

Motivation to work, work commitment and man's will to meaning

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A dissertation submitted in partial fulfilment of the requirements for the
Degree

DOCTOR OF PHILOSOPHY (PhD)

IN ORGANISATIONAL BEHAVIOUR

in the Faculty of Economic and Management Sciences

University of Pretoria

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September 2001



Without work, all life goes rotten. But when work is soulless, life stifles and dies.

Albert Camus (Gemmil & Oakley, 1992).



ABSTRACT

Victor Frankl (1969, 1972, 1975, 1984a, 1984b) postulated that man's search for meaning is the primary motivational force in his life. If this postulation is true for life in general, it was expected that this would also be true for a person's work life. The objective of the present research was to explore whether relationships exist between man's "will to meaning" as defined in Frankl's logotherapy, with work aspects such as work commitment and work motivation. The present research also investigated the relationships between meaning and certain work related biographic/lifestyle variables.

Survey research was conducted with a sample of 458 management level employees from six large companies from different industrial sectors in South Africa. Seven standardised, well-validated instruments were used to measure the respective constructs. The following constructs were measured: meaning, work involvement, work commitment (represented by work values, job involvement and career commitment), and work motivation (represented by intrinsic motivation and goal orientation). The data was analysed by means of Principal Factor Analysis, Non-Parametric Analysis of Variance, Partial Correlation Analysis, Stepwise Multiple Regression Analysis, and Structural Equations Modelling. These instruments were revalidated as part of the present study.

The results of this research indicated that meaning was significantly associated with career commitment. The results also indicated that meaning was significantly associated with work motivation, as measured through intrinsic motivation and goal orientation. Furthermore, meaning generally showed statistically significant relationships with work orientation and lifestyle related variables. In contrast, meaning did not show statistically significant relationships with work values, job involvement or work involvement. Meaning also did not show statistically significant relationships with Biographical/demographic type variables.



These findings deepened the understanding of some of the origins of work commitment and work motivation. The findings from this study also pointed to a deeper and more fundamental source of work motivation and work commitment than those sources covered in the existing work motivation and commitment theories; an existential source. This study also attested to the significant role that meaning plays in a person's work and in his worklife.



EKSERP

Victor Frankl (1969, 1972, 1975, 1984a, 1984b) het gepostuleer dat die mens se soeke na betekenis die primere motiveringskrag in sy lewe is. Indien hierdie postulasie waar is vir die lewe in die algemeen, word dit verwag dat dit ook waar sal wees vir 'n persoon se werkslewe. Die doel van hierdie navorsing was om te ondersoek of daar verwantskappe bestaan tussen die mens se “soeke na betekenis” soos gedefinieer in Frankl se logoterapie, met aspekte soos werksverbondenheid en werksmotivering. Die huidige navorsing het ook die verwantskappe tussen betekenis, en sekere werksverwante biografiese en lewensstyl veranderlikes ondersoek.

Die navorsing is uitgevoer deur middel van vraelys opnames. Die steekproef het bestaan uit 458 bestuursvlak werknemers van ses groot Suid Afrikaanse maatskappye uit verskillende industriële sektore. Sewe gestandaardiseerde, goed gevalideerde instrumente is gebruik om die volgende konstrunkte te meet: betekenis, werksbetrokkenheid, werksverbondenheid (verteenwoordig deur werkswaardes, taak/pos betrokkenheid en loopbaan verbondenheid) en werksmotivering (verteenwoordig deur intrinsieke motivering en doelwit oriëntasie). Hierdie instrumente is gehervalideer as deel van die huidige studie. Die data is ontleed deur middel van Hoof-faktor Analise, Nie-Parametriese Analise van Variansie, Gedeeltelike Korrelasie Analise, Stapsgewysde Veelvuldige Regressie Analise en Strukturele Vergelykingsmodellering.

Die resultate van die huidige navorsing het getoon betekenis statisties betekenisvol geassosieer was met loopbaanverbondenheid. Die resultate het ook aangedui dat betekenis statisties betekenisvol geassosieer was met werksmotivering, soos gemeet deur intrinsieke motivering en doelwit oriëntasie. Verder het betekenis statisties betekenisvolle verwantskappe met werk oriëntasie en lewensstyl veranderlikes in die algemeen getoon. In teenstelling, het betekenis nie statisties betekenisvolle verwantskappe met werkswaardes taak/pos betrokkenheid en



werksbetrokkenheid getoon nie. Betekenis het ook nie statisties betekenisvolle verwantskappe met biografiese/demografiese tipe veranderlikes getoon nie.

Hierdie bevindinge het 'n dieper begrip bewerkstellig met betrekking tot sommige van die oorspronge van werksverbondenheid en werksmotivering. Die bevindinge van hierdie studie het ook gewys op 'n dieper en meer fundamentele bron van werksmotivering en werksverbondenheid as die bronne wat in die bestaande werksmotivering en werksverbondenheid teorie aangespreek word; 'n eksistensiële bron. Hierdie studie bevestig ook die essensieële rol wat betekenis speel in 'n persoon se werk en in sy werkslewe.



ACKNOWLEDGEMENTS

The following people and institutions contributed directly to the completion of this dissertation and are acknowledged for their invaluable contributions:

- Prof. Adré Boshoff who provided academic guidance as promoter throughout the study. Prof. Boshoff specifically assisted also with the research design, provided specific and essential advice with regard to the statistical techniques employed and provided assistance with the interpretations of the statistical results. He also assisted in the final proof reading of the dissertation.
- Dr. René van Wyk who provided academic guidance as co-promoter throughout the study. Dr. van Wyk specifically assisted with the compilation of the questionnaire, feeding of the data into the computer, the dissertation structure and layout, and proof reading of the dissertation.
- Mrs. Rina Owen at the Department of Statistics of the University of Pretoria, who processed the data.
- The National Research Foundation that provided a research grant to support this research study.

I would like to express my sincerest gratitude to every institution and person who has contributed directly or indirectly to the completion of this dissertation, in particular the following:

- Prof. Adré Boshoff and Dr. René van Wyk for their support, encouragement and inspiring enthusiasm throughout my PhD studies.
- My late father who inspired me through his words and example to pursue the maximisation of my potential.
- My precious wife Melissa, and our two lovely daughters: Lieschen and Carla, for their love, patience and understanding. Thank you for unconditionally supporting me in reaching this significant milestone in fulfilling God's purpose for my life.

To God the glory

Note: Opinions expressed and conclusions reached in this study are those of the author and his promoters, and in no way reflect the opinions of the National Research Foundation or the University of Pretoria.



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CHAPTER 1

THE PROBLEM AND ITS SETTING

1.1. INTRODUCTION

The research question in this study is whether relationships exist between a person's sense of meaning, or his "will to meaning" as defined by Viktor Frankl (Frankl, 1969, 1975, 1984a) and work motivation and work commitment.

Meaning in life is a construct which has central importance in existential psychiatry and psychology. In order to survive in a "chaotic" world, man imposes meaning to find order and purpose in his existence (Reker & Wong, 1988). Meaning serves a number of important functions in human life. First, meaning provides a purpose for people's lives (Frankl, 1992). Second, it furnishes values or standards by which to judge an individual's actions. Third, it gives people a sense of control over the events in their lives (Thompson & Janigian, 1988). Lastly, it provides people with self-worth (Frankl, 1992).

Viktor Frankl developed a theory of personality which deals explicitly with meaning and the role that it plays in human life, especially in the spiritual dimension of a person's life. Frankl's theory is based on a fundamental hypothesis about motivation, and is termed "the will to meaning." It differs from the Freudian pleasure motive and the Adlerian power motive (drive for superiority) in numerous respects. Frankl not only supplanted pleasure and superiority with will, but he replaced "drive" for "will," a pull replaces push. "Will" also implies choice rather than a deterministic drive for pleasure or a drive that one obeys out of necessity (Sahakian, 1985). Frankl's personality theory has been described as a well-developed theory (Sahakian, 1985).

A limited amount of empirical research investigated the propositions advanced by Frankl. These studies have shown that meaning has a central place in a person's successful functioning (Harlow, Newcomb & Bentler, 1986; O'Connor & Chamberlain, 1996; Pearson & Sheffield, 1974; Phillips, 1980; Reker, 1977; Yarnell,

1972; Zika & Chamberlain, 1992). If this is true, then one could speculate that meaning could also have an effect in the workplace. Because work is generally a central part of human existence, much of the spiritual odyssey occurs within the context of the workplace (King & Nicol, 1999). Konz and Ryan (1999) argue that in general, people are searching for a way to connect their working lives with their spiritual lives. Individuals are searching for meaning in their work, a meaning that transcends mere economic gain. Meaning gives the technical job deeper meaning by placing it in the context of a life (Keeva, 1999). Therefore, the work situation also belongs to the realm of "meaning" and spirituality. If personal transformation is to take place, one could expect that some of the transformation is likely to take place at work.

Meaning has been virtually ignored in empirical studies in Organisational Behaviour (OB). Attaining commitment and motivation as a possible result of finding meaning in life, and finding meaning in the work situation, did not receive attention in previous research as far as could be established. This is probably because questions relating to meaning in life have previously been regarded as more philosophical, and not relevant to the reality of the practical world of work. Although much attention has been devoted in previous research to work motivation and work commitment, previous studies failed to provide an answer to the question: "Why are people committed/motivated at all?"

As far as could be established, no systematic attempt has been made to analyse work motivation and commitment through Frankl's theoretical framework, except by Sargent (1973). Although Sargent (1973) found that people with a higher sense of purpose-in-life are more positive about work and tend to be more work motivated, his research was not conclusive due to empirical methodology. The present study builds on the work of Frankl and Sargent (1973). It investigates whether work motivation and work commitment can be regarded as manifestations of having a sense of meaning, or having a higher purpose in one's work life. This study investigates the interrelationships between meaning and work involvement, work motivation, and the facets of work commitment. The facets of work commitment included in this study are work values, job involvement and career commitment.

1.2. DEFINITIONS OF CONSTRUCTS

1.2.1. The meaning of “meaning”

Several perspectives on meaning can be seen in the literature, especially in the literature covering existential philosophy and existential psychology. It was decided to use Victor Frankl’s work and perspective of meaning as the foundation for the present study.

Frankl does not precisely define what he specifically means with the term "meaning". However, through studying his works (Frankl, 1967, 1969, 1970, 1972, 1975, 1978, 1984a, 1984b, 1992) one concludes that the definition of meaning entails a "significance of being." That is, finding meaning relates to finding or having a reason for “being” and a feeling, experience, or perception that this “being” is of significance. The term also relates to a sense of having, and fulfilling a higher purpose. That is, a purpose that results in a significance that is more than just surviving, but having made, or being able to make, a difference in the world. Meaning therefore includes both the cognitive and emotional experiences of being significant.

Battista and Almond (1973) note that theories of meaning essentially agree on four major issues. When individuals state that their lives are meaningful, it implies that (a) they are positively committed to some concept of purpose, (b) this concept provides them with some framework or goal from which to view their lives, (c) they perceive their lives as related to or fulfilling this concept, and (d) they experience this fulfilment as a feeling of significance. This view of meaning in life respects the fact that people have derived a sense of meaningfulness from various sources of meaning that do not appear to be reducible to one fundamental meaning system (Battista & Almond, 1973).

Meaning has been defined as the cognisance of order, coherence, and purpose in one's existence (Antonovsky, 1979). Meaning includes the pursuit and attainment of worthwhile goals, with an accompanying sense of fulfilment, and a sense of optimism about the future despite the chaos that exists at times in life (Reker & Wong, 1988). Meaning also consists of searching for a purpose or a task with which to define one's

life (Thompson & Janigian, 1988). The search for meaning is a search for meaningfulness, for understanding how events fit into a larger context. An event is meaningful when one understands how it follows in an orderly fashion from one's views and beliefs (Thompson & Janigian, 1988). A person's sense of meaning is believed to be generally stable, undergoing gradual transformations across the life span in conjunction with changing belief and value systems (Reker & Wong, 1988).

An essential aspect in the definition of the construct of meaning is that it relates to meaning *in* life, and not to the meaning *of* life. Meaning has been neglected in empirical research probably because of the erroneous notion that the subject 'meaning *in* life' relates primarily to the philosophical question "what is the meaning *of* life?" This eternal quest, as old as humanity is indeed, ipso facto, out of reach of modern objectivistic scientific methodology (Debats & Drost, 1995). However, the psychological significance of meaning *in* life is revealed when it is rephrased by an individual who asks, "what makes my life worth living?" In a similar way, the subject of meaning *in* life becomes accessible to empirical investigation when the focus is shifted towards the questions "what are the components of an individual's experience of life as being meaningful?", and "what are the conditions under which an individual will experience his life as meaningful?"

Terms that are often used in relation to meaning are purpose, coherence, and meaning formed through experience. "Purpose", a term often used together and synonymously with meaning, refers to having life goals and having a mission in life and having a sense of direction from the past, in the present, and toward the future (Reker, 1994). Having a sense of personal meaning means having a purpose and striving toward a goal or goals (Reker, Peacock, & Wong, 1987). Implicit in purpose is the notion of worthwhileness and what is of central importance in a person's life. "Coherence" refers to having a logically integrated and consistent analytical and intuitive understanding of self, others, and life in general (Reker, 1994).

