, despite the omnipresence of stressors. Although the paradigm could comprise many more examples or constructs, the following six constructs form the basis of salutogenesis (Strümpfer, 1990:265):

- (1) Kobasa's "personality hardiness" (1979)
- (2) Ben-Sira's "potency" (1989)
- (3) Rotter's "locus of control" (1966)
- (4) Bandura's "self-efficacy" (1977)
- (5) Rosenbaum and Jaffe's "learned resourcefulness" (1983)
- (6) Antonovsky's "Sense of coherence" (1979)

The question whether there is a relationship between salutogenesis and managerial motivation also emerges when what is said above, is taken into consideration. In order to establish whether such a relationship exists, the relationship between managerial motivation and Antonovsky's sense of coherence will be investigated. The reason for investigating the relationship between managerial motivation and sense of coherence and not between managerial motivation and any of the other mentioned constructs, is because sense of coherence forms the core construct of salutogenesis. One advantage of conducting this research centres on the fact that in the event of determining a relationship between managerial motivation and sense of

coherence, the possibility of measuring sense of coherence for purposes of assisting in predicting managerial motivation and hence managerial success, is enhanced.

Furthermore, it is a fact that a successful manager can influence the productivity of employees in a company. Boyatzis (1982:1) stated in this regard that it is the competence of managers that largely determines the return that organisations realise from their human capital, or human resources. It is therefore critical that managers achieve managerial success in order to enhance the organisation's productivity, profits, individual performance and to bring about individual job satisfaction experienced by juniors and consequently the sustainability of the company.

The intention is also to, throughout the research, point out the contribution of managerial motivation and sense of coherence towards organisational effectiveness. This will only be viewed from a theoretical point of view and no empirical testing will take place. Although reference will be made to the male, it will include the female and reference to the singular, will include the plural throughout the research.

As a final thought in this regard, Engelbrecht (1991:7) mentioned that in any industrialised country, the survival and productivity of any organisation is dependent on the effectiveness of their management echelon. It is therefore necessary that prospective employees with management potential be identified as early as possible in their careers. Miner, Ebrahimi and Wachtel (1995:364) mention in this regard that as a consequence of the decline of managerial motivation, the United States came to suffer from a lack of managerial talent. Managers did not perform well and this carried over to organisational performance.

1.2 PROBLEM STATEMENT

The essence of this research is probably encompassed in the statement by Viviers (1996:5) where it is mentioned that the importance of a human being is already recognised at concept level in an organisation and in industrial psychology. Viviers' (1996) statement implies that much time and money is spent on, for example training in order to enhance the productivity of employees, while the main purpose is to

reform the company to be more effective, more productive and more profitable. In order to become more effective, productive and profitable, an increased measure of tension and anxiety amongst employees seem highly probable.

To the same extent and possibly even to a higher degree tension and anxiety may be applicable to employees functioning at managerial level. In order to perform at this level, a manager has to adjust to ever changing environments where even the clear distinctions of title, task, department and even corporations are changing. The reason for such change is the competitive pressures facing corporations, forcing them to adopt flexible structures. However difficult it is for managers at the very top to remake strategy and structure, they themselves will probably retain their identity, status and control. For the managers below them, structural change is often more difficult. Work units become more participative and team orientated, and as professionals and knowledge workers become more prominent, the distinction between manager and non-manager begins to erode. Such rapid changing environments can create immense tension and anxiety and if not handled effectively, can lead to severe stress. An employee who is able to dissolve such tension and anxiety has an advantage over others.

The assumption that stress could therefore influence managerial motivation and as such effective managerial performance, makes it imperative to consider and determine whether managerial motivation has any relationship with coping with stress. Should there be a positive relationship between managerial motivation and sense of coherence, it could be important to consider ways of strengthening sense of coherence and consequently managerial motivation.

Furthermore, despite the notion of Mintzberg (1973:4) who suggests that the jobs of managers are remarkably alike, whether that manager is a foreman, president or government administrator, the question arises whether managerial motivation and effective coping with stress differ between groups on different managerial levels. It is accepted that there could well be differences in the managerial motivation and sense of coherence of groups on different managerial levels. Keeping the aforesaid in mind, the question arises whether personality profiles of the managerially motivated person and the person strong on sense of coherence exist.

In order to allow the researcher to investigate whether such relationships exist, the following research questions are formulated:

- (1) Can managerial motivation be conceptualised?
- (2) Can sense of coherence be conceptualised?
- (3) Is there a theoretical relationship between the personality profiles of the managerially motivated person and the person strong on sense of coherence?
- (4) Can the personality profiles of the managerially motivated person and the person strong on sense of coherence be integrated?
- (5) Is there a relationship between managerial motivation and sense of coherence?
- (6) Is there a significant difference in managerial motivation and / or sense of coherence of groups on different managerial levels?
- (7) Is there a statistical relationship between managerial motivation and sense of coherence?
- (8) Is there a statistical difference in the managerial motivation and / or sense of coherence between groups on different managerial levels?
- (9) What recommendations can be formulated?

As stated earlier, the contributions of the two variables, namely managerial motivation and sense of coherence, to organisational effectiveness will only be conceptualised theoretically but no empirical testing pertaining to this aspect will take place.

1.3 OBJECTIVES OF THE RESEARCH

1.3.1 General Objective

The general objective of this research is to determine whether there is a relationship between managerial motivation and sense of coherence.

1.3.2 Specific Objectives

In order to attain the general objective of this research, the following specific objectives are set:

Literature objectives

- (1) To conceptualise managerial motivation.
- (2) To conceptualise sense of coherence.
- (3) To theoretically present the personality profiles of the managerially motivated person and the person strong on sense of coherence.
- (4) To integrate the personality profiles of the managerially motivated person and the person strong on sense of coherence in order to determine the theoretical relationship between the two personality profiles.

Empirical objectives

- (1) To determine whether there is a significant relationship between the behavioural constructs managerial motivation and sense of coherence.
- (2) To determine whether there is a significant difference in the managerial motivation and / or sense of coherence of groups on different managerial levels.

This will lead to two further objectives namely:

- (1) to integrate the theoretical profile with the empirical profile of the managerially motivated person and the person strong on sense of coherence
- (2) to make recommendations with reference to the literature and empirical findings of this research

1.4 PARADIGM PERSPECTIVE OF THE RESEARCH

Morgan (1980:606) mentions that Kuhn (1962) made the concept of paradigm popular. The concept paradigm is seen in the following ways:

- (1) As a complete view of reality, or a way of seeing.
- (2) As relating to the social organisation of science in terms of schools of thought connected with particular kinds of scientific achievements.
- (3) As relating to the concrete use of specific kinds of tools and texts for the process of scientific puzzle solving.

From the perspective of this research all the above perspectives of paradigm will be accepted as valid, although the first perspective will be used when referring to the concept paradigm.

1.4.1 Paradigms

Meyer, Moore and Viljoen (1992:14) mention that a personality theory has to explain what allows the personality to function or what motivates behaviour and that it should explain the motivating energy or what provides the drive in behaviour. Arkes and Garske (1982:3) mention that motivation refers to those processes that influence the arousal, strength or direction of behaviour. Motivation is however not seen as a unitary phenomenon, in other words not all motivational things have the same properties and enter into the same laws in the same ways. The literature review on

managerial motivation to be presented in chapter 2 as part of phase one of this research will be from the humanistic paradigm. Although various other paradigms could also be used to present personality and motivation or in other words the motivating energy that provides the drive in behaviour, the humanistic paradigm is more preferred.

Some basic characteristics of the humanistic paradigm is according to Meyer, Moore and Viljoen (1992:321) the notion that a human being is responsible and able to choose freely from the possibilities available to him. The humanistic paradigm according to Meyer, Moore and Viljoen (1992:322) also accepts that human nature is basically good or at least neutral and ascribe evil, destructive behaviour to bad environmental influences rather than to an inherent propensity for evil on the part of any individual. The humanistic paradigm also recognises the role of conscious processes, especially conscious decision-making processes. Being managerially motivated is regarded as a conscious decision taken by an individual and therefore the managerial motivation should be evaluated from the humanistic paradigm.

Strümpfer (1995:81) mentions that Antonovsky (1979) proposed to study health instead of disease and that the main thrust of his writings concerned sources of health. The literature review on sense of coherence to be presented in chapter 3 as part of phase one of this research will be from the salutogenic paradigm. Sense of coherence in fact constitutes the origin of the salutogenic paradigm.

Some basic characteristics of the salutogenic paradigm has, according to Strümpfer (1990:266), to do with dealing with the management of stress and staying well. The core of the salutogenic paradigm is the focus on successful coping. The question is no longer what keeps people from getting sick, but what facilitates one becoming healthier. The essence of the salutogenic paradigm rests in the belief that the mentioned constructs (refer to p.4) can form a shield or buffer between stressors, which are always present, and the individual. Such buffer prevents an individual from falling ill and may in some cases even enhance the performance of people. This research focuses on coping in a managerial environment and therefore sense of coherence should be evaluated from the salutogenic paradigm.

The functionalist paradigm as presented by Morgan (1980) (refer Burrell & Morgan, 1979) will be used to present the empirical part or phase two of this research. The functionalist paradigm is based upon the assumption that society has a concrete, real existence and a systemic character, orientated to produce an ordered and regulated state of affairs. What is very important is that this paradigm views the scientist as distanced from the scene which he is analysing while concerned with understanding society in a way which generates useful empirical knowledge.

When accepting that the scientist is distanced from the scene which he is analysing, a particular model or approach to the interpretation of the process of research in the social sciences is presented by Mouton and Marais (1990:7). This model can be used to distinguish between good and poor research in the social sciences. In terms of this model, research in the social sciences would be defined as a collaborative human activity in which social reality is studied objectively with the aim of gaining valid understanding of it. The aim of this research is to study the concerned variables (managerial motivation and sense of coherence) within the systemic character of society in order to gain an objective and valid understanding of the relationship between the two variables.

1.4.2 Meta-theoretical assumptions

Mouton and Marais (1990:192) mention that it is generally accepted in the philosophy of science that no scientific finding can be conclusively proven on the basis of empirical research. When one theory or model is accepted rather than another, or one methodological approach, rather than another, an explication of these assumptions will lead to better scientific communication and better research. In this regard when managerial motivation will be analysed in chapter 2, the views of Miner (1965) as well as McClelland (1961) will be presented. The reason for using the role-motivation theory of Miner (1965) is mainly because it is the underlying theory upon which the Managerial Motivation Questionnaire as developed by Engelbrecht in 1989 is based. The theory regarding managerial motivation as presented by McClelland (1961) is however judged as equally true. The same accounts for sense of coherence, the concept chosen to review in the literature and

to be empirically tested. Other salutogenic concepts are regarded just as valid and true, but sense of coherence is judged as the core concept of salutogenesis.

1.4.3 Dimensions of social science research

Therefore, in order to undertake good research the same theoretical determinations and empirical results should also be obtained if an objective third party has conducted the research. Pauw (1993:78) explains this notion with the example of a sinner who confesses and who is actually doing the same thing as another sinner confesses. He performs the same action he might have performed on another occasion. If someone is confessing he is therefore performing a classificatory act by a comparison of performances. Pauw (1993:79) further explains that two pens that are the same, does not mean that each molecule is identical in both pens, but for the purpose of identifying pens according to a valid standard, it can be regarded as the same. To the same degree the intention with this research is to produce good research from a theoretical and empirical perspective.

In order to produce the required good research, the different variables will be researched in the context of the relevant psychological paradigms. Managerial motivation in this regard is seen as a construct of human motivation, a paradigm in regard to the motive that describes the degree to which an individual both desires and is willing to exert effort towards attaining something. Sense of coherence on the other hand is seen as a construct of salutogenesis, a paradigm in regard to the origin of health and the ability to cope with stress.

According to Mouton and Marais (1990:7) the above approach encompasses five dimensions that will be explained in more detail hereafter, emphasising the impact thereof on the research undertaken.

1.4.3.1 Sociological dimension

The sociological dimension according to Mouton and Marais (1992:7) refers to scientific research as a joint or collaborative activity. With this dimension a move

exists from research in solitude, to a call for participation and the exchange of knowledge.

Mouton and Marais (1992:10) argue that it is widely accepted today that the sociological dimension will form an integral part of scientific practise. Aspects that are important in this context are:

- (1) Scientists function in a specific discipline within a clearly outlined research community.
- (2) A researcher produces acceptable scientific information and is then rewarded with academic recognition.
- (3) The growing interest in research ethics places increased emphasis on moral aspects such as confidentiality, right to privacy, professional conduct and plagiaste.
- (4) When external role players such as external funders, contractors and other interest groups are involved, a conflict of interest is always latent.

From the perspective of the current research, the intention is to function within the approach of the sociological dimension. The prerequisites of the scientific community and the respondents in terms of specifically quality research, professionalism, the right to privacy and confidentiality will be respected and adhered to.

1.4.3.2 *Ontological dimension*

According to Mouton and Marais (1992:7) the ontological dimension refers to research that is seen as directed towards an aspect or aspects of the truth. What is important from this dimension (Mouton & Marais, 1992:12) is the realisation that individuals or groups of individual scientists often have explicit ideas of what is worth studying and what not. The emphasis here is not on differences between different researchers but rather between theoretical schools or approaches. In this regard

Mouton and Marais (1992:13) reckon that the research domain of each of these theoretical schools or approaches show great differences. It is however fortunate that these differences can be overcome and this research will be conducted from the perspective of common ground between various approaches in terms of theoretical orientations, models and methodology.

1.4.3.3 *Teleological dimension*

The teleological dimension is according to Mouton and Marais (1992:7) a dimension where research is an intentional and directed activity with the sole aim of understanding phenomena.

Francis Bacon (Mouton & Marais, 1992:13) says that through knowledge, the universe can be changed, a universe that is plagued with illness, poverty, decadency and decay. The task of science is therefore therapeutic with the aim of healing the world and the universe.

This research will be directed from the perspective of contributing to knowledge and understanding phenomena.

1.4.3.4 *Epistemological dimension*

According to Mouton and Marais (1990:8) the epistemological dimension's focus and aim is not to merely understand phenomena, but to provide a valid, reliable understanding of reality. According to Romm (1993:206), Althusser insisted that although the process of producing knowledge takes place entirely in thought, he also insists that the process produces knowledge of reality. Knowledge should therefore not only be absolutely certain (Mouton & Marais, 1992:15) as absolute certainty in science is not achievable, but the notion of probability should also feature. Mouton and Marais (1992:15) mention that the objective of science is also to produce statements that are at least highly probable.

Needless to say, this research will attempt to produce results that are at least highly probable.

1.4.3.5 *Methodological dimension*

According to Mouton and Marais (1992:7) the methodological dimension is regarded as objective research by virtue of it being critical, balanced, unbiased systematic and controllable.

Since research in the social sciences is a process of human decision-making, it also means that such research is intrinsically fallible. By eliminating obvious wrong decisions and methods the validity of research results is maximised (Mouton & Marais, 1992:7).

This research will therefore be conducted against accepted standards and methods as prescribed by the scientific community.

1.5 INTEGRATED MODEL OF SOCIAL SCIENCE RESEARCH

The model of social science research proposed by Mouton and Marais (1990:20) has as aim to systematise the above-mentioned five dimensions. In order to achieve that, they distinguish between three subsystems in the model. These subsystems interact with each other, and with the research domain as defined in a specific discipline. These subsystems are:

1.5.1 Intellectual climate

According to Mouton and Marais (1990:20) the term "intellectual climate" refers to the variety of metatheoretical values or beliefs that are held by those practising within a discipline at any given stage. Values and beliefs in this regard are therefore sets of beliefs, values and assumptions, which, because of their origin can usually be traced to non-scientific contexts and they are not directly related to the theoretical goals of the practice of scientific research (Mouton & Marais, 1990:21).

1.5.1.1 *Managerial motivation*

The first variable to be addressed in this research is managerial motivation and as such the role-motivation theory of Miner and his co-workers (developed in 1961) as well as the learned needs theory of McClelland (developed in 1965) will be considered. According to Engelbrecht (1991:7) research in regard to Managerial motivation not only has implications for managerial and organisational effectiveness, but is also applicable for the health and wellbeing of managers and their subordinates.

Engelbrecht (1991:7) mentions in this regard that mainly Miner (1987b) and his co-workers and McClelland (1987) and his colleagues attempted to conceptually define managerial motivation and to empirically measure the concept. According to Engelbrecht and De Jager (1991:18), McClelland (1975) and his co-workers defined managerial motivation in terms of a specific profile with three motives, namely the performance motive, a power motive and the affiliation motive.

Miner (1964) and his co-workers on the other hand defined managerial motivation (Engelbrecht & De Jager, 1991:18) in terms of the role-motivation theory of managerial effectiveness. According to this theory, managerial motivation consists of six motives, namely positive attitude towards authority figures, competitiveness, assertiveness, power motive, desire for a distinctive group role and willingness to conduct administrative functions.

1.5.1.2 *Sense of coherence*

The second variable to be studied in this research is the concept of sense of coherence, which was developed by Antonovsky (Strümpfer, 1990:265) at the Ben Gurion University and forms part of the broader concept of salutogenesis. Salutogenesis emphasises the origins of health, or wellness, and originates from the Latin word *salus* which means health and the Greek word *genesis* that means origin (Strümpfer, 1995:81). Salutogenesis as paradigm consists of various constructs,

other than sense of coherence, that have developed independently although they clearly form part of the new paradigm.

Psychology has, according to Strümpfer (1990:265) functioned mainly in a paradigm of pathogenic thinking. The pathogenic paradigm is aimed at finding out why people fall ill and why they develop certain disease entities (Strümpfer, 1990:266). At the heart of the pathogenic paradigm (Strümpfer, 1990:266) is the assumption that diseases are caused by physical, biochemical, microbiological and psychological agents. In more sophisticated form, illness or disease is described by multifactorial determination, usually in terms of risk factors such as high cholesterol, heavy cigarette smoking and hypertension.

In contrast to the pathogenic approach, a paradigm of salutogenesis seems to be present in the literature (Strümpfer, 1990:266) and although the authors do not all say the same thing, they seem to represent co-existing and successive theories within the same research program or paradigm. Sense of coherence as core construct of salutogenesis will consequently be one of the variables to be investigated in this research and consists of three dimensions namely comprehension, manageability and meaningfulness.

1.5.2 Market of Intellectual resources

The market of intellectual resources refers to the collection of beliefs, which has a direct bearing upon the epistemic status of scientific statements and therefore, to their status as knowledge-claims (Mouton & Marais, 1990:21). The two major beliefs are theoretical beliefs about the nature and structure of phenomena on the one hand and methodological beliefs concerning the nature and structure of the research process on the other hand.

Theoretical beliefs are those beliefs of which testable statements about social phenomena are made. It would include all statements, which form part of hypotheses, typologies, models or theories (Mouton & Marais, 1990:21). For purposes of this research certain hypotheses, personality profiles, models and theories will be presented. These will have bearing on constructs of managerial

motivation and sense of coherence such as comprehension, manageability, meaningfulness, attitude towards authority figures, competitiveness, assertiveness, power motive, desire for a distinctive group role and willingness to conduct administrative functions.

Methodological beliefs are beliefs concerning the nature of social science and scientific research. This would include different types of traditions in the philosophy of the social sciences such as positivism, realism, phenomenology and the most important methodological models such as quantitative and qualitative models (Mouton & Marais, 1990:23).

1.5.3 Research process

According to Mouton and Marais (1990:23) the main thesis of their model is that researchers internalise specific inputs from paradigms which they describe in a selective manner, to enable them to interact with the research domain in a fruitful manner and to produce scientifically valid research. A graphic presentation of the model is given in figure 1.1.

In summary the primary goal in the formulation of the model was to specify that a variety of perspectives on research exist.

1.6 RESEARCH DESIGN

According to Mouton and Marais (1990:32) research design is defined as follows: "*A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure*".

Christensen (1994:293) defines research design as the outline, plan or strategy specifying the procedure to be used in seeking an answer to the research question. This definition specifies such aspects as how to collect and analyse data and to control unwanted variation.

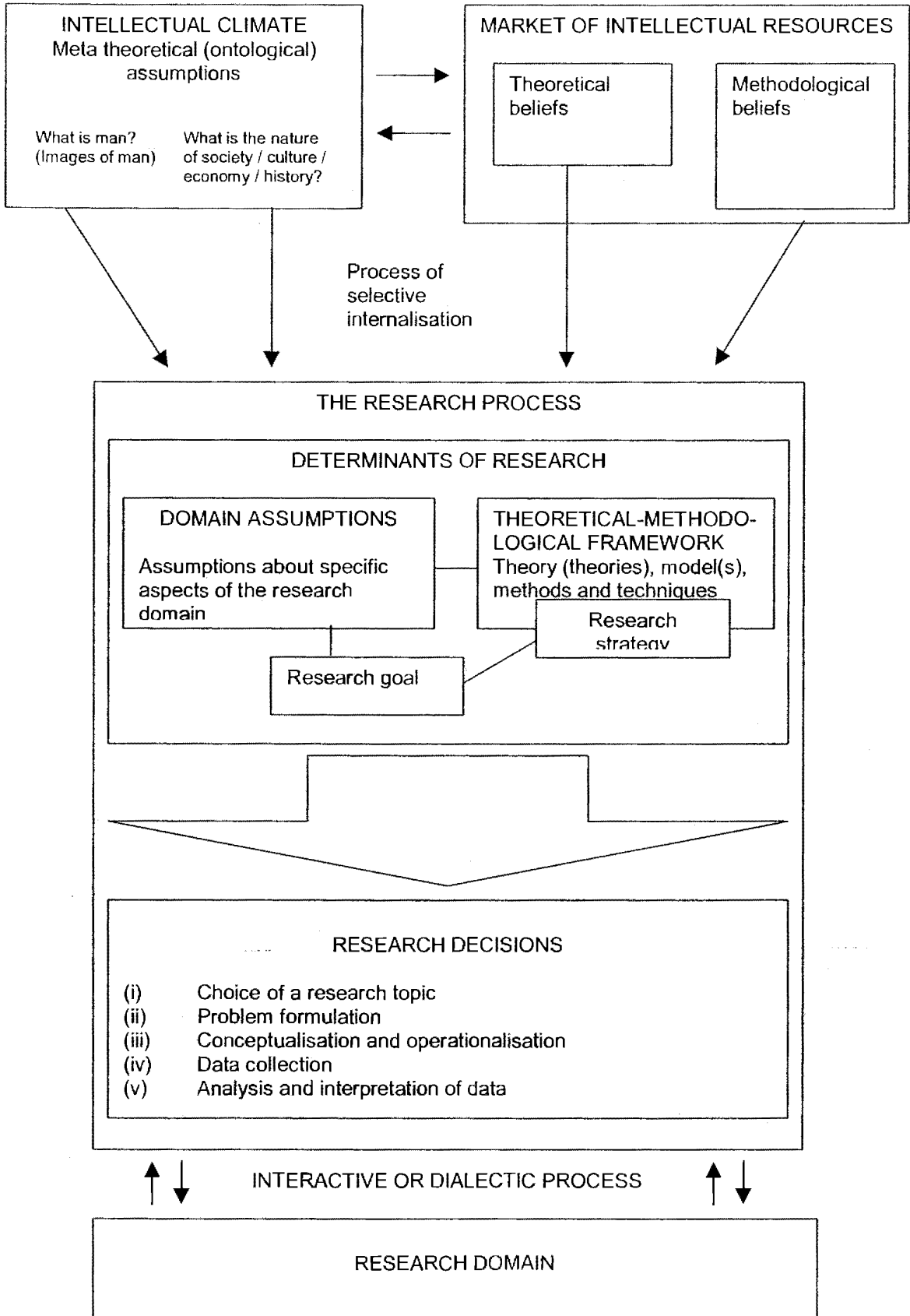


Figure 1.1: Research model (Mouton & Marais, 1990:22)

Looking at the above definitions, it is clear that research design refers to the way in which the research will be conducted with reference to certain steps in the procedure. In this regard identifying and conceptualising the relevant variables will follow.

1.6.1 Research variables

This research is structured in such a way that an independent variable cannot be manipulated to determine the influence thereof on the dependent variable. These research variables are therefore known as characteristic or organismic variables (Mouton & Marais, 1990:130). The relationship between the two variables will thus be determined through conducting a statistical analysis.

The characteristic or organismic variables to be investigated and researched in this research are:

(1) Managerial motivation

(2) Sense of coherence

1.6.2 Type of research

According to Mouton and Marais (1990:42) the research goal provides a broad indication of what researchers wish to attain in their research. The question is asked whether the aim of the study is to describe, to explain, to predict, or whether the aim is exploratory. As such Mouton and Marais (1990:43) distinguish between three basic types of studies, namely exploratory, explanatory and descriptive studies.

1.6.2.1 *Exploratory studies*

The goal which is pursued in exploratory studies, is the exploration of a relatively unknown research area with aims that vary quite considerably (Mouton & Marais, 1990:43). Such variation of aims may be:

- (1) to gain new insights into the phenomenon
- (2) to undertake a preliminary investigation before a more structured study of the phenomenon
- (3) to explicate the central concepts and constructs
- (4) to determine priorities for future research
- (5) to develop new hypotheses about an existing phenomenon

Mouton and Marais (1990:43) mention that because exploratory studies usually lead to insight and comprehension rather than the collection of accurate and replicable data, these studies frequently involve the use of in-depth interviews, the analysis of case studies and the use of informants. Therefore hypotheses tend to be developed as a result of research, rather than the research being guided by the hypotheses. This however is not the approach that will be followed in this research.

1.6.2.2 *Explanatory studies*

The major aim of explanatory studies is to indicate causality between variables or events (Mouton & Marais, 1990:45). A valid causal relationship must therefore, meet three central requirements:

- (1) that a demonstrable relationship exists between the phenomena or, stated differently, that a causal (or independent) variable covaries with the dependent variable
- (2) that there is a specific sequence of cause and effect (temporal sequence)
- (3) that a specific phenomenon is the real cause for y

To determine causality is however not the aim of this research.

1.6.2.3 *Descriptive studies*

According to Mouton and Marais (1990:43) the spectrum of descriptive studies includes a large variety of research types. On the one hand the in-depth description of a specific individual, situation, group, organisation, tribe, sub-culture, interaction or social object may be emphasised. On the other hand the frequency with which a specific characteristic or variable occurs in a sample may be emphasised. Mouton and Marais (1990:44) mention that the term "description" has developed into an umbrella term used in many different types of research. When descriptions are constructed by means of the relationship between variables, it is usually referred to as a correlation study. The researcher in this case does not conclude with a list of frequencies or arithmetic means, but goes further by postulating relationships between variables. Christensen (1994:52) states that in its simplest form, a correlation study consists of measuring two variables and then determining the degree of relationship that exists between them. A correlation study according to Christensen (1994:52) does not make any attempt to manipulate the variables of concern, but merely measure them in their natural state. If a reliable relationship is found between two variables, we do not only have described the relationship between these two variables, but have gained the ability to predict one variable from the knowledge of the other variable.

It is evident that this research is grouped under descriptive studies and as the aim is to determine a relationship between managerial motivation and sense of coherence, a correlation study will be conducted.

1.6.3 Validity and reliability

According to Mouton and Marais (1990:33) the aim of a research design is to plan and structure a given research project in such a manner that the eventual validity of the research findings is maximised. Research design is further synonymous with rational decision-making during the research process. Irrespective of how structured or unstructured a research project is likely to be, it is the duty of the researcher to ascertain which general nuisance variables may render the results invalid and to

take every possible step to ensure that these factors are either minimised or eliminated.

Mouton and Marais (1990:32) feel that design however implies decisions that are taken beforehand and that it has become customary in the practice of research to refer to research design mainly in the context of highly structured and controlled research such as experimental studies. This is because experimental research involves stringent control over all relevant variables to ensure the elimination of possible effects.

Following will be a discussion of the methods to be used to ensure the validity and reliability of both the literature review and the empirical research.

1.6.3.1 *Validity*

To comply with the requirements of validity in respect of the literature review, the researcher will ensure that the literature analysis is presented in a systemised and standardised manner. Validity of the literature research will furthermore be accomplished by ensuring that the literature being used are the most recent developments in the discipline and that it complies with the standards set for international and local publications.

To comply with the requirements of validity regarding the empirical part of the study, the following will be done:

- (1) The computerised instruments (Managerial Motivation Questionnaire and Sense of Coherence Questionnaire) will be conducted on a pilot group before the target population will be subjected to the gathering of data.
- (2) The researcher will make sure that no accidental error in developing the computerised questionnaires will render the results obtained invalid.
- (3) Respondents will be requested continuously to return their questionnaires in order to ensure that a large percentage of the population takes part in the study.

- (4) As indicated later on in this chapter, the validity of both instruments have been established.
- (5) The statistical processing of the data will be done with the help of an expert in the field and with the most recent and sophisticated computer packages.
- (6) Results will be interpreted and reported according to a standardised procedure.
- (7) Conclusions and recommendations will be made on obtained results.

1.6.3.2 *Reliability*

The reliability of the literature review is ensured by the fact that other researchers have access to the same literature and will consequently be able to potentially produce the same theoretical information.

The reliability of the empirical investigation is ensured by the use of valid measuring instruments and the application of procedures in a consistent manner.

1.7 RESEARCH METHOD

The research will be conducted in two phases namely the literature review in the first instance and the empirical study in the second instance.

1.7.1 Literature Review

Step 1 of the literature review will be to present the different paradigms from which the variables will be investigated. In chapter 2 human motivation will be conceptualised as the paradigm from which managerial motivation will be investigated, while in chapter 3 salutogenesis will be conceptualised as a paradigm from which sense of coherence will be investigated. In both the conceptualisation of managerial motivation and sense of coherence, the different models and theories will be mentioned.

Step 2 in the literature review is to conceptualise managerial motivation as presented by McClelland (1965) and Miner (1961). To achieve the first step, the management dimensions of which managerial motivation comprises will be pointed out, while each dimension will be individually elucidated. The contribution of each dimension towards organisational effectiveness and that of the construct in totality will be stated.

To conceptualise managerial motivation, the view of McClelland (1965), with reference to the following will be discussed briefly:

- (1) Achievement motive
- (2) Power motive
- (3) Affiliation motive

The role-motivation theory of Miner (1961) with reference to the following dimensions will be discussed in more detail:

- (1) Positive attitude towards authority figures
- (2) Competitiveness
- (3) Assertiveness
- (4) Power motive
- (5) Desire for a distinctive group role
- (6) Willingness to conduct administrative functions

Finally, criteria and behavioural characteristics of managers with a high motivation to manage will be pointed out.

Step 3 in the literature review is to conceptualise Antonovsky's (1979) sense of coherence while some of the more known salutogenic constructs of which the paradigm co-comprises, will be discussed briefly. Furthermore, the contribution of sense of coherence towards organisational effectiveness will be stated.

To conceptualise sense of coherence, the following constructs will be discussed:

- (1) Manageability
- (2) Comprehension
- (3) Meaningfulness

Finally, criteria and behavioural characteristics of managers having a strong sense of coherence will be pointed out.

Step 4 of the literature review will discuss the integration of the profile of the managerially motivated person and the personality profile of the person with a strong sense of coherence.

Figure 1.2 gives a schematic representation (flow diagram) of phase 1, the literature review or theoretical part of the research.

1.7.2 Empirical study

Phase 2 concerns the empirical part of the research and includes all the steps that have to do with the practical execution of research, such as determining the population and sample, data collection, data processing, stating the hypotheses, presenting the results, stating the conclusion, assessing the limitations of the research and the presentation of recommendations.