A person's experiences through the course of his life influences his behaviour. These experiences also have meaning, albeit perhaps unconsciously (Yalom, 1980). For this reason, a distinction is made between meaning and a meaning framework. Meaning, or a meaningful perspective, refers to an experience that may have

affective-cognitive significance to the individual, and a meaning framework refers to meaning that has been constructed actively or consciously by the person (Saari, 1991). Gage (1994) contends that life has meaning when one believes it has. If a person pursues the things in life which have meaning for her, in the end these things will bring meaning to the individual (Gage, 1994). A framework of meaning enables people to reflect upon their experiences of meaning, to look forward to future meanings in new domains, and to process their experiences in deeper ways (O'Connor & Chamberlain, 1996).

For the purpose of this study, meaning is defined as having found or having discovered a reason for “being” and a feeling, experience, or perception that this “being” is of significance. The definition also relates to sense of having found and fulfilling a higher purpose, and having made, or being able to make a difference in the world. Meaning therefore includes both the cognitive and emotional experiences of being significant. This definition is in line with Frankl’s view of meaning as described in the beginning of this section.

1.2.2. Work as a sociological construct

Work is a basic social process and is found in all societies, although the social concept of work does not necessarily exist in all of them. In simple societies, work may consist of mere specialisation of function and be so completely integrated into the general fabric of social life that it is simply part of the experience of total existence. In such a society work is not articulated as a separate and distinct category of social behaviour and exists therefore as a value-free activity (Bryant, 1972a). Neff (1965), on the other hand, contrasts work and play in defining the term *work*. The concept of playing means that what is done, is done for its own sake; gratification lies in the activity itself. The construct of work is seen as instrumental to gratification, and is not the gratification as such (Firth, 1972; Neff, 1965).

Work is often identified with employment, i.e. with activities undertaken for others on a contractual basis. This entails an exchange relationship whereby people put their talents at the disposal of an employer in return for rewards (Shimmin, 1980). In

nearly all the scientific literature on work, the term is understood to mean paid work (Hoff, 1986). This includes all clearly defined occupational activities, regulated through employing institutions, for securing the material necessities of life. Hoff (1986) defines work as an activity for a purpose beyond the pleasure of its own execution. Modern economists view work as merely providing purchasing power. Although many economists agree that there is a great deal more to work, they nonetheless feel comfortable with this narrow description (Gill, 1999).

For the purpose of this study, the term “work” will be regarded as *paid* work. In other words, work is any activity that involves an exchange relationship of effort, knowledge, or other contributions for financial rewards, whether in direct employment or not.

1.2.3. Work centrality (work involvement)

Kanungo (1979, 1982) developed the concept of work involvement, as a synonym and a measure of work centrality. The fact that individual differences in attitudes toward work are consistent and related to work behaviour raises the question of the origin of the attitudes. Consideration of this question requires that one distinguishes the importance an individual attaches to work in general (work centrality or work involvement), from specific beliefs that a person holds about his present job (job involvement). Kanungo (1982) emphasises the difference between work involvement and job involvement. Work centrality, or work involvement, is defined as the beliefs that individuals have regarding the degree of importance that work in general plays in their lives (Kanungo, 1982; Paullay, Alliger, & Stone-Romero, 1994).

Work centrality is seen as being shaped by the socialisation of the individual. People learn to value work from their families, friends, religion, or culture. However, Kanungo (1982) emphasises that work involvement should be distinguished from the Protestant work ethic (hereafter PWE). He argues that belief in the centrality of work may result from Protestant-ethic-type socialisation, but the two are not identical. PWE may not even be a necessary condition for work involvement to develop. Kanungo (1982) argues that work involvement may result from socialisation that is

not of the Protestant ethic type (Kanungo, 1982). Contrary to Kanungo (1982), Morrow (1993) notes that the construct of work involvement represents work ethic measures. She argues that PWE is a multidimensional construct entailing the importance of work itself and a rejection of leisure. Morrow (1993) comments that Kanungo's (1982) work involvement distinction has not been made adequately, and that the work involvement concept can be seen as a narrower conceptualisation of the PWE.

Notwithstanding Morrow's (1993) comments on work involvement being similar to PWE, this study will treat them as two separate constructs as per Kanungo (1982). As both of these constructs are dependent variables in this study, it should not be a problem even if the factor analysis should reveal them to be one construct. Kanungo's (1982) definition of work involvement, i.e., the beliefs that individuals have regarding the degree of importance that work in general plays in their lives (Kanungo, 1982) is used in this study.

1.2.4. Work commitment, and the facets of work commitment

Because people play a variety of roles in life, they make choices about the relative importance of work (Loscocco, 1989). To the extent that non-work roles compete with work and work-roles, not all individuals are equally committed to the work role. Those individuals who have been socialised to identify with work, report stronger commitment (Loscocco, 1989). Work commitment is defined as the relative importance of work to one's sense of self (Loscocco, 1989). Work involvement, work commitment and work motivation are three closely related constructs.

The concept of work commitment has received growing attention from researchers and practitioners, covering specific commitment facets such as the organisation, work group, occupation, and one's job (Cohen, 1999, 2000; Morrow, 1993; Randall & Cote, 1991). Many research studies have attempted to clarify the facets of work commitment. The common themes from most of the studies on work commitment describe work commitment with four facets: work values, job involvement, organisational commitment, and career commitment (Blau, Paul & St John, 1993;

Cohen, 1999, 2000; Hoole, 1997; Morrow, Eastman & McElroy, 1991; Randall & Cote, 1991). These four facets will be used to operationalise work commitment in this study.

1.2.4.1 Work values and work ethic

Values lay the foundation for motivation and attitudes, and values influence perceptions (Elizur, 1984). Elizur (1984) describes values as those principles that one regards as conducive to one's welfare. Values are normative standards to judge and to choose among alternative modes of behaviour, and are therefore different from goals or attitudes. Elizur (1984, 1996) explains that values suggest an estimation of the degree of importance of behaviour in a life area.

Super and Sverko (1995) describe values as organised sets of general beliefs, opinions and attitudes about what is right and preferable. George and Jones (1997) define a value system as a generalised knowledge structure or framework about what is good or desirable. George and Jones (1997) are of the opinion that an individual's personal set of values determines which types of actions and events are desirable or undesirable. Unlike goals, values are never fully attained but rather are more permanent guides of behaviour (George & Jones, 1997).

Sagie, Elizur and Koslowsky (1996) distinguish between general values and work values. They comment that work values do not equate to norms. Work values refer to the importance of work outcomes while norms refer to what should be done (i.e. what others expect from someone and what he expects from others) in a given context. Ros, Schwartz and Surkiss (1999) note that work values, like basic values, are beliefs pertaining to desirable end-states or behaviour. Because work values refer only to the work setting, they are more specific than the general values that the individual has.

Notwithstanding Elizur's (1984, 1996) and George and Jones (1997) comments on values not being goals, some authors do link values to goals. Super and Sverko (1995) describe work values as general and relatively stable goals that people try to

reach through their work. Furthermore, Ros et al. (1999) define individual values as desirable, trans-situational goals that vary in importance, acting as guiding principles in people's lives. These inconsistencies on the meaning of the term "values" were further emphasised by Bumpus and Munchus (1996) who concluded that the conceptualisation of the values contained in the value system is particular to each individual, as a result of the way in which values are acquired.

Most modern studies equate work values with the PWE. Max Weber defined PWE to suggest that an individual's worth is seen as a function of how well the individual performs in his job (Furnham, 1990a). The PWE represents the degree to which individuals place work at or near the centre of their lives (Ambrose & Kulik, 1999). Furnham (1990a) states that the broader meaning of the PWE typically refers to the belief that people have a normal and religious obligation to fill their lives with physical work. For some, this means that hard work and effort are to be valued for their own sake. In practice this means that people are expected to spend long hours at work, with little or no time for personal recreation and leisure (Furnham, 1990b). Ho and Lloyd (1984) comment that although the validity of Weber's hypothesis on the existence of a Protestant work ethic has been energetically debated, few would argue against the accuracy of his specifications or the modes of conduct and goals dictated by the Protestant ethic (e.g. asceticism, hard work, salvation).

Work values are seen, for the purpose of the present study, to be closely related to the definition of PWE, the belief that people have an obligation to fill their lives with hard work and effort. This manifests as a dedication to work which manifests as long hours at work, with little time for recreation and leisure.

1.2.4.2 Job involvement

Kanungo (1982) describes job involvement as a belief about one's present job, a cognitive or belief state of psychological identification with that job. An individual's psychological identification with a particular job depends on the saliency of his needs (both extrinsic and intrinsic) and the perceptions he has about the need-satisfying potentialities of the job (Kanungo, 1982). Kanungo (1982) notes that job involvement

tends to be a function of a person's situation, how much the present job can satisfy the individual's present needs.

Blau (1985a) defines job involvement in terms of the degree to which an employee is participating in his job and meeting such needs as prestige and autonomy. Morrow (1983) notes that job involvement is the degree of daily absorption that an individual experiences in a work activity. Pinder (1998) adds that a person is said to be involved in his job if he actively participates in it, holds it as a central life interest, perceives performance as central to his self-esteem, and sees performance in it as consistent with his self-concept.

Involvement in a specific job is not the same as involvement with work in general (Kanungo, 1982). Job involvement is a belief descriptive of the present job and tends to be a function of how much the job can satisfy one's present needs. However, involvement with work in general is a normative belief about the value of work in one's life, and it is more a function of one's past cultural conditioning or socialisation (Kanungo, 1982). Thus, job involvement is a descriptive belief that is contemporaneously caused whereas work involvement is a normative belief that is historically caused (Cohen, 2000).

Kanungo's (1982) definition of job involvement, as a psychological identification with one's present job will be used in this study.

1.2.4.3 Career, career salience and career commitment

The notion of career commitment originated from the work of Gouldner (1957) who identified two latent identities in organisations which he named cosmopolitans and locals. Cosmopolitans refer to those individuals low on loyalty to the organisation, high on commitment to specialised role skills, and likely to have an outside reference group orientation. Locals refer to those individuals high on loyalty to the organisation, low on commitment to specialised role skills, and likely to have an inside reference group orientation (Gouldner, 1957). These two sets of orientations represent two quite different approaches to management of one's work career.

Greenhaus and Callanan (1994) define a career as the pattern of work-related experiences that span the course of a person's life. This definition includes objective events or situations such as a series of job positions, and subjective interpretations of work-related events, for instance, work aspirations, expectations and needs. Greenhaus and Callanan (1994) further note that a person's work roles do not have to be of a professional nature, stable within a single occupation, or characterised by upward mobility in order to be seen as representing a career.

Career salience, defined by Greenhaus (1971) as the importance of a career in one's life, is often used synonymously with career commitment. Blau (1985b) conceptualises career commitment as one's attitude towards one's profession or vocation. Blau (1985b) comments that although the referents of profession and vocation are somewhat restricting, they are necessary. Blau (1985b) argues that it is important to anchor the career commitment concept in more specific terminology than "work in general", while also using broader referents than "job" and "organisation", to prevent making career commitment redundant with other work commitment facets. In his later work, Blau (1988a) suggests that the definition of career commitment should be revised as one's attitude towards one's vocation, *including* a profession, since a profession is a special type of vocation.

Morrow (1993) emphasises that a person's commitment to his career field or role is to be distinguished from commitment to one's job (i.e. job involvement), or to one's organisation (i.e. organisational commitment). These three forms of commitment are often correlated, but they are theoretically distinct and may often have different causes and consequences (Morrow, 1993).

Carson and Bedeian (1994) defined career commitment as one's motivation to work in a chosen vocation or in a chosen career role. Building on the work of London (1985), Carson and Bedeian (1994) describe career commitment as a multidimensional construct composed of three components: career identity (establishing a close emotional association with one's career), career planning (determining one's developmental needs and setting career goals), and career resilience (resisting career disruption in the face of adversity).

Carson and Bedeian's (1994) definition of career commitment, as one's motivation to work in a chosen vocation or career role, will be used in this study.

1.2.4.4 Organisational commitment

Mowday, Steers and Porter (1979) define organisational commitment as the relative strength of an individual's identification with, and involvement in, a particular organisation. Mowday et al. (1979) suggest that organisational commitment can be characterised by three related factors: (1) a strong belief in and acceptance of the organisation's goals and values; (2) a willingness to exert considerable effort on behalf of the organisation; and (3) a strong desire to maintain membership in the organisation. Randall and Cote (1991) define organisational commitment as the extent to which a person has a strong desire to remain a member of a specific organisation, is willing to exert high levels of effort for the organisation, and believes and accepts the values and goals of the organisation.