Figure 1.3 gives a schematic representation (flow diagram) of phase 2, the empirical part of the study that will be discussed hereafter:

Phase 1: Literature review

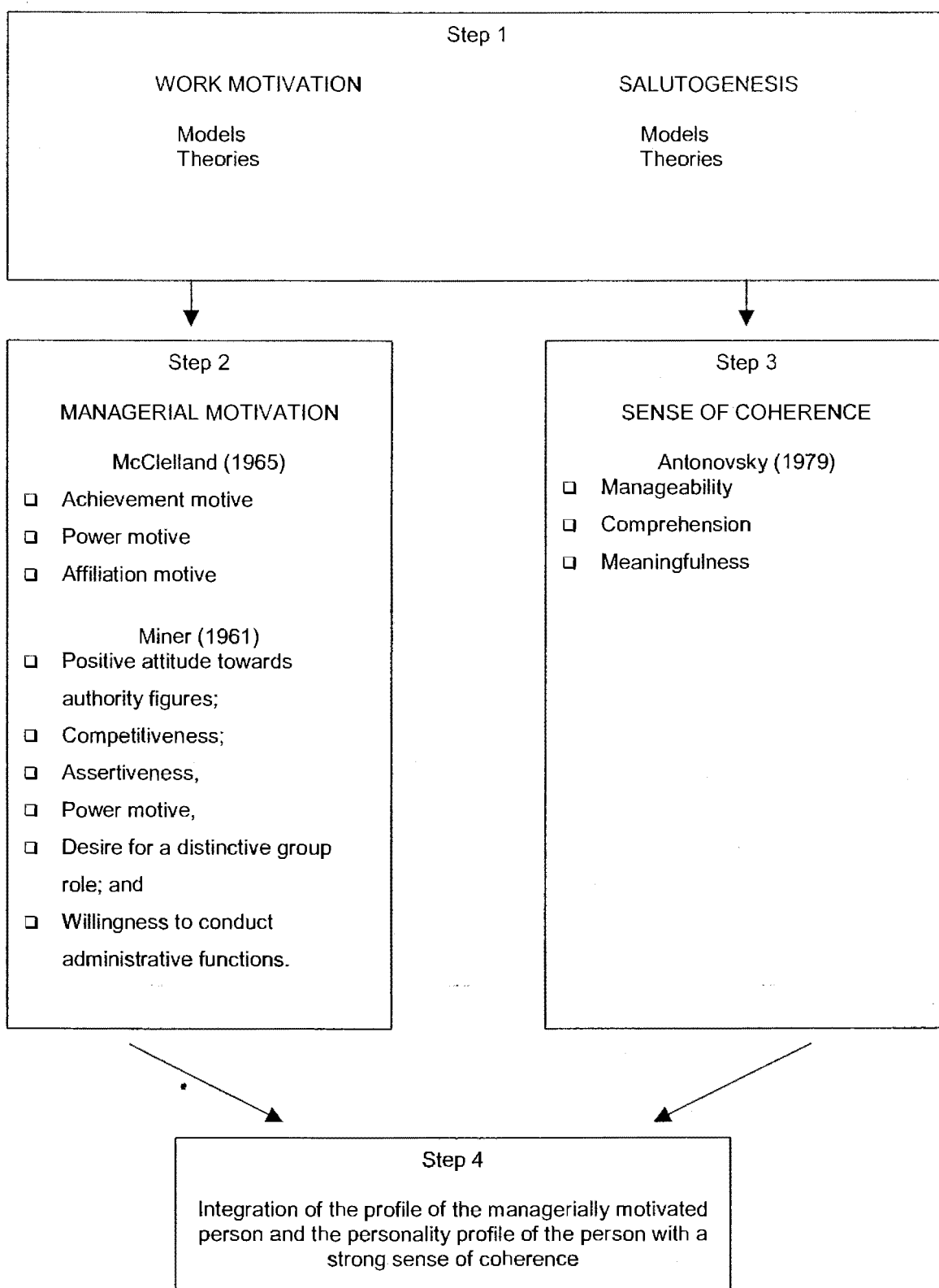


Figure 1.2: Schematic representation of the literature review

Phase 2: Empirical research

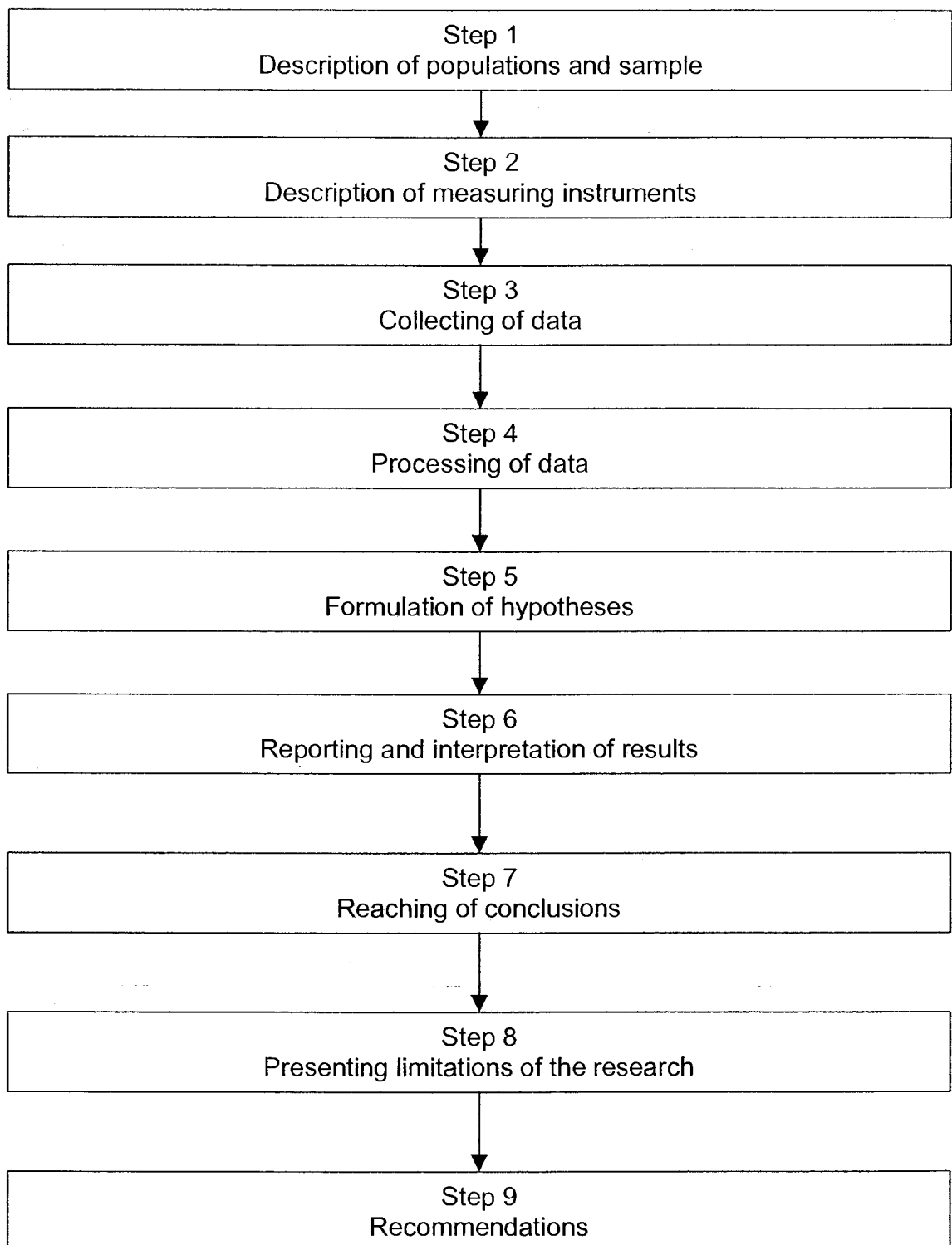


Figure 1.3: Schematic representation of the empirical study

1.7.2.1 *Population and sample*

Step 1 in the empirical part of this research is to determine the population upon which the study will be conducted. In this regard the Agricultural Research Council (ARC) - a statutory body established in terms of the Agricultural Research Act, 1992 - has been elected as the organisation in which the research will be conducted. The reason for this is that the ARC employs the researcher and as such the respondents will be more readily accessible.

As the population consists of approximately 117 managers and 225 supervisors at the ARC, it was thought best to use the entire population as respondents and therefore the population will consist of 117 managers and 225 supervisors that will form part of a "haphazard sample" as described by Christensen (1994:65).

1.7.2.2 *Measuring instruments*

Step 2 will be the discussion of the measuring instruments. In this regard the instruments that will be used are the Managerial Motivation Questionnaire developed by Engelbrecht (1989) and the Sense of Coherence Questionnaire developed by Antonovsky (1979). Aspects such as the validity and the reliability will be verified in order to ensure that the most appropriate instruments are used.

1.7.2.3 *Data collection*

Step 3 will be the collection of data. In this regard the above-mentioned instruments will be administered to the total population as described in paragraph 1.7.2.1.

Respondents will be requested to participate in the research and the purpose of the research will be explained to them briefly.

The population will be subjected to the Managerial Motivation Questionnaire (MMQ) that measures managerial motivation and to the Sense of Coherence Questionnaire (SOC) that measures sense of coherence. In this regard the researcher arranged for

both the above instruments to be retyped in order to be available in electronic format, namely in the spreadsheet program Excel. This was done firstly to enable the researcher to distribute these instruments *via* e-mail and secondly to assist the researcher in receiving the completed questionnaires back in electronic format. Approval in respect of both questionnaires has been obtained.

The respondent therefore can, after completion of the questionnaires return it electronically to the researcher for further processing. The respondent will have no indication of any scores. The advantage of this format is that it makes data collection easier in terms of money and time.

Data in respect of managerial motivation (based on the MMQ) and sense of coherence (based on the SOC questionnaire) will then be obtained.

1.7.2.4 *Data processing*

Step 4 will be the processing of data. In this regard the data analysis will be done with the SAS Version 5 Edition (1985), developed by the SAS Institute Inc., Cary, NC, USA.

The statistical calculations include:

- (1) Factor analysis in order to investigate the pureness of the scales of the questionnaires.
- (2) Alpha coefficients in order to determine the internal consistency of the questionnaires.
- (3) Product moment correlation in order to determine the relationship between managerial motivation and sense of coherence
- (4) A comparison of the group "manager" to the group "supervisor" on the variables managerial motivation, sense of coherence and the various subscales of these two constructs by means of a t-test for independent measures.

1.7.2.5 *Hypotheses*

Step 5 will be the formulation of hypotheses.

1.7.2.6 *Reporting and interpretation of results*

Step 6 will be the reporting and interpretation of results of the MMQ questionnaire and the SOC Questionnaire that will be discussed in detail. The results of the statistical processing will then be interpreted and reported by indicating what the relationship between managerial motivation and sense of coherence is. This will be done in tables that represent applicable statistical results. An important aspect that will be emphasised is the comparison between the managerial motivation and sense of coherence of the two groups, namely, managers and supervisors.

1.7.2.7 *Conclusion*

Step 7 will be the reaching of a conclusion. With this step the results will be assessed against the set objectives and it will be determined whether such objectives have been reached.

1.7.2.8 *Limitations of the research*

Step 8 will be an overview of the limitations of the research. This section may refer to aspects such as the research design or sampling.

1.7.2.9 *Recommendations*

Step 9 will be the presentation of recommendations in regard of the findings of the research. As research often leads to new research possibilities, such possibilities will be illustrated.

1.8 CHAPTER DIVISION

Chapters in this research will be presented as follows:

Chapter 2: Managerial motivation

The purpose of this chapter is to determine what managerial motivation entails in terms of different theories and paradigms, definitions, dimensions and characteristics.

Chapter 3: Sense of coherence

The purpose of this chapter is to determine what sense of coherence entails in regard to development, theories and paradigms, definitions, dimensions and characteristics.

Chapter 4: Empirical investigation

The purpose of this chapter is to describe the empirical investigation. Firstly the objectives of the empirical study will be presented and in the second instance the steps in the empirical investigation will be discussed. The various instruments used in the research will be presented in detail and the statistical processing of the data will be stated. Finally the central hypothesis of the research will be stated.

Chapter 5: Results

The purpose of this chapter is to present the biographic detail of the sample and to interpret and obtain the results of the research. Finally the purpose is to determine whether a relationship between managerial motivation and sense of coherence exists.

Chapter 6: Conclusions, limitations and recommendations

The purpose of this chapter is to make conclusions from the results, to report on limitations experienced in the research and to make recommendations in regard to this research.

1.9 CONCLUSION

This chapter gave an explanation of the need and motivation for this research. Firstly the background and motivation for the research as well as the problem statement were given. The objectives of the research were stated, while the paradigm perspective of the research was explained. The research model as well as the research design and methodology and finally the division of chapters were explained.

CHAPTER 2

MANAGERIAL MOTIVATION

The purpose of this chapter is to conceptualise managerial motivation. Firstly, various theories applicable to motivation will be presented whereafter managerial motivation as seen by McClelland and Miner will be evaluated before their views will be contrasted. Finally a profile of a managerially motivated South African manager and the chapter conclusion will be presented.

2.1 MOTIVATION

The following section will serve as a discussion of the concept of motivation within which managerial motivation as distinguishable sub-concept exists.

Ivancevich and Matteson (1996:156) state that no one questions the central role that motivation plays in shaping behaviour and specifically in influencing work performance in organisations. Arkes and Garske (1982:5) mention in addition that since the domain of motivation is so broad, theories have tended to focus on the explanation of particular types of behaviour. Littman (1958) as cited in Arkes and Garske (1982:5) argues that it is simply not the case that the analysis of one kind of motivational phenomenon provides us with the analysis of all, or even a substantial portion, of other motivational concepts.

When looking at the motive to perform in the workplace, Ivancevich and Matteson (1996:156) regard motivation as a variable that plays a role in performance and as such job performance can be conceptualised as the capacity to perform, the opportunity to perform and the willingness to perform. Figure 2.1 as displayed by Ivancevich and Matteson (1996:156) clearly visualises the relation between these three aspects.

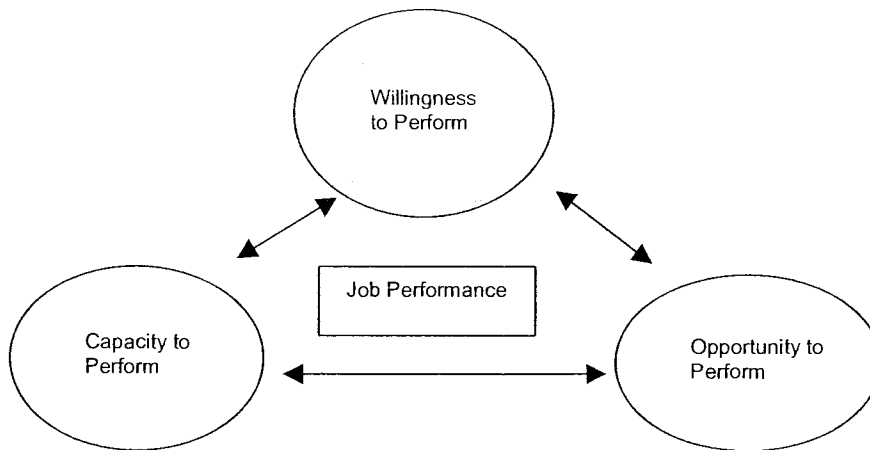


Figure 2.1: Determinants of Job Performance (Ivancevich & Matteson, 1996, p. 156)

The capacity to perform relates to the degree to which an individual possesses task relevant skills, abilities, knowledge and experiences. Having the opportunity to perform refers to accessibility to for instance relevant technology to perform a task or to be empowered by the enterprise to perform a certain function. Willingness to perform relates to the degree to which an individual both desires and is willing to exert effort towards attaining job goals.

Willingness to perform is in other words motivation (Ivancevich & Matteson, 1996:156) and this research will focus on the willingness to perform from the perspective of a person in a managerial position. The concept will be evaluated against certain popular theories focusing on human motivation in the work context.

2.1.1 Content Approaches of Motivation

The content theories of motivation (Ivancevich & Matteson, 1996:157) focus on the factors within a person that energise, direct, sustain and stop behaviour. They attempt to determine the specific needs that motivate people.

In this regard Maslow's need hierarchy and Herzberg's two factor theory will be discussed as part of the content approaches of motivation.

2.1.1.1 Maslow's Need Hierarchy

According to Maslow (1972:75) the crux of his theory is that there are at least five sets of goals that may be called basic needs. These needs are physiological, safety, love, esteem and self-actualisation. The lowest level of needs are the physiological needs and the highest level of needs are the self-actualisation needs. These needs are related to each other and are arranged in a hierarchy of prepotency. This means that the most prepotent goal will monopolise consciousness and the less prepotent goals are minimised, forgotten or denied.

Figure 2.2 gives an indication of the need hierarchy theory and is adopted from Franken (1994).

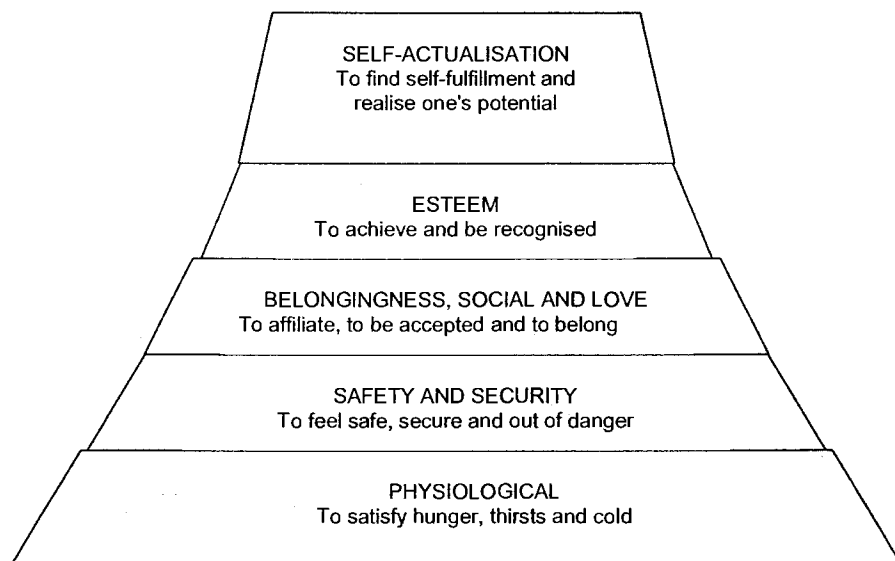


Figure 2.2: Maslow's hierarchy of needs (Franken, 1994, p. 13)

Maslow's (1972) theory assumes that a person attempts to satisfy the more basic needs (physiological) before directing behaviour toward satisfying upper-level needs. What is also important is the fact that gratification has an important role to play in motivation (Maslow, 1972:74) in that needs usually emerge when more prepotent needs have been gratified. Needs cease to play an active role as soon as they are

satisfied and satisfied needs do not serve as motivator. It is only the unsatisfied needs that serve as motivators. Other important aspects regarding Maslow's need hierarchy theory (Maslow, 1972:75) are:

1. Unsatisfied needs can cause frustration, conflict and stress.
2. It is assumed that people have a need to grow and develop and will strive constantly to move up the hierarchy in terms of need satisfaction.
3. Unfulfilled needs are predominant and the next higher level of needs are not activated or triggered until the predominant need is adequately satisfied.

Maslow's (1972) need hierarchy does not really answer to the complexity of managerial motivation as will be discussed later on in this chapter. Little theoretical applicability or common ground exist between the need hierarchy of Maslow (1972) and managerial motivation as proposed by either McClelland (1961) or Miner (1965).

The importance of Maslow's need hierarchy (1972) is however fully acknowledged as an immense contributor to knowledge about motivation.

2.1.1.2 *Herzberg's Two-Factor Theory*

Herzberg (1959) developed a theory known as the two-factor theory of motivation. These two factors are called the extrinsic-intrinsic factors or differently called hygiene and motivators.

The question asked by Herzberg (1976:58) namely - "*how do you install a generator in an employee?*" – probably encompass his theory. Herzberg (1976:58) indicates that his theory was first drawn from an examination of events in the lives of engineers and accountants. This examination was complemented by various other studies and the findings of these studies, together with corroboration from other investigations, suggested that the factors involved in producing job satisfaction (and motivation) are separate and distinct from the factors that lead to job dissatisfaction.

Herzberg (1976:58) further mentions that the opposite of job satisfaction is not job dissatisfaction, but rather no job satisfaction while the opposite of job dissatisfaction is not job satisfaction, but rather no job dissatisfaction.

Herzberg (1976:59) further distinguishes between motivator factors and hygiene factors where motivators are intrinsic to the job such as achievement, recognition for achievement, the work itself, responsibility and growth or advancement. These will motivate and generate movement within the person.

Hygiene factors on the other hand (Herzberg, 1976:59) refer to dissatisfaction-avoidance factors that are extrinsic to the job, such as company policy, administration, supervision, interpersonal relationships, working conditions, salary, status and security. These factors will only help the employee to avoid becoming dissatisfied if properly administered or in place, but, if not in place or if administered wrongly, these factors could result in a decrease in motivational levels.

Herzberg (1959:113) indicates that hygiene operates to remove health hazards from the environment of man. In this regard it is not seen as something that shall cure, but as something that shall prevent. Improvements in these hygienic factors will serve to remove the impediments to positive job attitude.

Although Herzberg's Two-Factor Theory (1959) revolutionised the understanding about what motivates in the organisational context, there seems to be coincidental theoretical relation between the two-factor theory and managerial motivation proposed by McClelland (1961) and Miner (1965). The concept as hypothesised by McClelland (1961) and Miner (1965) focuses more on various motives and role prescriptions respectively.

2.1.2 Process approaches of motivation

The process theories of motivation (Ivancevich & Matteson, 1996:168) are concerned with answering the questions of how individual behaviour is energised, directed, maintained and stopped.

As part of the process theories of motivation, Adams' (1965) equity theory and Locke's (1968) goal setting theory will be discussed.

2.1.2.1 *Equity Theory*

Adams (1965:268), father of the equity theory mentions that a distinguishing characteristic of exchange processes is that their resultants have the potentiality of being perceived as just or unjust. Ivancevich and Matteson (1996:170) mention that the essence of the equity theory is that employees compare their efforts and rewards with those of others in similar work situations. This theory of motivation is based on the assumption that individuals are motivated by a desire to be equitably treated at work. Equity exists when employees perceive that the ratios of their inputs to their outputs are equivalent to that of other employees. Inequity exists when these ratios are not equivalent, therefore when an individual's own ratio of inputs to outcomes could be greater than, or less than that of others.

The equity theory does not really answer to the complexity of managerial motivation as will be discussed later on in this chapter. Little theoretical applicability or common ground between the equity theory and managerial motivation as proposed by either McClelland (1961) or Miner (1965) exist.

2.1.2.2 *Goal Setting Theory*

Locke (1997:377) mentions that his theory is based on a situational and task-specific approach. Every action that a person takes is specific and involves a concrete action in a concrete context. There is according to Locke (1997:377) no such thing as "action in general" as general values, traits and motives can only operate within and with respect to specific situations.

According to Locke and Latham (1994:15) the goal setting theory, within the realm of work, lies within the domain of purposefully directed action. The theory addresses the question of why some people perform better on work tasks than others. Despite the role of ability and knowledge, the answer must then lie in the realm of motivation. The theory's core premise is that the simplest and most directed motivational

explanation of why some people perform better on work tasks than others is because they have different performance goals.

The goal setting theory does not specifically answer to the complexity of managerial motivation as will be discussed later on, although the performance of an individual on any of the dimensions of managerial motivation could be related to a situational and task specific approach by such an individual. Little theoretical applicability or common ground between the goal setting theory and managerial motivation as proposed by either McClelland (1961) or Miner (1965) exist in the literature.

SUMMARY

Engelbrecht (1989:187) makes an important remark and states that no empirical studies could be found in the literature where there was an attempt to bring the role-motivation theory of Miner (1965) in relation with the needs hierarchy theory (Maslow, 1972) and the motivation-hygiene theory (Herzberg, 1959). From what could be ascertained from the literature, no evidence could be found where the role-motivation theory of Miner (1965) was brought into relation with the equity theory of Adams (1965) or the goal setting theory of Locke and Latham (1968).

Finally, taking into account the perspective from which managerial motivation will be conceptualised, McClelland (1987:588) indicates that motivation has always fascinated people and will continue to fascinate them as long as there are people around to wonder why human beings and animals behave as they do. Consequently this chapter will explore and conceptually outline the views of McClelland and Miner on managerial motivation.

2.2 MANAGERIAL MOTIVATION

The remainder of this chapter will follow a discussion of the theories on managerial motivation regarding work performed by McClelland (1961) and Miner (1965). Engelbrecht (1989:165) mentions in this regard that it could be determined from the literature that it was mainly McClelland and his colleagues and Miner and his co-

workers who attempted to conceptually describe managerial motivation and to empirically test it.

The next section will elaborate on the construct of managerial motivation as theorised by McClelland (1961) and Miner (1965) while the demarcation of the construct from the two viewpoints will be outlined.

2.2.1 Managerial motivation according to McClelland

According to Fineman (1977:1) we can go back over 80 years to the psychological writings of William James to find information of the notion and importance of achievement strivings. James (1895) (Fineman, 1977:1) talks of man's self-regard as being determined by self-imposed goals, the achievement of which leads to feelings of well being and elevation, while failure brings about frustrations and humiliation. Twenty years later, in Germany, Narciss Ach was utilising the concept of "determining tendency" to explain the achievement-related behaviour of his laboratory subjects (Fineman, 1977:1). It was however the work and theory of Murray (1938) who formalised the achievement motive constructs and from his research a taxonomy of personality needs emerged (Fineman, 1977:1). One of these needs is the need for achievement of which McClelland's (1961) view will be explained (see section 2.2.1.1). Fineman (1977:2) furthermore mentions in that regard that McClelland's (1961) early work was largely devoted to developing a general theory of achievement motivation, but in more recent years he has become concerned with applying his theory to problems of economic growth and also specific issues of entrepreneurial and managerial behaviour.

To conceptualise the construct managerial motivation, it is important to understand that McClelland (1961) recognises the effect of learning and reinforcement history on motive acquisition and strength and refers to the three needs as socially acquired needs (Stahl, 1986:5). Parallel to the view of McClelland (1961), Miner (1965:41) assumes that there are various role prescriptions or requirements that have become associated with the managerial job and should occur with relative high frequency in most managerial positions.

Ivancevich and Matteson (1996:165) indicate that McClelland (1961) has proposed a theory of motivation that is closely associated with learning concepts. The contention is that when a need is strong in a person, its effect is to motivate the person to use behaviour that leads to its satisfaction. The main theme of McClelland's (1961) theory is that needs are learned through coping with one's environment. Managers, who are rewarded for achievement behaviour, learn to take moderate risks to achieve goals. Similarly, a high need for affiliation or power can be traced to a history of receiving rewards for sociable, dominant, or inspirational behaviour.

In the following section the different motives will be discussed after which the specific models will be elaborated on.

2.2.1.1 Achievement motive

McClelland (1961:319) asks the question why some people sometimes have a greater need for achievement (nAch) than other people? His thoughts lingered around factors such as racial heredity, challenges from the environment and economic, political or social disadvantages. McClelland (1961:373) concluded by saying that external events affect motivational levels primarily as they affect the family.

Regardless of the sources of nAch, Weiner (1969:427) mentions that given a free choice situation, in other words where the individual can select any alternative, individuals who are classified as high in achievement-related needs, tend to initiate achievement-orientated actions, while those low in this motivational constellation tend to avoid such activities. The high motive group of people is also predisposed to arrange the environment so as to increase the likelihood of success at achievement-orientated activities. Another interesting aspect is that it has been reasoned that for the low motive group of people some other source of motivation such as money or social needs is necessary before they will undertake achievement related activities.

Weiner (1969:429) mentions that high achievement motivated people initiate achievement activities for their own sake, prefer intermediate risks, persist at

achievement behaviours when repeated action is realistic and responds positively to failure. The low achievement motivated people do not undertake achievement activities unless other motivations are operative, prefer tasks which are either easy or difficult, persist at achievement behaviours when continuation is not warranted by the situation and can not tolerate failure.

Gellerman (1992:21) mentions that the four most reliable earmarks of a strong achievement motive are:

- (1) setting tough but attainable goals
- (2) pursuing them relentlessly
- (3) restarting the cycle whenever a goal is achieved
- (4) hunting for reliable indications that one is on the right track

Miner, Smith and Bracker (1989:554) refer to a concept called task motivation and mention that it is largely synonymous with McClelland's (1961) achievement motivation theory. In its final form task theory appears to place greater emphasis on the concept of roles and specifies five separate motive patterns, rather than the single achievement motive. These are:

- (1) Self-achievement
- (2) Risk taking
- (3) Feedback of results
- (4) Personal innovation
- (5) Planning for the future

The statement of Ivancevich and Matteson (1996:166) summarises the above when they indicate that McClelland (1961) has developed a set of descriptive factors that reflect a high need for achievement. These are:

- (1) The person likes to take responsibility for solving problems.
- (2) The person tends to set moderate achievement goals and is inclined to take calculated risks.
- (3) The person desires feedback on performance.

The objective of this research is however to pursue the view of McClelland (1965) in this section and therefore the only reason for this reference was to point out the similarity in the thinking of Miner and McClelland.

In the following section certain specific conditions pertaining to nAch will be highlighted. The incentives for achievement, the effect of a high nAch, the effect of too much motivation on performance and the characteristics of people with a strong nAch will be discussed.

(a) *Incentives for achievement*

According to McClelland (1987:228), "doing something better" is the natural incentive for the achievement motive. There is in other words an intrinsic satisfaction for the person when he or she is doing something better. To illustrate this point, McClelland (1987:228) mentions that French (1955) varied the incentives provided for performing better at a certain task amongst officer candidates in a school at a US Air Force base. She found that the level of achievement motivation aroused for those low in dispositional nAch was significantly lower across all incentive conditions. For those high in nAch, the picture is quite consistent and easily understandable: the demand to do the task couched in terms of achievement incentives contacted their high achievement motive disposition and aroused more achievement motivation, which expressed itself in performing better.

According to McClelland (1987:231), the intrinsic difficulty or challenge of the task defines most of the work in the area of incentives for achievement. If the incentive therefore is to "do better", neither a very easy nor a very difficult task provides an opportunity to do better. If the task is very easy, anyone can do it. If it is very difficult, there is no question of doing it better, because everyone is likely to fail in attempting it. Thus, moderately difficult tasks should provide people with the best opportunity to prove that they can do better. A large number of empirical studies (McClelland, 1987:231) have demonstrated that subjects high in nAch prefer working on moderately difficult tasks in which the probability of success lies somewhere between 0,30 and 0,50. The reason is that they prefer working under conditions

where the achievement incentive is maximal. Subjects low in nAch (McClelland, 1987:231) show quite a different preference curve for tasks differing in difficulty.

Weiner (1980a) as cited in McClelland (1987:237) argued that the reason why subjects with a high nAch choose moderately difficult tasks is because such tasks are more diagnostic and indicative of how well they are doing. If the task is easy they will not know whether success was due to their efforts, because everyone can do it. If the task is difficult they will also not be able to tell what their efforts produced, because they will fail. They therefore seek moderately difficult tasks to get information on the impact of their efforts on performance.