Allen and Meyer (1996) identified four types of organisational commitment:

- Affective commitment (attitudinal approach), originated in the work of Buchanan (1974). Affective commitment attests that the individual wants to be associated with the organisation because of identification with the goals and values of the organisation, and loyalty and attachment to the organisation.
- Continuance commitment (Behavioural approach) has its roots in the work of Becker (1960). Continuance commitment describes an individual's belief to be associated with the organisation in order to minimise negative affects (Meyer & Allen, 1984).
- Normative commitment: The belief that a person has a responsibility to the organisation in which he is employed (Brown, 1996a).
- Alienative commitment: Individuals might be members of an organisation without any possibility to leave.

Although organisational commitment forms part of the discussion on work commitment, it will not be measured in this study and therefore not be discussed in detail (see the arguments in section 2.5.2).

1.2.5. Work motivation

The origin of the term *motivation* lies in the noun *motion* which implies movement or changing of position (Hawkins, 1989). Action is the beginning of everything, and in business, as in every other human activity, nothing of any consequence happens until an individual wants to act (Gellerman, 1963). What a person accomplishes depends to a considerable extent on how much, and on why he wants to act. Motivation theory attempts to explain how behaviour gets started, is energised, sustained, directed, stopped, and the kind of subjective reaction present in the organism (Lawler, 1969).

Work motivation is the concept used to describe the forces acting on, or within an organism, to initiate and direct behaviour in relation to work (Petri, 1991). Work motivation is defined as that which (1) energises human behaviour; (2) directs or channels such behaviour; and (3) maintains or sustains this behaviour (Allscheid & Cellar, 1996; Muchinsky, 1987). Pinder (1998) describes work motivation as the set of internal and external forces that initiates work-related behaviour, and determines its form, direction, intensity, and duration. These conceptualisations point to energetic forces within individuals that influence or drive them to behave in certain ways, and environmental forces that trigger these drives.

Other variables often mentioned in association with the activating properties of motivation are effort (Wallbank, 1980) and persistence (Petri, 1991). The strength of motivation also explains differences in the intensity of behaviour. More intense behaviours are considered to be the result of higher levels of motivation and less intense behaviours are considered to be the result of lower levels of motivation (Steers & Porter, 1979).

A problem in studying motivation is that motivation is an invisible, internal hypothetical construct, it cannot be seen or be measured directly (Pinder, 1998). Its existence and intensity has therefore to be inferred from observation (Muchinsky, 1987). There are several reasons why it is difficult to infer motives from observed behaviour: behaviour is multi-determined, in other words, there is never only one cause for behaviour (Saari, 1991). Furthermore, a single act may express several motives, motives may appear in disguised forms, and cultural and personal variations may significantly moderate the modes of expression of certain motives (Steers & Porter, 1979). An individual usually has a host of needs, desires, and expectations. Not only are these motives in a constant state of flux and do they change, but they may also be in conflict with each other. Considerable differences can exist among individuals concerning the manner in which they select certain motives over others and the intensity with which they pursue such motives (Steers & Porter, 1979). It is therefore not sufficient to think in terms of simple causation as many of the earlier personality theories and theories of motivation do. Problems in human functioning most often have multiple roots and causes (Saari, 1991).

The view of work motivation in this study will be taken from Muchinsky's (1987) description of motivation, namely that which energises behaviour, directs such behaviour, and maintains or sustains this behaviour in relation to work.

1.3. RESEARCH PROBLEM AND OBJECTIVES

The problem focused on in the present study is whether significant relationships exist between a person's "will to meaning" as defined by Frankl (Frankl, 1969, 1975, 1984a), and work commitment and work motivation. This study will also investigate the relationships between meaning and various work related biographical and demographic variables. An investigation will be done on potential relationships between meaning and various variables that imply certain work and life orientations. The objective of this research is to clarify constructs and hypothesised relationships and theory.

Much attention has been devoted to work commitment and motivation to work. However, except for the study by Sargent (1973), no systematic attempt has been made to analyse it through Frankl's theoretical framework. Sargent (1973) found that people with a higher sense of personal meaning tend to be more work motivated. However, his study had certain shortcomings. For instance, he did not investigate whether work was central to these people's lives, or whether there was congruence between the sense of meaning and the careers they were following. The present study builds on the work of Victor Frankl, and on Sargent's (1973) research.

Victor Frankl (1969) called the "will to meaning" the primary motivational force in man. If this is true, and if this will to meaning is being fulfilled, then people with a high sense of personal meaning is expected to be committed and motivated to work. This argument is mediated by the centrality of work in the person's life. This proposition is represented in Figure 1, which was developed by the author of the present study.

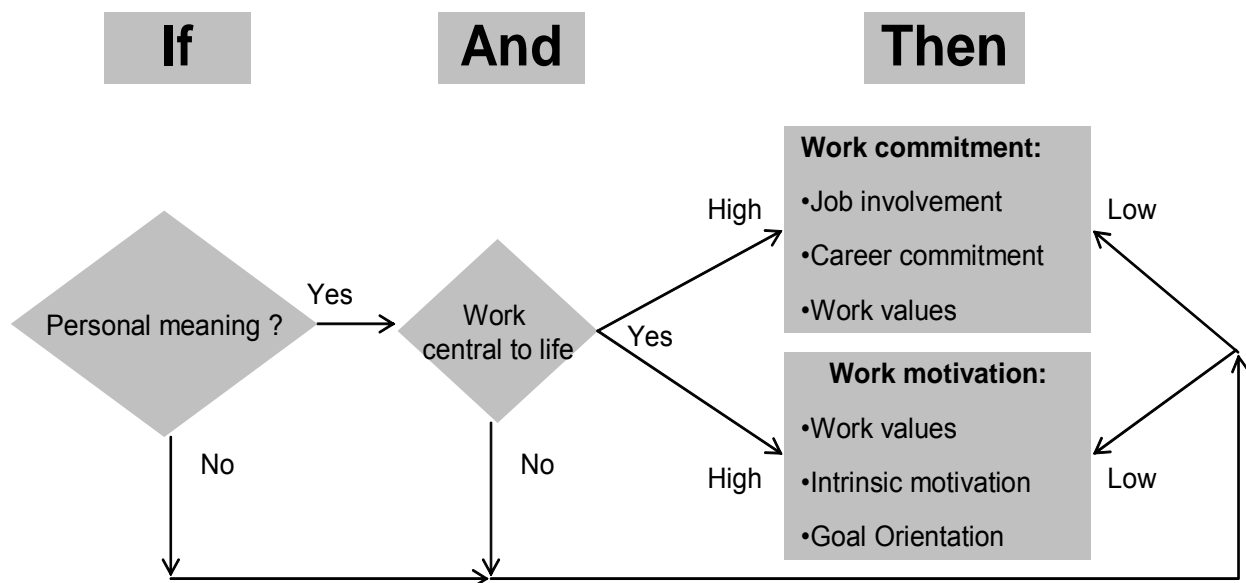


Figure 1. The argumentative flow chart as a research model

This model implies that people with a high sense of meaning and fulfilment should be more committed and motivated to work than those who experience relative high levels of meaninglessness. However, this statement is postulated to be true as long as work is central to people's lives and there is congruence between their source of

meaning and their work careers. The theoretical background for this model is explained in section 2.8.

The procedure to be followed in this study is to test the proposition as illustrated in Figure 1 by means of a survey questionnaire followed by factor analysis, correlation analyses and multiple regression analyses. Firstly, the sense of personal meaning of the subjects will be determined by using Battista and Almond's (1973) Life Regard Index. The sense of personal meaning in life is the independent variable in this research. The other constructs in this study are all dependent variables. Secondly, the centrality of work in the subjects' lives will be measured by using Kanungo's (1982) Work Involvement Questionnaire. The rationale for using this test is because not every person finds meaning in his work, and unless work is central to his life, it is unlikely that the person will find meaning in his work. Work involvement is therefore a moderating variable in the study. Thirdly, the level of work commitment will be measured by measuring the facets of work commitment, namely work values (Ho & Lloyd, 1984), job involvement (Kanungo's (1982) Job Involvement Questionnaire), and Carson and Bedeian's (1994) Career Commitment Scale. According to Cohen (2000), these facets are primary antecedents of organisational commitment, the remaining facet of work commitment that is not included in this study. Two aspects of work motivation will be measured, namely intrinsic motivation and goal orientation. Intrinsic motivation will be measured by using Warr, Cook and Wall's (1979) Intrinsic Motivation Scale, and goal orientation will be determined by using the Goal Orientation Measure of Vandewalle (1997). These scales support the definition of work motivation as defined in the previous section.

The aim of this research is to investigate whether the origins and sources of work commitment and work motivation are more intrinsic, and on a deeper psychological and emotional level (the spiritual level), than previously postulated in motivation and commitment theories. In this research it is postulated that an essential source for work commitment and work motivation originates from the noögenic (spiritual) dimension of a person because of his will to meaning, whereas most existing theories rely on sources from the psychological and somatic dimensions of commitment and motivation.

The intention is not to try to discredit any of the established work commitment and work motivation theories, or to imply that this proposition based on man's will to meaning as a source of work commitment and work motivation, is the only valid explanation. It is rather postulated that this notion is complementary to the already established theories. However, these relationships, and man's will to meaning as such, have been neglected in previous work commitment and work motivation research.

1.4. DISSERTATION STRUCTURE

In order to investigate whether work commitment and work motivation are related to a sense of personal meaning in life, it was essential to cover and study a wide range of relevant focus areas and subjects in the fields of Organisational Behaviour, Psychiatry, and Clinical Psychology. The main topics covered in the thesis are: (1) Victor Frankl's theory of man's will to meaning; (2) other theories on motives of human behaviour; (3) meaning in life as a scientific construct; (4) the role that work plays in the human life from a sociological point of view; (5) theories and perspectives on work commitment; and (6) theories and perspectives on work motivation.

The study covers literature on the relevant topics, current theories and previous research on these topics. However, as this dissertation integrates six different fields of study, it is impossible to discuss all the research that this study was based on in detail. Much attention was given in the current study to the integration of different theories that relate to the various constructs measured in this study.

The fields of study were selected because of their potential individual and collective roles and contributions in relationship to meaning. The literature study introduces the reader to Victor Frankl's theory of man's will to meaning, which was chosen as the basis of the present study. This is an analysis of Frankl's theory with respect to man's search for meaning in the workplace and provides the basic argument to establish whether meaning in life can be investigated as a potential source for work

motivation and work commitment. Meaning in life, based on Frankl's theories, forms the independent variable in this research.

Theories of motivation and commitment are based on theories of human behaviour, personality theories, and some assumptions about human nature. This study area therefore focuses on motives of human behaviour, and discusses Frankl's views in relation to other theories of behaviour and personality in psychology.

The section that focuses on meaning as a scientific construct, investigates whether meaning in life can be seen as a scientific construct, rather than merely an interesting philosophical notion. Previous research on this subject confirmed that meaning is indeed a scientific construct and that it has a significant influence on successful functioning. The discussions in the first three sections provide the foundation and background of the first block in the research model (Figure 1).

The study of the role of work in human life was deemed as being essential. Literature suggests that “paid work” or “employment” has become a central and inseparable part of man's existence. The importance and role of work in human life should therefore have an effect on the experiencing of meaning, and the search for meaning in the workplace. Work centrality is one of the dependent variables in this research, acting as a moderating variable.

Work motivation and work commitment, and the various facets of these two constructs, are investigated in this study as the dependent variables. The sections on work commitment and work motivation, mainly focus on the reasoning and conceptualisations that formed these theories and their relationships with meaning. The reason for this approach is that the present study does not evaluate these theories or their underlying assumptions, but rather attempts to add new insights to these theories, especially to a possible source of work motivation and work commitment.

The structure of the literature study follows the argument of the flow chart (Figure 1). It therefore commences with a study of meaning, which consists of a study of Frankl's will to meaning as a theory of behaviour, an investigation of motives of

behaviour, and an attempt to establish whether meaning can be regarded as a scientific construct in the work place. The exposition of meaning is followed by an overview study of the role of work in human life, and studies of work motivation and work commitment as possible dependent variables of a sense of meaning. The literature study is followed by discussions of the research methodology, research results and conclusions.

An approach was taken to refer either to the masculine or the feminine gender in a specific discussion, but not to both simultaneously. The gender related terms used are therefore representative of any person without gender connotation. The only exceptions are where explicit reference is made to a specific sex, especially if differences do exist in the behaviour or attitudes of the different sexes. Similarly, the term 'man' is often used in the text as an abbreviation to depict the human species, or *Homo sapiens*; it therefore has no gender connotation.

CHAPTER 2

LITERATURE REVIEW

2.1. VICTOR FRANKL'S THEORIES OF PERSONALITY AND MOTIVATION

Viktor Frankl (1905-1997), a psychiatrist of Jewish origin, lived in Vienna during the Nazi take-over of Austria. He lost his wife, parents and all his belongings when shipped to Nazi concentration camps from 1942 to 1945, first to Auschwitz and later to Dachau. Frankl's experiences are documented in "Man's search for meaning" (Frankl, 1984a). It was first published as "From death-camp to existentialism" in 1946, selling more than nine million copies in 24 languages since the original publication (Washburn, 1998). In total, Frankl wrote 32 books, translated into 26 languages. Apart from being an existentialist, Frankl remained a psychiatrist, and spent most of his life as the Head of the Neurological Department of the Vienna Polyclinic Hospital. As an academic, Frankl received 29 Honorary Doctorates, and held five part time Professorships in the USA (Universities of Harvard, Stanford, Dallas, Pittsburgh, and San Diego) (Das, 1998). By the 1980s, more than 90% of all books published in the field of abnormal psychology acknowledged the importance of Frankl's ideas (Sahakian, 1985).