(b) Effect of high nAch on performance

Although people with a high nAch are more attracted to tasks with moderate difficulty, the question arises whether they actually perform better when the challenge is moderate. According to McClelland (1987:239) many studies have shown that this is indeed the case. One study that explains this well is the study of Raynor & Entin (1982b) (as cited in McClelland, 1987:239) where subjects were asked to solve sixty anagrams placed on a page and were told that in order to be successful and move on to the next task, they had to complete either fifty-four, thirty or six out of the sixty anagrams in the time allotted. If they did not meet the moving-on criterion, they had to sit quietly while others continued to work. The result of this study is portrayed in figure 2.3 and shows that when the moving-on criterion was of moderate difficulty (requiring half of the anagrams to be solved), those high in nAch performed significantly better than when the moving-on criterion was either very difficult or very easy. Those low in nAch did not show this pattern at all.

(c) Effects of too much motivation on performance

According to McClelland (1987:243) psychologists found evidence that too much motivation can interfere with performance. In this regard no one has yet demonstrated a curvilinear or inverted U-shaped relationship between nAch and performance.

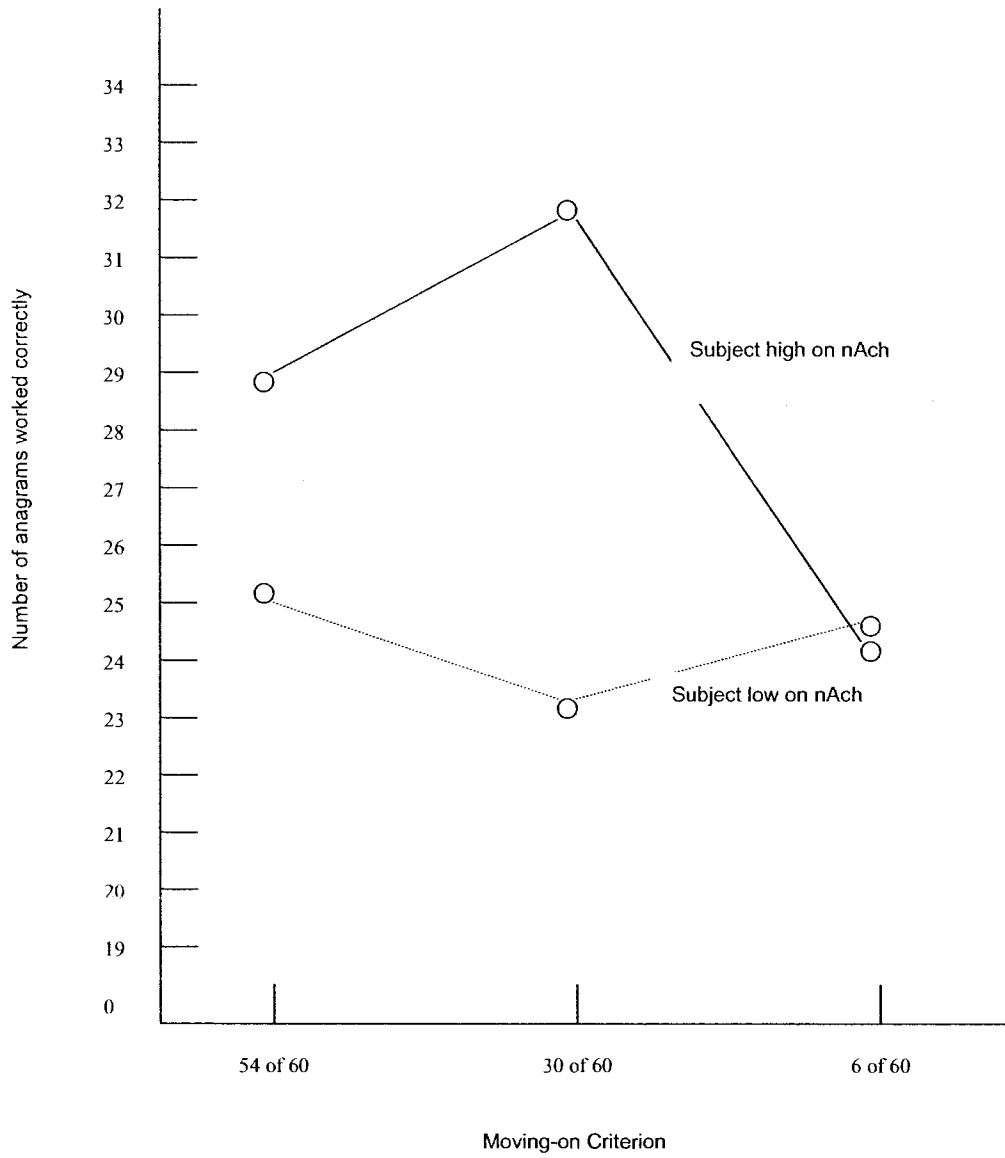


Figure 2.3: Number of anagrams Worked Correctly as a Function of Resultant Achievement Motivation (RAM) and Moving-on Criterion according to Raynor and Entin (1982b) - (McClelland, 1987: 239)

This indicates that too high a level of nAch leads to somewhat lower performance than a moderate level of nAch. Several studies have however shown that if nAch is associated with a high nAffiliation, and incentives for both motives are present in the situation, performance can suffer.

Gellerman (1992:22) however explains that people who have a strong achievement motive move out of the starting gate fast. They are already in the habit of going out in pursuit of their demanding goals. The reason for this is that these people learn to rely on themselves and not on others. They flourish in lower management positions but as they rise higher and higher on the management level, they acquire more and more subordinates in the chain of command. The problem in this scenario however is that people with strong achievement motives are so good at motivating themselves that they seldom learn to motivate others and as such do not have the ability to motivate others.

Gellerman (1992:22) explicitly says that if you put a highly motivated achiever in a leadership role, you run a risk that his self-absorption and single-mindedness will alienate and even demotivate most of his subordinates.

(d) Characteristics of people with a strong nAch

On theoretical grounds it has always been assumed that subjects high in nAch would prefer being personally responsible for a performance result, because only then they experience satisfaction from doing something better (McClelland, 1987:246). Horowitz (1961) as cited in McClelland (1987:246) carried out an empirical test of this assumption. The results of this study showed that subjects high in nAch more often chose to take personal responsibility in situations of moderate risk than those low in nAch.

McClelland (1987:247) mentions that in theory, subjects high in nAch prefer working in situations where they get feedback on how well they are doing. This enables them to know whether they are doing better than others, or not. In contrast with the subjects low in nAch, those high in nAch worked subsequently more efficient after performance feedback than after affiliative feedback.

Doing something better often implies doing it differently than before (McClelland, 1987: 249). It may involve finding a different, shorter or more efficient path to a goal. According to McClelland (1987: 249), individuals high in nAch should be more restless and avoid routine. They should be more likely to seek out information to find better ways of doing things and thus be more innovative. The fact that they are always seeking moderately challenging tasks mean that they always tend to be moving on from what they had been doing to doing something a little more challenging. Research (McClelland, 1987: 249) has also shown that people with a high nAch are more likely to cheat than those low in nAch, mainly because they are so fixated on finding a short cut to the goal that they are not particularly worried about the means they use to achieve it. Individuals with a high nAch are also more restless and they tend to travel more and are more likely to migrate.

It is also seen fit to include reference to some research on culture and achievement motivation in this section as the culture within which a person functions will obviously reflect in the way in which a person expresses himself in terms of achievement. In this regard Sagie, Elizur and Yamauchi (1996:431) mention that in their research they compared the achievement tendencies across various cultural environments. The findings from their research showed that certain cultural differences based on the individualistic-collectivistic orientation exist. The more individualistic rather than collectivistic the orientation of a person or cultural group is, the higher the level of achievement motivation tend to be.

The statement of Gellerman (1992:23) summarises the above when it is indicated that the managerial job exists in the first instance to amplify the value of what other people get done. Therefore, to be highly motivated oneself is no guarantee that one will be able to motivate other people effectively or then to manage other people effectively. McClelland (1967:526) mentions that most managers are also high in nAch and as such the section dealing with nAch was presented to give an indication of one component that makes up the composure of a motivated manager.

It is therefore evident that being high on achievement motivation will not necessarily be sufficient to be motivated to manage people and to keep them motivated.

The following is a discussion of the need for power or the power motive, a characteristic that will also be discussed against the background of being managerially motivated.

2.2.1.2 Power motive

While conducting research on nAch, McClelland (1970:300) found that the president of one of the largest achievement oriented companies in the USA had no nAch at all. This came as a surprise as he, at that stage, assumed that a person with a high nAch does better work, gets promoted faster and ultimately ends up as the president of the company. The question now was how it was possible for a person to be in charge of an obviously achieving company and score so low in nAch? McClelland (1970:301) mentions that the focus had now shifted from an individual with a high nAch to the climate which encourages him to do well. Therefore, no matter how high a person's need to achieve may be, he cannot succeed if he has no opportunities to, or if the organisation keeps him from taking initiative. McClelland (1970:302) states that the person with a high nAch can seldom act alone, although they might prefer to. Such persons are caught up in an organisational context in which they are managed, controlled or directed by others. The attention is now directed towards those who manage or as McClelland (1970:302) calls it, the leaders of men. Since managers are primarily concerned with influencing others, it seems obvious that they should be characterised by a high need for power (nPower).

McClelland (1987:269) mentions, that every student of personality, from Freud to McDougall to Murray and Cattell have found that human beings are characterised by a need for power (nPower), aggression or domination. To support this assumption the experiment conducted by Steele (1973, 1977) provides information on this point (McClelland, 1987:272). Steele (1973) as cited in McClelland (1987:269) aroused power motivation in student subjects by having them listen to a tape of an actor giving excerpts from famous inspirational speeches, such as that of Winston Churchill's speech at Dunkirk or Henry V's speeches in Shakespeare's *Life of King Henry V* (McClelland, 1987: 272). In the control condition all subjects listened to tape recordings of travel descriptions and afterwards subjects were requested to write some imaginative stories to certain pictures. Steele (1973) McClelland

(1987:271) then found that the stories written after the inspirational speeches contained significantly higher nPower scores than those written after the travel tapes.

A person with a high nPower concentrates on obtaining and exercising power and authority. He is concerned with influencing others and winning arguments. According to McClelland (1987:273), power has two possible orientations, namely it can be negative in that a person exercises dominance and submission or it can be positive in that a person reflects persuasive and inspirational behaviour.

a. *Outlets of the need for power*

- i. **Aggressiveness:** McClelland (1987:280) mentions that it might be expected that individuals high in nPower would be more competitive and aggressive. Winter (1973) (in McClelland, 1987:280) found that college students who were accepted at colleges / universities for playing competitive sports scored significantly higher in nPower than other men. Competitive sports were defined as those in which there was direct competition between one person and another or one team against another. According to McClelland (1987:281) an earlier finding in 1975 also confirmed this for a sample of older men no longer at school. Those higher in nPower voluntarily participated in more competitive sports than those low in nPower. What has therefore gradually emerged out of research on the power motive is the general conclusion that people high in nPower strive to be assertive.
- ii. **Negative Self-image:** McClelland (1987:281) is of the opinion that the disposition to be aggressive or assertive leads people to view themselves negatively for having what is generally considered to be antisocial tendencies. According to Veroff et al (1980) as cited in McClelland (1987:281) a national sample survey data from the United States of America confirmed the fact that people high in nPower view themselves more negatively. Both men and women with strong power motives report themselves as feeling more inadequate or dissatisfied with various aspects of their lives.

- iii. Entry into influential occupations: Winter (1973), as cited in McClelland (1987:283) found that male students planning to take up a career in teaching, psychology, the ministry, business or journalism had significantly higher nPower scores than students planning to enter other occupations, including law and medicine. McClelland (1987:283) indicated that these results were confirmed in longitudinal studies that showed that men who entered for the first set of occupations had higher nPower scores years before as undergraduates, than those who did not enter these occupations.
- iv. Search for prestige: McClelland (1987:284) mentions that one way in which individuals high in nPower can appear powerful in a socially acceptable way is to collect symbols of power, or prestige possessions. Winter (1973) as cited in McClelland (1987:284) found at both Harvard and Wesleyan Universities that nPower scores significantly correlated with the number of prestige possessions owned by undergraduates. Credit cards are another symbol of prestige as they represent the power to purchase important services, often from prestigious hotels, restaurants and stores.
- v. Acting to be recognised in small groups: Winter (1973), as cited in McClelland (1987:285) reasoned that in small groups, individuals high in nPower should work to become known and to build alliances. With a study conducted amongst a class of psychology students, it was found that people high in nPower choose as friends individuals who are not particularly well known or in a position to compete with them for prestige. They therefore seem to surround themselves with lesser-known people who can be led.

(b) Characteristics of people with a strong nPower

Winter (1970:281) mentions that people with a high nPower spend their money in characteristic ways. They are likely to accumulate prestigious possessions such as smart motor cars and credit cards. In terms of choosing careers, Winter (1970:282) found men with a high nPower not amongst politicians, but among business men. McClelland and Burnham (1995:126) conducted a study that supports Winter's (1970) notion, and found that the top manager of a company must possess a high

nPower in other words a concern for influencing people. The need however must be disciplined and controlled so that it is directed at the benefit of the institution as a whole and not towards the manager's own glorification.

McClelland (1970:302) concludes by mentioning that leadership and power appear to be closely related concepts and to understand better effective leadership, the power motive should be studied.

Following will be a discussion of the need for affiliation or the affiliation motive, a characteristic that will also be discussed against being managerially motivated.

2.2.1.3 Affiliative motives

According to Ivancevich and Matteson, (1996:166) the need for affiliation (nAffiliation) reflects a desire to interact socially with people. A person with a high nAffiliation is concerned about the quality of important personal relationships and as such, social relationships take precedence over task accomplishment. McClelland (1987:346) adds that whether or not it is exactly what people seek in interacting with others, depriving individuals of the opportunity for interaction arouse in them what has been called the need for affiliation or the need to be with people.

Boyatzis (1973:270) analysed theory and research regarding affiliation motives and came to the conclusion that a concern with affiliation can manifest itself in two ways, namely approach concerns and avoidance concerns. Approach affiliation is concerned with the establishment of "love" relationships. Avoidance affiliation on the other hand is concerned with the maintenance of relationships and a fear of rejection and being left alone. A person with high avoidance will typically (Boyatzis, 1973:271):

- (1) seek the approval of others
- (2) attempt to care for and help others as a way of making himself important to them
- (3) seek others to care for and help him to ensure a relationship and a sense of the others' being concerned for him

- (4) seek to evaluate himself through comparison to others
- (5) seek to be with others who are perceived as being similar to himself in an attempt to build his sense of self worth and his potential value to others as a source of reinforcement.

McClelland (1987:356) supports this by saying that throughout the consideration of the nAffiliation score, investigators have suspected that it represents primarily a fear of rejection for a variety of reasons. Individuals high in nAffiliation act in various ways to avoid conflict and competition as if they feared negative feedback from others.

(a) Characteristics of people with a strong need for affiliation

McClelland (1987:348) mentions that individuals with a strong affiliative motive will perform better on tasks that do not involve affiliative content if the incentive in the situations is shifted from achievement to affiliation. The way in which affiliation incentives affect the performance of subjects high in nAffiliation, is illustrated according to McClelland (1987:349) in a study by McKeachie (1961). In this study, the grades college students received in a course were related to the students' motive scores and characteristics of the teacher's classroom. Students with a high nAffiliation worked harder and got better grades in a classroom where the instructor was judged to be warm and friendly. Students with a high nAffiliation, in contrast, did not do so well in classrooms where such affiliation incentives were not present. Students with a low nAffiliation in fact did better than students with a high nAffiliation in less friendly classrooms. This is illustrated in figure 2.4.

Since people with a high nAffiliation learn social relationships more quickly, are more sensitive to faces than to other objects and engage more in dialogue with others, they might be expected to maintain their connections with others (McClelland (1987:352). These characteristics have been confirmed by a number of studies such as that of Boyatzis (1972), Lundy (1981a) and McClelland (1975) (McClelland (1987:352).

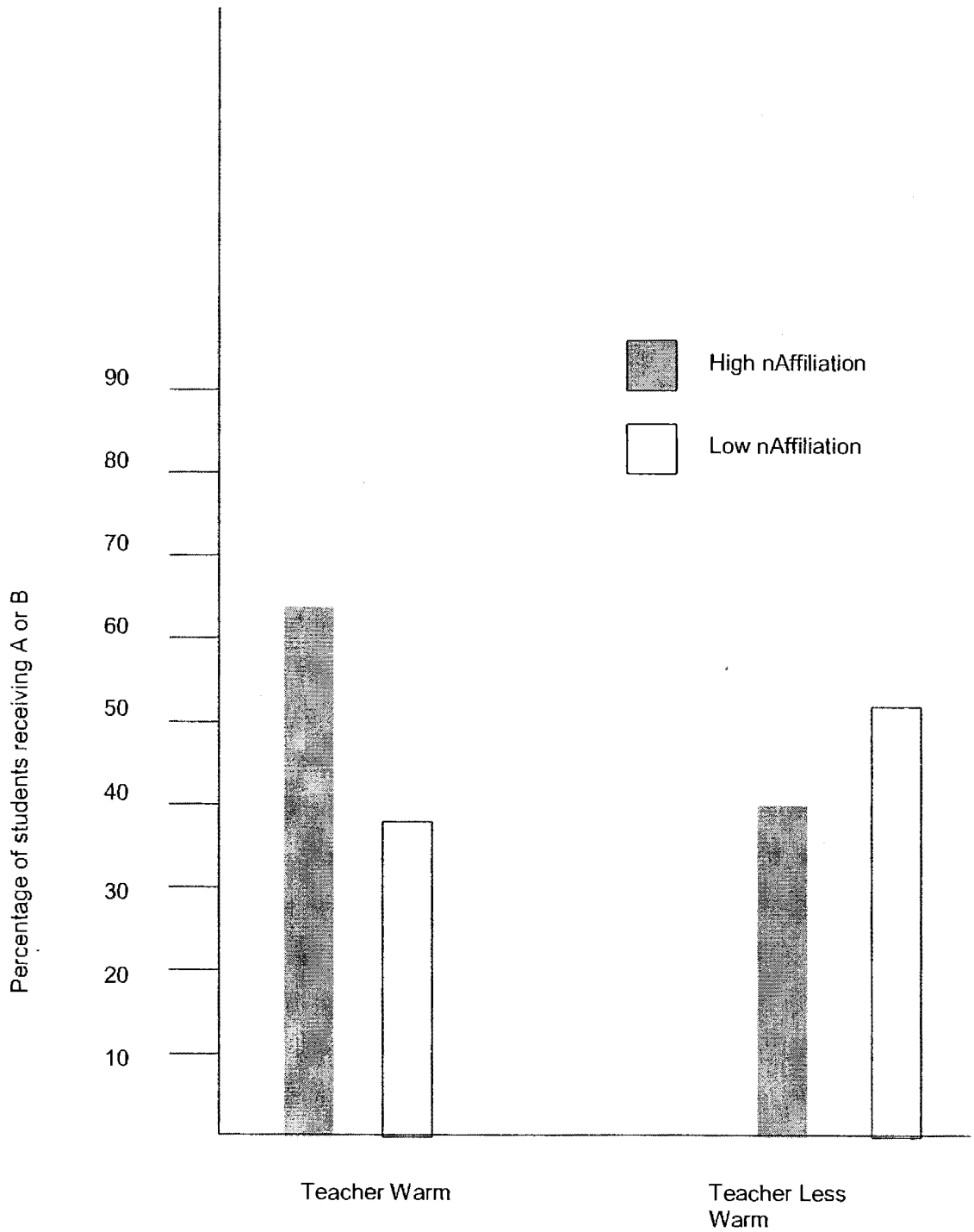


Figure 2.4: Relationship of teacher and nAffiliation to grades in a psychology class according to McKeachie, (1961), (McClelland, 1987:352)

McClelland (1987:354) mentions that those concerned about other people might be expected to be more co-operative and to conform more to the wishes of others, but the data on this point do not permit clear generalisations. Individuals high in nAffiliation, particularly males, believe that goodwill is more important than reason in solving human problems. Examples in this regard have shown that people high in nAffiliation tend to go along with the opinions of strangers as long as the stranger is attractive and that they act to avoid conflict. They would also avoid competitive games such as roulette and various examples demonstrated that they act whenever possible to avoid conflict.

Regarding managerial behaviour, McClelland (1987:354) mentions that people who try to avoid conflict and criticism should not make very good managers and men with high nAffiliation tend not to succeed in management. They spend more time with subordinates and probably want to have good relations with them, which is not always possible for a manager who must make difficult decisions at times. McClelland (1987:355) however mentions that a typical integrative management job such as that of employee relations manager, whose job it is to get management and labour to work together, would probably be successful when possessing a high nAffiliation.

(b) Effect of high nAffiliation on performance

McClelland and Burnham (1995:128) mention that the manager with a high need to be liked is the one who wants to stay on good terms with everybody and therefore is the one to make exceptions for particular needs. The example is used where an employee will ask for time off to attend to a sick spouse or child, where the affiliative manager will, without considering the request, agree out of compassion with the employee's situation.

The following will be a discussion of the leadership motive profile, comprising different ratios of nAch, nPower and nAffiliation.

2.2.1.4 *Leadership motive profile*

McNeese-Smith (1999:224) mentions that McClelland and Boyatzis (1984) have argued that a particular motivation pattern, which they labelled leadership motivation, was necessary for individuals to be effective managers. This pattern is characterised by a high nPower, socialised to accomplish worthwhile goals and a low nAffiliation. nPower is important because it indicates that the individual desires influence over others. A low nAffiliation is needed to make important decisions with minimal concern about being liked. In respect of nAch, McClelland (1987) found that this motive was associated with success only at lower levels of non-technical management.

According to McNeese-Smith (1999:244), Stahl (1986) also studied McClelland's trichotomy of motivational needs theory, but found that effective managers are characterised by higher nPower, moderate nAch and lower nAffiliation. It was found that individuals with this motivation pattern are more likely to assume leadership and managerial roles. Spangler and House (1991:439) support this notion by mentioning that a number of research studies have indicated that the relationship between the leadership motive profile and leader effectiveness is more likely to be found at higher levels of an organisation and in general rather than technical jobs. Spangler and House (1991:440) refer to previous research in regard to nPower, nAch and the nAffiliation by stating the following studies that give an understanding of the influence of the leadership motive profile on managerial success:

- (1) Cummin (1967) for instance compared the motive scores of two groups of executives and found that the nPower scores of the more successful executives were higher on average than the nPower scores of less successful ones.
- (2) McClelland and Boyatzis (1982) found that managers characterised by the leadership motive profile had attained on average a higher level in the organisation after eight and 16 years of service than those who were not characterised by the leadership motive profile.

- (3) McClelland and Boyatzis (1982) argued in regard to nAffiliation, that there should be a negative relationship in regard to nAffiliation and leader performance.
- (4) Several sources however provided weak support for the proposition that affiliation and performance should be negatively associated. In one such study, Cornelius and Lane (1984) found that in a sub-sample of first-line supervisors, nAffiliation was positively related to job performance and favourable subordinate attitudes and not to the nPower or the leadership motive profile.

Regarding the nAch, Spangler and House (1991:441) mention that traditionally the nAch has not been included in the definition and measurement of the leadership motive profile. There are however substantial reasons for believing that there is a consistent negative relationship between achievement and leader performance for high-level leaders in non-technical positions. The argument is according to Spangler and House (1991:441) that nAch characterises individuals who are driven by a need for personal accomplishment or accomplishment through their own efforts. A massive amount of research has confirmed the connection between nAch and personal effectiveness, such as studies by McClelland (1961) and McClelland and Winter (1969) (Spangler & House, 1991:441).

McClelland and Burnham (1995:129-130) however distinguished between three kinds of managers namely *personal power managers* (more inclined to obtain personal power and less inclined to use power towards the benefit of the institution), *affiliative managers* (more concerned about having good relations than Power) and *institutional managers* (care about institutional power and use it to stimulate employees to be more productive).

In summary McClelland's (1961) theory encompasses the various motives of affiliation, achievement and power which all form part of the contention that when a need is strong in a person, its effect is to motivate the person to use behaviour that leads to its satisfaction. Each of these needs reveals itself in people but when the needs are positioned in a specific ratio, the leadership motive profile emerges and such a person will be motivated to manage. This leadership motive profile refers to

the same kind of manager (institutional manager) that care about institutional power rather than personal power and having good relations.

Following will be a review of the same concept by Miner (1965). Although Miner (1978:575) indicated that McClelland's views are conceptually similar to his own views, there is a definite difference in the focus of their opinions. Where McClelland (1961) focuses on motivational needs, Miner's (1965) concept of managerial motivation focuses on role prescriptions.

2.2.2 Managerial motivation according to Miner

According to Miner (1978:575) the motivational theory of McClelland on achievement and power motivation appears to be the most conceptually similar with his own (Miner's) views. It should also be kept in mind that the instruments used to measure the managerial motivation of subjects differ in that McClelland (1961) used projective techniques such as the Thematic Apperception Test (TAT), while most of Miner's assessments were done with the Miner Sentence Completion Scale (MSCS). The instrument that will be used during the empirical part of this research, will be the Managerial Motivation Questionnaire (MMQ), developed by Engelbrecht (1989) which is also based on the role-motivation theory of Miner (1965) and measures the same constructs than the MSCS.

Miner (1978:739) mentions that the initial, very tentative statements of his theory were set forth by him in certain internal memoranda of the Atlantic Refining Company during 1957. The first research was undertaken during that same year and publication of the results occurred during 1960. Over the years there has been a steady and broadening stream of research pertaining to the theory.

According to Miner (1978:740) the role prescription theory utilises the concept of managerial role prescriptions as its basic building block. Each managerial position is unique in the demands it makes on its incumbents and that role-prescriptions can differ considerably from one organisation to another. There however, seems to be some requirements that appear again and again in association with a great variety of managerial positions (Miner, 1978:740). In this regard Bartol and Martin (1987:1)

mention that more than 20 years ago, Miner (1965) advanced the notion of motivation to manage as a predictor of upward mobility and managerial performance in bureaucratic organisations. Miner (1965) based his theory on the premise that successful management in such organisations involves the willingness and desire to fulfil six primary role prescriptions:

- (1) Firstly, managers must possess a relatively positive view of authority and be willing to behave in a manner that will not cause superiors to react negatively.
- (2) Secondly managers must have a positive attitude towards competition and be ready to compete with others for the rewards of the organisation.
- (3) Thirdly, managers must behave in an assertive manner and be prepared to impose wishes on others.
- (4) Fourthly managers must be positively disposed towards giving direction to others and exercising sanctions without experiencing emotional difficulties.
- (5) In the fifth instance, managers must be amenable to behaving differently from subordinates and filling high visibility positions.
- (6) Finally, managers must be willing to assume responsibility for routine, repetitive, administrative duties.

Miner (1965:43) mentions that his theory predicts that those individuals who repeatedly associate positive rather than negative emotion with the various role prescriptions, would tend to meet existing organisational criteria of effectiveness. Those in whom negative emotional reactions predominate, should be defined as relatively ineffective. This however does not mean that motivational factors are the only ones that operate to determine a person's performance level in managerial work. Factors such as verbal ability, specific job knowledge, typical emotional patterns and physical factors, among other things, are also without question important.

Miner (1978:740) adds to the above by saying that in many respects each managerial position is unique in the demands it makes on its incumbents. Certainly role prescriptions can differ considerably from one organisation to another, but there do seem to be requirements that appear again and again. The role requirements that have been identified are assumed to be among those that occur with high frequency in business firms organised in accordance with the scalar principle. It is entirely possible that the theory is applicable to managerial or administrative jobs in other types of organisations, but the theory was not devised with these positions in mind. One aspect that should however be clarified is when family membership, religious affiliation, sales ability and so forth are the crucial bases for reward within the managerial components of an organisation, the theory is not applicable (Miner, 1978:740). Miner (1978:751) mentions that there are also horizontal differences in managerial motivation and that higher managerial motivation scores will be found in those occupations and units where there is more opportunity to manage, to influence decisions and to exert authority.

To assess the desires or motives of individuals to fulfil these primary role prescriptions, the Miner Sentence Completion Scale (MSCS) was developed in 1965. A more detailed explanation of the role prescriptions which are measured by the MSCS (1965) is given hereafter.

2.2.2.1 *Managerial role prescriptions*

Miner (1965:42) mentions that the role requirements which have been identified are assumed to be among those which occur with high frequency in business firms organised in accordance with the scalar principle. It is entirely possible that the theory is applicable to managerial or administrative jobs in educational, governmental, medical, military and other types of organisations, although it was not devised with these positions in mind. A second major aspect of the theory concerns the manner in which these role prescriptions influence managerial behaviour. There are those who believe that human behaviour is best predicted from a knowledge of the role assigned to an individual by his group. This assumes that all incumbents will inevitably be motivated, and able, to meet these role demands, a presumption that appears highly improbable (Miner, 1965:42).

Miner (1978:741) mentions that there are six managerial role prescriptions and each has associated motivational patterns:

(a) *Positive attitude towards authority figures*

Managers are, according to Miner (1978:741) expected to behave in ways which do not provoke negative reactions from superiors, in fact, ideally they will elicit positive responses. To be in a position to obtain support for his actions, a manager must have a good relationship with superiors. Therefore a manager must have a generally positive attitude toward those in positions of authority over him. Any tendency to generalised hatred, distaste or anxiety in dealing with people in positions of authority will make it extremely difficult to meet job demands. Interactions with superiors will either be minimal or filled with so much negative feelings that the necessary positive reactions and support cannot possibly be attained. According to Miner, Ebrahimi and Wachtel (1995:365), women were apparently relatively strong on this factor.

(b) *Competitiveness*

Secondly Miner (1978:741) mentions that there is a strong competitive element built into managerial work. Managers must strive to win for themselves and their subordinates and accept such challenges as other managers may offer. In order to meet this role requirement, a person should be favourably disposed towards engaging in competition. If he is unwilling to compete for position, status, advancement and his ideas, he is unlikely to succeed. Any generalised tendency to associate unpleasant emotion, such as anxiety and depression, with performance in competitive situations will almost inevitably result in behaviour that falls short of role demands. Miner, Ebrahimi and Wachtel (1995:365) mention that managers should ideally enjoy rivalry of this kind and be motivated to seek it whenever possible. If they are unwilling to fight for position, status and advancement, it might happen that they will be ignored so consistently that their whole unit could disappear from the organisation chart or that they will be merged into another unit.

(c) *Assertiveness*

Miner (1978:741) mentions that in the third instance, a manager is supposed to take charge, to make decisions, to take such disciplinary actions as may be necessary and to protect other members of a group. Thus one of the common role requirements of the managerial job is that the incumbent behave in an active and assertive manner. It follows that a desire to meet these requirements will generally lead to success in managerial work. Those who prefer more passive behaviour patterns and those who become upset or disturbed at the prospect of behaving in an assertive manner would not be expected to possess the type of motivation needed.

(d) *Power motive*

Miner (1978:742) mentions that the manager must exercise power over subordinates and direct their behaviour. He must tell others what to do and enforce his words through appropriate use of positive and negative sanctions. The individual who finds such behaviour difficult and emotionally disturbing, who does not wish to impose his wishes on others or believes it is wrong to do so, would not be expected to meet this particular role prescription. Subordinates must be induced to perform in a manner which will be conducive to the attainment of organisational goals, and the person placed in a position of authority over them would therefore ideally desire to behave in ways calculated to achieve this objective. According to Miner, Ebrahimi and Wachtel (1995:366), managers must tell others what to do when this becomes necessary and should be able to enforce their words with appropriate use of positive and negative sanctions.