Although Frankl initially was a personal student of Freud, he formed his own theory of human behaviour, called logotherapy. Frankl's concentration camp experiences had a strong influence in shaping the course of his thinking, though he formulated many of his ideas before being imprisoned (Das, 1998). Frankl was able to test his theories under the brutal conditions that prevailed in concentration camps.

Before Frankl, the main views were that man's actions could be explained by certain driving forces. For instance, Freud distinguished a "will to pleasure" and unconscious driven behaviour as the major driving force of behaviour, whereas both Nietzsche and Adler emphasised a "will to power". Contrary to this focus on drives, hedonism or behaviourism, Frankl (1967) argues that man is more than just a body and a psyche. In addition to the physiological, psychosocial and psychological dimensions,

there is a spiritual dimension to human life, the noös (Greek for mind). Frankl (1967) notes that most of the time, human beings live in the physical or in the psychological dimensions, but humans have the capacity to transcend or rise above these dimensions. It is only when they rise above their physical and psychological nature that they enter the spiritual dimension (Frankl, 1967). Frankl does not think of the spiritual dimension in a religious sense. He thinks of it as the realm of human existence in which one encounters meanings and values, the very essence of man, and the deepest level of his being (Frankl, 1984a). Frankl (1969, 1970, 1975, 1984a) regard meaning to be distinctly part of, and related to, this spiritual dimension of a person.

In addition to the biological, historical, and sociological factors, Frankl (1970) notes that there are some universal experiences characterising human existence that threaten meaning. Frankl (1970) calls these experiences the tragic triad: suffering, guilt, and transitoriness. Frankl (1970) accepts that no human life is free of suffering. Grief and anguish cause one to question the meaning of the events that bring about such suffering. Guilt arises from not having made the best use of the time that has gone by. Frankl (1970) describes that the transitoriness of human life lends urgency to the task of discovering and fulfilling the purpose of one's life.

Frankl (1970) contends that in every person's search for meaning, he has the ability to take a stand against adversity, against his emotions, and against his fears. If this is true, one can postulate that this also applies to one's situations in the workplace. Two terms are used in this regard, namely self-detachment and self-transcendence. Frankl (1970) uses the terms *self-detachment* as the ability to realise that one has done wrong, and the ability to decide to learn from a mistake. *Self-transcendence* refers to the ability to look away from one's own pain, and reach out to someone else who also needs help (Frankl, 1975, 1984a). Frankl (1984b) describes that when a person is thinking too much about his problems, concentrating too much on that which is lacking in his life, then he is *hyperreflecting*. Hyperreflection worsens the matter, resulting in psychosomatic illnesses. *Dereflection* is not to think about the negatives dominating one's life, and putting something better in its place. Frankl (1992) experienced that by focussing outside himself in the concentration camps, he

somehow succeeded in rising above the situation, above the sufferings of the moment, and observed them as if they were already of the past.

Frankl (1967) describes a form of disorder, collective neurosis, which stems from the conditions of life in the 20th century in the absence of meaning. It is characterised by four major symptoms. First, there is an *aimless* day-to-day attitude toward life that stems from the uncertainty about the future. The second symptom is a *fatalistic* attitude arising out of lack of control over one's own life. The third symptom is *collective thinking*. For the sake of security the individual relinquishes his or her personal responsibility to the judgement of the group. The fourth symptom is *fanaticism*, which stems from group loyalty and leads to denigration of others who think or act differently.

Frankl (1984b) explains the prevalence of these symptoms as caused by modernisation due to which man has lost some of the basic animal type instincts in which some behaviour is secured. In contrast to former times, traditions and traditional values which buttressed people's behaviour are rapidly diminishing. Consequently, no instinct tells him what he has to do, and no tradition tells him what he ought to do (Frankl, 1984a). Now, knowing neither what he must do nor what he should do, a person sometimes does not even know what it is that he basically wishes to do. Instead, either he wishes to do what other people does (conformism), or he does what other people wish him to do (totalitarianism) (Frankl, 1984b). He contends that the only way out of this vicious cycle is finding meaning in one's own existence, and thereby a purpose for living. Finding such a meaning and purpose provides the direction for someone's life and the energy to pursue such a direction.

The essence of Victor Frankl's theory of personality consists of three basic premises or assumptions: (a) man has a freedom of will; (b) the will to meaning is the primary motivational force in man; and (c) life has potential meaning under all circumstances. These three premises are discussed in more detail in the following sections.

2.1.1. Frankl's concept of freedom of will

Frankl's first premise in his theory of personality is that man has the freedom of will; he can choose his actions and attitudes, although this might not always be easy under certain circumstances. People are subject to a wide variety of limiting conditions and influences - biological, psychological, and socio-cultural. However, Frankl (1969) contends that no matter what these conditions are, an individual can take a stand against them. According to Frankl (1969), human beings have the capacity to resist not only external circumstances but also their physical and psychological drives. In doing so, they essentially open up an advanced dimension of existence, namely the spiritual dimension, the dimension of meaning (Frankl, 1984a).

Frankl (1984a, p. 86) reasons that the experiences from the "living laboratory" of the concentration camps offer sufficient proof that everything can be taken from man but one thing: "to choose one's attitude in any given set of circumstances, to choose one's own way". Frankl (1984a, p. 86) reports that in the concentration camps he witnessed how some behaved like "swine while others behaved like saints". Frankl (1984a) is adamant that man has both potentialities within himself; which one is actualised depends on decisions, not on conditions (Frankl, 1984a). He observed that the sort of person the prisoner became was the result of an inner decision, and not the result of camp influences alone: man does have a choice of action. Fundamentally, any person can decide what shall become of him mentally and spiritually, even under such circumstances (Frankl, 1984a). Frankl (1984a) concludes that as a human being, man's freedom is restricted. A person is not free from restricting conditions, but free to take a stand toward the conditions.

However, O'Connel (1970) releases a strong attack on Frankl's conclusions and interpretations based on his concentration camp experiences. O'Connel (1970) argues that Frankl becomes excessive in his praise of himself, and fails to extrapolate his concentration camp experiences into the modern feudal social system. O'Connel (1970) refers to Frankl's theory as a "bootstrap" spirituality whereby one lifts himself to a new ontological position by pulling himself up on his own bootstraps.

In contrast to O'Connell, Gordon Allport comments in the preface of "Man's search for meaning" (Frankl, 1984a) that Frankl's theories and books are more than the story of Victor Frankl's triumph. He describes it as a remarkable blend of science and humanism and an introduction to the most significant psychological movement of the day. Similarly, The American Journal of Psychiatry is cited on the cover of "Man's search for meaning" (Frankl, 1984a), considering the book as "the most significant thinking since Freud and Adler".

2.1.2. The will to meaning as motivation theory

He who has a "why" to live, can bear with almost any "how".

Nietzsche (Frankl, 1984a)

Frankl's second premise is that the essence of human motivation is the "will to meaning." According to Frankl the primary motivational force in man is a striving to realise, or find meaning in his life; it is not a secondary rationalisation of instinctual drives. Frankl (1969) calls this a "will-to meaning". Frankl (1969) contends that man needs something or someone to live for. Man has the desire to live a life that means something, a life that has a purpose, a meaning. This meaning is unique to each and everybody and one has to discover, or uncover, the specific meaning of one's own unique life (Frankl, 1970).

Frankl (1970) argues that the will to meaning may arouse inner tension rather than inner equilibrium. He emphasises that tension is an indispensable prerequisite for mental health. There is nothing in the world that so effectively helps one to survive even the worst conditions, as the knowledge that there is a meaning in one's life (Frankl, 1970). Thus, having meaning should also provide the motivation to execute one's daily work, even if the work itself does not particularly stimulate the individual.

On the other hand, the unfulfilled inner tension, or will to meaning, can be frustrated in which case logotherapy speaks of existential frustration. Frankl (1969) explains that existential frustration arises if a person is unable to find a purpose. The

frustration of the will to meaning leads to a condition that Frankl (1969) calls an existential vacuum. An individual in a state of an existential vacuum may feel that his life has lost all meaning. The existential vacuum is further characterised by the sense of a void in a person's life, the feeling that something is amiss. Frankl (1984b) states that an existential vacuum leads to boredom and apathy. In other words, a lack of meaning leads to a lack of motivation and a lack of commitment.

Frankl (1969) emphasises that an existential vacuum itself is not a mental disorder; rather it represents spiritual distress. However, if the condition of an existential vacuum continues for a long time, this vacuum may lead to the development of a disorder that Frankl (1969) calls noögenic neurosis, a neurosis of the spiritual dimension. Frankl (1975) contends that noögenic neurosis has been recognised as a common psychological problem. Frankl (1984b) estimates that in 25% of psychiatric cases, people suffer from noögenic neurosis. It was shown above that a lack of meaning appears to be strongly associated with a lack of motivation and commitment. This high prevalence of noögenic neurosis cases is indicative of the serious influence that a lack of meaning can have in the workplace. On the other hand, one can speculate that having meaning will have positive associations with work motivation and commitment.

2.1.3. The meaning of life

The third premise of Frankl's theory of personality is that life has possible meaning under all circumstances. Frankl (1969) comments that the meaning of life always changes, but it never ceases to be. He notes that one can discover this meaning in life in three different ways: first, by creating something or doing a deed; secondly, by experiencing something such as goodness and truth, and by encountering another human being in his very uniqueness, and by loving him. Thirdly, Frankl (1969) suggests that meaning is most of all realised through one's attitude in situations of unavoidable suffering.

By evaluating the work and the work place, one can conclude that all three of these aspects are potentially present in the workplace. A person can therefore potentially

find meaning in his work or through his work. Furthermore, the benefits of having found meaning outside the workplace in aspects such as mentioned above may also overflow into the workplace with positive effects on work motivation and commitment.

Frankl sees a drastic change in the problems of modern society. Frankl (1984b) comments that psychiatrists increasingly have to deal with existential frustration. He notes that young people visit advisory centres increasingly because of existential questions about the meaning of life, and connected with it problems of suicide (Frankl, 1984b). He says that young people see life, work and the future closely linked. If they see no meaning in life, they have no future, with strong implication for their work situations (Frankl, 1992). If someone cannot find meaning in life, it is difficult to see how such a person can be motivated to work, or be committed to the work facets of his life.

2.1.4. The relationship between meaning in life and work

A man, who becomes conscious of the responsibility he bears toward a human being or to an unfinished work, will never be able to throw away his life.

Jones (1997).

Frankl's personality theory suggests that there is no irreducible will to work (Frankl, 1970). What is irreducible in man is his will to meaning. Although for most people much of the meaning during the working years comes from their jobs, Frankl (1975) argues that working - having a job - is not a sufficient, nor even a necessary condition for attainment of meaning. He reasons that people without work can live more meaningful lives than those who cling neurotically to jobs in order to gain a false sense of self-worth or security. However, he notes that work can be the epitome of truly meaningful human activity (Frankl, 1975).

People's natural relationship to their employment as the area for possible actualisation of creative values and self-fulfilment is often distorted by prevailing conditions of work (Frankl, 1969). For instance, Frankl (1984b) sees the unemployed as being in particular danger of existential neuroses. He notes that even

if individuals are protected by social security, they still experience psychological distress. He suggests that the principal cause of depression and despair is not unemployment, but a faulty interpretation of being unemployed. People equate unemployment with being useless, and therefore with a meaningless life. Frankl (1984b) describes how he succeeded in placing jobless clients as volunteers to help in welfare organisations without remuneration. Although their economic situation remained unchanged, depression caused by their feeling of meaninglessness vanished as soon as they were given a chance to fulfil tasks they considered meaningful (Frankl, 1984b). Frankl (1984b) cautions that similar problems in psychological health arise from the trend toward increasingly shorter work hours.

Not only do the unemployed suffer from a frustrated longing for meaning but so could workers and managers. Workers demand work they consider meaningful. Frankl (1992) cites reports from psychiatrists of patients who, despite good pay and external success, see no meaning in their work. Frankl (1992) also cites a report that indicates that people would work very long hours if they knew their work had meaning, but they don't want to work at all if they don't see any meaning in it.

Frankl (1984b) reasons that the belief that managers become sick from stress, caused by too much responsibility (distress) (Ivancevich & Matteson, 1980; Matteson & Ivancevich, 1989), is false. He argues that contrary to general opinion, there is little danger in an overload of responsibility and stress for managers. This holds true as long as the person has found meaning, and experiences that his work plays a role in fulfilling that meaning. He emphasises that eustress (Ivancevich & Matteson, 1980; Matteson & Ivancevich, 1989) is psychologically healthy in the correct quantity. It represents the tension between what people are and what they could be; the stress between their actuality and their potential (Frankl, 1984b).