(e) *Desire for a distinctive group role*

According to Miner (1978:742) the managerial job requires a person to stand out from his group and assume a position of high visibility. He must deviate from the immediate subordinate group and do things that inevitably invite attention, discussion and perhaps criticism from those reporting to him. When this idea of standing out from the group elicits feelings of unpleasantness, then behaviour appropriate to the role will occur much less often than would otherwise be the case. It is the person

who enjoys being the centre of attention who is most likely to meet the demands of the job in this area. Such a person has many of the characteristics of a good actor.

(f) *Willingness to conduct administrative functions*

Finally Miner (1978:742) regards administrative requirements such as constructing budget estimates, serving on committees, talking on the telephone, filling out forms, etcetera, all part of managerial work, although the specific activities will vary. To meet these prescriptions a manager must at least be willing to face this type of routine and ideally gain some satisfaction from it. If such behaviour is consistently viewed with apprehension or loathing, a person's chances of success are low. A desire to avoid administrative duties of the managerial job can only result in deviation from role prescriptions and thus in less effective performance.

Miner, Ebrahimi and Wachtel (1995:368) mention that the above are then the parts or constructs that add up to the motivation to manage. The more a person has of the managerial role prescriptions, the better manager that person should be.

2.2.2.2 *Biographic determinants of managerial motivation*

Miner (1977:159) mentions that previous research has revealed few differences between male and female managers insofar as motivation to manage is concerned. These studies implied that females who ultimately become managers have the motivational capacity to do just as well as their male counterparts. Little is however known about the male-female differences in motivation to manage. Miner (1977) contends that "motivation to manage" is just as likely to contribute to managerial success among women as among men. Based on the analysis of a sample, Miner and Smith (1982) reported no significant gender effects and argue that gender differences in motivation to manage among business students does not exist.

Bartol and Martin (1987:2) mention that one significant issue surrounding the managerial motivation concept among business students is the extent to which gender differences exist. Contributing to the notion that there is little or no difference in the motivation to manage between the different sexes, Chen, Yu and Miner

(1997:160) assessed 82 Chinese women's motivation to manage using projective methods in Chinese state-owned enterprises. The results were compared to that of 121 male workers and the results have shown that the overall motivation to manage of the Chinese women was as high as that of Chinese men. Miner, Ebrahimi and Wachtel (1995:365 and 368) however found that two of the constructs, namely positive attitude towards authority figures and willingness to conduct administrative functions were found to be strong in females. Overstreet (1980) as cited in Engelbrecht (1989:190) also determined that females scored significantly higher on the role-prescription of attitude towards authority figures.

Stevens and Brenner (1990:879) mention that systematic efforts were made since 1966 to bring women and blacks into the mainstream of business life in the USA. At that time few women and blacks held managerial positions and fewer attended business schools. According to Brenner and Tomkiewicz (1982), Stevens (1984) and Virgil and Early (1986) as cited in Stevens and Brenner (1990:880), the number of women and minority managers did not increase as rapidly as might have been expected. Miner (1978:741) was among those who believed females and minorities have the potential for effective performance at higher managerial levels and that the motivation to manage may well be a major component of this potential. Stevens and Brenner (1990:880) mention that the purpose of their study was to test two hypotheses, namely that black business students will achieve significantly higher motivation to manage scores than white business students and that female business students will achieve significantly lower motivation to manage scores than male business students. The subjects for the study were 371 upper-class management students at four state universities located in the south-eastern United States, and the measuring instrument was the Miner Sentence Completion Scale which was developed by Miner in 1965. The results for the study showed that the first hypothesis was not supported, but that the second hypothesis was. Black male and female students scored lower than their white counterparts but the difference was not significant. The results further showed that white males reported a greater desire to act in an assertive manner than black males, while males also reported a greater desire to act in an assertive manner than females. Whites showed a greater desire to engage in activities that are typically associated with managerial work. Males also showed a greater competitive desire than females.

2.2.2.3 *Relationship of managerial motivation with managerial success*

Taking the role-prescriptions as described in section 2.2.2.1 into account, Miner (1977:29) mentions that the successful manager would, according to the role-motivation theory, be expected to possess strong motives along the following lines:

- (1) A favourable attitude toward authority
- (2) A desire to compete
- (3) A desire to be assertive
- (4) A desire to direct others and exercise power
- (5) A desire to stand out and be the centre of attention
- (6) A desire to carry out routine administrative tasks

According to Miner, Ebrahimi and Wachtel (1995:368), Miner (1993) noted some 36 studies and 52 relationships between the Miner Sentence Completion Scale form H (MSCS-H) and some measure of managerial preference or success in a review that have been conducted over the years by various people to test the idea that motivation to manage is important for managers. Of these, seven studies and eight relationships are predictive in nature and thus get at the key concept that motivation to manage can cause managerial success. Correlations between the MSCS-H and managerial success criteria rise as high as 0,69 when the criteria themselves appear to be most reliable and valid. The criterion indexes used in the 36 studies vary widely and include hierarchic level attained, performance ratings, holding office in student organisations, compensation, managerial career choice, peer ratings, job satisfaction, graduation from managerial training programs and promotion rate.

Miner, Chen and Yu (1991:343) mention that as described in the hierarchic theory of Miner (1965), managerial motivation ought to result in managerial success. In this

regard previous empirical research has shown that managerial motivation is posited to be higher in the profit-oriented, corporate sector than in the non-profit sector such as government and voluntary organisations. In a study conducted by Miner, Chen and Yu (1991:347) it was found that motivation to manage is higher when profit incentives are present than when profit considerations are lacking.

2.2.2.4 *Effect of managerial motivation on organisational effectiveness*

According to Miner and Smith (1982:297) several studies were conducted (Rotter, 1971; Ondrack, 1971; Morris & Small, 1971; Miner, 1971,1973,1974a and 1977) which portrayed a picture of declining managerial potential in the population segment from which future managers would be drawn in the USA. One significant component of the research from which these predictions were derived has been the work on managerial motivation or motivation to manage. In this regard (Miner & Smith, 1982:297) research has shown that managerial motivation declined from the early 1960s to the early 1970s and levelled off around 1972 or 1973 and remained stable until approximately 1980.

The conclusions reached by Miner and Smith (1982), namely that the decline in managerial motivation levelled off during the early 70s and that sex differences in the managerial motivation of business administration students have disappeared, were challenged by certain findings initially published by Bartol, Schneier and Anderson (1979); Bartol, Anderson and Schneier (1980) and Bartol, Anderson and Schneier (1981). According to them, an acute reversal occurred during the 1970s, with managerial motivation levels returning to almost that of the 1960s (Miner, Smith & Ebrahimi, 1985:291).

Whether managerial motivation levels were high or low at that stage, should however be irrelevant now. What should remain important is encompassed in the approach of Miner, Ebrahimi and Wachtel (1995:372) when they argue that without motivation to manage, managers are not likely to do well in large corporations.

2.2.2.5 *Relationship between personality characteristics and managerial motivation*

According to Berman and Miner (1985:378) relatively little is known about the personality characteristics of those who head large corporations. Certain studies conducted in this regard have utilised various projective measures and in other instances self-report personality inventories. One consistent pattern found running through the cited studies involves a pervasive fear of negative outcomes such as failure, illness and so forth. The executives appear to be striving for success to avoid such outcomes, or to convince themselves that their fears are not likely to be realised.

A second consistent pattern reflects striving for power and domination coupled with favourable attitudes towards father figures, a tendency to assert oneself and a liking for administrative work (Berman & Miner, 1985:378).

Engelbrecht (1989:194) mentions that the important role of personality characteristics in the determination of managerial and organisational success in large bureaucratic organisations is emphasised by various researchers such as De Bod and Slivinsky (1983) and Berman and Miner (1985). One of the consistent patterns that was observed from these studies was the strive towards power and dominance, coupled with a positive attitude towards authority figures, assertiveness and a preference for administrative work.

Gantz, Erickson and Stephenson (Miner, 1978:740) made use of the Gough Adjective Check List and found at a sample of scientists and engineers (N = 117) a significant relation ($p < 0,01$) between the Miner Sentence Completion Scale's total score and the personality characteristics dominance ($r = 0,38$), positive self concept ($r = 0,36$), defence ($r = 0,34$), need to perform ($r = 0,33$) and self confidence ($r = 0,32$). In the same study a significant ($p < 0,01$) negative relationship between introvert and the total Miner Sentence Completion Scale score ($r = -0,40$) was found.

Following will be a review of the concept through contrasting the views of McClelland (1961) and Miner (1965). Although Miner (1978:575) indicated that McClelland's views are conceptually similar to his own views, there is a definite difference in the focus of their opinions. Where McClelland (1961) focuses on motivational needs, Miner's (1965) concept of managerial motivation focuses on role prescriptions.

2.3 CONTRASTING THE VIEWS OF McCLELLAND AND MINER

Stahl (1986:56) indicates that it would appear that the McClelland and the Miner constructs are not independent. The nPower is conceptually similar to willingness to impose wishes or in other words, the power motive.

To be an effective manager, a person should therefore be concerned with obtaining and exercising power and with influencing others and winning arguments. The orientation of this kind of power should be positive and would reflect persuasive and inspirational behaviour (McClelland, 1987:273). Miner (1978:742) indicates that the effective manager must tell others what to do and enforce his words through appropriate use of positive and negative sanctions. The individual who finds such behaviour difficult and emotionally disturbing, who does not wish to impose his wishes on others or believes it is wrong to do so, would not be expected to meet the power motive role prescription. McClelland (1961) and Miner (1965) therefore agree on this specific concept to be important in being an effective manager.

McClelland and Boyatzis (1984) argued that a particular motivation pattern, which they labelled leadership motivation, was necessary for individuals to be effective managers (McNeese-Smith, 1999:224). This pattern is characterised by a high nPower, socialised to accomplish worthwhile goals and a low nAffiliation. A low nAffiliation is needed to make important decisions with minimal concern about being liked, while nAch should only be moderate (McNeese-Smith, 1999:244). Stahl (1986:56) indicates that the nAch (McClelland, 1961) may be related to Competitive Games and Competitive Situations or in other words competitiveness (Miner, 1965). In this regard it is notable that an effective manager would only be moderate on nAch, while Miner (1978:741) mentions that there is a strong competitive element

built into managerial work and that managers must strive to win for themselves and their subordinates and accept challenges as other managers may offer.

McClelland (1961) propagated low nAffiliation in order to make important business decisions with minimal concern about being liked (McNeese-Smith, 1999:244), while Miner (1965) propagated a positive attitude towards authority figures by saying that managers should behave in ways which do not provoke negative reactions from superiors.

In summary it can be concluded that despite similarities and differences between the views of McClelland (1961) and Miner (1965) the determination of what an effective manager is, is contrasted by Miner's view that the more a person has of the managerial role prescriptions, the better manager that person should be and McClelland and Boyatzis' (1984) argument that a particular motivation pattern, namely leadership motivation, is necessary for individuals to be an effective manager (McNeese-Smith, 1999:244).

2.4 PROFILE OF A MANAGERIALLY MOTIVATED SOUTH AFRICAN MANAGER

The following profile of a managerially motivated South African manager (Engelbrecht, 1989) will be contrasted with the profile of a person with a strong sense of coherence (Viviers, 1997) at the end of chapter 3 for the purpose of determining from a theoretical perspective whether a relation exists between managerial motivation and sense of coherence.

Engelbrecht (1989:458) compiled the following profile of a typical managerially motivated person in a large bureaucratic organisation in South Africa:

A person with high managerial motivation:

- (1) tends to be efficient (as determined through performance appraisal), occupies a high level post and has a large number of direct subordinates

- (2) has high managerial potential, is concerned with self-development, uses initiative, shows perseverance, analytical ability, the ability to utilise and develop the strong areas of others, the ability to effectively lead groups and individuals towards goal attainment, the ability to reason, the ability to make presentations, planning and organising abilities
- (3) displays respect towards institutional authority figures
- (4) is performance driven and displays a high performance motive
- (5) displays a high socialised power motive
- (6) is positively inclined towards administrative work
- (7) displays a high managerial satisfaction, satisfaction with job content and satisfaction with promotion possibilities
- (8) prefers to work with people
- (9) is assertive and inclined towards independence
- (10) is enthusiastic, talkative and reflects the values of the group of whom he is the manager
- (11) prefers to be in a highly visible position in the group and enjoys meeting people
- (12) is ambitious and display sophisticated social skills and diplomacy for the sake of social success, take the lead in analytical discussions and constructive decision-making
- (13) follows a pragmatic approach to problem solving, is conventional, focussed on objective realities and relies on practical judgement

- (14) has self-confidence
- (15) is calm and not frustrated
- (16) probably has sufficient experience in supervision
- (17) is probably working in general administrative divisions rather than technical or research divisions

The above profile by Engelbrecht (1989) specifically refers to the typical managerially motivated person in a large bureaucratic South African organisation. These characteristics might however be equally applicable to managers in smaller organisations and also to managers in other countries.

REMARK

In Chapter 1, under 1.3.2 it was stated that one of the literature objectives was to "*conceptualise managerial motivation*".

In chapter 2 this objective has been achieved.

2.5 CONCLUSION

This chapter gave an explanation of the concept of motivation in order to portray the paradigm within which the construct of managerial motivation exists. Firstly various theories applicable to motivation were presented. Managerial motivation as seen by McClelland and Miner was evaluated before the views of McClelland and Miner were contrasted. Finally a profile of a managerially motivated South African manager and the chapter conclusion were presented.

In chapter 3 the construct of sense of coherence will be conceptually outlined. To achieve this, various concepts that theoretically form part of the construct will be discussed. Stressors, tension and stress as well as the implication of sense of coherence will be presented. Various characteristics of the person with a strong

sense of coherence will be discussed in detail. Finally the two variables used in this research, namely managerial motivation and sense of coherence will be integrated.

CHAPTER 3

SENSE OF COHERENCE

The purpose of this chapter is to conceptualise sense of coherence. Firstly salutogenesis in general will be discussed whereafter fortigenesis will be discussed briefly. Various constructs that form part of salutogenesis will be presented. Sense of coherence as seen by Antonovsky will be evaluated whereafter a profile of the person with a strong sense of coherence will be presented and then integrated with the profile of the managerially motivated person. The chapter conclusion will finally be presented.

3.1 SALUTOGENESIS

This section will deal with explaining the concept of salutogenesis and will specifically refer to stressors, tension and stress and the relationship between them, and also the difference between tension and stress. The implications of salutogenesis will also be briefly discussed.

Antonovsky (1979:3) asks the following question in his book *Health, Stress and Coping*: “If two people were confronted by an identical stressor, but one had the wherewithal to successfully meet the challenge and the other did not, how could the situation best be conceptualised?”

This question is perhaps the underlying crux of the paradigm of salutogenesis in that the vision is now broadened to include a scenario where one could also *successfully* deal with organisms that are supposed to cause illness.

Fortigenesis as expansion of the paradigm of salutogenesis will now be presented in order to introduce the reader to the concept. It will however not be theoretically nor empirically evaluated.

3.1.1 Fortigenesis

Strümpfer (1995:82) mentions that in his salutogenic model, Antonovsky (1979) was not only explaining the origins of health, but also the origins of strength in general. Antonovsky (1979) argued that an abundance of Generalised Resistance Resources (GRR's) would have as consequence, not only the emergence of a strong sense of coherence, and therefore health, but for other areas of well-being too. There will therefore be positive correlations between sense of coherence and many facets of well-being.

Strümpfer (1995:82) mentioned that one could argue that to emphasise health as the core endpoint of a whole paradigm, is to limit the extent of the paradigm. Strümpfer (1995:82) further mentions that Antonovsky (1979) argues that the meaning of health becomes overextended and useless for its primary explanatory purpose when it is used as metaphor for general well being. Based on the mentioned perspective, as well as theoretical and empirical conclusions, Strümpfer (1995:82) proposed a broader explanatory construct to deal with the interaction between GRR's, the SOC and many areas of human experience. The term "fortigenesis" is used (from the Latin word *fortis* which means strong and the Greek word *genesis*, which means origin) to explain this construct that considers the origins of strength.

Strümpfer (1995:83) explains the fortigenic process against three areas of research that highlight origins and the development of strength in general. Although the mentioned areas of research are logically not the only strength enhancing activities that exist, these are explained in the following sections.

3.1.1.1 *Occupational self-direction*

Strümpfer (1995:83) mentions that one of the routes of fortigenesis is through conducive work experiences over a relatively long period of time. Occupational self-direction (Strümpfer, 1995:83) is supported by one of the most comprehensive research programmes in the occupational field. Kohn (1977); Kohn and Schooler (1973, 1982); and Kohn and Schooler (1983), as cited in Strümpfer (1995:83) as well

as other researchers hypothesised that adult occupational experience has a substantial impact upon the psychological functioning of a person. Job conditions such as substantive complexity of work, closeness of supervision and routinisation were, according to Strümpfer (1995:84), repeatedly found by Kohn and Schooler (1982, 1983) and Kohn and Slomczynski (1990) to be conducive to the development of occupational self-direction. Occupational self-direction can be described as the use of initiative, thought and independent judgement in work, attending to internal dynamics, as well as external consequences, being open-minded and being trustful of others. Occupational self-directedness implies the beliefs that one has the personal capacity to take responsibility for one's actions and that society is so constituted as to make self-direction possible. Strümpfer (1995:84) however mentions that self-direction learned in the work situation does not only apply in the work situation but also generalises to off-the-job realities, since a person's life is never compartmentalised into work and non-work domains.

3.1.1.2 *Combat experience*

Strümpfer (1995:84) mentions that no one has any doubt about the horrors of war and that it is only human to suffer from the aftermath of such experiences. Research has according to Strümpfer (1995:84) shown that soldiers' exposure to military experiences and combat stress could result in positive developmental effects, a fortigenic process taking place at the same time as the pathogenic one. Participation in combat could according to Strümpfer (1995:85) be viewed as a special form of work experience under extremely demanding conditions.

In this regard Elder and Clipp (1989) as cited in Strümpfer (1995:84) mention that a central thesis in relating combat experience to late life adaptations assumes that successful coping with challenging situations builds confidence and resources for dealing with demanding circumstances along the life course, especially in relation to loss experience. According to Strümpfer (1995:84) various other studies (Aldwin et al, 1994; Taylor & Brown, 1988; Fontana & Rosenbeck, 1994; Schnurr, Rosenberg & Friedman, 1993) supported in some or other form the building of confidence, the positive outcomes of combat experience and the coping with stress and even extreme trauma that can be used for growth.

3.1.1.3 *Homemakers and labour force participation*

Strümpfer (1995:86) mentions that especially women that are economically active, experience the same physical, psychological and organisational demands than men in the same environment but furthermore suffer under conditions of role overload and role conflict. Apart from being economically active, they often bear the responsibilities of caring for the family and of providing social and instrumental support which husbands expect from wives. According to Strümpfer (1995:86), Parker (1991) found in a study amongst women in Cape Town, Pretoria and Durban that the average number of hours spent at formal employment was 39,76 hours. Those women however, worked an additional 38,79 hours per seven day week as a homemaker, wife and mother for a total of 78,55 hours per week.

Strümpfer (1995:87) mentions that it seems clear that the wife, mother and homemaker roles are extraordinarily demanding and often sources of more demand than strength. However, on average, women do as well as men in the labour force and, like men, they are strengthened by that role and they are strengthened by the dual role as well.

Strümpfer (1995:87) mentions that the paradigm of fortigenesis attempts to provide a theoretical account of phenomena, in terms of a set of fundamental beliefs that are in themselves not accessible to empirical testing.

In conclusion, fortigenesis refers to the influence of different aspects of life, within the context of the omni-presence of stressors, where especially work related experience or in other words, becoming *au fait* with work, could contribute to a person's well being. The difference between salutogenesis and fortigenesis rests in the understanding that salutogenesis traces the origins of health, while fortigenesis goes beyond health to tracing the origins of total well-being. Well-being in this regard refers to physical, emotional and cognitive movement towards the positive or optimal part on the "health ease / dis ease" continuum as proposed by Antonovsky (1979).

3.1.2 Pathogenic approach

Strümpfer (1990:265) mentions that psychology and other social sciences have been functioning in a paradigm of pathogenic thinking. The pathogenic orientation is directed at finding out why people fall ill, and specifically why people develop diseases. The core of the pathogenic paradigm centres around the assumption that diseases are caused by physical, biochemical, microbiological and psychosocial agents. The emphasis is therefore on multifactorial determination, usually in terms of risk factors. An example of such multifactorial cause is the type A behaviour pattern that is seen as a psychosocial risk factor for coronary heart disease, along with risk factors such as high cholesterol, hypertension and heavy cigarette smoking. Antonovsky (1979:12) adds to this by mentioning that even immunology, the science perhaps most closely linked to salutary, homeostasis-maintaining and homeostasis-restoring processes, has posed its questions mainly in terms relating to pathogenesis.

3.1.3 Salutogenic approach

In opposition to the pathogenic paradigm, a paradigm of salutogenesis emerged and in this regard Strümpfer (1990:266) mentions that a paradigm of salutogenesis seems to be present in a variety of writings by psychologists, sociologists and physicians. This paradigm emphasises the origins of health or wellness and was named salutogenesis by Antonovsky in 1979 after the Latin word *salus*, which means health, and the Greek word *genesis*, which means origins. Salutogenesis represents a number of constructs that have developed independently but is part of the new paradigm. Examples of these constructs (Strümpfer, 1990) are:

1. Rosenbaum's "Learned Resourcefulness"
2. Kobasa's "Personality Hardiness"
3. Rotter's "Locus of Control"
4. Bandura's "Self-efficacy"
5. Ben-Sira's "Potency"
6. Antonovsky's "Sense of Coherence"

According to Strümpfer (1990:266), the mentioned constructs all deal with how people manage stress and stay well. The very core of the salutogenic paradigm is the focus on successful coping. The question is no longer what keeps people from getting sick, but what facilitates people becoming healthier (Antonovsky, 1984:117). The essence of the salutogenic paradigm rests therefore in the belief that the mentioned constructs can form a shield or buffer between stressors (which are omnipresent) and the individual. Such a buffer prevents an individual from falling ill due to the stressors and may in some cases even enhance the performance of people. Although this shield or buffer does not prevent stressors from reaching people, it provides an individual with the resources to stay healthy and perform productively.

3.1.4 Stressors, tension and stress

Antonovsky (1979:72) mentions that a stressor can be defined as a demand made by the internal or external environment of an organism that upsets its homeostasis, where correction depends on a non-automatic and not readily available energy-expending action.

Antonovsky (1979:70) further mentions that stressors are omnipresent in human existence and in response to a stressor, the organism responds with a state of tension. This state can have pathological, neutral or salutary consequences and the outcome depends on the adequacy and efficiency of tension management. Poor tension management leads to the stress syndrome and movement toward disease on the continuum. Good tension management pushes one towards the health end of the continuum.

On answering the question of what a stressor is, Antonovsky (1979:71) indicates that the human organism has evolved homeostasis-maintaining and homeostasis-restoring mechanisms. These regulate body temperature, blood pressure, blood calcium and so forth, so that we may stay alive. The human organism therefore constantly engages in the minor, automatic expenditures of energy required for keeping itself on even keels.

In an attempt to further conceptualise the term stressor, Antonovsky (1979:72) postulates that he doubts whether it will ever be possible to empirically identify at what point a routine stimulus becomes a stressor in the same way that we can identify zero degrees Celsius as the point at which water becomes ice. Antonovsky (1979:72) reckons that there is a transition zone but also mentions that there is a qualitative difference between stressors and other stimuli. Given this position, it is clear that whether a given phenomenon, a given experience or given stimulus is a stressor or not, depends on the meaning of the stimulus to the person and on the repertoire of readily available, automatic homeostasis-restoring mechanisms available. Antonovsky (1987:7) mentions in this regard that from a pathogenic point of view, stressors are seen as pathogenic, as risk factors which at best, can be reduced, inoculated against or buffered. However, the view that stressors are inherently bad is not substantial. To support this statement, Antonovsky (1979:93) mentions that stressors are presumed to be bad, that people are unhappy when stressors are encountered, that the physiological and biochemical changes in response to stressors are accompanied by unpleasant effects and that the ultimate consequences are sad.

The point that Antonovsky (1979:95) makes is that stressors arouse tension, but one can be either delighted or pained or even simultaneously delighted and pained by the tension. This point begins to be understandable if the frequency of the voluntary search for stressors is considered. Here Antonovsky (1979) is not referring to masochistic tendencies, or to the acceptance of tension as a price to be paid in order to achieve a goal but rather to what many pose as a fundamental exploratory urge or in other words the wish for new experience. Whatever the source of tension, human beings constantly choose to enter stressful situations - in bed, in football matches, in risk-taking adventures.

Finally, Antonovsky (1979:96) postulates that tension must be distinguished from stress. Stress is a contributing factor in pathogenesis, while tension can be salutogenic but can also lead to stress. When understanding the distinction between tensions and stress, the following questions could now also be asked: What determines whether a state of tension will be transformed into a state of stressor and will it have neutral or salutary consequences? What determines whether a person in

a state of tension will be pushed in one direction or the other on the "health ease / dis-ease" continuum? The answer is according to Antonovsky (1979:97) a concept that he calls tension management that is defined as the rapidity and completeness with which problems are resolved and tension dissipated.

In summary Antonovsky (1979) describes in his prologue to *"Health, Stress and Coping"*, the evolution of the idea of salutogenesis. Antonovsky (1979:3) indicates that the idea evolved from research that was conducted (Kosa, Antonovsky and Zola, 1969) focusing on stressors in the lives of poor people related to health, illness and patienthood. It was suggested that the poor always ended up badly because they had less wherewithal to battle stressors. This marked the beginning of the idea that an identical stressor could confront two people, but that one has the resources to successfully meet the challenge and the other not.

3.1.5 Implications of salutogenesis

Strümpfer (1990:267) mentions that Antonovsky (1984a, 1984b, and 1987) has pointed out three implications of the paradigm of salutogenesis. Firstly, when thinking salutogenically there has to be done away with the dichotomy of people being either diseased or healthy and it has to be accepted that all people fall somewhere between two theoretical poles of total terminal illness and total wellness on a, as Antonovsky (1987) calls it, a "health ease / disease" continuum. Following this approach has as consequence that the whole continuum and therefore the entire population becomes subject to study and not only small samples of people who show particular forms of disease.

Secondly the salutogenic model rejects the commonly held assumption that stressors are inherently bad and now accepts that stressors may have salutary consequences. Strümpfer (1990:267) mentions in this regard that although stressors are endemic and all people have a high stressor load, some maintain their position on the continuum and others even move to the wellness pole. This implies that all stressors are neutral in their health consequences and Strümpfer (1990:267) indicates that the consequences depend on a person's response to a stressor. A stressor therefore arouses a condition of tension in a person and if the tension is

managed poorly, stress will result, while a stressor may remain neutral or even become health enhancing when managed well.

Thirdly, according to Strümpfer (1990:267), Antonovsky (1984a, 1984b, 1987) pointed out that we ought to study the "deviant case" such as who is the smoker who does not get lung cancer or the type A person who does not develop heart disease. The salutogenic question would be "*what is it that enables some people, although fewer than in control groups, to do well*".

Following will be a brief discussion of some constructs that make up the salutogenic paradigm.

3.2 SALUTOGENIC CONSTRUCTS

In this section some of the more important and better known constructs, apart from Antonovsky's "Sense of Coherence" (see 3.3), that the paradigm salutogenesis comprises, will be discussed briefly. This includes Rosenbaum's "Learned Resourcefulness", Kobasa's "Personality Hardiness", Rotter's "Locus of Control", Bandura's "Self-efficacy" and Ben-Sira's "Potency".

3.2.1 Learned resourcefulness (Rosenbaum)

Rosenbaum and Jaffe (1983:216) indicate that Rosenbaum (1983) defined the concept of learned resourcefulness as follows: "*Learned resourcefulness is an acquired repertoire of behaviours and skills (mostly cognitive) by which a person self-regulates internal responses (such as emotions, pain and cognitions) that interfere with the smooth execution of target behaviour*".

Rosenbaum and Palmon (1984:245) mention that learned resourcefulness is a basic behavioural repertoire that is learned from the moment of birth and serves as a basis for coping with stressful situations. According to McWhirter (1997:461), individuals with effective learned resourcefulness skills are therefore able to regulate (ie to cognitively self-control) the disruptive effects of negative internal events, such as disturbing emotions like depression and anxiety, negative cognitions and self-

statements, phobic reactions and physical pain. Learned resourcefulness does not refer to the absence of negative thoughts and feelings, but it suggests that such negative thoughts and feelings can be modified and self-regulated to minimise their negative consequences. An example of the self-regulation of such negative thoughts and feelings in order to minimise the negative consequences is a student who is able to delay gratification when faced with a task, such as studying before going to a movie. Another example is a person who effectively solves a problem such as reviewing his or her lack of friendship as due to being in a new environment and then make a plan to meet others through different social events. These persons are using learned resourcefulness skills (McWhirter, 1997:461). According to Rosenbaum (1983) behaviours are considered learned resourcefulness skills if, firstly they are cued by an internal event and secondly, they reduce or eliminate the interfering effects that a negative internal event has on the performance of some target behaviour (McWhirter, 1997:461). An interesting fact is that research has shown that the self-control skills of learned resourcefulness can be learned or increased through conditioning, modelling and instruction.

Learned resourcefulness has been associated with various variables and treatment outcomes such as better coping with life stressors (Antonovsky, 1990) and better coping with traumatic experiences (Frederick, 1990) (McWhirter, 1997:462). It has also been found to play a positive mediating role in drug and alcohol use, but has been less helpful in mediating smoking behaviour and attempts at smoking cessation.

One study also revealed that students with high learned resourcefulness experienced much less stress before and after mid-term examinations and were better able to use their learned resourcefulness skills at times of greatest stress in comparison with students with low learned resourcefulness (McWhirter, 1997:462).

Ginter, West and Zarski (1988:295) mention in this regard that a number of studies of coping behaviours have demonstrated large individual differences in responsivity to laboratory challenges and to naturally occurring stressors. The study conducted by the said authors involved 80 graduate students in colleges of education, attending the Louisiana State University and the University of Akron. Without overelaborating

on the procedure followed, the study showed that, during both the controllable and uncontrollable phases of "real life" stressors (mid-term exams), individuals high in learned resourcefulness reported significantly less stress symptomatology (Ginter, West and Zarski, 1988:301). The data further indicated that no group differences were found on self-efficacy, test-difficulty, or performance confidence. Differences in stress symptoms, therefore, cannot be accounted for by perceiving the stressor as less demanding or having a more positive influence on one's performance ability. This finding confirms reports (Rosenbaum, 1983; Rosenbaum and Palmon, 1984) that although high and low resourcefulness individuals experience environmental demands as comparably aversive, high resourcefulness individuals demonstrate greater tolerance and less symptomatology (Ginter, West & Zarski, 1988:301).

Miechenbaum (1977) was the first person to apply the term "learned resourcefulness" in the context of coping skills training (Rosenbaum, 1980:216). Learned resourcefulness does not, according to Rosenbaum (1980:216) refer to intellectual, motoric or social resourcefulness, but must be seen as a basic behavioural repertoire or a personality repertoire. These repertoires are learned from the moment of birth and serve as a basis for further learning. Individuals may differ in the extent to which they have acquired the basic behavioural repertoire of learned resourcefulness. Rosenbaum (1980:216) gives the example of two individuals who may be equally anxious when asked to perform before an audience, but might differ in their learned resourcefulness.

From the above it is evident that the resourceful individual may employ various skills to minimise the effects of his or her anxiety on his performance in public, while the less resourceful person may succumb to his anxiety.

3.2.2 Hardy personality (Kobasa)

The concept of "hardy personality" or "personality hardiness" was developed by Suzanne Kobasa and co-workers while at the University of Chicago. Strümpfer (1990:270) mentions that this salutogenic construct is probably best known to psychologists. Kobasa (1979:413) focused on people who do not get sick under stress. In this regard a study conducted by Kobasa (1979) on two groups of

executives with equal levels of stress over a three-year period, provides a basis for understanding how persons can encounter great stress and remain healthy nonetheless. In order to do so, according to Kobasa (1979:420), one must have a clear sense of one's values, goals and capabilities; a belief in their importance; a strong tendency toward active involvement in one's environment; an ability to evaluate the impact of any life event in terms of a general life plan with its established priorities; a belief that one can control and transform the events of one's experience and finally, an ability to deal with external life stressors without them becoming threats to one's private sphere and causes of subjective strain.

Kobasa, Maddi and Zola (1983:41-42) mention that hardiness appears to aid in preserving general health and buffering the debilitating effects of stressful life events. Hardiness consists of commitment in contrast to alienation, control in contrast to powerlessness and challenge in contrast to threat. Persons high in hardiness involve themselves in whatever they are doing (commitment), believe and act as if they can influence the events forming their lives (control) and consider change not only to be normal but also as a stimulus to development (challenge).

Kobasa, Maddi and Puccetti (1982:396) explain the three personality dispositions as follows:

3.2.2.1 *Commitment*

According to Kobasa et al (1982:396), commitment as component of the hardy personality manifests in the approach of a person to become involved in whatever one is doing or encounters, rather than to ignore it or not to become involved. Relative to cognitive valuation, the committed person will show a general, goal-orientated approach that will allow him to identify with meaningful incidents, concepts and persons in his environment, rather than not to be involved in it. The person with a hardy personality will stand strong in himself and his relationships within the social context, and will therefore not descend under stress. The committed person's relationship with himself and the environment will thus implicate an active, rather than passive approach.

Strümpfer (1990: 270) mentions that commitment is opposed to alienation and that it is a belief in the truth and the importance and value of what one is and what one is doing.

3.2.2.2 *Control*

According to Kobasa et al (1982:397), control as component manifests in the behaviour of a person to act as if he can influence (opposed to being helpless) in view of the various occurrences of his life. This does not imply an expectation of a comprehensive determination of incidents and results, but the approach that a person has a definitive influence by making use of knowledge, skills and choices. Control is therefore the construct opposing stress. Control as component manifests in the behaviour of people to act and to feel as if they are influential.

Strümpfer (1990: 270) indicates that control is in opposition to powerlessness, in the sense that one can have the belief that one can influence events through what one says and does.

3.2.2.3 *Challenge*

According to Kobasa et al (1982:397) challenge manifests as the belief that change rather than stability is normal and the expectation that change is an opportunity for growth, rather than a threat to security. Challenges ease the stressfulness of incidents by presenting it as stimulating, rather than threatening. Individuals who feel positively about change are catalysts in their environment and are well practised in responding to the unexpected.

In conclusion it is evident that challenge is in opposition to threat and that change rather than stability is expected and that such change will present one with opportunities and incentives for personal development. Challenges help people to transform and to grow, rather than to preserve a safe, protected and familiar existence (Strümpfer, 1990:271).

3.2.3 Locus of control (Rotter)

According to Phares (1976: 40), Rotter (1966) defines locus of control as follows: *"When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate as under control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him we have labelled this a belief in external control. If the person perceives that the event is contingent upon his own behaviour or his own relatively permanent characteristics, we have termed this a belief in internal control".*

According to Carver (1997:580) the construct derives from early social learning theory (Rotter, 1954). The underlying idea of the construct is that people who believe that the occurrence of good and bad outcomes depend on causal forces that lie within themselves, learn from those outcomes according to the principle of instrumental conditioning. People who believe that the occurrence of outcomes depends on causal forces that lie elsewhere, fail to learn from reinforcements, sometimes displaying patterns of expectancies for the future that seem to defy the outcomes of the past.

Following will be an explanation of locus of control from the point of view of the expectancy of good outcome and also from a cross-cultural point of view.

3.2.3.1 *Locus of control versus the expectancy of good outcome*

Carver (1997:580) mentions that although many models of human functioning emphasise the importance of personal control, others do not. The belief that control resides internally or externally is however easily distinguished from the expectation that good or bad outcomes will occur.

It is possible on the one hand that people can believe that good outcomes depend on luck and that luck tends to go their way. People can also believe that good outcomes depend on the actions of powerful others and that powerful others (or

deities) are on their side. On the other hand it is possible that people can believe that outcomes are controlled by forces within themselves and that their internal forces are weak and ineffective, the result being an expectation of bad outcomes. It is therefore possible to envision all combinations of internal versus external control and positive versus negative expectancies regarding future outcomes (Carver, 1997:581).

3.2.3.2 *Locus of control from a cross-cultural point of view*

Smith, Trompenaars and Dugan (1995:380) mention that Dyal (1984) provides an extensive review of cross-cultural research into locus of control. One of these studies involved more than 11 000 adults from nine Western European nations while others (Reitz and Groff, 1974 and Reitz and Jewell, 1979) obtained internal / external scores from large samples of industrial workers in various European, Asian, North American and South American countries. These studies have reported a number of mean differences between country samples in internal / external scores. One consistent substantive finding of research is that Oriental Asians, particularly Japanese, tend to score more externally than North American Caucasians.

In general the results of such studies have tended to be equivocal, and have not enabled nations to be reliably located on a dimension of locus of control (Smith, Trompenaars & Dugan, 1995:381), but it is accepted that locus of control is a very significant part of the salutogenic construct and find application across cultures.

3.2.4 Self-efficacy (Bandura)

Albert Bandura (1977) from the Department of Psychology at the Stanford University in California developed the concept of self-efficacy. Bandura (1982:122) mentions that people often do not behave optimally, even though they know fully well what to do. This is because self-referent thought also mediates the relationship between knowledge and action. Efficacy in dealing with one's environment is not a fixed act or simply a matter of knowing what to do. It actually involves a generative capability in which component cognitive, social and behavioural skills must be organised into integrated courses of action to serve innumerable purposes. Bandura (1977:79)

mentions that the strength of people's convictions in their own effectiveness determines whether they will even try to cope with difficult situations. People fear and avoid threatening situations that they believe they are unable to handle, but they behave affirmatively when they judge themselves capable of handling situations successfully, that would otherwise intimidate them. According to Shelton (1990:987) expectations of self-efficacy will therefore determine the kind of activity that one will engage in, the amount of effort consumed as well as the length of time that one will persevere in the face of adversity.

Bandura (1982:123) goes further by indicating that in their daily lives, people continuously make decisions about what courses of action to pursue and how long to continue those they have undertaken. In this regard accurate appraisal of one's own capabilities has considerable functional value, since misjudgement of personal efficacy can produce adverse consequences. Those who judge themselves inefficacious, imagine potential difficulties as more formidable than what they really are. They might slacken their efforts and even give up, while someone with a strong sense of efficacy exerts greater effort to master the challenge.

The importance of self-efficacy in the salutogenic construct is therefore emphasised by the above.

3.2.5 Potency (Ben-Sira)

Zeev Ben-Sira, a professor in social work at the Hebrew University in Jerusalem, developed the concept potency. Strümpfer (1990:272) mentions that Ben-Sira sees potency as a mechanism that prevents the tension that follows occasional inadequate coping, from turning into lasting stress. The crux of this mechanism lies in the successful past experiences of coping and comprises mastery and self-appreciation. Weak potency, on the other hand, results from a history of unsuccessful coping experiences. Ben-Sira (1985:399) consequently defines potency as *"a person's enduring confidence in his / her own capacities, and confidence in and commitment to his / her social environment which is perceived as being characterised by a basically meaningful and predictable order and by a reliable and just distribution of rewards"*.

Ben-Sira (1989:43) states that potency is presumably an experience-based confidence, both in one's own capacities and in society's orderliness and basic justice. It is presumably a product both of the accumulation of successful coping outcomes and of an experience-based trust in the social environment. According to Seligman (1975) as cited in Ben-Sira (1989:43) it is to some extent the opposite of learned helplessness. Potency facilitates the re-equilibration following an unmet demand either by calling forth an experience-based confidence that a solution is bound to come up, or by reassessing the relative weight of that particular failure *vis-à-vis* past success.

Ben-Sira (1989:44) furthermore mentions that the notion of potency illuminates the significance of a person's view of society as a crucial factor in the coping process. The rationale for attributing a paramount role to the person's confidence in society was the recognition that whatever the extent of self-confidence, one can hardly cope successfully in a social environment where both demands coming from that environment and its responses are unpredictable or incomprehensible. Society is the most salient source both of demands and of responses to the individual's coping. Responses constitute to a great extent rewards to the individual's coping efforts based on societal recognised rules - rules that determine both a more-or-less predictable societal order and the symbolic value of social activities.

According to Callan (1993:67) an event becomes stressful when it is appraised by an individual as a threat to his level of well being. The individual then tries to deal with the threat through a variety of coping strategies.

In conclusion Ben-Sira (1989:42) mentions that successful coping means assessing a demand as insignificant, or as having been successfully dealt with. The subjective perception of having successfully met a demand greatly determines the extent to which homeostasis is maintained.

Following will be a discussion of sense of coherence as the core construct of the salutogenic paradigm.

3.3 SENSE OF COHERENCE (ANTONOVSKY)

In this section the construct of sense of coherence, being one of the variables studied in this research, will be discussed. The initial definition of sense of coherence, as postulated by Antonovsky (1979) will be given, generalised resistance resources will be viewed, the development of sense of coherence will be discussed, the core components that sense of coherence comprises will be stated and the relation between the core components as well as similarities with other views of health will be discussed. Importantly a new or adjusted definition of sense of coherence will be given in this section.

3.3.1 Definition of sense of coherence

Antonovsky (1979:123) indicates that after understanding the deliberations in regard to stressors, tension and stress, generalised resistance resources and the significance of generalised resistance resources, it is time to formulate a definition of the concept.

The sense of coherence is according to Antonovsky (1979:123): "*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 reasonably be expected*".

In an attempt to analyse the definition, Antonovsky (1979:124) explains that the sense of coherence is explicitly and unequivocally a generalised, long-lasting way of seeing the world and one's life in it. It is perceptual, with both cognitive and affective components. The term dynamic in the definition takes one beyond minor fluctuations as there are certainly ups and downs and detailed successes or failures that can effect a temporary and minor shift in one's sense of coherence. Antonovsky (1979:125) states clearly that the sense of coherence is not determined forever by genes or early childhood experience. It is however shaped and tested, reinforced and modified from childhood throughout one's life.

A strong sense of coherence further involves a perception of one's environment, inner and outer, as predictable and comprehensible. Stimuli that impinge on one are therefore meaningful and will continue to be meaningful (Antonovsky, 1979:126). Antonovsky (1979:126) indicates that if one understands what is going on and the world is seen as predictable, outcomes may still not fulfil needs. A person with a weaker sense of coherence will indeed tend to anticipate that things are likely to go wrong. When things do not make sense and are not predictable, it is difficult to expect that needs will be fulfilled, except by sheer luck or blind chance. The person with a stronger sense of coherence on the other hand is quite able to see reality, to judge the likelihood of desirable outcomes in view of the countervailing forces operative in all of life. A strong sense of coherence is therefore not at all equivalent to feeling that everything in life is handed to one on a silver platter, no, quite the contrary might be true. Antonovsky (1979:126) emphasises that life may well be seen as full of complexities, conflicts and complications, but the important thing is that one has a sense of confidence, of faith, that things will work out well.

A sense of coherence does therefore not imply that one is in control, but involves one as a participant in the processes shaping one's destiny as well as one's daily experience (Antonovsky, 1979:128). The crucial issue is not whether power to determine such outcomes lies in our own hands or elsewhere, but what is important is that the location of power is where it is legitimately supposed to be, either in the hands of the head of the family, patriarchs, leaders, formal authorities, the party, history, or a deity (Antonovsky, 1979:128). A strong sense of coherence is not at all endangered by not being in control oneself.

3.3.2 Generalised resistance resources (GRR's)

Antonovsky (1979:99) mentions that not until he had developed a salutogenic orientation - at first about the deviants such as concentration camp survivors, poor people, or members of minorities who stay at a fairly high level of health ease, did he become aware of the full significance of generalised resistance resources. At the most general, preliminary level, Antonovsky (1979:99) defines GRRs as any characteristic of a person, the group or the environment that can facilitate effective tension management. By mentioning any characteristic, the importance of specific

resistance resources is not denied. There are many and often useful resistance resources that are used in particular situations of tensions such as a certain kind of medicine, telephone lifelines of suicide prevention agencies and so forth (Antonovsky, 1979:99). These resistance resources are however too often matters of chance or luck and sometimes only helpful in particular situations. The generalised resistance resources, in the opinion of Antonovsky (1979:100), open the way to the exploitation of many specific resistance resources.

Another important point in the opinion of Antonovsky (1979:100) is that the rejection of the health / disease dichotomy, opens the way for application of the GRR concept to all people all the time. In this regard it does not matter what one's location at a given point on the "health ease / disease" continuum is, the extent to which GRRs are available to one, plays a decisive role in determining movement towards the healthy end of the continuum.

Antonovsky (1979:100) identified three kinds of general resistance resources, namely adaptability on the physiological, biochemical, psychological, cultural and social levels; profound ties to concrete, immediate others; and commitment of and institutionalised ties between the individual and the total community.

Antonovsky (1979:119) mentions that he has considered generalised resistance resources as something which, in the possession of a group or individual, makes possible either the avoidance of stressors or the resolution of tension generated by stressors that have not been avoided, or both the mentioned conditions. There are however according to Antonovsky (1979:119) another way to look at the matter with regard to some GRRs. The question of what happens when one is low on a given GRR suddenly emerges. Antonovsky (1979:100) declares that it is possible to substitute one GRR for another but warns that Merton (1968) has warned against the danger of that variant of functionalism that assumes that if consequence X is a function of phenomenon A, then A must be maintained to maintain X.

If one however assumes that one GRR can be substituted for another in managing tension, it must be noted that the absence of some GRRs can become a stressor. Antonovsky (1979:119) uses the example of money that can be applicable in many

instances. In this regard having money does not solve all problems, but it helps with many. Going without it can obviously result in tension.

According to Strümpfer (1990:269), Antonovsky developed and introduced the concept of generalised resistance resources (GRRs) in 1972. GRRs are seen as concrete and non-concrete concepts that can facilitate effective tension management in any situation of demand. Such GRRs include artefactual material GRRs such as wealth that can buy for example food, shelter, clothing, power, status and services. It also includes cognitive GRRs such as knowledge or intelligence which includes skills, and levels of development. All GRRs however have in common that they facilitate making sense out of the countless stressors with which we are constantly bombarded. Through repeated experience of the sense-making activity, a person develops a strong " sense of coherence ". Strümpfer (1995:82) mentions in this regard that when a person regularly experiences the availability of GRR's, a sense of coherence develops and, in turn, a strong sense of coherence mobilises the GRR's at the person's disposal in order to avoid and overcome stressors, with such experiences reinforcing the sense of coherence in a feedback loop.

In conclusion of the matter regarding GRR's, Antonovsky (1979:122) mentions that the significance of GRR's can now be formulated. The significance lies in the extent to which our lives provide us with GRR's which are a major determinant in us having a generalised, pervasive orientation that is called a strong sense of coherence.

3.3.3 Development of the sense of coherence

Regarding the development of sense of coherence, Antonovsky (1987:119) mentions that roughly during the first decade of one's adult life there is an inevitable tendency to put things together. At the one extreme, life experiences in all spheres tend to persuade one that life is chaotic, unmanageable and meaningless. One's sense of coherence is moderate, strengthened by experiences in one area, and weakened by experiences in the other. By the end of the first decade of one's adult life Antonovsky (1987:119) contends that one has attained a given location on the sense of coherence continuum.

Antonovsky (1979:125) also indicates that a radical change in one's structural situation, such as the death of a spouse, losing a job or home, could lead to a significant modification in one's sense of coherence.

Strümpfer, Gouws and Viviers (1998:458) mention that Antonovsky's core explanatory construct is the sense of coherence and that the construct develops from birth until the age of about 30. After that it remains relatively stable although some transformation can still occur. These changes would however be gradual as a result of interactions with the environment.

Strümpfer, Gouws and Viviers (1998:458) further mention that from early on people constantly go through situations of challenge and response, stress, tension and resolution. The more experiences are characterised by consistency, participation in shaping outcome and an underload - overload balance of stimuli, the more one would see the world as coherent and predictable. It is however important that a measure of unpredictable experiences is also essential for a strong sense of coherence to develop.

3.3.4 Dimensions of sense of coherence

Antonovsky (1987:16) identified three core dimensions of the sense of coherence, namely:

1. Experience the stimuli deriving from one's internal and external environments as structured, predictable and explicable (comprehensibility).
2. Know that the resources to meet the demands posed by the stimuli in the internal and external environments, are available (manageability).
3. View the demands in the internal and external environments as challenges and worthy of investment and engagement (meaningfulness).

These concepts will be explained in more detail now:

3.3.4.1 *Comprehensibility*

According to Antonovsky (1984:118), comprehensibility refers to the extent to which individuals perceive the stimuli that confront them as making cognitive sense, as information that is ordered, consistent, structured, clear and therefore predictable, rather than noisy, chaotic, disordered, random, accidental and unpredictable.

Antonovsky (1987:17) mentions that the person high on the sense of comprehensibility expects that the stimuli he or she will encounter in the future will be predictable or, at the very least, when they do come as surprises, be orderable and explicable. In this concept, nothing is mentioned about the desirability of the stimuli. In this regard Antonovsky (1987:17) mentions that death, war and failure can occur, but a person high on comprehensibility would be able to make sense of them.

3.3.4.2 *Manageability*

According to Antonovsky (1984:118) manageability refers to the extent to which people perceive that resources that are adequate to meet the demands posed by stimuli, are at their disposal. These resources available to the person may be friends, colleagues, God, a union or even religious structures. Antonovsky (1984:119) also mentions that there will be no sense of being victimised by events or of being treated unfairly by life. Even the mere fact that individuals perceive that help is available may contribute to the concept of manageability. When people are high on manageability, they have the sense that, supported by their own resources or by those of others, they will be able to cope and not grieve endlessly (Antonovsky, 1984:119).

Antonovsky (1987:17) mentions that the phrase "at one's disposal" refers to resources under one's control or to resources controlled by legitimate others, such as one's spouse, friends, colleagues, God, etcetera.

3.3.4.3 *Meaningfulness*

Meaningfulness, according to Antonovsky (1984:119), refers to the extent to which a person feels that life makes sense emotionally, rather than cognitively. People who are high on meaningfulness feel that life makes sense emotionally, that at least some of the problems and demands posed by living are worth investing energy in, are worthy of commitment and engagement, and are challenges that are welcome rather than burdens that they would much rather do without.

Antonovsky (1987:18) mentions that he sees meaningfulness as representative of the motivational element. Those therefore classified as having a strong sense of coherence always spoke of areas in life that were important to them, that they cared about and that made sense to them in the emotional and not only the cognitive way. Those classified as having a weak sense of coherence give little evidence that anything in life seemed to matter particularly to them. This does not mean that someone high on meaningfulness is happy about the death of a loved one, the need to undergo a serious operation or being fired, but when these are imposed on such a person, he or she will willingly take up the challenge, will be determined to seek meaning in it and will do his or her best to overcome it with dignity (Antonovsky, 1987:18-19).

Antonovsky (1987:18-19) mentions that he can formally redefine sense of coherence as follows: *"The sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli and (3) these demands are challenges, worthy of investment and engagement."*

In conclusion it is evident that the core of the sense of coherence concept centres around coping by perceiving stimuli to make cognitive and emotional sense and that resources are in place to support and that demands are challenges to be engaged in.

3.3.5 Relationship between the dimensions of sense of coherence

Antonovsky (1987:19) indicates that in discussing the links between generalised resistance resources and the sense of coherence, he defined generalised resistance resources as phenomena that provides one with sets of life experiences characterised by consistency, participation in shaping outcome and an under-load-overload balance. Therefore, repeated life experiences continuously build up the sense of coherence.

Antonovsky (1987:19) consequently contests that generalised resistance resources are closely linked to comprehensibility, meaningfulness and manageability and the assumption that a generalised resistance resource provides all three types of experiences. Apart from the theoretical reason for expecting the three components to be intrinsically intertwined, it was found that the intercorrelations between the components were very high.

3.3.6 Relationship between sense of coherence and health

Antonovsky (1979:160) indicates that despite our knowledge of various aspects such as stressors and generalised resistance resources, the following question remains: *"What are the grounds and evidence for the presumed relationship between a person's location on the sense of coherence continuum and location on the 'health ease / dis ease' continuum?"*

In order to make a linkage between sense of coherence and health, Antonovsky (1979:162) refers to:

1. Kohn (1968,1973,1976a) linking social class to schizophrenia.
2. Engel and his colleagues (1972) who worked on a concept analogous to the sense of coherence.

Antonovsky (1979:162) however mentions that the most direct support of a link between sense of coherence and health status is from a study who's data allowed him (Antonovsky) to formulate the concept of sense of coherence.

One important study that viewed sense of coherence from a cross-cultural perspective is that of Bowman (1996:547-549) where sense of coherence correlated significantly negative with measures of depression and anxiety and where it was found that a sense of coherence is important in managing stress. The study further found that people from dramatically different cultures could develop the same level of sense of coherence.

Strümpfer, Gouws and Viviers (1995:475) mention a number of studies conducted between the sense of coherence scale and variants of negative affectivity:

1. Antonovsky and Sagy (1986) found a strong negative relationship between sense of coherence and trait anxiety.
2. Korotov (1993) found a strong negative relationship between sense of coherence and seven bipolar "emotionality" items.
3. Mlonzi and Strümpfer (1998) reported a strong negative relationship between sense of coherence and a second order anxiety scale of the 16 Personality Factor Questionnaire.

Many other studies have been conducted where the relation between health and sense of coherence had been investigated. Examples are:

1. Schnyder, Buechi, Sensky and Klaghofer (2000), who investigated the relationship between sense of coherence and depression and anxiety.
2. Soederfeldt, Soederfeldt, Ohlson, Theorell and Jones (2000), who investigated the relationship between sense of coherence and a model of job stress.

3. Kivamaeki, Feldt, Vahtera and Nurmi (2000) who explored the relationships between health and the stability of sense of coherence.
4. Gilbar (1998) who examined whether a strong sense of coherence as a coping strategy affects burnout in health social workers.
5. Carstens and Spangenberg (1997) who investigated the relationship between major depression and sense of coherence.

From the above it is evident that sense of coherence correlates positively to health and to a person's position on the "health ease / disease continuum".

3.3.7 Similarities with other views of health

Antonovsky (1987:33) mentions that he is intellectually in debt to many colleagues but that his research left him with a feeling of relative isolation. Everyone initially focused on the need to explain pathology. However, more and more elements, variants and alternatives in regard to salutogenic thinking surfaced although there is no danger that the salutogenic model has come to dominate research and thinking in health / illness social sciences.

Antonovsky (1987:39) mentions the concept "sense of permanence" as defined by Boyce, Schaefer and Uitti (1985) as the belief or perceptions that certain central, valued elements of life experience are stable and enduring. An important similarity that is also mentioned by Antonovsky (1987:35) is that of hardiness as explained in paragraph 3.2.2. The explanation above will suffice and therefore no further explanation of the concept will be given here.

Apart from a perceived common thesis, Strümpfer (1990:272) also mentions that similarities exist between potency and Antonovsky's sense of coherence and indicates that Ben-Sira and Antonovsky had close academic and personal associations. Strümpfer (1990:272) also mentions that in view of the close theoretical affinity between Potency and the sense of coherence, and in view of the very broad theoretical foundation of the latter, it seems advisable that researchers looking for an

instrument measuring salutogenesis, should use the Sense of Coherence Questionnaire rather than the Potency scale.

This concludes the theoretical discussion of some salutogenic constructs with specific emphasis on Antonovsky's sense of coherence. Following will be a discussion of a newly proposed concept called fortigenesis. Fortigenesis is included in the theoretical part of this research because this research, amongst others, focuses on work experiences or work activities (the motivation to manage) while fortigenesis occurs from conducive work experiences over a relatively long period of time.

In summary it is evident that all salutogenic constructs have as common thesis the effective handling of stress and the alleviation of the effects of stress in order to maintain a position on the "health ease / disease" continuum as proposed by Antonovsky (1979).

Following will be a discussion of the personality characteristics of a person with a strong sense of coherence.

3.4 PROFILE OF THE PERSON WITH A STRONG SENSE OF COHERENCE

In this part of the chapter, the aim is to summarise the personality characteristics of the person with a strong sense of coherence.

3.4.1 Intra-personal characteristics

Viviers (1996:87-90) presents the intra-personal characteristics of the person with a strong sense of coherence from a cognitive, affective, conative and physical perspective:

3.4.1.1 Cognitive characteristics

According to Antonovsky (1987:16) comprehensibility as dimension of sense of coherence refers to the extent to which a person experiences internal and external

stimuli as structured, orderly and consistent. A person makes his existence cognitively understandable and in the process becomes cognitively flexible for change. Antonovsky (1979:107) refers to knowledge-intelligence that serves as a general resistance resource, and which may, in modern societies be seen as literacy and formal education, but in more traditional societies it is seen as wisdom. Comprehensibility does not necessarily refer to control over stimuli, but rather to the person's ability to see such stimuli in a positive light. The person strong on sense of coherence therefore sees stimuli as positive and will be able to experience such stimuli as positive through control (Viviers, 1996:88).

3.4.1.2 *Affective characteristics*

Antonovsky (1979:108) mentions that ego identity is the central concept on the emotional level. Ego identity further refers to having a sense of the inner person, being integrated and stable but also dynamic and flexible, in contact with social and cultural reality. Antonovsky (1987:18) mentions that the meaningfulness dimension of sense of coherence refers to the extent to which one feels that life make sense emotionally.

3.4.1.3 *Conative characteristics*

Viviers (1996:89) mentions that manageability as part of sense of coherence refers to the ability to perceive life events as manageable, bearable and even as a challenge. Such a person will not allow life to threaten him because he perceives life as *comprehensible* and that this is the motivation and drive for his existence. The conative characteristics of flexibility and premonition serve as intra-personal drive in his interpersonal functioning.

The above characteristics promote the attitude to approach stimuli and life in a motivated way. The person with a strong sense of coherence sees for instance change as a challenge that is manageable and comprehensive and develop skills to be able to cope.

3.4.1.4 *Physical characteristics*

Antonovsky (1987:101) mentions that a person with a strong sense of coherence will avoid physical or psychological danger and will be focused on the sustaining and optimisation of physical and psychological health. Such a person will for instance refrain from smoking, will follow a balanced diet and will exercise regularly.

3.4.2 Inter-personal characteristics

The person with a sense of coherence, according to Viviers (1996:90-91) regards inter-personal relationships and social contact as important, both in receiving and in giving. The ability to establish stable relations with various groups of people in society and to establish integration between those groups is especially important. A person is also in interaction with his culture that supports him in the process of coping with life. Blaming could often be a coping mechanism when such blame is justifiable.

Antonovsky (1987:150) mentions that a person with a weak sense of coherence is more likely to blame someone or something else or would refer to bad luck if things are not going his way. A person with a strong sense might very well blame others when necessary and when the other person was indeed responsible.

Viviers (1996:91) furthermore mentions that a person strong on sense of coherence is able to engage in interpersonal relationships and is able to sustain such relationships.

3.4.3 Effect of the person with a strong sense of coherence on organisational effectiveness

Strümpfer (1990:270) mentions that Antonovsky's (1979;1987) writings concern the relationship between sense of coherence and health. The references to work are in the context of work experiences that strengthen the sense of coherence. It however seems evident that the sense of coherence must also impact on how work is

approached and performed. Since the majority of adults spent the largest portion of their waking hours in the workplace, it is a dominant source of external as well as internal stimulation to be comprehended, managed and made meaningful. A person with a strong sense of coherence will most likely (Strümpfer, 1990:271):

1. Make cognitive sense of the workplace, perceiving its stimulation as clear, ordered, structured, consistent and predictable information.
2. Perceive his work as consisting of experiences that are bearable, with which he can cope and as challenges that he can meet by availing himself of personal resources under the control of legitimate others.
3. Make emotional and motivational sense of work demands, as welcome challenges, worthy of engaging in and investing his energies in.

In turn, the above experiences would become work related GRR's that will strengthen the sense of coherence further and as such the implications of the concept for occupational health psychology and the management of stress at all levels of employment, are obvious.

REMARK

In Chapter 1, under paragraph 1.3.2 it was stated that one of the literature objectives was to "*conceptualise sense of coherence*".

In chapter 3 this objective has been achieved.

3.5 CONCLUSION

In chapter 3 the concept of salutogenesis was briefly discussed. Various constructs that theoretically form part of the paradigm of salutogenesis were discussed. Stressors, tension and stress as well as the implications of salutogenesis were presented, while the following authors' views were elaborated on: Rosenbaum's "Learned Resourcefulness", Kobasa's "Personality Hardiness", Rotter's "Locus of

Control", Bandura's "Self-efficacy" and Ben-Sira's "Potency". Antonovsky's "Sense of Coherence" received more detailed attention while various characteristics of the person strong on sense of coherence were also discussed. This concludes the second variable used in this research.

In conclusion of the literature review, the two variables, namely managerial motivation and sense of coherence will be integrated in the next part of this study.

In chapter 4 the empirical part of the research will be discussed. In the first instance the population will be discussed as well as the instruments used to measure the relevant constructs. The way in which the data was obtained will be discussed in detail and the reliability and validity of the instruments will be evaluated.

INTEGRATION

INTEGRATION OF THE PERSONALITY PROFILES OF THE MANAGERIALLY MOTIVATED PERSON AND THE PERSON WITH A STRONG SENSE OF COHERENCE

In this section the aim is to integrate the profile of the managerially motivated person with the personality profile of the person with a strong sense of coherence. This will be done by integrating the profile as in 2.4 with the profile as in 3.4.

In the problem statement of this research (refer to 1.2) the following question was asked: *How does the personality profiles of the managerially motivated person and the person strong on sense of coherence look like?*

The above question led to the following literature objectives (refer to 1.3.2):

- (1) To conceptualise managerial motivation.
- (2) To conceptualise sense of coherence.
- (3) To theoretically present the personality profiles of the managerially motivated person and the person strong on sense of coherence.
- (4) To integrate the personality profiles of the managerially motivated person and the person strong on sense of coherence in order to determine the theoretical relationship between the two concepts.

No references will be used in this integration since the two theories have already been discussed in chapters 2 and 3. The following section integrates the two theories and determines the theoretical relationship between the two concepts.