Frankl (1992) posits that managers who want efficiency from workers must offer meaning to their work. Because management cannot dictate what the employees' work meaning should be, they can only provide them with a freedom of responsible choices. Frankl (1992) notes that this has had far-reaching effects in management theory. He cites examples in Yugoslavia and China, where absenteeism was reduced to 1% compared with the "normal" 5% as a result of management using

meaning orientation as incentive to work. Frankl (1992) cites another example in Israel where workers are motivated by a will to meaning expressed in the betterment of their society and in the service of their community. In this case, production was 20% to 30% higher than in comparable plants. These findings strongly support the propositions in the current study that work motivation and commitment are associated with having found meaning and a purpose in life.

2.1.5. Summary: Frankl's theories of motivation

Being one of the few psychologists who have dealt directly with the phenomena of meaning (Kovacs, 1985), the writings of Victor Frankl made a substantial contribution toward the development of a theoretical foundation for meaning (Zika & Chamberlain, 1992). Frankl did not intend to replace other theories of personality but to supplement and complement them (Misiak & Sexton, 1973). Frankl (1984b) explains that his contribution must be seen as complimentary to the contributions of other theorists. It is almost the same as viewing a three-dimensional object such as a cylinder that has been cut diagonally. If one views it from different directions, one sees different objects. Together these three views, apparently completely different pictures of reality, describe the real object as illustrated in Figure 2. Figure 2 has been developed by the author of the present study based on Frankl's (1984b) description of how different perspectives of the same object are additive in describing that objective.

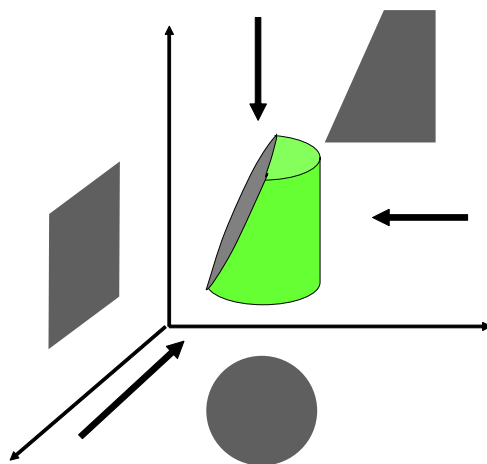


Figure 2. 3D model of complementary perspectives.

Similarly, to understand the human nature, one should not only select one theory of personality, but should look at all types as they all represent different angles of viewing mankind. Together they probably explain the human nature comprehensively.

2.2. MEANING IN RELATION TO OTHER THEORIES ON MOTIVES FOR BEHAVIOUR

There is no psychotherapy without foundation in philosophy. The contemporary psychotherapist has to be a philosopher, consciously or not, methodically or haphazardly, in earnest or not, spontaneously or following contemporary fashions.

Jaspers (Kovacs, 1985)

The natural starting point for any theory of motivation or commitment is the nature of the individual himself (Steers & Porter, 1979). All theories on work motivation are based on one or more theories of personality, each with his own implicit philosophy of the nature of man (Locke & Latham, 1990). The different theories of human nature all view the sources, origins, reasons for motivation, and motives of behaviour differently.

It is essential to study the different theories and their motivational in order provide the context in which Frankl's theory fits. This will enable comment on the reality and applicability of Frankl's theory in relation to the other theories. Section 2.1 provides an overview of Frankl's theories and perspectives. Section 2.2 is an overview of some of the other perspectives on human nature, and causes of human behaviour, specifically with reference to Frankl's theories and postulations.

2.2.1. Meaning and psychoanalytical and psychodynamic theories

Many of the well-known work motivation theories have their roots in Freud's theories (Mackay, 1989). Freud viewed the mind as an entity containing primitive and sophisticated elements, in a hierarchical order (Giovacchini, 1977). The primitive end

of the hierarchy (the unconscious or “id”), has biologically based instincts striving for expression against more structured reality based elements (the preconscious or “ego”), which strive to make instinctual gratification consonant with internalised moral standards (the conscious or “superego”) (Giovacchini, 1977). In other words, in Freud’s view, an individual’s consciousness is determined by the unconscious which influences everything that a person says and does (Mackay, 1989).

In contrast, Frankl (1984a) argues that man does not always obey unconscious drives. People are able to live and even to die for the sake of much higher order ideals and values. Frankl (1984a) cites a public opinion poll in France indicating that 89% of the respondents admitted that a person needs “something” for the sake of which to live for. Moreover, 61% indicated that there was something or someone for whose sake they were even ready to die for (Frankl, 1984a). One can argue that this should also hold true for the workplace: people need “something” to work for. Having a purpose in one’s daily activities will solicit different motivations for work behaviour, than being driven through unconscious instincts or needs.

Freud reasoned that unconscious drives or instincts result in internal tension in the human being who then acts or reacts to get into a condition of homeostasis (Wrightsmann, 1992). This unconscious striving towards homeostasis is, according to Freud, the prime motivational force for man (Buhler, 1959; Sartain, North, & Strange 1973). Contrary to Freud, Frankl (1972) reasons that mental health is based on a certain degree of tension, the tension between what one has already achieved and what one still ought to accomplish. Frankl (1975) argues that the will to meaning arouses inner tension rather than equilibrium. Das (1998) adds that contemporary neuroses are characterised not so much by the seeking of homeostasis, as they are characterised by a lack of a sense of purpose and meaning. If these postulations holds true, then the inner tension should lead to higher intensities of work motivation and work commitment.

Another fundamental postulation of Freud is that behaviour has its roots to some extent in the pleasure principle (hedonism), having pleasure and sensuous gratification just for the sake of enjoying life (Mackay, 1989). Urges for immediate gratification of pleasure are, according to Freud, basic to human nature

(Wrightsmann, 1992). In contrast, Frankl (1972) argues that the will to pleasure is merely a substitute for the frustrated will to meaning. Frankl (1984a) argues that the will to pleasure defeats itself. Frankl (1984a) explains that the more one makes pleasure or happiness an aim, the more that aim will be missed. He concludes that pleasure and happiness cannot be pursued. Pleasure and happiness ensue, and it only does so as the unintended side effect of one's personal dedication to a cause greater than oneself. In the workplace this implies that job satisfaction seems to be less important than working for a "cause".

Freud's contribution also attracted other criticism (Steers & Porter, 1979). First, the list of instincts continued to grow, reaching nearly six thousand in number. Secondly, researchers found that there might be little relation between the strengths of certain motives and subsequent behaviour. Locke and Latham (1990) argue that Freud's theories are not viable because instincts such as sex and aggression are only potentialities in people, as are thousands of others' activities. Whether these potentialities become actualised depends on a person's decisions.

Another motivational theory that contrasts with Frankl's views is Alfred Adler's individual psychology. Adler ascribed most human behaviour to a sense of inferiority in every person, which the person hides behind a superiority complex (Orgler, 1973). This manifests, inter alia, as a need for power, or exaggerated demands upon himself and others (Orgler, 1973). In contrast to Adler's inferiority/superiority complex, Frankl (1967, 1969, 1984b) posits that often the frustrated will to meaning is compensated for by a will to power, including the will to money (Frankl, 1984b).

In terms of goal orientation, which forms the basis of Locke's (1968) goal attainment theory of work motivation, Adler could not imagine a mental and emotional life without a goal toward which life is directed (Orgler, 1973). He argued that as soon as one discovers the goal that a person has set for himself, one can explain his actions (Orgler, 1973). This notion of Adler appears to be similar to Frankl's will to meaning.

Carl Jung's theory of individuation refers to the spiritual search for a meaning and a sense of one's place in the bigger scheme of things. In congruence with Frankl,

Jung (1960) maintains that meaninglessness inhibits the fullness of life, and is therefore equivalent to illness. Jung (1969) observes that when conscious life has lost its meaning and promise for an individual, it is as though panic breaks loose. Jung (1969) estimates that approximately one third of his psychiatric cases suffer from a lack of meaning or purpose in their lives rather than any other identifiable psychiatric syndrome.

It is obvious that Jung's observations as a psychiatrist and his resulting theories are related and complementary to Frankl's theories of a will to meaning, and life having meaning under all circumstances. He even prescribed similar treatments for psychiatric patients resulting to similar success as Frankl. Jung, therefore, provided much support for the theories and postulations of Frankl as used, applied and tested in the present study.

2.2.2. Meaning in relationship with behaviourism and social learning theories

The behaviourism theory of B.F. Skinner and Konrad Lorenz are based on stimulus-response, and reinforcement theories (Locke & Latham, 1990). Skinner (1953) claimed that the environment determines the individual, and that a person can be conditioned to display certain behaviour by changing the environment. In behaviour modification, desired behaviour is maintained and strengthened by positive reinforcers, or inhibited through negative reinforcement (punishment) following given responses (Lunden, 1977). Likewise, behaviour can be altered when reinforcement is withdrawn. Skinner (1953) thus saw a limited number of standard behaviours according to different behaviour modification activities (Locke & Latham, 1990).

In contrast, Frankl (1970) concludes that the human personality remains essentially unpredictable. Frankl (1975) emphasises that every human being has the ability to be self-determining. In support of Frankl, Locke and Latham (1990) explained that reinforcers do not change behaviour unless people want or value them, are aware of the connection between the response and the reinforcers, and believe they can make the required responses (Locke & Latham, 1990). With the inherent shortcomings of behaviourism, it is obvious that there is a need for theories of motivation that cater for the higher order motives of behaviour that cannot be

explained through mechanistic predictions. Frankl and Jung's theories are obvious candidates to fill this gap in the theories of work motivation.

Some theorists explain motivation as a function of the interaction of the individual with his social environment (Battista & Almond, 1973). These theories of motivation can be regarded as a variant of behaviourism: modify the environment and you modify the personality (Corsini, 1977). For instance, Karl Marx believed that the kind of person one is, and the kind of things one does, are determined by the kind of society in which one lives (Appignanesi, 1994).

One of the more prevalent social learning theories is that of Albert Bandura. Bandura's (1977, 1986) theory of social learning suggests that socialisation form people's personalities through observation and through imitation, which in turn influence behaviour. Frankl (1975) accepts that the conditions of social life under which people live impose certain kinds of limitations on them, and bring to bear a host of determining forces that shape and mould them. However, Frankl (1975) contends that despite all these diverse forces and influences that act on a person and mould him, a person has the freedom to decide what he wants to do in a given situation.

In terms of work, it seems that social learning plays an important role, as it appears that work centrality is being shaped by the socialisation of the individual (Kanungo, 1982). People learn to value work through their families, friends, religion, or culture. Paullay et al. (1994) and Sverko (1989) comment that work involvement is produced by cultural conditioning or socialisation which leads to the internalisation of norms and values associated with work. One can therefore expect that work commitment and motivation will be influenced somewhat through social learning.

Another construct closely related to social learning theory is values, in particular work values. Ambrose and Kulik (1999) comment that PWE has become conceptualised as a key variable that influences work attitudes and behaviours. They report from their study of motivation research that studies since the 1970s demonstrated that individuals who score highly on the PWE were more satisfied with their jobs, more involved with their jobs, and more committed to their organisations

(Ambrose & Kulik, 1999). Social learning theory therefore seems to play an important role in any theory of work motivation. Its role might not be deterministic, but social learning influences an individual's perspectives, perceptions, and probably much of his behaviour.

2.2.3. Meaning in relationship with humanism

While both Freudianism and behaviourism emphasise man's continuity from the animal world, humanistic psychology pays special attention to characteristics and capacities, which make man uniquely different from the animals. Humanistic psychology focuses on distinctively human qualities such as choice, creativity, and self-realisation (Corsini, 1977). It has an ultimate concern with, and valuing of, the dignity and worth of man, as well as an interest in the development of the potential inherent in every person (Corsini, 1977). Abraham Maslow, the father of humanism, regards the actualisation of the self, of one's own potential, as the primary motive of behaviour (Maslow, 1954).

On the surface, humanistic psychology appears to have many commonalities with Frankl's views of personality and motivation. Not only does humanism recognise the spirit of man and his need to fulfil himself and find meaning in his life, but it also asserts that each person is the most responsible agent in his own life (Misiak & Sexton, 1973). However, Frankl (1984b) argues that the main area of deficiency in the humanistic psychology is its overemphasis of the individual looking inward. Frankl (1984b) comments that self-actualisation can never be a goal in itself, because then it will be missed. If people choose goals and values outside themselves and direct themselves toward them, they are actualising themselves *through* self-transcendence. With this connotation, self-actualisation appears in the context of existential thinking as fulfilment (Marks, 1972). However, with fulfilment the person's energies are focussed outside the individual, whereas with self-actualisation the energies are focused internally.

In reaction to Frankl's criticism (the 1959 edition of "From death camp to existentialism") on the validity of his theories, Maslow (1966) agrees mostly with Frankl's views. Maslow (1966) reasons that his own theories are being

misunderstood and that self-actualisation actually implies actualisation outside and beyond oneself. Maslow (1966) agrees with Frankl that man's primary concern is his will to meaning. Maslow (1963) calls it "highest concern". Secondly, he agrees with Frankl's notion that people, who seek self-actualisation directly, or selfishly, do not achieve it. Maslow (1966) explains that self-actualising people practically always have a mission in life, a task which they have identified with and which becomes a defining-characteristic of the self. Maslow (1966) puts it that self-actualisation can best be carried out via a commitment to an important job.

It is obvious from the debate between Maslow and Frankl that some of the aspects of Maslow's humanistic theory are actually very close and complementary to Frankl's existential theories of motivation. However, the stronger internal focus of humanism, the lack of focus of humanism on the noögenic dimension and the emphasis of Frankl on self-transcendence still maintain a difference between these conceptualisations. Although humanism cannot be ignored in any theory of work motivation, it needs to be complemented by other theories of motivation such as that of Frankl.

2.2.4. Meaning in relation to cognitive theories of motivation

Sechrest (1977) describes George Kelly's theory of personal constructs as a unique motivational theory consisting almost entirely of a way of looking at how people cognitively construe life, how they organise, perceive, evaluate, structure and predict events. As such, it is almost entirely a cognitive theory and gives practically no attention to learning, emotions, objective motivations, or needs (Holdstock & Rogers, 1977; Sechrest, 1977). Yalom (1980) contests that existential concerns seem to be weighted with greatest importance when people make cognitive decisions and take subsequent actions. These existential concerns include fear of death, fear of isolation, purposefulness and meaning in life.

In a similar direction as Kelly's cognitive theory of personal constructs, Albert Ellis argued that behaviour is not the result of events, but due to the interpretation of events (Corsini, 1977). That is, consequences (behaviour) are not a function of

activators (stimuli), but rather of beliefs (interpretations and perceptions). Direct decision theory, introduced by Greenwald (Corsini, 1977) is closely related to both Kelly's cognitive view of personality, and Ellis' perceptual view. Direct decision theory states that people operate in terms of their perceptions of the payoffs of anticipated actions. Perception is the process by which individuals selectively screen, organise and interpret stimuli from the environment, in order to give meaning to their environment (Robbins, 1989). What matters in determining a person's behaviour and his cognitive decisions is not necessarily the situation in which he finds himself, but his perception of the situation (Saari, 1991). Cognitive decision-making is therefore based on perception of reality, and not reality itself (Munitz, 1993). Thompson and Janigian (1988) argue that meaning plays an important role in how people interpret and react to their environment. Finding meaning is therefore a process of firstly changing one's perception of events, so that feelings of order and purpose are restored.

Frankl's theories accommodate most of the cognitive based theories of motivation. Frankl (1967) supports the view that it is not the actual event that influences people, but their interpretation and perception of the event. He also adds that it is based on the interpretation of the event or the situation that man has the ability to decide cognitively what his attitude will be towards it. However, Frankl (1984b) argues that in addition to the cognitive psychological dimension, there is also a spiritual dimension to human life. He argues that cognitive based psychological theories do not take account of the spiritual dimension and can therefore not account for the whole spectrum of behaviour, which sometimes include "irrational" or non-predictable behaviour.

2.2.5. Existential psychology as the foundation of meaning based motivation

There is no escape from philosophy. The question is only whether a philosophy is conscious or not, whether it is good or bad, muddled or clear. Anyone who rejects philosophy is himself unconsciously practising a philosophy.

Karl Jasper (Misiak & Sexton, 1973)

Existential psychology developed from existential philosophy as fathered by Sören Kierkegaard (Misiak & Sexton, 1973). Earlier existential philosophers such as Kierkegaard and Heidegger did not see much meaning in life at all (Roffey, 1993). However, they did emphasise the devastating effect that “not having meaning” can have (Misiak & Sexton, 1973). Nietzsche viewed anxiety, dread, and despair as the consequences of inaction and a lukewarm commitment to life (Gane & Chan, 1997). Jean-Paul Sartre was much more cynical and could find no reason to explain why the world, and man in it, should exist (Misiak & Sexton, 1973). Unlike Sartre, Frankl (1967) believes that life does have meaning, and unlike Camus, Frankl (1967) believes that humans discover meanings; they do not invent them.

Existential psychology's aim is to understand man in his total existential reality. It is the psychology of man as far as he questions his existence; man's behaviour considered in terms of his individual value system (Kobasa & Maddi, 1977; Misiak & Sexton, 1973). Existential psychology views the person as the biological, social and psychological being whose primary task is to search and establish meaning (Misiak & Sexton, 1973). This endeavour goes on within a spatial/temporal context, confronted with limitations such as past experiences, environmental conditions and the exercise of freedom by others (Kobasa & Maddi, 1977).

Existential psychology has forced psychologists to re-examine their notions about man and his nature and to take a stand with regard to man's existential problems (Fellows, 1966). The whole truth of the human existence therefore rather lies in an integration of the different truths and perspectives. The field of psychology has unfortunately since its inception devoted much more attention to human unhappiness and suffering than to the causes and consequences of positive functioning (Ryff, 1989).

The present study takes a different approach, it attempts to provide new insights into causes of positive functioning, especially in the workplace. It is postulated that the will to meaning plays a significant role in work motivation and work commitment, yet this role has been neglected in the literature and scientific studies. Due to the vast scope of these fields, this study can merely be an exploratory study, to be followed by much more research to understand relationships more thoroughly.

2.3. MEANING IN LIFE AS A SCIENTIFIC PSYCHOLOGICAL CONSTRUCT

You can live as if life has meaning and you are part of the web of life, or you can live as if life is chaotic and you are a victim of its whims.

Fabry (1988).

2.3.1. The context of meaning

It was shown in the previous sections that having a personal meaning and a personal sense of purpose are fundamental to Frankl's theories, and his views of human nature. This section investigates whether personal meaning and purpose in life is a mere speculative philosophical notion, or whether it can be substantiated as a scientific construct.

Throughout history people have been grappling with existential and spiritual issues: What is the meaning of life and death? What is the meaning of suffering and evil? How do we find personal significance in a hostile world? Why is it that progress and prosperity have not yet satisfied the yearnings for meaning and purpose? Increasingly, individuals are experiencing a lack of meaning in their lives (King & Nicol, 1999). Western philosophy and psychology historically concentrated almost exclusively on man's unconscious and on his rational nature (Misiak & Sexton, 1973). It has bypassed man's existential questions. The individual with his unique personal problems of everyday existence and the basic existential problems has been left out of the philosophical enquiries. Reacting to this deficiency, existentialism centres on man as he exists in the world, and his relation to the world

and his fellow men. Existentialism as a psychology has put itself in opposition to materialistic reductionism and rationalism (Misiak & Sexton, 1973).

Not everyone view meaning in life, or meaning of existence the same way. For instance, Freud argued that one must be mentally ill to question the meaning of life (Munitz, 1993). On the other hand, Einstein argued that a person is hardly fit for life if he thinks that life is meaningless (Munitz, 1993). Many psychologists and psychiatrists consider purpose in life to be a crucial factor for successful psychological functioning, with meaninglessness often resulting in pathologies (Doerries, 1970; Frankl, 1972; Maddi, 1967; Maslow, 1963).

Despite an increasing concern in modern society with the meanings and values of life, the construct of meaning in life has received marginal attention in mainstream psychology (Battista & Almond, 1973; Chamberlain & Zika, 1988). The construct of meaning has tended to be ignored in empirical work, perhaps because of difficulty in conceptualisation, and also because questions relating to meaning are regarded as more philosophical than psychological - vague and boundless for the purposes of empirical psychology (Baumeister, 1991; Debats, 1999; Debats & Drost, 1995). This is especially true for the field of organisational behaviour as virtually all empirical work on meaning was conducted in the fields of psychiatry and clinical psychology.

The existence of the construct of meaning in life as a real psychological phenomenon rather than a mere philosophical notion was confirmed by Chamberlain and Zika (1988). They applied three different measuring instruments that was designed by other researchers (described in the next section) to measure the construct of meaning in life. A preliminary principal components analysis of all three instruments (N = 194) indicated factor loadings ranging from 0.68 to 0.90 on the three different measures. These results suggest that a general meaning in life dimension does exist that underlies and describes the specific components of meaning as conceptualised by the authors of the instruments. Most of the other research on meaning focused on the relationship of meaning with a person's psychological and physiological health and quality of existence.

2.3.2. Measurement of meaning in life

There have been four main attempts to derive measures for meaning in life. Crumbaugh and Maholick (1964) were the first researchers to adopt a psychometric approach to measure meaning in life as conceptualised by Frankl. They devised the Purpose in Life Test (PIL), a self-report assessment method used to operationalise perceived meaning and purpose in life. Crumbaugh (1968) later on revised the PIL slightly, omitting two of the initial 22 items. The PIL test is a 20-item measure, designed to assess the degree to which an individual experiences a sense of meaning and purpose (Crumbaugh, 1968; Crumbaugh & Maholick, 1964). Earlier investigations almost exclusively used the PIL to assess Frankl's construct of meaning in life.

Battista and Almond (1973) developed the Life Regard Index (LRI), a 28-item measure, to overcome some difficulties identified in the PIL. This instrument measures the degree to which meaning in life is being sought and fulfilled (two dimensions). The measure was developed to assess the two important dimensions that Battista and Almond (1973) identified as relevant to an understanding of meaning in life, meaning framework and meaning fulfilment.

The 39-item Sense of Coherence (SOC) scale developed by Antonovsky (1979, 1983) is a more general scale, which attempted to measure three different components, comprehensibility, manageability, and meaningfulness (Chamberlain & Zika, 1988).

Chamberlain and Zika (1988) examined (N = 188) the factor structure of the three main scales to measure meaning in life, the PIL, LRI and the SOC scale. Their results suggest that meaning in life can be regarded as a multidimensional construct, with meaning attained in several different ways. Chamberlain and Zika (1988) conclude that all three of the PIL, LRI, and SOC measures are rationally derived instruments (Chamberlain & Zika, 1988). The intercorrelations (0.63 to 0.74) between the PIL, the LRI, and the SOC indicated that similar constructs were being assessed by the three tests. It thus supported the existence of a meaning in life

dimension. Chamberlain and Zika (1988) comment that the moderate correlations indicate that these measures might relate to different aspects of meaning in life.

Reker and Peacock (1981) developed the Life Attitude Profile (LAP) test. This is a 56-item scale, intended to assess both the degree of meaning and purpose as well as the strength of motivation to find meaning and purpose. The LAP is a measure of attitudes towards life, measuring six dimensions: purpose, coherence, life control, death acceptance, existential vacuum and goals seeking (Reker & Peacock, 1981). Reker (1994) revised the LAP and constructed the Life Attitude Profile-Revised (LAP-R) test, a 48-item measure of meaning and purpose in life and the search for meaning.

In addition to these better known and more frequent used instruments, Crumbaugh (1977) developed the Seeking of Noetic Goals (SONG) test to complement PIL. Subsequently, other meaning scales have been developed such as the Meaning In Life Depth Instrument (MILDI) (Ebersole & Sacco, 1983) and the Sources of Meaning Profile (SOMP) (Reker, 1994) (Moomal, 1999). Table 1 illustrates the main characteristics of the various measuring instruments of meaning, or purpose in life.

Table 1

Instruments for measuring meaning in life

| Instrument | What does it measure? | Researchers | Items |
|--|---|---|---------------------------|
| Purpose in Life Test (PIL) | Degree to which meaning has been found by the individual | Crumbaugh and Maholick (1964) Crumbaugh (1968) | 20-Items |
| Life Regard Index (LRI) | Degree that life goals are being sought and fulfilled | Battista and Almond (1973) | 28-Items 2 sub-scales |
| Life Attitude Profile (LAP) | Multidimensional measure of attitudes toward life | Reker and Peacock (1981) | 48-Item 6 dimensions |
| Sense of Coherence (SOC) | Sensemaking Comprehensibility Meaningfulness Manageability | Antonovsky (1979) | 39-Items 3 dimensions |
| Seeking of Noetic Goals (SONG) | Strength of motivation to find meaning Complementary to PIL | Crumbaugh (1977) | 20-Items |
| Meaning in Life Depth Instrument (MILDI) | Depth of meaning | Ebersole and Sacco (1983) | Judges rating 5 levels |
| Sources of Meaning Profile (SOMP) | Meaningfulness of different sources | Reker (1994) | 16-Items 4 categories |

It was decided to use Battista and Almond's (1973) Life Regard Index in this study to measure the sense of meaning and purpose in the lives of the subjects, rather than Crumbaugh's (1968) better known PIL. The reasons being the shortcomings of the PIL as presented by Battista and Almond (1973) (see section 3.2.2). Other reasons include better face validity and the threats of social desirability in responses on the PIL as discussed. Moreover, the two dimensional factor structure of the LRI allows not only measurement of the level of meaning, but also distinguishing between a meaning framework and the fulfilment of the framework. Several studies attest to the satisfactory psychometric properties of the LRI (Chamberlain & Zika, 1988). As the LRI was chosen as the measure of choice for this research, the structural aspects, the validity and the reliability of this measure will be discussed in further detail in section 3.2.2.