INTEGRATION OF THE PERSONALITY PROFILES OF THE MANAGERIALLY MOTIVATED PERSON AND THE PERSON WITH A STRONG SENSE OF COHERENCE IN ORDER TO DETERMINE THE THEORETICAL RELATIONSHIP BETWEEN THE TWO CONCEPTS

Those individuals who repeatedly associate positive, rather than negative emotion with the various managerial role prescriptions, would tend to meet criteria of effectiveness, and as such would be characteristic of the managerially motivated person. This integration will focus on the profile of the managerially motivated person in terms of the similarities with the profile of the person strong on sense of coherence.

This integration will distinguish between intra-personal and inter-personal characteristics.

Intra-personal characteristics

- Cognitive characteristics

The managerially motivated person follows a pragmatic approach to problem solving, is conventional, focussed on objective realities and relies on practical judgement. This resembles strongly with comprehensibility that refers to the extent to which a person experiences internal and external stimuli as structured, orderly and consistent. A managerially motivated person makes his existence cognitively understandable and is in the process cognitively flexible for change and because of this cognitive understanding, stays calm and does not become frustrated. Such a person is assertive and inclined towards independence or autonomy and probably feels that due to his abilities will be able to cope independently.

- Affective characteristics

The managerially motivated person experiences respect towards authority figures, displays a highly socialised power motive and has a preference to engage in

interaction with other people. These characteristics remind strongly of meaningfulness that refers to a person's ability to accept life as emotionally meaningful and this evolves as the decisive component for sense of coherence. Ego identity on the emotional level refers to man's conscious emotions that evolve naturally because it is acceptable to man and the society in which he lives.

- Conative characteristics

One important characteristic of the managerially motivated person is perseverance that affiliates closely with manageability and therefore the ability to perceive life events as manageable, bearable and even as a challenge. Such a person will not allow life to threaten him because life is perceived as *comprehensible* and this is the motivation and drive for existence. Such a person shows self-confidence.

Inter-personal characteristics

The managerially motivated person is enthusiastic, talkative and reflects the values of the group of whom he is the manager. He prefers to be in a highly visible position in the group and enjoys meeting people while he displays sophisticated social skills and diplomacy for the sake of social success. This shows a close relation to the person with a strong sense of coherence who regards inter-personal relationships and social contact as important, both in receiving and in giving. The ability to establish stable relations with various groups of people in society and to establish integration between those groups is especially important.

A general characteristic that is relevant to both the managerially motivated person and the person strong on sense of coherence, is the characteristic of coping. Sense of coherence refers to a conscious coping strategy aimed at confronting the stimuli threatening normal life events. The person strong on sense of coherence and also the managerially motivated person will have their own coping strategies to buffer the hardships of life. In regard to the managerially motivated person it is a pervasive fear of negative outcomes such as failure, illness and so forth. Such people continuously strive for success to avoid negative outcomes or to convince themselves that their fears are not likely to be realised. The person strong on sense

of coherence sees for instance change as a challenge that is manageable and comprehensive and develops skills to be able to cope with it. Due to the organisational context of the job of a manager, a strong competitive element is built into managerial work. Such people must accept challenges as other managers may offer and must strive to win for themselves and their group.

REMARK

This concludes the fourth literature objective. This also concludes the last step in Phase 1 (literature review) of the research as presented in 1.7.

CONCLUSION

In this part the personality profiles of the managerially motivated person and the person strong on sense of coherence were integrated in order to determine the theoretical relationship between the two concepts. This was done by categorising such characteristics under intra and inter personal characteristics.

In chapter 4 the empirical research will be discussed by firstly presenting the objectives and then by discussing the different steps in the empirical investigation. This will include a discussion on the measuring instruments for the concepts of salutogenesis and managerial motivation. Finally a research hypothesis will be formulated and the chapter will be concluded with a chapter summary.

CHAPTER 4

EMPIRICAL STUDY

The objective of this chapter is to discuss the empirical study of the research. To attain this, the empirical objectives will be stated; the research environment and the selection of the population and sample will be discussed. Descriptions of the measuring instruments will be presented. The collection and processing of data will consequently be discussed before a central hypothesis and an additional hypothesis will be formulated.

4.1 EMPIRICAL OBJECTIVES

In regard to the problem statement and purpose of the research, the empirical objectives for the research are:

- (1) To determine whether there is a significant relationship between the behavioural constructs managerial motivation and sense of coherence.
- (2) To determine whether there is a significant difference in the managerial motivation and / or sense of coherence of groups on different managerial levels.

4.2 EMPIRICAL RESEARCH PROCEDURE

In this section the steps followed in the empirical research process will be explained. Firstly the determination of the population and sample will be addressed while the research environment will also be outlined. A description of the measuring instruments as well as the collection and processing of data will be presented before the hypotheses will finally be formulated.

4.3 RESEARCH ENVIRONMENT, POPULATION AND SAMPLE

Step 1 will address the research environment, the population and the determination of the sample. The environment in which the research takes place will be illustrated before the population and sample will be addressed.

4.3.1 Research environment

The Agricultural Research Council (ARC) is a statutory body established in terms of the Agricultural Research Council Act, 1992. The ARC is divided into a central office and 13 different institutes, each one conducting research on a different aspect or discipline related to agriculture.

Each of these institutes has posts arranged in a hierarchical manner, reflecting a bureaucratic system. A Director heads each Institute, assisted by a number of Deputy Directors. Each Deputy Director has a number of Assistant Directors reporting to him.

A Deputy Director heads a department and an Assistant Director heads a division. A Deputy Director therefore has several divisions under him and therefore several Assistant Directors reporting to him. An Assistant Director in turn has several sections under his authority with supervisors in charge of each section, reporting to him.

The one group in regard to whom data has been gathered consists of all Deputy Directors and Assistant Directors on post levels 7 to 9 and they are regarded as middle level managers. The other group in regard to whom data has been gathered consists of all supervisors on post levels 5 and 6 and they are regarded as supervisors.

The differences between these groups are reflected in terms of responsibility. As previously stated, middle managers are responsible for various sections while a supervisor is only responsible for one section. Middle level managers are also members of management, responsible for the strategic planning of the activities of the

department / institute on a regular basis. The planning that occurs in a specific section mainly boils down to the Assistant Director informing the Supervisor of the strategic needs (as determined by management) and the consequent planning to reach the strategic goals.

Supervisors have, to a much greater extent, contact with lower level and often illiterate workers, performing basic tasks such as the feeding and slaughtering of animals and the planting and harvesting of crops. Middle level managers mainly have contact with supervisors and to a much lesser extent with lower level workers. Both groupings have contact with external people in the industry.

Similarities between these groups amount to the fact that in terms of performance and from a disciplinary point of view, they are responsible for a certain number of people. Supervisors often have technikon and / or university training, while middle level managers often have advanced to the level of masters or doctoral qualifications.

Despite being assured of the confidentiality of the data, various members of the population responded and indicated that they are not willing to complete the questionnaires, as they would not feel comfortable with such information being available to the management of the ARC. In this regard it is worth mentioning that there appears to be a low morale amongst employees in the ARC. This could be ascribed to various factors such as salaries not being market related and a general feeling of distrust in executive management.

The population and selection of the sample will be discussed now.

4.3.2 Population

As the total population of managers in the ARC amounts to approximately 117, it was regarded as appropriate to use the total population as haphazard sample. The same procedure was followed with the supervisors in the ARC. The population of this

grouping amounts to 225. Christensen (1994:65) mentions in this regard that a haphazard sampling is a nonprobability sampling technique whereby the sample of subjects selected is based on convenience and includes individuals who are readily available. The obvious advantage of using the haphazard sampling technique is that subjects can be obtained without spending a great deal of time or money. The disadvantage of such a sampling technique is the inability to generalise the results of the study to people in general as the sample was not representative of the entire population. Kerlinger (1986:120) calls such a sample an accidental sample, that is, "the available sample at hand which, although it is the weakest form of sample, is most probably the most frequently used".

4.3.3 Sample

It was decided to make use of the haphazard sample as this was the sample available and by making use of such a sample, savings in terms of money, time and resources could be effected. To obtain the sample, the CEO of the ARC was requested to give approval that all managers and supervisors in the ARC could take part in the empirical study.

Following that, 117 managers and 225 supervisors were requested by e-mail to participate. Both questionnaires were attached to an e-mail message, requesting all members of the population to complete the questionnaires. All prospective respondents were comprehensively informed of the purpose of the study and in broad terms which concepts are measured by the respective instruments.

4.4 MEASURING BATTERY

Step 2 will entail an explanation of the measuring instruments administered on the sample and will be discussed in terms of the development of the instruments; the purpose or objectives of the instruments; a description of how the instruments are completed with reference to the time required; the psychological properties of the

instruments such as reliability and validity; and the interpretation of results. The motivation for using the instruments will also be addressed.

Firstly the instrument measuring the variable of managerial motivation and secondly the instrument measuring the variable of sense of coherence will be discussed.

4.4.1 Managerial motivation

In this part of the research the Miner Sentence Completion Scale (MSCS) will be discussed briefly as the importance thereof lies in the fact that the instrument that will be used to measure managerial motivation, namely the Managerial Motivation Questionnaire (MMQ), originates from the MSCS and is based on the role-motivation theory like the MSCS.

In order to determine the managerial motivation construct scores of the sample, the MMQ was used. Following is a discussion of the development, objectives, reliability and validity, description and the interpretation of the instrument. The motivation for using the instrument will also be stated.

Managerial Motivation Questionnaire (MMQ)

i. Development

According to Engelbrecht (1991:7) literature indicates that it was mainly Miner and his co-workers and also McClelland and his co-workers who aimed to conceptually describe and empirically measure the construct managerial motivation. Engelbrecht (1989, 1991) regards the managerial role motivation theory of Miner as more comprehensive than the managerial motivation theory of McClelland. In order to measure the construct managerial motivation in terms of the role motivation theory of Miner, the free response and multiple choice format of the Miner Sentence Completion Scale was developed.

According to Stevens and Brenner (1990:881) the MSCS was developed by Miner (1965) to measure a person's motivation to manage. The original scale was made up of 40 short-answer items. Seven subscales were designed to measure the component variables of a role-motivation theory of managerial effectiveness and are defined as follows (Stevens & Brenner, 1990:881):

1. The Authority Figures subscale measures an individual's desire to meet role requirements in relations with superiors.
2. The Competitive Games and the Competitive Situations subscales reflect a desire to engage in competition with peers and thus meet managerial role requirements in this regard.
3. Assertive Role measures the desire to behave in an assertive manner.
4. The Imposing wishes subscale refers to directing or controlling the behaviour of others.
5. The Standing Out From Group index describes instances in which an individual is placed in a unique and highly visible position, relative to a homogeneous group.
6. The Routine Administrative Functions subscale refers to different activities that are often associated with managerial work.

Spangenberg (1990:59) confirmed that the original scale was developed in 1965 and a multiple choice version of the scale was completed. Spangenberg (1990:60-62) mentions that the reliability and validity of the MSCS are good, while Miner (1985) as cited in Spangenberg (1990:64) mentions the following regarding the MSCS:

1. It has not been possible to devise a scoring guide that in itself assures adequate scorer reliabilities and not everybody obtains an acceptable level.

2. Longer subscales would ensure higher reliabilities but may cause some resistance from respondents.
3. The multiple choice approach holds much promise but further research is still needed in this area.

Engelbrecht and De Jager (1991:18) indicated that as a result of several criticisms the multiple choice MSCS was adapted. The internal consistency and factor structure of the adapted MSCS were determined to ascertain the reliability and construct validity of the questionnaire. Results show that the internal consistency is unsatisfactory and that the factor structure is so complex that the interpretation becomes virtually impossible. According to Engelbrecht and De Jager (1991:21) it is evident that the MSCS has certain deficiencies in regard to psychometric attributes. The said authors concluded by saying that the MSCS cannot sufficiently test the role-motivation theory and nowhere else in the theory could another instrument be found to test the construct managerial motivation, as operationalised by the theory of Miner (1965). Fineman (1975) as cited in Engelbrecht and De Jager (1991:21) mentioned in this regard that the possibility to develop a new instrument to measure managerial motivation should be investigated. For this purpose the role-motivation theory of Miner (1965) could be used as starting point.

Engelbrecht (1989:v) indicated that the general objective of his study was to develop a new psychometric measuring instrument of managerial motivation, using the role-motivation theory as paradigm. The Managerial Motivation Questionnaire (MMQ) has consequently been developed. Engelbrecht (1991:7) mentions further that after a comprehensive study of the literature on managerial motivation and the role-motivation theory, the preliminary MMQ was systematically shortened and refined until the final MMQ of 98 items was composed. This was based on social desirability and semantic appraisal, item analysis and factor analysis of the questionnaire. The results indicated that it was possible to develop a final MMQ that was relatively free of social desirability.

Engelbrecht (1991:8) also mentions that on the basis of a thorough literature review of managerial motivation, the domain of managerial motivation was conceptually outlined. Because of the fact that the role-motivation theory was accepted as the theoretical basis of this study, the variables of this theory were used as the areas from which items were developed.

Engelbrecht (1991:10-11) mentions that the following dimensions of managerial motivation are measured with the MMQ:

1. Positive attitude towards authority figures
2. Competitiveness
3. Assertiveness
4. Power motive
5. Distinctive group role
6. Positive attitude towards administrative tasks

ii. Objectives

The objective of the MMQ is to measure the construct of managerial motivation, which, as Miner (1978:741) describes it, refers to the process through which a person possesses the necessary needs or motives to effect behaviour aimed at adhering to managerial role prescriptions in large bureaucratic organisations (Engelbrecht, 1991:8).

iii. Description

Engelbrecht (1991:8) mentions that the MMQ consists of 98 Likert-type questions where respondents have to indicate the degree to which they think a number of statements regarding behaviour in different situations are characteristic or descriptive of themselves.

iv. Reliability

Engelbrecht (1991:12) mentions that a satisfactory reliability coefficient of 0,72 was found in a study in 1989 (N=103). The MMQ had been developed by Engelbrecht (1989) as part of his doctoral research and there is no other research to report on in regard to the reliability of the instrument.

v. Validity

Engelbrecht (1991:12) mentions that the MMQ demonstrates internal consistencies on two different samples, with coefficient alpha values of 0,90 (n=360) and 0,91 (n=535) respectively. The coefficient alpha values for the subscales range from 0,71 to 0,83 with an average value of 0,80 (n=535).

According to Spangenberg (1990:71), when reporting on the validity of the MMQ as experienced by Engelbrecht (1989), considerable evidence of construct validity was found during the construction of the instrument. By means of factor analysis a final MMQ was constructed in which all subscale items were relatively pure measures of the isolated factors. The factor analytical results furthermore produced six factors that could be linked quite clearly to the postulated six dimensions of managerial motivation.

vi. *Scoring*

According to Spangenberg (1990:67) the MMQ consists of 98 items, where respondents are asked to express on a five point Likert scale the degree to which statements regarding managerial motivation are characteristic of themselves. In this regard the a statement is given and the respondent has to choose one of the following alternatives:

- ds = Disagree strongly (very uncharacteristic of me)
- d = Disagree slightly (somewhat uncharacteristic of me)
- u = Uncertain
- a = Agree slightly (somewhat characteristic of me)
- as = Agree strongly (very characteristic of me)

There are 10 attitude towards authority figures, 23 Competitiveness, 19 assertiveness, 22 power motive, 12 desire for a distinctive group role and 12 willingness to conduct administrative functions items. For positively formulated items, scores are awarded as follows (Spangenberg, 1990:68):

- ds = 1
- d = 2
- u = 3
- a = 4
- as = 5

Thirteen of the 98 items are formulated negatively and have to be reversed in scoring, so that a high score always expresses a strong managerial motivation.

vii. Interpretation

According to Spangenberg (1990:66) the total of the six subscales of the MMQ gives an indication and total account of the respondent's managerial motivation. The relevant subscales could however also be interpreted individually where a low score would indicate that the construct appears to a lesser extent with respondents, while a high score would indicate that a construct appears to a greater extent.

viii. Motivation for using the MMQ

For purposes of this research the MMQ was chosen as measuring instrument because it best supports the operational design of the concept as discussed in chapter 2.

Engelbrecht (1991:12) mentions that it could be concluded that a new questionnaire (the MMQ) was developed successfully which is relatively free of social desirability and where the items of the subscales are pure measures of factors.

Therefore the MMQ, as a locally developed instrument, would suit the purpose of the research best.

4.4.2 Sense of coherence

In order to determine the sense of coherence scores of the sample, the Sense of Coherence Scale (SOC scale) was used. The following is a discussion of the development, objectives, description, reliability, validity, scoring and interpretation of the instrument. The motivation for using the instrument will also be stated.

Sense of Coherence Scale (SOC scale)

i. Development

The aim of this questionnaire is to measure the sense of coherence in a total score as well as for the three dimensions, namely comprehensibility (seeing the world as structured and predictable), manageability (believing that the individual has adequate personal and social resources to meet environmental demands and circumstances) and meaningfulness (feeling that it is worthwhile to try to cope actively within stressful circumstances).

Antonovsky (1993:725) mentions that the SOC scale that operationalises the construct is a 29-item semantic differential questionnaire and the design is guided by Guttman's facet theory. A 13-item version of the scale is also in use. In constructing the SOC scale, Antonovsky made the conscious, theoretically guided choice to have each scale item include four facets which describe a stimulus, and a fifth, the sense of coherence facet, which expresses one of the three components (comprehensibility, manageability, or meaningfulness) of the construct (Antonovsky, 1993:726).

ii. Objectives

According to Antonovsky (1993:731), the sense of coherence construct refers to a global orientation to one's inner and outer environments which is hypothesised to be a significant determinant of location and movement on the "health ease / dis-ease" continuum. The SOC scale was developed to operationalise this construct (Antonovsky, 1993:731).

iii. Description

According to Antonovsky (1993:726), the SOC scale consists of 29 five-facet items. Respondents are asked to select a response on a seven point semantic differential scale with two anchoring phrases. There are 11 comprehensibility, 10 manageability and eight meaningfulness items. Thirteen of the items are formulated negatively and have to be reversed in scoring, so that a high score always expresses a strong sense of coherence.

iv. Reliability

Antonovsky (1993:727) mentions that the Cronbach alpha measure of internal consistency has been reported for 26 studies using the SOC-29. In eight published studies the average alpha ranged between 0,86 and 0,95. An instrument can be said to be reliable only with respect to a given population. However, it is a significant fact that consistently high internal consistency has been found in a considerable variety of populations, in different languages and cultures.

Frenz, Carey and Jorgenson (1993:148), while examining the psychological properties of the SOC scale, found the Cronbach alpha coefficient to be 0,93 (N=370) which reflects a high level of internal consistency. A Pearson product-moment correlation was also conducted on the scores of one group (N=171) with a one week retest interval and the result indicated a high test-retest reliability ($r=0,92$; $p<0,0001$). An interesting observation by Frenz, Carey and Jorgenson (1993:151) though, was the finding that with regard to the structure of the SOC scale, the three components as suggested by Antonovsky (1979) did not emerge as three separate factors. The analysis of the factor scores rather suggested that the scale has one core factor and therefore appears to be a unidimensional instrument measuring sense of coherence.

v. *Validity*

With regard to validity of the SOC scale, Frenz, Carey and Jorgenson (1993:152) found the overall pattern to be mixed. Evidence supportive of the construct validity of the SOC scale included the finding of an inverse relationship between sense of coherence and perceived stress, which supports Antonovsky's view that individuals with a high sense of coherence are less likely to appraise stimuli as stressors than those with a weak sense of coherence. Furthermore, as expected sense of coherence scores were found to be higher in non-patients than in patients. Evidence that did not support the validity of the sense of coherence construct and measure, relate to the significant positive correlation between sense of coherence and social desirability. This suggests that the sense of coherence items may be somewhat "transparent" and therefore vulnerable to a social desirability response bias.

In a study conducted by Flannery, Perry, Penk, and Flannery, (1994:576) it was found that the sense of coherence dimensions (comprehensibility, manageability and meaningfulness) considered separately or the total SOC scale, correlates significantly in a negative direction with measures of life stress and psychological distress, therefore providing empirical support for reliability and validity of Antonovsky's SOC scale.

A study by Chamberlain and Zika (1988:595) suggests that the three-component structure proposed by Antonovsky (1983) did not receive clear support. Irrespective of varying results pertaining to especially the validity of the instrument, the reliability and validity of the SOC questionnaire that will be used in this research seems acceptable, and will therefore be used.

vi. *Scoring*

According to Antonovsky (1993a:726) the SOC scale consists of 29 five facet items, where respondents are asked to select a response on a seven point semantic

differential scale with two anchoring phrases. The one anchoring phrase for the item would represent a score of one while the other anchoring phrase for the same item would represent a score of seven. Thirteen of these items are formulated negatively and have to be reversed in scoring, so that a high score always expresses a strong sense of coherence (Antonovsky, 1993a: 726). There are 11 comprehensibility, 10 manageability and eight meaningfulness items.

vii. Interpretation

According to Antonovsky (1987:189), the total of the three subscales of the SOC questionnaire gives an indication and total account of the respondent's sense of coherence. Subscales could however also be interpreted individually where a low score would indicate that the construct appears to a lesser extent with respondents, while a high score would indicate that a construct appears to a greater extent.

A high total score represents a strong sense of coherence while high scores in the three dimensions are seen as supportive to the total score and indicates a high level of behaviour according to the descriptions (refer to paragraphs 3.3.4.1, 3.3.4.2 and 3.3.4.3).

viii. Motivation for using the SOC scale

For purposes of this research the SOC scale was chosen as measuring instrument because it best supports the operational design of the concept as discussed in chapter 3. Antonovsky (1987:86) states that there is sufficient prove to make a tentative assumption that the SOC scale is sufficiently representative of the sense of coherence construct and that it is seen as the core concept in the salutogenic model.

Antonovsky (1987:79) also mentions that the SOC scale could be used cross-culturally and he also stated (Antonovsky, 1993a:729) that this is one of the stronger attributes of the questionnaire.

4.5 COLLECTION OF DATA

In this section step 3 will be addressed with specific reference to the development of the electronic versions of the MMQ and the SOC scale, the testing of the electronic versions of the MMQ and the SOC scale, the conducting of a pilot run of the MMQ and SOC scale and the consequent collection of data from the respondents.

4.5.1 Develop electronic format MMQ and SOC scale

During this step, both the existing instruments namely the MMQ and the SOC scale were typed in MS Excel format in order to make it possible to e-mail it to the population in electronic format. This enabled the researcher to attach the questionnaires to an e-mail message and transmit it to as many prospective respondents as necessary. It also enabled the researcher to receive the completed questionnaires via e-mail. The MMQ and SOC scale were both developed in electronic formats in English only.

4.5.2 Testing electronic format MMQ and SOC scales

Both the instruments were carefully compared to the original instruments in order to determine any discrepancies in terms of words, word order and grammar. The final computerised versions of both questionnaires were exactly the same as the original version developed by Engelbrecht (1989) and Antonovsky (1979) in terms of number of questions, structure of questions, order of questions, grammar, spelling and meaning.

4.5.3 Conducting electronic MMQ and SOC scales on pilot group

In order to identify the complexities and possible problems that could be part of an exercise of transmitting questionnaires via e-mail to respondents, it was decided to first test the procedure on a pilot group. This pilot exercise pointed out various technical matters such as that a proper database of the population should be established and that

each questionnaire received back should be numbered upon receipt of that response. In this case numbering proved particularly important as only an unnumbered questionnaire could have been attached to the e-mail message to the population.

4.5.4 Send out electronic format questionnaires to population

After addressing all possible problems identified by the exercise with the pilot group, both the MMQ and the Sense of Coherence scale were attached to an e-mail message and transmitted to the population. The message accompanying the questionnaires gave a brief but informative indication of what the purpose of the research was, instructions on how to save the uncompleted questionnaire, how to complete and return the questionnaires and requested all to respond. A period of three weeks was allowed to receive a response from the population as the electronic conveyance of the questionnaires meant that prospective respondents received the questionnaires immediately and could return it immediately. After expiry of the initial three-week period, a follow-up request with both questionnaires attached was transmitted to the population.

4.5.5 Receive completed questionnaires

From both requests to participate, a number of responses were received and upon opening the message, the attached questionnaires were immediately saved under the persons' name and awarded a number that followed upon each other, starting from one. Each questionnaire was also individually marked to identify whether the respondent was from the group of managers or the group of supervisors. Each questionnaire was also saved in a unique folder named either Supervisor or Manager.

A sample of 56 managers responded (five corrupt responses) which represents 47,9 % of the total population, while a sample of 73 supervisors responded which represent 35,6% of the total population. The relatively low response should be viewed against the closing statement under 4.3.1.

4.5.6 Entering of data into computer

After receiving the questionnaires, both biographic information as well as data derived from the questionnaires were directly captured onto computer. Biographic information obtained entails age, sex, home language, type of experience, years of experience and marital status.

4.6 STATISTICAL PROCESSING OF DATA

Step 4 will entail the process regarding the statistical analyses of data which will be explained. The following issues guided the researcher in the choice of statistical techniques:

4.6.1 Reliability of scales

The measurement instruments used to obtain the data were the Managerial Motivation Questionnaire and the Sense of Coherence scale. In order to further contribute, this research should report on the reliability and construct validity of the instruments used. Due to the relatively small sample size it was decided to accept the construct validity of these instruments as reported in the literature (see paragraphs 4.4.1[v] and 4.4.2[v]) rather than attempting new factor analytical analyses of these tests in an attempt to independently derive the various sub-scales.

It was however possible to perform item analyses in the present study on the items of each of the sub-dimensions of the tests involved. These item analyses involved the extracting of a single factor on the items, inspecting the loading to ascertain whether those items indicated by theory to be reverse scored, should indeed be reverse scored, and identifying items with very low factor loading (less than 0,1) which could then be omitted from the final scale. In the case of each scale, the scale's Cronbach Alpha (Lemke & Wiersma, 1976:98-102) was computed as an index of the internal reliability of

the scale and is reported in chapter 5. It should be noted that in the computation of each scale the following steps were taken:

It was decided to create scale scores for each respondent in the sample as follows:

1. Scale all items in such a manner that a high score on each of the scales indicate "positive" managerial motivation in the case of the MMQ and strong sense of coherence in the case of the SOC scale so that one might expect all scales to correlate positively with each other.
2. Calculate the mean of the item scores that represent a scale.
3. To ease the visual display of the mean scale scores of the various constructs, all scales were transformed to a scale ranging from 0 to 100. This is achieved through the following basic formula:

In the event of a scale ranging from 1 to 5, the new scale = (old scale - 1) divided by 4, multiplied by 100.

4.6.2 Pearson-product moment correlations

The Pearson-product moment correlation gives an index of the linear relation between two interval/ratio scales (Hays, 1963:499). It may not be interpreted as prove of a causal relation, but gives some reflection on the existence of a causal relation in the sense that a hypothesised causal linear relation at least implies a significant correlation. Therefore, when no correlation is found, at least one can conclude that a causal linear relation does not exist either.

Important issues are the relations between the managerial motivation dimensions and sense of coherence dimensions. In this research the following Pearson-product moment correlation matrices (Hays, 1963:499) were computed:

1. Correlations between the managerial motivation dimensions
2. Correlations between the sense of coherence dimensions
3. Correlation of managerial motivation dimensions with sense of coherence dimensions

4.6.3 Comparison of managers to supervisors by means of t-tests

The managers were compared to the supervisors with regard to their mean scores on the various scales. Non-directional t-tests for independent measures (Hays, 1965:589) were computed between the means of the two groups to ascertain statistical significance.

4.6.4 Statistical significance level

All tests were performed at the 0,01 level of significance. According to Winer (1971:11) statistical significance is defined as the probability level that is to be considered too low to warrant support of the hypothesis being tested. Some motivation for these tests follow from the realisation that when several statistical tests are performed on the data, the type I error rate (or level of significance) accumulates (Hays, 1963:280-281). Conventionally, the levels 0,05 and 0,01 are used as levels of significance for the statistical tests performed. These levels of significance are however possibly too severe. The reason for using a level of significance of 0,01 is because the human sciences is also concerned about missing a significant result, that is, committing a so-called type-II error (Hays, 1963:281).

Winer (1971:14) points out that when both types of errors (type II and I) are equally important, levels such as 0,20 (and possibly even 0,30) are more appropriate than the conventionally used 0,05 and 0,01 levels. Another consideration in the choice of the

level of significance is the sample size. In the present research the sample size is relatively small (N=124) with a consequence that statistical tests lack power which means that significant results are not easily obtained (Hays, 1963:273).

With respect to the compounding of type I error: One method often used to counteract this compounding effect of the type I error is to make a Bonferroni adjustment to the chosen level of significance (Kirk, 1968:137). This Bonferroni adjustment boils down to dividing the chosen level of significance by the number of separate tests to be performed in order to obtain the level of significance for the individual statistical test. Unfortunately the Bonferroni method gives a too conservative level of significance when many tests are to be performed. Kirk (1968:137) gives a comprehensive discussion on the Bonferroni t-tests, but in the end, the choice of a significance level in the human sciences remains somewhat arbitrary and in the present study an overall significance level of 0,01 per statistical test was considered reasonable.

The SAS Version 5 Edition (1985), developed by the SAS Institute Inc., Cary, NC, USA was used for the statistical analysis of the data.

4.7 CENTRAL HYPOTHESIS OF THE RESEARCH

In presenting step 5, the following central hypothesis is formulated for the present research:

A positive relationship exists between managerial motivation and sense of coherence and between the dimensions of managerial motivation and the dimensions of sense of coherence.

The following additional hypothesis is formulated for the present research:

There is no significant difference between the scores of managers and the scores of supervisors for managerial motivation and sense of coherence and for the distinguishable dimensions of managerial motivation and sense of coherence.

Steps one to five in the empirical research process have now been concluded.

4.8 CONCLUSION

In this chapter the empirical part of the research was discussed. To attain this, the empirical objectives were stated; the research environment and the selection of the population and sample were discussed. Descriptions of the measuring instruments were presented. The collection and processing of data was consequently discussed before a central hypothesis and an additional hypothesis were formulated.

In the next chapter the reporting and interpretation of results will take place, conclusions will be reached, limitations of the research will be discussed and finally recommendations will be made.

CHAPTER 5

RESULTS

The objective of this chapter is to discuss the results of the research. To attain this, the demographic profile of the total sample and the demographics of the managers and supervisors will be highlighted. Furthermore, the reliability of the Managerial Motivation Questionnaire and the Sense of Coherence Scale will be discussed before the correlation between managerial motivation dimensions and sense of coherence dimensions will be discussed. A comparison of managers and supervisors on managerial motivation and sense of coherence will be made before a conclusion and chapter summary will be given. Step 6 of the empirical research will hereby be addressed.

5.1 DEMOGRAPHIC PROFILE OF THE TOTAL SAMPLE

For ease of reference and for purposes of presenting the full perspective in regard to the sample, the demographic and biographic profiles of the total sample and a comparison between managers and supervisors will be visually presented.

5.1.1 Manager vs supervisor distribution of total sample

In regard to the total sample the majority of respondents were supervisors as portrayed by figure 5.1.

The reason for this distribution could be attributed to the fact that the number of managers requested to complete questionnaires were almost half that of the number of supervisors.