2.3.3. The psychological and physiological outcomes of meaning

Meaning plays a significant role in defining one's sense of self and identity. Lack of meaning and values may result in an amorphous or fragile sense of self as is often found in borderline personality disorders (Baumeister, 1991). Yet, a conscious sense of self is critical for social functioning (Saari, 1991). Debats, Van der Lubbe, and Wezeman (1993) explain that meaning in life is described in association with a variety of concepts like fulfilment and self-actualisation (Maslow), engagement (Sartre), responsibility (Yalom), sense of coherence (Antonovsky), commitment and self-transcendence (Frankl), integration and relatedness (Buhler), and a sense of wholeness and belonging (Weisskopf-Joelson). Despite the great differences debated by these theorists, they concur on the central issue, that a sense of meaningfulness is essential to psychological well-being (Debats et al., 1993). They also conclude that the process of constructing meaning is more important than the specific content of the meaning itself.

Research on meaning in life has been focused mainly on the relationships between meaning, meaninglessness and well-being. Research from a number of perspectives has shown that a sense of meaning in life is an important correlate of physical and mental health and longevity. Empirical research in the fields of psychiatry and clinical psychology strongly supports the importance of meaning in people's lives. For instance, strong positive associations are empirically found between meaning and psychological well-being, and even physiological well being, as illustrated in Table 2.

Table 2

Positive effects as outcomes of having found meaning or purpose in life

| Effects | Researchers |
|--|--|
| Physiological health, quality of life and subjective well-being | Chamberlain and Zika (1987), Reker et al. (1987), Reker and Wong (1988), Zika and Chamberlain (1992), Reker (1994), Debats (1996), Moomal (1999) |
| Self-esteem, self-concept, and ego resiliency | Tryon and Radzin (1972), Reker (1977), Reker and Cousins (1979), Chamberlain and Zika (1987), Reker (1994) |
| Internal locus of control and responsibility | Crumbaugh (1971), Yarnell (1972), Battista and Almond (1973), Reker (1977), Phillips (1980), Hardcastle (1985), Furnham, Brewin and O'Kelly (1994) |
| Sociability, social participation, extraversion and relatedness | Frankl (1969), Doerries (1970), Yarnell (1971), Pearson and Sheffield (1974), Yalom 1980), Chamberlain and Zika (1987) |
| Active engagement | Hardcastle (1985), Chamberlain and Zika (1987) |
| General life satisfaction, happiness, and positive life attitude | Maslow (1963), Reker (1977), Reker and Cousins (1979), Debats (1990), Zika and Chamberlain (1992), Debats et al. (1993), Chamberlain and Zika (1987), Reker (1994) |
| Positive life experiences, elation and future hope | Reker and Cousins (1979), Harlow, Newcomb and Bentler (1986), Reker et al. (1987), Debats (1990), Debats (1999) |
| Work motivation and positive work attitudes | Sargent (1973) |
| Goal orientation and commitment | Yalom (1980), Thompson and Janigian (1988), Debats (1999) |
| Stress resistance and coping | Lazarus and DeLongis (1983), Thompson and Janigian (1988), Reker (1994), Moomal (1999) |
| Successful life changes and occupational certainty | Tryon and Radzin (1972), Heatherton and Nichols (1994) |
| Spiritual well-being | Debats and Drost (1995), Reker (1994) |
| Successful aging, life-span identity and acceptance of death | Amenta (1984), Reker (1994), Debats and Drost (1995) |

These studies all attest to the importance of meaningful value orientations and of commitments to personal life satisfaction and psychological health. These studies

consistently show that possession of a substantial degree of "purpose" seems to be one of the usual properties of normal functioning, but it is not necessarily a prerequisite for abnormal personality (Crumbaugh & Maholick, 1964). These authors imply that the attainment of meaning is associated with positive mental health.

In contrast, lack of meaning has been found to be associated with a lack of well-being and with psychopathology in a roughly linear sense: the less the sense of meaning, the greater the severity of psychopathology (Debats & Drost, 1995; Yalom, 1980). Lack of purpose or meaning implies a failure to perceive an integrated pattern of goals and values in life, with a consequent dissipation of energies which can be debilitating (Crumbaugh & Maholick, 1964). The lack of meaning in life is the cognitive component of existential neurosis (Frankl, 1984a). Without meaning, the individual loses ability to believe in the importance, usefulness or interest of any actions (Chamberlain & Zika, 1988). Meaninglessness is a substantial human problem, and particularly significant in the present times. Table 3 illustrates empirical findings of associations of dimensions of the lack of well being, associated with a lack of meaning.

Table 3

Negative effects of a lack of meaning

| Effects | Researchers |
|---|--|
| Psychopathology and lowered well being | Yalom (1980), Reker, Peacock and Wong (1987), Zika and Chamberlain (1992) |
| Psychoticism | Crumbaugh (1968), Zika and Chamberlain (1992) |
| Schizophrenia | Crumbaugh (1968), Yarnell (1972), Zika and Chamberlain (1992) |
| Neuroticism | Crumbaugh (1968), Pearson and Sheffield (1974), Zika and Chamberlain (1992) |
| Alcoholism, drug and substance abuse | Crumbaugh (1968), Crumbaugh (1971), Frankl (1972), Yarnell (1972), Crumbaugh (1977), Harlow, Newcomb and Bentler (1986), Newcomb and Harlow (1986), Debats (1999). |
| Negativity and negative affect | Sharpe and Viney (1973), Zika and Chamberlain (1992), Debats et al. (1993) |
| Alienation, loss of social identity, social isolation, disengagement and anomia | Maddi (1967), Frankl (1969), Garfield (1973), Florian and Snowden (1989) |
| Uncontrollable stress and burnout | Yarnell (1972), Harlow, Newcomb and Bentler (1986), Yiu-kee and Tang (1995) |
| Lack of goals | Sharpe and Viney (1973) |
| Depression | Pearson and Sheffield (1974), Ryff (1989), Zika and Chamberlain (1992), Debats (1990), Debats et al. (1993) |
| Anxiety | Yarnell (1972), Pearson and Sheffield (1974), Debats (1990), Zika and Chamberlain (1992), Debats et al. (1993) |
| Suicidal ideation | Harlow, Newcomb and Bentler (1986) |
| Physical discomfort | Reker et al. (1987) |
| Self derogation | Harlow, Newcomb and Bentler (1986) |
| A criminal inclination (being imprisoned) and hostility | Reker (1977), Debats (1990) |

These research findings confirm the claims of existential theorists (e.g., Frankl, Maddi, and Fabry) that absence of meaning is related to poor psychological or

mental health and psychopathology. When people are unable to find meaning, or when they lose or outgrow the meanings that they once had, they become distressed. Many emotional problems result from a failure to find meaning in life and can be resolved only through finding something to make life worth living (Frankl, 1992). These research findings also confirm earlier clinical observations that to live without meaning, goals or values provoke considerable distress and results in a lack of physical and psychological well-being (Yalom, 1980).

The findings of the studies mentioned, show with overwhelming consistency that meaning in life relates to almost every component of well-being with only slight variations in the strength of the associations. These studies confirm the notion that positive life regard is essential for meaningful life and takes a critical role in maintaining and preserving psychological health and general life satisfaction. One can postulate that the strong associations of meaning with mental health and well-being could suggest that meaning should also be related to work motivation and commitment. Both these constructs can be regarded as facets of mental health. Similarly, the lack of meaning is associated with mental illness, and could therefore be related to the lack of motivation and commitment.

Whether a lack of positive life regard is caused or followed by psychological problems, remains a subject for further investigation. One cannot determine causation from the above-mentioned studies. The relation between meaning in life and well-being is complex, and several issues need to be addressed in future research. Firstly, more studies are needed to investigate how meaning in life exerts its effects on well-being outcomes. Secondly, it is important to understand why some people are inclined to search for meaning, and find meaning, especially in difficult situations, whereas others are not.

2.3.4. Structural components of meaning

The construct of meaning consists of different structural features (Reker & Wong, 1988). These relate to where meaning comes from (sources), the diversity with which it is experienced (breadth), and the degree of self-transcendence involved

(depth). These structural components are interrelated and common to people's experience of meaning (Reker & Wong, 1988).

Sources of meaning are the areas of a person's life from which meaning is derived. The meaning of life varies from person to person and from situation to situation. Frankl (1967) notes that meanings are as unique as the situations encountered. The meaning of a whole life is unique insofar as life is a series of unique situations. O'Connor and Chamberlain (1996) comment that people experience meaning in the beliefs they hold, the actions they take, and the feelings that result.

Research studies indicated that different sources of meaning exist, and that meaning can be derived from a wide variety of sources (De Vogler-Ebersole & Ebersole, 1985a). Sources of meaning vary according to socio-demographic background, developmental stage (De Vogler & Ebersole, 1983), and cultural and ethnic background (Yalom, 1980).

Table 4 indicates the empirical findings of sources of meaning according to studies from various researchers. All of the sources indicated are in chronological order of importance, ranging from more important sources to less important sources as found by the specific researcher. The researchers that found work as a source of meaning are listed in the beginning of the table.

Table 4

Sources of meaning according to various researchers

| Sources of meaning | Researchers |
|--|---|
| Interpersonal, service, understanding, obtaining, expressive, ethical, life work , growth, pleasure/happiness, and health | De Vogler and Ebersole (1983) |
| Relationships, belief, growth, life work , pleasure, and service | De Vogler-Ebersole and Ebersole (1985a) |
| Men: work , love and marriage, and independent pursuits Women: children, love and marriage, and work | Baum and Stewart (1990) |
| Interpersonal, service, understanding, obtaining, expressive, ethical, | Battista and Almond (1973) |
| Relationships, service, growth, belief, and existential-hedonistic. | De Vogler and Ebersole (1980) |
| Relationships, health and belief (people over the age of 72 years) | McCarthy (1983) |
| Religiosity | Zika and Chamberlain (1992) |
| Relationships, creativity, personal development, nature, religion, social and political | O'Connor and Chamberlain (1996) |
| Future hope (for young adults) | Debats (1999) |

It is obvious from the conflicting and divergent findings of the various studies on the source of meaning that Frankl's (1972) postulation is true that meaning varies from person to person, and from situation to situation. A person can find possible meaning in virtually anything, depending on his own situation and characteristics. Research on the sources of meaning therefore appears not to add much value. However, an important insight from these research studies is that work often features as a source of meaning.

Table 4 illustrates clearly that although work is generally not seen as the most important source of meaning, or the most frequent source of meaning, it does play a

significant role as a source of meaning. This confirms the necessity of investigating the role of work in people's lives, and how to make work more meaningful. If work is so important in finding meaning, this observation also supports the notion that work motivation and work commitment could be associated with meaning.

In contrast to the positive sources of meaning, there are “negative” sources of meaning. These “negative” sources of meaning refer to a situation or an event that is normally seen as undesirable, but they can have a positive influence on a person's sense of meaning. These sources come to being mainly due to severe psychological disturbances (life changing events) (Lazarus & DeLongis, 1983). The loss of a job (becoming unemployed) is a typical life-changing event (Frankl, 1992). Crumbaugh and Maholick (1964), Frankl (1969) and Yalom and Yalom (1998) note that the onset of life changing events may, on one hand, obscure individuals' values and personal meanings in life but, on the other hand, initiate a renewed search for what really matters in their lives. These findings of the meaningful experience of “negative” life changing events confirm Maslow's (1979) view that striving for something one lacks, inevitably makes one feel that life has a meaning (Debats, 1999).

Breadth of meaning is based on the likelihood that an individual will experience meaning from several different valued sources, and that a greater variety of these will lead to an increased sense of meaning. De Vogler-Ebersole and Ebersole (1985a) found that most people possess several sources of meaning, rather than only one. They report that their subjects experienced an average of 4.26 different categories of meaning in their lives. O'Connor and Chamberlain (1996) report in a similar trend that participants in their study on average reported about four (3.68) specific categories of sources of meaning.

De Vogler-Ebersole and Ebersole (1985b) caution that the danger of having too many meanings might result in shallowness in pursuit and fulfilment of each of them. In contrast, Reker and Wong (1988) postulate that a greater variety of sources of meaning is likely to lead to an increased sense of meaning. Building on this, Reker (1991) demonstrates that greater breadth is associated with higher levels of purpose and coherence.

De Vogler and Ebersole, (1983) suggest that meaning exists at three levels: (a) ultimate meanings, (b) meaning of the moment, and (c) common, day-to-day meanings, which for Frankl (1967) were the cultural meanings and values. Reker and Wong (1988) classified the depth of meaning on four hierarchical levels: hedonistic pleasure (level 1, the shallowest level); devotion of energy to the realisation of personal potential (level 2); service to others and commitment to larger societal causes (level 3); and values that transcend individuals and encompass ultimate purpose (level 4, the deepest level).