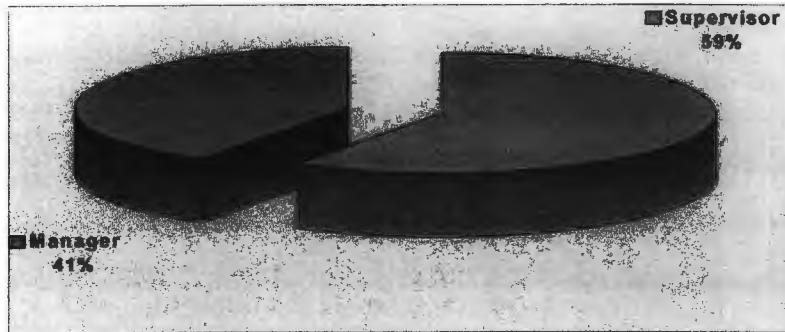


Figure 5.1: Manager vs supervisor distribution of the total sample

5.1.2 Male vs female distribution of the total sample

In regard to the total sample the majority of respondents were male as portrayed by figure 5.2. This could be attributed to the fact that the percentage of males in the population was much higher than the percentage of females.

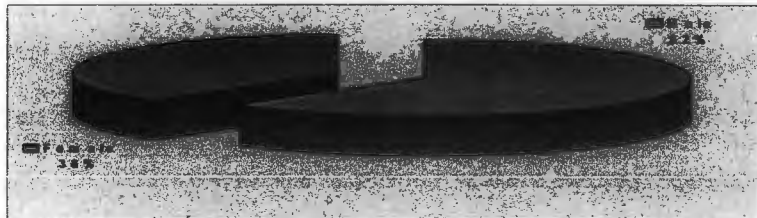


Figure 5.2 Male vs female distribution of sample

5.1.3 Age distribution of the total sample

In regard to the total sample the age distribution of the total sample is portrayed in figure 5.3.

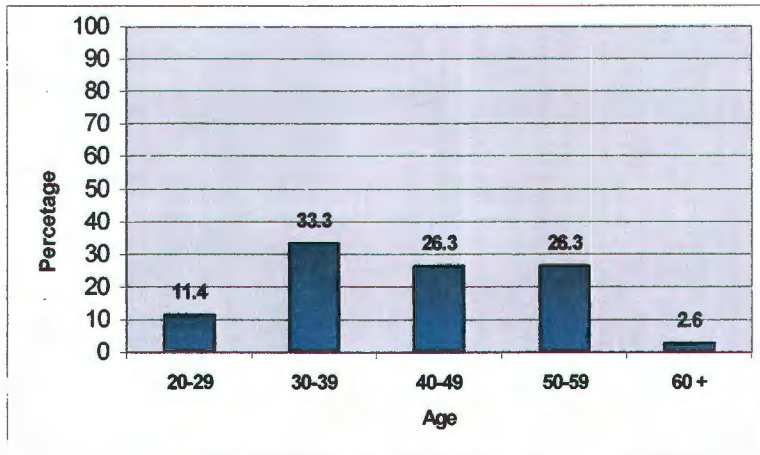


Figure 5.3 Age distribution of sample

5.1.4 Language distribution of the total sample

In regard to the total sample the language distribution is portrayed in figure 5.4. The reason for the majority of subjects who are Afrikaans speaking, is due to the fact that the ARC is traditionally an Afrikaans speaking organisation whose language of command has only been changed to English during 1999 due to political changes in the country.

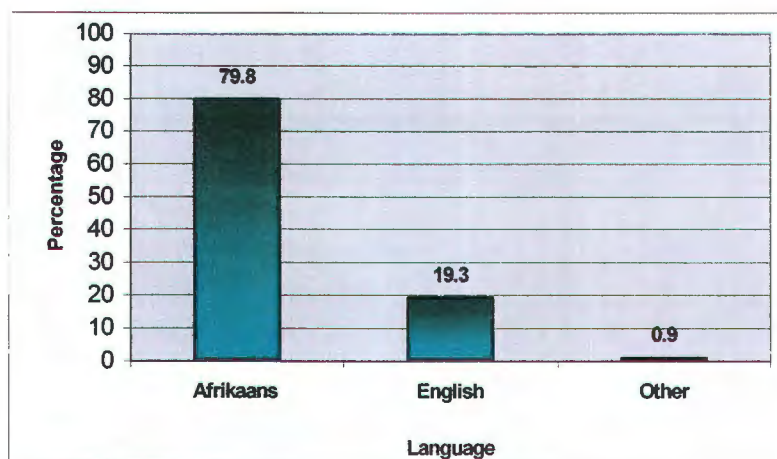


Figure 5.4 Language distribution of sample

5.1.5 Area of experience of the total sample

The distribution in regard to area of experience is portrayed in figure 5.5. The reason why the vast majority of respondents were from a research background is attributed to the fact that most employees on supervisory and managerial levels are working in research.

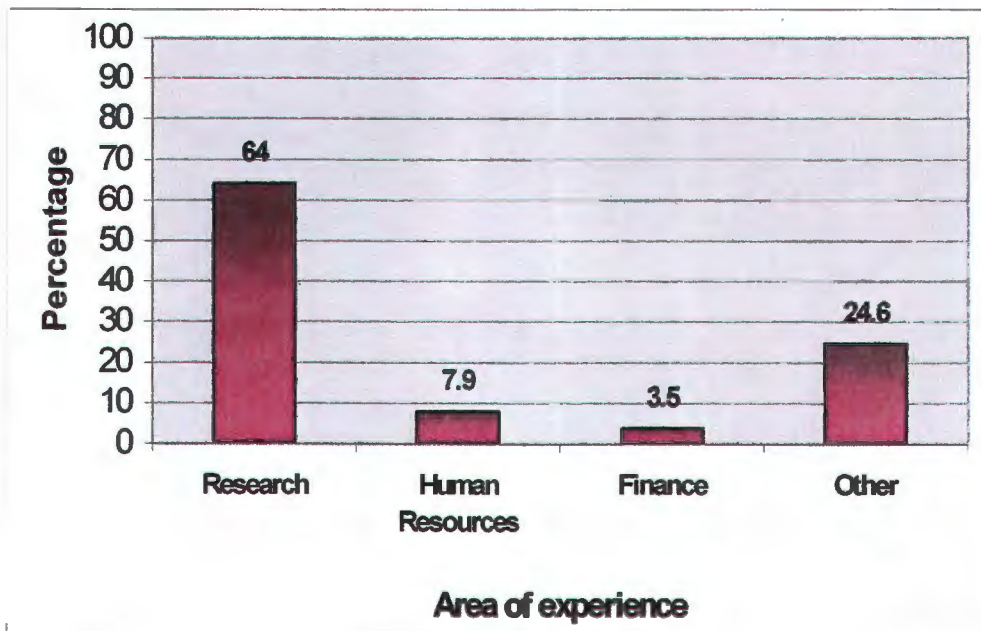


Figure 5.5 Distribution regarding area of experience of sample

5.1.6 Distribution in regard to years of experience of the total sample

The distribution in regard to years of experience is portrayed in figure 5.6.

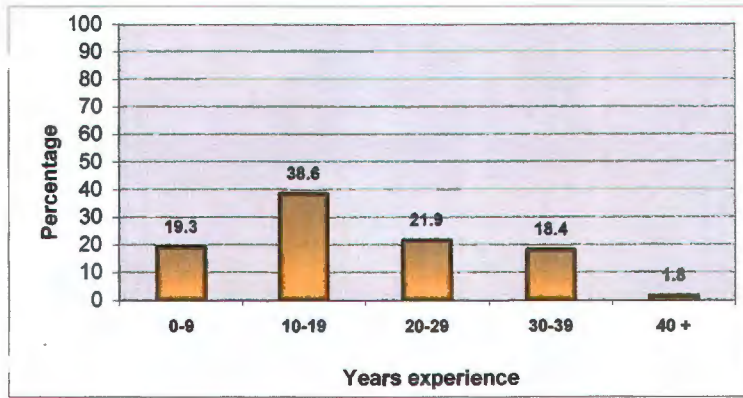


Figure 5.6 Distribution regarding years of experience of sample

5.1.7 Marital status distribution of the total sample

In regard to the total sample the marital status distribution is portrayed in figure 5.7.

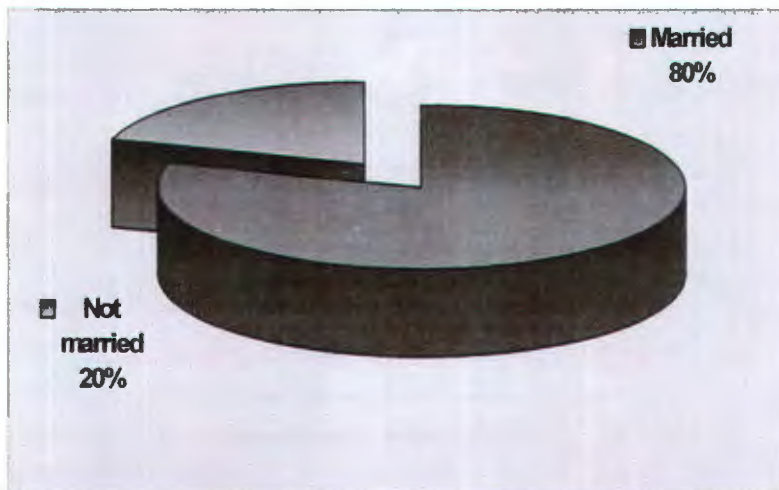


Figure 5.7 Distribution regarding marital status of sample

REMARK

Presented above are the various sets of demographic information for the total group of respondents. In the next section the demographic information of the two groups (managers and supervisors) will be compared.

5.2 COMPARING THE DEMOGRAPHICS OF MANAGERS AND SUPERVISORS

When comparing the demographics of managers with that of supervisors, certain interesting aspects of the composition of the two groups are observed.

5.2.1 Male / female composition

In terms of the male vs female composition of the two groups, it is interesting to note that the supervisors are almost on par for both sexes while for the managers, the overwhelming majority of respondents were male. For a visual representation of this situation in terms of percentages, refer to figure 5.8.

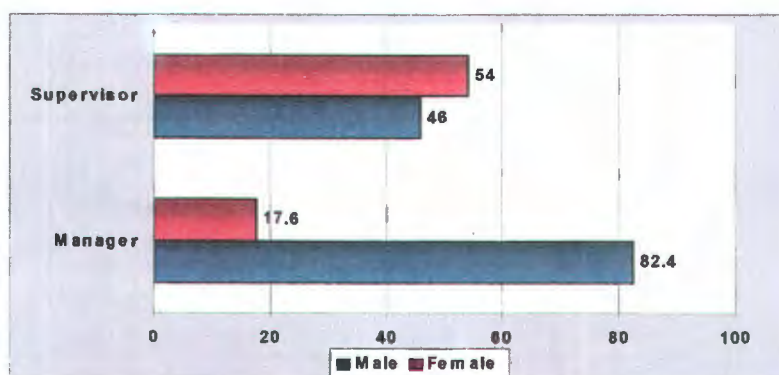


Figure 5.8: Male / Female comparison for managers and supervisors

Tables 5.1 and 5.2 provide the actual figures for each of the samples:

Table 5.1: Gender distribution for managers

GENDER	FREQUENCY
Male	42
Female	9
Corrupt responses	5
Total Managers	56

Table 5.2: Gender distribution for supervisors

GENDER	FREQUENCY
Male	30
Female	33
Unknown	10
Total	73

5.2.2 Age distribution

In terms of the age distribution per group, it was notable that the majority of respondents in the group of supervisors were in the age group 30 to 39 while the respondents in the group of managers were mostly in the age group 50 to 59. For a visual representation of this situation, refer to figure 5.9.

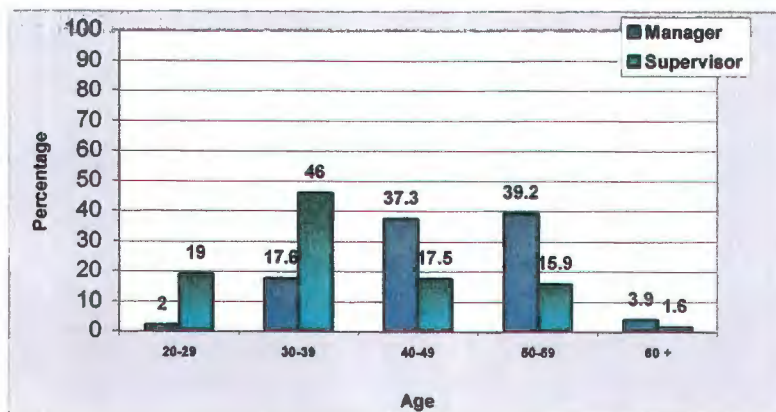


Figure 5.9 Age distribution for managers and supervisors

Tables 5.3 and 5.4 provide the actual figures for each of the samples:

Table 5.3: Age distribution for managers

AGE	FREQUENCY
20 - 29 years	1
30 - 39 years	9
40 - 49 years	18
50 - 59 years	21
60 + years	2
Corrupt responses	5
Total	56

Table 5.4: Age distribution for supervisors

AGE	FREQUENCY
Unknown	10
20 - 29 years	11
30 - 39 years	29
40 - 49 years	12
50- 59 years	10
60> years	1
Total	73

The age distribution of the managers varied from 27 years to 63 years with a mean (sum of scores, divided by number of scores) of 47,1 years, while the age distribution of the supervisors varied from 25 years of age to 61 years of age, with a mean (sum of scores, divided by number of scores) of 38,5 years.

5.2.3 Language distribution

In terms of the home language distribution per group, it was notable that the majority of respondents in both groups were Afrikaans speaking. For a visual representation of this situation, refer to figure 5.10.

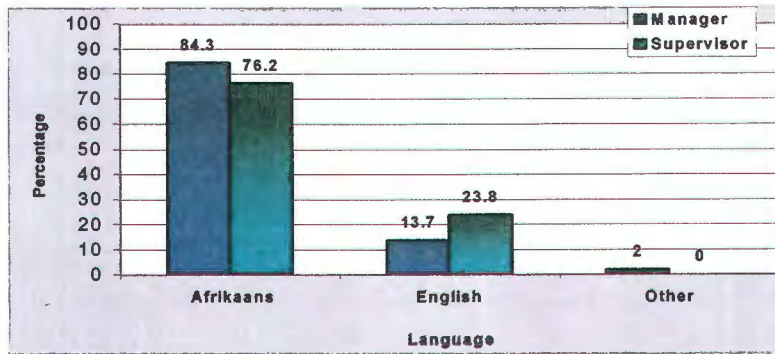


Figure 5.10 Language distribution for managers and supervisors

Three language groups were represented within the sample of managers, while two language groups were represented within the sample of supervisors:

Tables 5.5 and 5.6 provide the actual figures for each of the samples:

Table 5.5: Language distribution for managers

LANGUAGE	FREQUENCY
Afrikaans	43
English	7
Pedi	1

Table 5.6: Language distribution for supervisors

LANGUAGE	FREQUENCY
Afrikaans	47
English	16
Other	0
Unknown	10

5.2.4 Area of experience

In terms of the area of experience per group, it was notable that the majority of respondents in both groups were working in the area of agricultural research. For a visual representation of this situation, refer to figure 5.11.

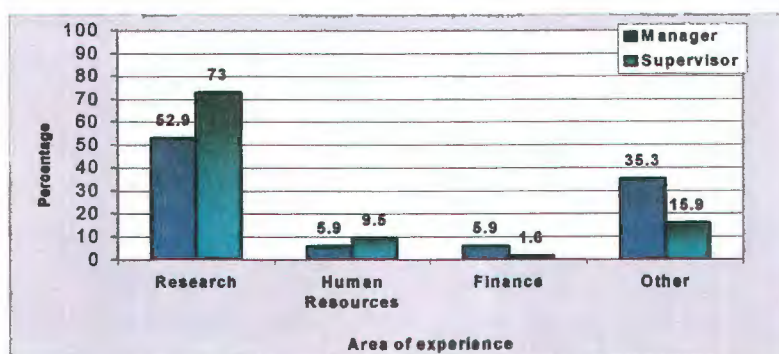


Figure 5.11 Area of experience for managers and supervisors

The nature of the experience of respondents in the samples of managers and supervisors is portrayed as in tables 5.7 and 5.8.

Table 5.7: Distribution in terms of experience for managers

DEPARTMENT	FREQUENCY
Research	27
Human Resources	3
Finance	3
Public Relations	2
Managerial	16

Table 5.8: Distribution in terms of experience for supervisors

DEPARTMENT	FREQUENCY
Research	50
Human Resources	7
Finance	2
Marketing	0
Managerial	4
Unknown	10

5.2.5 Years of experience

In terms of the years of experience per group, it was notable that the majority of supervisors had 10 - 19 years of experience, while the majority of managers had 20 - 29 years of experience. For a visual representation of this situation, refer to figure 5.12.

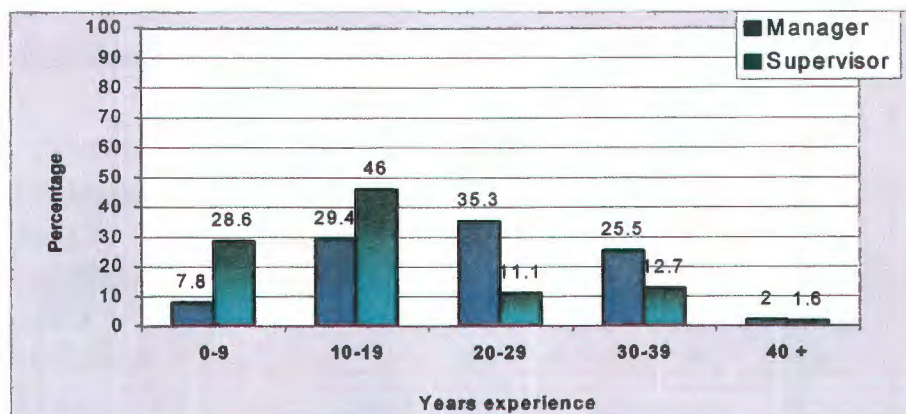


Figure 5.12 Years of experience for managers and supervisors

The years of experience of the managers varied between 5 years and 42 years with a mean of 23 years, while the years of experience of the supervisors varied between 3 years and 41 years with a mean of 16. Tables 5.9 and 5.10 provide the actual figures for each of the samples:

Table 5.9: Distribution in terms of years of experience for managers

YEARS OF EXPERIENCE	FREQUENCY
0-9 years	4
10 - 19 years	15
20 - 29 years	19
30 - 39 years	12
40 + years	1
Corrupt responses	5
Total	56

Table 5.10: Distribution in terms of years of experience for supervisors

YEARS OF SERVICE	FREQUENCY
Unknown	10
0-9 years	18
10 - 19 years	28
20 - 29 years	8
30 - 39 years	8
40> years	1
Total	73

This concludes the demographic profile of the managers and supervisors who formed part of the empirical research.

5.3 RELIABILITY OF THE MANAGERIAL MOTIVATION QUESTIONNAIRE

In this section the reliability of the Managerial Motivation Questionnaire will be discussed in terms of the Cronbach alpha coefficients while the correlation between the various dimensions of the Managerial Motivation Questionnaire will also be assessed.

5.3.1 Alpha Coefficients: Dimensions of the Managerial Motivation Questionnaire

5.3.1.1 Reporting of data

In table 5.11 the Cronbach alpha coefficients are given for the various items of the Managerial Motivation Questionnaire which were loaded on a single factor loading.

Table 5.11: Single factor loadings and Cronbach Alphas: Managerial motivation (120≤N≤124)

ATTITUDE TOWARDS AUTHORITY FIGURES		COMPETITIVENESS		ASSERTIVENESS		POWER MOTIVE		DESIRE FOR A DISTINCTIVE GROUP ROLE		WILLINGNESS TO CONDUCT ADMIN FUNCTIONS	
Item	Factor loading	Item	Factor loading	Item	Factor loading	Item	Factor loading	Item	Factor loading	Item	Factor loading
1	0,55	2	0,72	3	-0,60	4	0,52	5	0,53	6	0,40
7	0,43	8	0,56	9	-0,37	10	0,50	11	0,41	12	0,52
13	0,75	14	0,51	15	0,48	16	0,22	17	0,66	18	0,35
19	0,60	20	-0,53	21	0,50	22	0,50	23	0,83	24	0,70
25	0,49	26	0,66	27	0,42	28	0,62	29	0,51	30	0,64
31	0,45	32	0,11	33	0,52	34	0,37	35	0,60	36	0,62
37	0,69	38	0,69	39	0,28	40	0,58	41	0,61	42	0,72
43	0,48	44	0,23	45	-0,67	46	0,49	47	-0,60	48	0,60
49	0,56	50	0,39	51	0,33	52	0,63	53	-0,68	54	0,58
55	0,73	56	0,41	57	0,41	58	0,41	59	-0,45	60	0,09
		61	0,44	62	0,38	63	0,50	64	-0,74	65	0,65
		66	0,27	67	0,62	68	0,46	69	-0,44	70	0,80
		71	0,53	72	0,64	73	-0,68				
		74	0,36	75	0,53	76	0,29				
		77	0,55	78	-0,36	79	0,59				
		80	0,43	81	0,55	82	-0,37				
		83	0,45	84	0,58	85	-0,59				
		86	0,40	87	-0,45	87	0,51				
		89	0,48	90	-0,39	91	-0,40				
		92	0,46			93	-0,53				
		94	0,64			95	0,63				
		96	0,45			97	0,34				
		98	0,57								
Cronbach Alpha = 0,76		Cronbach Alpha = 0,85 ¹		Cronbach Alpha = 0,80 ²		Cronbach Alpha = 0,84 ³		Cronbach Alpha = 0,82 ⁴		Cronbach Alpha = 0,82	

1. Item 20 was rescaled to measure in the same direction as other items
2. Items 15, 21, 27, 33, 51, 57, 62, 67, 72, 75, 81 and 84 were rescaled to measure in the same direction as other items
3. Items 73, 82, 85, 91 and 93 were rescaled to measure in the same direction as other items
4. Items 47, 53, 59, 64 and 69 were rescaled to measure in the same direction as other items

The item-factor loadings assisted the researcher in the decision of which items to re-scale (items with negative loadings were re-scaled). The purpose was not to conduct an item analysis. As very few loadings were small in absolute value and the Cronbach alpha values all appeared to be reasonably high, detailed item-test correlation was not deemed necessary.

5.3.1.2 Interpretation of data

Judging from table 5.11 it seems, with little exception, as if the alpha values are high and consequently no items will be rejected. The values are nearly the same as found by Engelbrecht (1989:8) who mentions that the MMQ demonstrates internal consistencies on two different samples, with coefficient alpha values of 0,90 (n=360) and 0,91 (n=535) respectively. The coefficient alpha values for the subscales ranged according to Engelbrecht (1989:12) from 0,70 to 0,83 (n=360) and 0,71 to 0,83 (n=535) with an average value of 0,80 (n=535).

However as the reliability of the Managerial Motivation Questionnaire is not the purpose of this study, the alpha coefficients as found will be accepted for purposes of this research.

5.3.2 Correlation between the dimensions of managerial motivation

In table 5.12 the correlation between the various dimensions of managerial motivation will be presented.

Table 5.12: Correlation between the managerial motivation dimensions. (N = 124)

	ATTITUDE	COMPETITIVENESS	ASSERTIVENESS	POWER	DESIRE	ADMIN
Attitude towards authority figures	1,00 ¹ 0,0 ²					
Competitiveness	0,16 0,069	1,00 0,0				
Assertiveness	-0,14 0,101	0,38 0,000	1,00 0,0			
Power motive	0,10 0,250	0,60 0,000	0,62 0,000	1,00 0,0		
Desire for a distinctive group role	0,01 0,848	0,51 0,000	0,40 0,000	0,43 0,000	1,00 0,0	
Willingness to conduct admin functions	0,29 0,001	0,27 0,001	0,26 0,002	0,32 0,000	0,05 0,509	1,00 0,0

1. Pearson product moment correlation
2. P-values given below the correlation

From the above it is evident that attitude towards authority figures shows a very low or no correlation to competitiveness ($r = 0,16$; $p > 0,01$), assertiveness ($r = -0,14$; $p > 0,01$), power motive ($r = 0,10$; $p > 0,01$), desire for a distinctive group role ($r = 0,01$; $p > 0,01$) and a weak positive correlation with willingness to conduct administrative functions ($r = 0,29$; $p < 0,01$).

Competitiveness shows a relatively strong positive correlation with assertiveness ($r = 0,38$; $p < 0,01$), a relatively weak positive correlation with willingness to conduct administrative functions ($r = 0,27$; $p < 0,01$), a very strong correlation with power motive ($r = 0,60$; $p < 0,01$) and desire for a distinctive group role ($r = 0,51$; $p < 0,01$).

Assertiveness shows a very strong positive correlation with power motive ($r = 0,62$; $p < 0,01$), a strong positive correlation with desire for a distinctive group role ($r = 0,40$; $p < 0,01$) and a relatively weak positive correlation with willingness to conduct administrative functions ($r = 0,26$; $p < 0,01$).

Power motive shows a strong positive correlation with desire for a distinctive group role ($r = 0,43$; $p < 0,01$) and a relatively strong positive correlation with willingness to conduct administrative functions ($r = 0,32$; $p < 0,01$).

Desire for a distinctive group role shows no correlation to willingness to conduct administrative functions ($r=0,05$; $p>0,01$).

When interpreting the above, it is interesting to observe that attitude toward authority figures does not correlate with constructs such as competitiveness, assertiveness, power motive and desire for a distinctive group role, but only weakly correlate with willingness to conduct administrative functions. The non-correlation is, taking the nature of the different dimensions into consideration, understandable. Keeping in mind the nature of attitude towards authority figures, power motive and assertiveness, it would actually be expected that attitude towards authority figures would show a strong negative correlation with constructs such as power motive and assertiveness.

Keeping in mind the nature of the two constructs, the strong correlation between assertiveness and power motive is understandable. The same accounts for the relatively strong correlation between competitiveness and power motive and desire for a distinctive group role and competitiveness.

5.4 RELIABILITY OF THE SENSE OF COHERENCE SCALE

In this section the reliability of the Sense of Coherence Scale will be discussed in terms of the Cronbach alpha coefficients while the correlation between the various dimensions of the Sense of Coherence Scale will also be assessed.

5.4.1 Alpha Coefficients – Dimensions of the Sense of Coherence Scale

5.4.1.1 Reporting of data

In table 5.13 the Cronbach alpha coefficients for the various items of the Sense of Coherence Scale are given which were loaded on a single factor loading.

Table 5.13: Single factor loadings and Cronbach Alphas: Sense of Coherence (120≤N≤124)

COMPREHENSION		MANAGEABILITY		MEANINGFULNESS	
Item	Factor loading	Item	Factor loading	Item	Factor loading
1	-0,46	2	-0,53	4	0,39
3	0,21	6	0,65	7	0,63
5	-0,45	9	-0,46	8	-0,76
10	0,37	13	0,73	11	0,66
12	0,69	18	-0,45	14	0,79
15	0,50	20	0,62	16	0,66
17	0,32	23	0,71	22	-0,75
19	0,72	25	0,58	28	-0,74
21	0,74	27	0,65		
24	0,75	29	-0,66		
26	0,49				
Cronbach Alpha = 0.75 ¹		Cronbach Alpha = 0.80 ²		Cronbach Alpha = 0.81 ³	

1. Items 1 and 5 rescaled to measure in the same direction as other items
2. Items 6, 13, 20, 23, 25 and 27 rescaled to measure in the same direction as other items
3. Items 4, 7, 11, 14 and 16 rescaled to measure in the same direction as other items

5.4.1.2 Interpretation of data

Judging from table 5.13 it seems, with little exception, as if the alpha values are high and consequently no items will be rejected. The values are nearly the same as indicated by Antonovsky (1993:727-730) in his summary of 26 research studies. The average alpha coefficient in eight published studies is 0,91 (range, 0,86 - 0,95), in three theses / dissertations, 0,85 (range, 0,82 - 0,86), in 15 unpublished studies, 0,88 (range, 0,83 - 0,93). However the reliability of the Sense of Coherence Scale is not the purpose of this research, and the alpha coefficients as found in the 26 research studies, will be accepted for purposes of this research.

5.4.2 Correlation between the dimensions of sense of coherence

Table 5.14 gives an indication of the correlation between the dimensions of comprehension, manageability and meaningfulness of the sense of coherence construct.

Table 5.14 Correlation between dimensions of sense of coherence (N=124)

	COMPREHENSION	MANAGEABILITY	MEANINGFULNESS	ANTONOVSKY TOTAL
Comprehension	1,00 ¹ 0,0 ²			
Manageability	0,65 0,65	1,00 0,000		
Meaningfulness	0,56 0,000 ³	0,70 0,000	1,00 0,000	
Antonovsky total	0,86 0,000	0,90 0,000	0,84 0,000	1,00 0,0

- 1 Pearson product moment correlation
- 2 P-values given below the correlation
- 3 Values are very small but not 0

From the above it is evident that comprehension correlates significantly positive with meaningfulness ($r = 0,56$; $p < 0,01$) and with the total Sense of Coherence Scale ($r = 0,86$; $p < 0,01$), but that it is difficult to tell whether it correlates with Manageability ($r = 0,65$; $p > 0,01$) due to the P-value that could not clearly rule out that a relation would not be attributed to chance.

Manageability correlates significantly positive with Meaningfulness ($r = 0,70$; $p < 0,01$) and with the total Sense of Coherence Scale ($r = 0,90$; $p < 0,01$), while meaningfulness correlates significantly positive with the total Sense of Coherence Scale ($r = 0,84$; $p < 0,01$).

When interpreting the above it is clear that all three dimensions correlate significantly positive with the total Sense of Coherence Scale, indicating that a high total score will mean that an individual will also measure high on each of the dimensions.

5.5 CORRELATION BETWEEN MANAGERIAL MOTIVATION DIMENSIONS AND SENSE OF COHERENCE DIMENSIONS

5.5.1 Reporting of data

In this section the correlation between the dimensions of managerial motivation and the dimensions of sense of coherence will be determined.

In this regard table 5.15 gives an indication of the dimensions of managerial motivation and the dimensions of sense of coherence.

Table 5.15 Correlation between managerial motivation dimensions and sense of coherence dimensions

MANAGERIAL MOTIVATION DIMENSIONS	SENSE OF COHERENCE DIMENSIONS			
	Comprehension	Manageability	Meaningfulness	SOC total
Attitude towards authority figures	0,18 ¹	0,13	-0,02	0,12
	0,034 ²	0,129	0,769	0,160
Competitiveness	0,24	0,27	0,30	0,31
	0,005	0,002	0,000	0,000
Assertiveness	0,36	0,44	0,36	0,44
	0,000	0,000	0,000	0,000
Power motive	0,38	0,43	0,41	0,47
	0,000	0,000	0,000	0,000
Desire for a distinctive group role	0,31	0,31	0,22	0,32
	0,000	0,000	0,012	0,000
Willingness to conduct admin functions	0,32	0,23	0,28	0,32
	0,000	0,009	0,001	0,000

1. Pearson product moment correlation
2. P-values given below the correlation

5.5.2 Interpretation of data

From the results in table 5.15, it is evident that attitude towards authority figures shows little relation to either comprehension ($r = 0,18$; $p > 0,01$), manageability ($r = 0,13$; $p > 0,01$), meaningfulness ($r = -0,02$; $p > 0,01$) and the total Sense of Coherence scale ($r = 0,12$; $p > 0,01$).

Competitiveness relates significantly positive to comprehension ($r = 0,24$; $p < 0,01$), manageability ($r = 0,27$; $p < 0,01$), meaningfulness ($r = 0,30$; $p < 0,01$) and the total Sense of Coherence Scale ($r = 0,31$; $p < 0,01$).

Assertiveness relates significantly positive to comprehension ($r = 0,36$; $p < 0,01$), manageability ($r = 0,44$; $p < 0,01$), meaningfulness ($r = 0,36$; $p < 0,01$) and the total Sense of Coherence Scale ($r = 0,44$; $p < 0,01$).

Power motive relates significantly positive to comprehension ($r = 0,38$; $p < 0,01$), manageability ($r = 0,43$; $p < 0,01$), meaningfulness ($r = 0,41$; $p < 0,01$) and the total Sense of Coherence Scale ($r = 0,47$; $p < 0,01$).

Desire for a distinctive group role relates positively to comprehension ($r = 0,31$; $p < 0,01$), manageability ($r = 0,31$; $p < 0,01$), meaningfulness ($r = 0,22$; $p > 0,01$) and the total Sense of Coherence Scale ($r = 0,32$; $p < 0,01$).

Willingness to conduct administrative functions relates positively to comprehension ($r = 0,32$; $p < 0,01$), manageability ($r = 0,23$; $p < 0,01$), meaningfulness ($r = 0,28$; $p < 0,01$) and the total Sense of Coherence Scale ($r = 0,32$; $p < 0,01$).

When interpreting the above, it is evident that most of the dimensions of managerial motivation have a relatively strong relationship with the dimensions of sense of coherence. The only exception is attitude towards authority figures that does not have a statistical significant relationship with any of the dimensions of sense of coherence. A possible explanation for this could be that all the dimensions of sense of coherence basically represent the psychologically strong part of an individual while attitude towards authority figures refers to the ready acceptance of authority imposed by authority figures. By this it is not meant that a person strong on sense of coherence would not accept authority, but that such a person would rather prefer to execute authority himself.

5.6 A COMPARISON OF MANAGERS AND SUPERVISORS ON MANAGERIAL MOTIVATION AND SENSE OF COHERENCE

In the following section a general profile in terms of managerial motivation and sense of coherence of the total group will be presented. An indication in regard to the mean scores for the total group will be displayed with reference to the two concepts. The mean scores of the total group (managers and supervisors) will be discussed as a comparison of difference between managers and supervisors.

5.6.1 General profile in terms of managerial motivation and sense of coherence for the total group

The mean scores for the total group, in other words both managers and supervisors are portrayed in figure 5.13. In this regard desire for a distinctive group role as dimension of managerial motivation is the dimension where the total group scored lowest while meaningfulness as dimension of sense of coherence demonstrates to be the area in which the total group scored highest, in relation to the other scores.

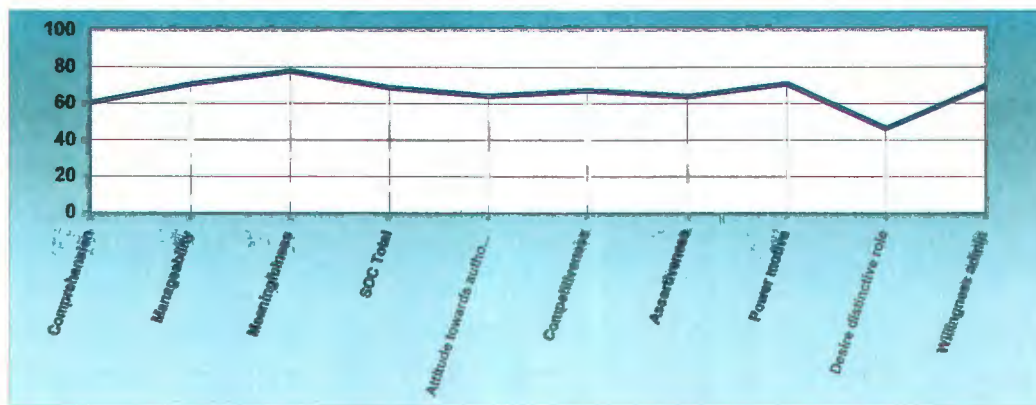


Figure 5.13 Mean scores for the total group

Viewed from figure 5.13, desire for a distinctive group role as dimension of managerial motivation demonstrates to be the area in which the total group scored lowest. This particular dimension shows a steep decline in comparison to the relatively uniform measurement of the other dimensions of both sense of coherence and managerial motivation. According to Miner (1978:742) the managerial job requires a person to stand out from his group and assume a position of high visibility. Such a person must deviate from the immediate subordinate group and do things that inevitably invite attention, discussion and perhaps criticism from those reporting to him. When this idea of standing out from the group elicits feelings of unpleasantness, then behaviour appropriate to the role will occur much less often than would otherwise be the case, or

would be required for the position. It is the person who enjoys being the centre of attention who is most likely to meet the demands of the job in this area. Such a person has many of the characteristics of a good actor. Judged from the mean score regarding this dimension for the total group, and compared to the mean scores of other dimensions, it is evident that in general, the total group prefers not to stand out into a position of high visibility. According to Miner (1978) a person scoring low on this dimension will elicit feelings of unpleasantness when in a position of standing out from the group. This resentment of standing out and being the centre of attention would result in behaviour not appropriate to the role of manager and would result in less favourable performance. The person who scores high on this dimension will be more likely to meet the demands of a managerial position. The general low score on desire for a distinctive group role coincides with observations by the researcher that many managers and supervisors in the ARC are avoiding managerial roles and in particular disciplinary roles.

Antonovsky (1984:119) states that people who score high on meaningfulness feel that life makes sense emotionally, that at least some of the problems and demands posed by living are worth investing energy in, are worthy of commitment and engagement and are challenges that are welcome rather than burdens that they would much rather do without. Antonovsky (1987:18) further mentions that he sees meaningfulness as representative of the motivational element. Those therefore classified as having a strong sense of coherence always spoke of areas in life that were important to them, that they cared about and that made sense to them in the emotional and not only the cognitive way. When hardships are imposed on people who scored high on meaningfulness, they will willingly take up the challenge and will be determined to seek meaning in it and will do their best to overcome it with dignity. When compared to the other dimensions measured, one could then argue that in relation to other dimensions, the total group feels that life makes sense emotionally, that problems are demands worth investing energy into and are rather challenges than burdens.

The above however merely reflects the central tendencies of the total group as explained by Christensen (1994:423). A comparison of the difference between managers and supervisors will be discussed in section 5.6.2.

5.6.2 Comparison of difference between managers and supervisors in terms of managerial motivation and sense of coherence

In this section the mean scores and standard deviations of the two groups (managers and supervisors) in terms of the three dimensions of sense of coherence and the six dimensions of managerial motivation will be discussed. In this regard a non-directional t-test has been performed and the p-values for the non-directional t-test are also given. The purpose of the t-test was to allow for the mean scores to be considered in an equate manner. The t-test scores therefore eliminate the probability that differences observed in mean scores could be attributed to chance.

An indication of differences between the two groups in regard to certain dimensions will be stated and a possible reason for this will be proposed. Table 5.16 will provide the mean scores (with p-value for non-directional t-test) while figure 5.14 will provide a visual representation of the difference between the respective groups.

Table 5.16: Mean scores for managers and supervisors

CONSTRUCTS		MANAGERS (N = 51)		SUPERVISORS (N= 73)		P-VALUE
		Mean	Std	Mean	Std	
Sense of Coherence	Comprehension	61,14	13,85	60,08	12,91	0,661
	Manageability	72,93	11,83	69,17	14,97	0,137
	Meaningfulness	81,09	10,04	75,16	15,46	0,018
	Antonovsky total	70,75	10,35	67,37	12,71	0,118
Managerial Motivation	Attitude towards authority figures	62,83	12,99	64,67	15,37	0,485
	Competitiveness	68,37	12,63	65,87	12,04	0,267
	Assertiveness	66,03	12,43	62,10	14,33	0,115
	Power motive	74,95	11,21	67,61	11,84	0,000
	Desire distinctive role	46,65	17,64	46,07	18,51	0,861
	Willingness admin	70,90	15,91	68,46	16,24	0,407

1 P-value for non-directional t-test

Figure 5.14 represents a visual indication of the difference between managers and supervisors regarding the six dimensions of managerial motivation and the three dimensions of sense of coherence.

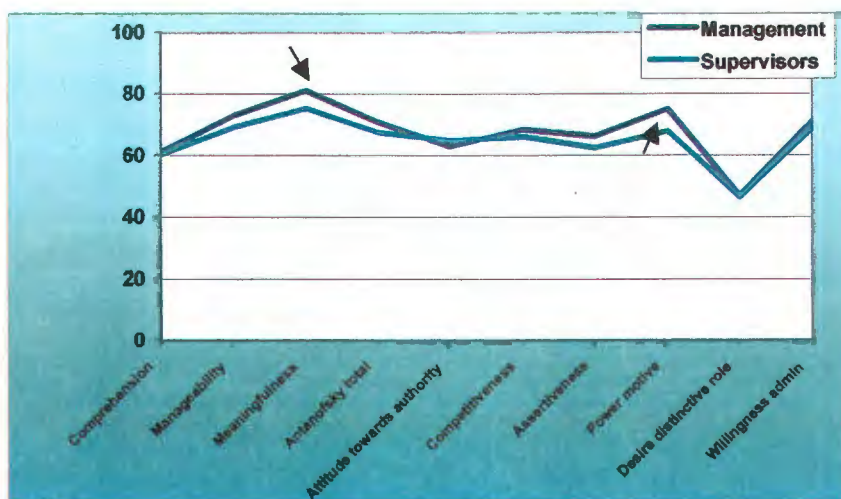


Figure 5.14 Visual representation of difference between managers and supervisors

When considering the above mean scores and visual representation of the mean scores between managers and supervisors, it is evident that the biggest difference between the managers and supervisors are the dimensions of power motive under managerial motivation and meaningfulness under sense of coherence. In section 5.6.2.1 the difference in respect of the two mentioned dimensions will be evaluated against the literature as explained in chapters 2 and 3.

5.6.2.1 *Difference in regard to Meaningfulness*

Antonovsky (1979:125) refers to the aspect of meaningfulness as stimuli impinged on a person that is experienced as meaningful. What is also important is the overall expectation that stimuli will continue to be meaningful. Antonovsky (1987:18), refers to meaningfulness as the motivational element and well to the extent to which one feels that life makes sense emotionally. Events are viewed as challenges, as worthy of

emotional investment and commitment while challenges are welcome and not viewed as burdens that one would much rather do without. This however does not mean that someone high on meaningfulness might be happy about the death of a loved one, the need to undergo a serious operation or being fired, but when these unhappy experiences are imposed on such a person, he or she will willingly take up the challenge, will be determined to seek meaning in it and will do his or her best to overcome it with dignity. An important aspect that Antonovsky (1987:22) mentioned is the fact that the motivational component of meaningfulness is most crucial because, without it, being high on comprehensibility or manageability is likely to be temporary.

When determining the reason for the group of managers to score significantly higher than the supervisors on this dimension, the answer could lie in the consideration of external variables known about the two groups, such as age, marital status, years of experience, type of experience etcetera.

One aspect that could contribute to this difference is the type of work performed by the two groups: In this regard 52,9% of managers in the sample perform work related to scientific research in the natural sciences, while 73% of supervisors in the sample performed work related to research in the natural sciences. In this regard it would be safe to argue that the majority of the sample amongst both groupings is busy on a daily basis with activities that involve research. This however does not mean that the tasks of managers and supervisors are similar, as supervisors have contact to a much greater extent with lower level and often illiterate workers performing basic tasks such as the feeding and slaughtering of animals or the planting and harvesting of crops and so forth. Middle level managers on the other hand mainly have contact with supervisors, other researchers and managers and to a much lesser extent with lower level workers. Managers are also mostly responsible for the development of a research protocol, while supervisors are responsible for executing the work according to the protocol developed by the researcher. The execution of this work according to the protocol consequently involves supervision of the mentioned lower level workers.

The fact that managers are therefore mainly responsible for proposing and planning of a project and as such experience sets of stimuli that make sense to them (because they developed the protocol), might contribute to their enhanced (in comparison to supervisors) feeling that stimuli impinged on them are meaningful. The fact that supervisors mainly execute a proposal that was developed by a researcher, might contribute to their lesser (in comparison to managers) feeling that stimuli impinged on them are experienced as meaningful.

This difference is however not explained in the literature and more research would be necessary to investigate this.

5.6.2.2 *Difference in regard to Power motive*

According to Miner (1978:742) a manager must exercise power over subordinates and direct their behaviour. He must tell others what to do and enforce his words through appropriate use of positive and negative sanctions. The individual who finds such behaviour difficult and emotionally disturbing, who does not wish to impose his wishes on others or believes it is wrong to do so, would not be expected to meet this particular role prescription. Subordinates must be induced to perform in a manner which will be conducive to the attainment of organisational goals, and the person placed in a position of authority over them would therefore ideally desire to behave in ways calculated to achieve this objective. According to Miner, Ebrahimi and Wachtel (1995:366), managers must tell others what to do when this becomes necessary and should be able to enforce their words with appropriate use of positive and negative sanctions. People who score high on this dimension would not find it difficult to impose his or her wishes on others and would be able to tell others what to do while also being able to enforce their words with appropriate positive and negative sanctions. In this regard it is evident that managers would find it easier (in comparison to supervisors) to exercise power over subordinates and direct their behaviour.

One reason that could contribute to the fact that managers accept the role prescription of power motive and therefore the directing of the behaviour of subordinates to a greater extent than supervisors, might rest in the fact that managers were in a position of authority for a longer period than supervisors. In this regard the majority of supervisors had 10 to 19 years of experience while the majority of managers had 20 to 29 years of experience. The fact that in a bureaucratic institution such as the ARC, the manager is often the final decision-maker might also contribute to the fact that it is "easier" for a manager to accept the role prescription of directing the behaviour of, and enforcing positive and negative sanctions upon subordinates, when required.

Engelbrecht (1989:423-424) mentions in this regard that during his empirical study, it was established that a significant positive correlation was found between power motive and job grade, number of subordinates, global managerial potential, initiative, analytical ability, task structuring, presentation ability, planning and organising, drive, decision-making, leadership and communication. Regarding biographic characteristics, it was found that males scored significantly higher than females in regard to power motive, while experience in supervision showed a significantly positive relation with power motive. In this regard the difference between managers and supervisors in terms of power motive could be attributed to job grade, number of subordinates, the fact that there are more males in the managerial echelon and the fact that managers have on average more experience in supervision than supervisors.

REMARK

With this, step 6 (refer 1.7.2.1) has been accomplished.

5.7 CONCLUSION

In conclusion it is evident that both the Managerial Motivation Questionnaire and the Sense of Coherence Questionnaire prove to be reliable and as such could be used to measure the mentioned constructs. It is further concluded that a difference exists

between managers and supervisors as measured in this study, in terms of two dimensions, namely power motive and meaningfulness. It is finally concluded that a strong positive relationship exists between the distinguishable dimensions of managerial motivation and the dimensions of sense of coherence and also between the construct managerial motivation and the construct sense of coherence.

The objective of this chapter was to discuss the results of the research. To attain this, the demographic profile of the total sample and the demographics of the managers and supervisors were highlighted. Furthermore, the reliability of the Managerial Motivation Questionnaire and the Sense of Coherence Scale was discussed before the correlation between managerial motivation dimensions and sense of coherence dimensions had been reported. A comparison of managers and supervisors on managerial motivation and sense of coherence was made before a conclusion was given.

In the next chapter conclusions in terms of the literature objectives, the empirical objectives and the hypotheses of the research will be presented. Limitations regarding the literature review and the empirical study will also be presented before certain recommendations will finally be proposed.

CHAPTER 6

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The objective of this chapter is to formulate conclusions with regard to the objectives of the research as stated in chapter 1, to discuss the limitations of the research and to make recommendations with reference to the literature review, the empirical study as well as to the Agricultural Research Council (ARC) regarding the selection, and training and development of especially managerial and supervisory candidates.

6.1 CONCLUSIONS

Conclusions will be discussed in terms of the literature objectives, the empirical objectives and the hypotheses of the research.

6.1.1 Conclusions regarding the literature objectives

In this section the literature objectives as presented in chapter 1 will firstly be stated whereafter the relevant conclusion will be presented.

(1) The first literature objective was to conceptualise managerial motivation:

A literature review of managerial motivation was presented which indicated that more than one author has performed empirical research on managerial motivation. The literature review further confirmed that the theories of both McClelland (1961) and Miner (1965) could be accepted where managerial motivation as a distinguishable construct, forms part of the total concept of human motivation. As such a profile of a managerially motivated person evolved. It is also concluded from the literature that managerial motivation comprises six different dimensions that constitute the total construct. The contribution of managerial motivation to an organisation is obvious as Ivancevich and Matteson (1996:156) state, *"no one questions the central role that motivation plays in shaping behaviour and specifically in influencing work performance in*

organisations". Boyatzis (1982:1) adds to this by saying that *"it is the competence of managers that determines, in large part, the return that organisations realise from their human capital, or human resources"*.

From the literature it is therefore concluded that managerial motivation is a distinguishable construct, consisting of six dimensions that subsist in every person and which could be measured in terms of strength of existence in every person. To this effect a profile of a person strong on managerial motivation exists.

(2) The second literature objective was to conceptualise sense of coherence:

A literature review of sense of coherence was presented which forms an integral part of the paradigm called salutogenesis. The literature review confirmed that the theory of Antonovsky (1979) could be accepted and as such a profile of a person strong on sense of coherence evolved. It is also concluded from the literature that sense of coherence comprises three different dimensions that constitute the total construct. The contribution of people with a strong sense of coherence to an organisation seems evident (Strümpfer, 1990:270) in that the sense of coherence must also impact on how work is approached and performed. Since the majority of adults spend the largest portion of their waking hours in the workplace, it is a dominant source of external as well as internal stimulation to be comprehended, managed and made meaningful. A person with a strong sense of coherence will most likely:

- make cognitive sense of the workplace, perceiving its stimulation as clear, ordered, structured, consistent and predictable information
- perceive his work as consisting of experiences that are bearable, with which he can cope and as challenges that he can meet by availing himself of personal resources under the control of legitimate others

- make emotional and motivational sense of work demands, as welcome challenges, worthy of engaging in and investing his energies in.

In turn, the above experiences would become work related generalised resistance resources that will strengthen the sense of coherence further and as such the implications of the concept for occupational health psychology and the management of stress at all levels of employment, are obvious.

From the literature it is therefore concluded that sense of coherence is a distinguishable construct, consisting of three dimensions, that subsist in every person and which could be measured in terms of strength of existence in every person. To this effect a profile of a person strong on sense of coherence exists.

(3) The third literature objective was to present the theoretically personality profiles of the managerially motivated person and the person strong on sense of coherence while the fourth literature objective was to integrate the personality profiles of the managerially motivated person and the person strong on sense of coherence in order to determine the theoretical relationship between the two constructs:

In chapters two and three the third literature objective had been accomplished in that the personality profiles of the managerially motivated person and the person strong on sense of coherence have been presented.

Following the integration of the personality profiles of managerial motivation and sense of coherence, and accomplishing the fourth literature objective, with the understanding that these could occur within the personality composition of humans, it is concluded that theoretically, a relationship exists between managerial motivation and sense of coherence of a person. A comparison between a managerially motivated person and the personality profile of a person strong on sense of coherence confirmed that there is common ground.

A general characteristic that is relevant to both the managerially motivated person and the person strong on sense of coherence, which is indicative of the

similarities between the two constructs, is one characteristic of coping. Sense of coherence refers to a conscious coping strategy aimed at confronting the stimuli threatening normal life events. The person strong on sense of coherence as well as the managerially motivated person will have their own coping strategies to buffer the hardships of life. In regard to the managerially motivated person it is a pervasive fear of negative outcomes such as failure, illness and so forth. They continuously strive for success to avoid negative outcomes or to convince themselves that their fears are not likely to be realised. The person strong on sense of coherence sees change as a challenge that is manageable and comprehensive and develops coping skills.

Finally it can be concluded that the integration composed the foundation for the hypotheses of this research, namely that a relationship exists between managerial motivation and the sense of coherence of people.

6.1.2 Conclusions regarding the empirical objectives

Step 7 of the empirical research will be to reach conclusions regarding the empirical objectives.

- (1) The first empirical objective was to conduct empirical research to determine whether there is a significant relationship between managerial motivation and sense of coherence. From the empirical research the following results have been determined:
 - Competitiveness has a positive relationship with the dimensions of sense of coherence, namely comprehension, manageability and meaningfulness.
 - Assertiveness relates significantly positive to the dimensions of sense of coherence, namely comprehension, manageability and meaningfulness. There also seems to be a significant positive relationship between assertiveness and total sense of coherence.

- Power motive particularly seems to show a significant positive relationship with the individual dimensions of sense of coherence and also total sense of coherence.
- Desire for a distinctive group role shows a significantly positive relationship to comprehension and manageability and has a positive relationship with meaningfulness. It also relates significantly positive to sense of coherence.
- Willingness to conduct administrative functions relates positively to comprehension, manageability, meaningfulness and to total sense of coherence.
- Attitude towards authority figures shows no relation at all with any of the dimensions of sense of coherence or the total scale. This was determined taking the level of significance into account. In this regard the level of significance in all instances was far above 0,01.

With little exception it is concluded from the empirical research that managerial motivation has a relatively strong positive relationship with sense of coherence.

- (2) The second empirical objective was to determine whether there is a significant variance in the managerial motivation and / or sense of coherence of groups on different managerial levels.

Managers and supervisors scored similarly with regard to the majority of dimensions on the managerial motivation and sense of coherence measurements. Significant variances in terms of meaningfulness and power motive were observed:

- Power motive means that a person has to exercise power over subordinates and direct their behaviour. He must tell others what to do and enforce his words through the appropriate use of positive and

negative sanctions. The individual who finds such behaviour difficult and emotionally disturbing, who does not wish to impose his wishes on others or believes it is wrong to do so, would not be expected to meet this particular role prescription. Subordinates must be induced to perform in a manner which will be conducive to the attainment of organisational goals and the person placed in a position of authority over them would therefore ideally desire to behave in ways calculated to achieve this objective. People who score high on this dimension would not find it difficult to impose their wishes on others and would be able to tell others what to do while also being able to enforce their words with appropriate positive and negative sanctions. In this regard it is evident that the group of managers would find it easier (in comparison to supervisors) to exercise power over subordinates and direct their behaviour. In conclusion, this could be attributed to the positive relation between power motive, job grade and the number of subordinates as was determined by Engelbrecht (1989:423-424) as well as the fact that managers have on average more experience in supervision than supervisors, which was also determined during the empirical study of Engelbrecht (1989).

- As meaningfulness refers to the extent to which people feel that life makes sense emotionally rather than cognitively, it is clear that the group of managers has a higher or more intense feeling than the supervisors that at least some of the problems and demands posed by living are worth investing energy in, are worthy of commitment and engagement and are welcome challenges, rather than burdens that they would much rather do without. As those classified with having a weak sense of coherence generally give little evidence that anything in life matters particularly to them, it could be accepted that, in relation to the managers, the supervisors would to a lesser extent willingly take up challenges in order to seek meaning in it and to do their best in overcoming it with dignity. Nowhere in the literature this specific tendency is addressed and it could only be accepted that the reason must remain within one or more of the demographic variables or within the scope of work of each of the two groups. A study conducted by Cohen (1997:53) indicated that the better

the economic situation and the higher the level of education, the stronger the sense of coherence. The level of education of the group of managers is higher than the level of education of the supervisors and the level of income of the managers is higher than that of the supervisors. These factors might contribute to the higher scores under this dimension.

Finally it can be concluded that the empirical variance in terms of meaningfulness could not be explained sufficiently through the literature, but the variance in terms of power motive could to a certain extent be explained by the findings of Engelbrecht (1989).

With this, step 7 of the empirical research has been finalised.

6.1.3 Conclusions regarding the hypotheses

With reference to the hypotheses of this research, it can be concluded that the results of a representative sample of the population of managers and supervisors in the Agricultural Research Council indicate that:

- within the mentioned population, there is a significant positive relationship between managerial motivation and sense of coherence; and
- within the mentioned population, a definite variance exists in the dimensions of power motive and meaningfulness between the managers and supervisors.

In summary it is evident, taking the literature and the empirical study in this research into account, that the theoretical and empirical findings correspond to a large extent.

Herewith the research hypothesis, namely that a relationship exists between managerial motivation and sense of coherence, has been confirmed. The hypothesis that there will be no significant differences between the managerial motivation and sense of coherence scores of managers and supervisors has been rejected.

6.2 LIMITATIONS

Step 8 of the empirical research will deal with the limitations of this research and such limitations will now be addressed against the process and findings of the literature review and the empirical study.

6.2.1 Limitations regarding the literature review

In terms of the literature review very little research findings were available in regard to the relationship between managerial motivation and sense of coherence, although it was possible to extract a profile of a managerially motivated South African manager and also a profile of a person strong on sense of coherence.

Very little research where the Managerial Motivation Questionnaire (MMQ) that was developed by Engelbrecht (1989) had been used, was available. In this regard most of the literature review was cited against the Miner Sentence Completion Scale (MSCS) (1965). It should however again be reiterated that the theoretical construct measured by the MMQ and the MSCS is exactly the same.

6.2.2 Limitations regarding the empirical study

It is assumed that low morale in the ARC lead to the fact that fewer employees reacted to the request of participating in this research and as such comments in this regard have been received from a number of prospective respondents.

A number of questionnaires were corrupt (not usable) due to the fact that they were returned without any data on the questionnaire. Respondents that are less computer literate will to a lesser extent be able to complete questionnaires in the same manner.

Using a haphazard sample meant that the research finding could not be generalised and as such this is regarded as a limitation. At the time however, it proved to be the most convenient way to conduct the research, taking finances, time and human resources into account.

The Sense of Coherence Questionnaire used in the research was not developed or standardised with a South African population or sample and as such cultural differences could have influenced the responses to the questions, especially where respondents were not English mother tongue speakers.

Regarding both managerial motivation and sense of coherence, the results of managers and supervisors could not be compared with a norm group, as this would have given an indication of the variance of the managers and supervisors in terms of the norm. If this could be done, more information regarding the managers and supervisors of the ARC would have been available to interpret.

With this, step 8 of the empirical research has been accomplished.

6.3 RECOMMENDATIONS

In this section recommendations in terms of the literature review, the empirical study and specifically pertaining to the ARC will be provided. An important part of this section is the observations of the researcher in terms of the research environment and the sample. Step 9 will be the presentation of recommendations regarding the empirical research.

6.3.1 Recommendations regarding the literature review

With this research, the profile of a managerially motivated person had been integrated with the profile of a person strong on sense of coherence for the first time. A search for more similarities between the two profiles would enhance future research pertaining to managerial motivation, sense of coherence and also fortigenesis.

Related research with other salutogenic constructs such as hardiness etcetera could allow for the evolution of an even more comprehensive profile of, for example, a managerially motivated person strong on salutogenesis.

More research is needed to address the paucity of literature or research on the relation between the dimensions of sense of coherence and demographic and biographic factors and also the relation between the other constructs of salutogenesis, such as hardiness, potency and self-efficacy, and demographic and biographic factors.

6.3.2 Recommendations regarding the empirical objectives

Research regarding other salutogenic constructs such as hardiness, potency, self-efficacy, stamina and locus of control could be included in a similar study in order to determine whether a relationship exists between their dimensions and the dimensions of managerial motivation.

An increased sample and possibly also samples reflecting other populations and research environments would contribute to the knowledge regarding the strength and nature of the relation between managerial motivation and sense of coherence.

A comparison of the variance between Managers and Supervisors in regard to managerial motivation and sense of coherence could also be conducted at other institutions on employees of similar rankings and amongst different groups of employees.

Although this has not been done in this particular research, it would be possible, with relative ease, to develop a computer programme to sort the data immediately in the correct format for statistical processing, upon receipt of the completed questionnaire via e-mail.

6.3.3 Observations regarding the research environment and the sample

It was observed that a relatively low morale exists in the ARC, and this observation is confirmed by certain remarks received by the researcher upon sending out the request to participate in the study.

Quite a number of prospective respondents reacted by saying that they are losing confidence in the management of the ARC. There is also a relatively high personnel turnover amongst researchers in the ARC.

6.3.4 Recommendations for the ARC

Montgomery (1986:15) stated that it is likely that motivation is an important problem at all levels of management in Africa, for both supervisors and subordinates. Taking into consideration the ranking of African countries and especially South Africa on global competitiveness during the past two years, it is highly probable that performance in terms of management motivation in Africa, and especially South Africa, is a huge contributor to that insufficient ranking. Boyatzis (1982:1) in addition mentions that *"It is the competence of managers that determines, in large part, the return that organisations realise from their human capital, or human resources"*. This phrase encompasses the reason why so much time and money is spent worldwide on management and managerial development. An important aspect that needs to be highlighted is that not any person, but the right person must be placed in a managerial position in order for the company to benefit strategically and financially from his contribution. One can probably deliberate on the contribution of one manager in relation to that of another manager. These aspects relate to what Mintzberg (1973:2) regards as the task of a manager: *"The manager, then, plans, organises, directs, motivates and controls. These are the broad aspects of the work. He adds foresight, order, purpose, integration of effort and effectiveness to the contributions of others. That is the best use of the word manage. That is the work of the manager"*. Doing the aforementioned effectively would ensure the return that Boyatzis (1982) referred to.

With reference to the empirical research as discussed in chapter 4, and with the above-mentioned in mind, the following recommendations are made for the ARC:

- (1) Judged from the results of the literature review and empirical study, it is evident that managerial motivation and also sense of coherence are distinguishable constructs inherent to all people, although the strength of the construct differs from person to person. It was concluded that a strong relationship exists

between managerial motivation and sense of coherence and viewed from the literature review, it was concluded that these attributes could result in managerial success. On the other hand, if these attributes are absent, it could result in poor managerial performance. As the managerial motivation and sense of coherence scores of people indicate which people are in fact inclined towards being managerially motivated and strong on sense of coherence, it is strongly recommended that relevant measuring instruments be considered as part of a selection battery in the effective selection of employees for the supervisory and managerial echelons of the ARC.

- (2) The ARC should engage in an exercise whereby competencies relating to the dimensions of managerial motivation and sense of coherence as well as role-prescriptions for managerial and supervisory positions are determined. Instruments measuring these competencies should be administered to determine which candidates conform to the requirements for the posts.
- (3) As motivation is judged as one of the determinants of job performance (Ivancevich & Matteson, 1996:156), it is evident that the managerially motivated persons and persons strong on sense of coherence, should be appointed in managerial and supervisory positions at the ARC in future. The ARC however already employs people on those levels. A further recommendation is that these employees be assessed to determine who needs development in terms of managerial motivation, managerial opportunities, managerial competencies and aspects of sense of coherence. Such development could in the end strengthen the generalised resistance resources (GRR's) of employees and consequently contribute to increased organisational effectiveness. The end result should be an optimal functioning managerial and supervisory echelon to successfully manage the human resources of the ARC to constitute a sustainable and growing enterprise. Cascio (1982:360) postulates in this regard that development and training are used extensively as a strategy in the process of amongst others coping, thus improving job performance and organisational effectiveness. This again encompasses Viviers' (1996:5) remark that the importance of a human being is (should be) recognised on concept level in organisations.

With this, step 9 of the empirical research has been accomplished.

REMARK

In this research the general objective, namely, to determine whether a relationship exists between managerial motivation and sense of coherence, has been achieved.

6.4 CONCLUSION

In this chapter certain conclusions regarding the theoretical chapters and the empirical study have been formulated. The limitations pertaining to the literature review as well as to the empirical study have been outlined and certain recommendations have been made.

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