Although there has been little research on depth of meaning, a rating approach for a depth of meaning in life measurement has been developed by Ebersole and Sacco (1983), De Vogler and Ebersole (1981, 1983) and De Vogler-Ebersole and Ebersole (1985b). Results from these studies confirm that depth of meaning varies substantially over different sources of meaning within the same people. O'Connor and Chamberlain (1996) confirmed that depth of meaning was found to be related to the content of the source of meaning. Das (1998) describes that sources of ultimate meanings are in religion, philosophy, science, and art. Debats (1999) also found that LRI scores are significantly related to the degrees of their commitment to personal meanings.

2.3.5. Meaning in relationship to biographical and demographical variables

A number of psychologists have theorised about the development stages of man over the course of life. Most notable is Erik Erikson's developmental theory (Corsini, 1977). Erikson maintains that the individual is in a constant process of challenge and growth, the individual is programmed to grow through various developmental stages through life, each stage having its own specific characteristics and behaviours attached to it (Corsini, 1977). Similarly, it could be argued that man must progress through preliminary stages in the development of meaning (Battista & Almond, 1973; Frankl, 1972; Yalom, 1980).

However, empirical research results on the relationship of the degree of meaning with age or sex is contradicting. Most of the research failed to find significant

relationships between meaning and life stages (age) or sex (Crumbaugh & Maholick, 1964; Crumbaugh, Ebersole & Kobayakawa, 1989; Debats, 1990; Debats et al., 1993; Debats, 1999; De Vogler-Ebersole & Ebersole, 1985b; Meier & Edwards, 1974; Reker & Cousins, 1979). Debats et al. (1993) conclude that the absence of significant associations with sex, age and educational level, suggest that the search for meaning is a general phenomenon and not linked with demographic variables. They reason that it is therefore correctly postulated by some theorists as a basic human drive. It changes its appearance throughout one's life cycle, but never disappears. In agreement, Debats (1999) concludes that meaning in life is a universal phenomenon that is independent of specific demographics.

On the other hand, some of the research studies indicated relationships between meaning with age (Baum & Stewart, 1990; Clark, Oswald & Warr, 1996; Debats & Drost, 1995; Peacock & Reker, 1982; Reker, 1994; Reker et al., 1987), and sex (Harlow et al., 1986; Sargent, 1973). Although research results are contradictory, and there is no conclusive evidence on correlations or the lack thereof, the majority of research appears to suggest that there is not significant correlation between PIL and age, years of schooling, IQ, or sex. It is evident that neither unemployed, nor retired people should characteristically have weaker meaning orientations than employed individuals. However, the fulfilment thereof might differ substantially.

2.3.6. Conclusion: meaning in life as a scientific construct

People look at work, vocational interests, relationships and religion to provide meaning (Hoff, 1986). When things are going smoothly in these areas of life, people experience their lives as meaningful (Hoff, 1986). When things go wrong in any important area of life (e.g., the loss of a job, the unexpected death of a loved one), people may begin to question the meaning of life because the assumptions on which they had built their lives are shaken (Hoff, 1986).

Research provides strong evidence for a positive relationship between meaning and successful functioning. The results of these studies support that meaning is more than merely a philosophical notion, but a critical psychological construct. Meaning in

life therefore seems to be a particularly important and relevant topic. Further research into the role of meaning in life can make a valuable contribution towards the understanding of the factors which influence mental health.

If meaning plays such an important role in the psychological and physiological well-being of a person, one can deduce that meaning should play a similar important role in the workplace. If meaning plays such an important role in people's attitudes toward life and their mental and physical health outside the workplace, these positive effects could be expected to also be prevalent in the workplace. Human beings act as integrated (or largely integrated units or personalities). One could speculate that a search for meaning displayed by an individual outside the work situation will probably mean that the individual will do the same in the work situation. Furthermore, meaning should directly affect mental health in the workplace. Work related mental health could be translated into positive work attitudes such as work commitment and work motivation. The study of meaning therefore also belongs to the fields of Organisational Behaviour and management.

2.4. THE RELATIONSHIP BETWEEN WORK AND IN MEANING IN LIFE

At any moment, man must decide, for better or for worse, what will be the monument of his existence.

Frankl (1984)

When Freud was asked what he considered the basic requirements of human existence, he answered, to love and to work (Neff, 1965). It was shown in the previous section that work often acts as a source of meaning. This raises the questions, what role does work play in the human life, and when does it act as a source of meaning?

2.4.1. The role of work in the human life

The concept of work has changed over the years. In the Western world, work historically has been associated with different value assessments. For instance, the

ancient Greeks regarded work as a curse, reserved only for the slaves and the poor (Super & Sverko, 1995). Under the influence of religious indoctrination, these negative attitudes toward work gradually changed. With the rise of Catholicism, work was seen as good for moral and spiritual integrity, whereas leisure and idleness was seen to bring about all kinds of weaknesses (Super & Sverko, 1995). The greatest glorification of work came with the Reformation. Hard work was perceived as the best way to serve God, a pathway to salvation, and work became to many a religious obligation and the highest virtue. These teachings led to the moral code described by Max Weber as the Protestant work ethic (Thomas, 1999). Gill (1999) concludes many of the psychological needs that earlier societies met through social structures, such as religious rituals, the expanded family and the village community, have now been taken over by the institution of paid work (Gill, 1999). This comment illustrates the importance of finding meaning also in one's work.

For most people, having a job serves other functions than the one of earning a living. This conclusion came primarily from the study by Morse and Weiss (1955) which became a classical study in the sociology of work. They designed a question to remove the economic function of working hypothetically. Morse and Weiss (1955) instructed 401 subjects to assume that they had enough money to take care of their lifetime needs. They posed the question: "If by some chance you inherited or win enough money in a lottery to live comfortably without working, do you think you would work anyway or not?" Morse and Weiss' (1955) study indicated that:

- 80% of the respondents would keep on working.
- 63% of the respondents gave positive reasons for continuing working.

Morse and Weiss (1955) note that the vividness and emotionality of the responses indicated that they were tapping an area which was real and meaningful to people. They conclude that for most people, having a job serves other functions than just the one of making a living. Working gives them a feeling of being tied into the larger society, of having something to do, of having a purpose in life (Morse & Weiss, 1955).

Work can provide a sense of fulfilment by giving an employee a sense of purpose and by clarifying his or her value to society (Steers & Porter, 1979). Conversely, it

can also be a source of frustration, boredom, and feelings of meaninglessness, depending on the characteristics of the individual and on the nature of the task. Johada (1982) explains that the modern work institution came to serve important psychological functions that in pre-industrial societies were provided outside the domain of paid work. For the majority of people, the workplace became the sole institution capable of satisfying these psychological needs, needs that are deemed essential to well-being (Johada, 1982).

However, work has different meanings for the professional person than for the industrial worker. Friedman and Havighurst (1954) found that their sample of blue-collar workers saw work as a way of earning a living, while their white-collar workers attached meanings beyond that of economic utility to work. Similarly, Morse and Weiss (1955) report from their study that white-collar employees saw a larger purpose or cause in their work than blue-collar workers. Blue-collar workers saw work more as a means to keep occupied. White-collar workers also indicated significant higher levels of career commitment (Morse & Weiss, 1955).

Kornhauser (1972) support these findings. He found that mental health was poorer among factory workers as one moves from more skilled, responsible, and varied types of work, to jobs lower in these respects. In further support of these findings, Orzack (1972) found that professionals regard work significantly more as a central life interest than industrial workers do. Furthermore, professionals see work significantly more as the preferred source of personal satisfaction than industrial workers do (Orzack, 1972). One can speculate that these findings suggest relationships between meaning and the career commitment and organisational commitment facets of work commitment.

Several researchers investigated the psychological functions of work in the human life. Most researchers that investigated the functions of work found the same functions. Table 5 provides a summary of some of these functions of work. Work as a source of purpose came out strongly as one of the functions of work.

Table 5

Psychological functions of work in human life according to different studies

| Functions of work | Authors |
|---|---|
| <p>Work as a source of sense of purpose - work prevents signs of alienation, feelings of powerlessness, isolation and of meaninglessness. The prospect of finding a purpose such as helping on a common aim may be a powerful incentive.</p> | <p>Friedman and Havighurst (1954), Morse and Weiss (1955), Firth (1972), Steers and Porter (1979), Johada (1982), Fagan and Little (1984), Terkel (1985), Gill (1999).</p> |
| <p>Work as a source of identity - work helps individuals and society to classify them in terms of class, status and influence.</p> | <p>Friedman and Havighurst (1954), Firth (1972), Steers and Porter (1979), Johada (1982), Fagan and Little (1984), Depolo and Sarchielli (1986).</p> |
| <p>Work as a source of relationships outside the family - work enriches the scope of interpersonal relationships; an important opportunity for socialisation.</p> | <p>Friedman and Havighurst (1954), Morse and Weiss (1955), Firth (1972), Johada (1982), Fagan and Little (1984), Depolo and Sarchielli (1986), Steers and Porter (1979), Hoff (1986), Lonkila (1998).</p> |
| <p>Work as a source of obligatory activity - work provides a resourceful framework of regular, purposeful activity; whereas too much activity may induce fatigue and stress, too little results in boredom and restlessness.</p> | <p>Friedman and Havighurst (1954), Morse and Weiss (1955), Firth (1972), Steers and Porter (1979), Johada (1982), Fagan and Little (1984), Depolo and Sarchielli (1986).</p> |
| <p>Work as an opportunity to develop skills and creativity - it allows for the mastery, control, or altering of the environment, it permits the development of personal skills.</p> | <p>Firth (1972), Steers and Porter (1979), Johada (1982), Fagan and Little (1984), Depolo and Sarchielli (1986).</p> |
| <p>Work as a factor which structures time - work structures time into regular, predictable periods involved with rest, refreshment and actual work, it structures the day.</p> | <p>Friedman and Havighurst (1954), Morse and Weiss (1955), Steers and Porter (1979), Johada (1982), Fagan and Little (1984), Depolo and Sarchielli (1986).</p> |
| <p>Work as a source of income and control - it provides money for independence and free choice of leisure. Material income, earning the means to live by.</p> | <p>Friedman and Havighurst (1954), Morse and Weiss (1955), Firth (1972), Steers and Porter (1979), Johada (1982), Fagan and Little (1984).</p> |

It appears that the important role that work plays in people's lives is a multi-cultural and widespread phenomena. The Meaning of Work Study (M.O.W.) an international research team (M.O.W. International Research Team, 1987) conducted an eight-nation study on the role of work. They found general evidence of man's considerable attachment to work. About 86% of the 15 000 respondents said they would continue to work even if they had enough money to live comfortably for the rest of their life without working. Over 25% of the respondents placed work above the following roles: family, community, religion, and leisure. The M.O.W. International Research Team (1987) found no association between religion and work attitudes. Hence the M.O.W. research team believe work centrality is primarily a function of industrialisation.

Work has become the centrepiece of modern lives (Fairholm, 1996). Work is the place where most people find their sense of meaning. The organisation within which people work is becoming their most significant community. For some, work is replacing family, friendship circles, and social groups. Work gives people a feeling of being tied into the larger society, of having something to do, of having a purpose in life (Fairholm, 1996). Work is essential for an individual's well being, as it is a person's occupation that makes life arguably meaningful (Howard & Howard, 1997). Strong (1998) reports that engagement in meaningful work is a central tenet of occupational therapy, although little is known about *how* meaningfulness of work relates to recovery (Strong, 1998). While work has become a negative cultural value for some, it nevertheless remains as a principal guiding force in people's lives, and as an activity which frequently moulds and affects their attitudes and perspectives, and patterns their social relationships with others.

2.4.2. Work involvement (work centrality) and meaning

The concept of work centrality has historically mostly been of interest to sociologists rather than psychologists. Kanungo (1982) investigated the existence of the difference between job involvement and work involvement. He designed a 10-item job involvement questionnaire (JIQ) and a six-item work involvement questionnaire (WIQ) and applied it to 703 part-time students at three universities in Montreal. The

scores on job involvement and work involvement items were factor analysed and yielded two clear interpretable factors of job involvement and work involvement. The two factors explained 47.2% of the total variance. These results suggest distinctiveness and uni-dimensionality of the job involvement and work involvement constructs and lends considerable support for the conceptual distinction between job and work involvement proposed by previous researchers (Kanungo, 1982). As both these instruments have been chosen to measure the constructs of work involvement and job involvement respectively, their psychometric properties will be discussed later in this dissertation in section 3.2.

In another study (N = 313) by Paullay et al. (1994), results from Confirmatory Factor Analysis confirmed that work centrality and PWE are separate constructs and that a distinction should therefore be made between work centrality and Protestant work ethic. The significant chi-squared difference between two models (model 1: CFI = 0.86, GFI = 0.85 and model 2: CFI = 0.99, GFI = 0.85) indicates that the latter model, which represents the two constructs as distinct, is a better model than the former, which considered work centrality and PWE as one latent construct. The comparative fit index increase of 0.06 from the first model to the second model further justifies the distinction between the two constructs. The Confirmatory Factor Analysis provided additional evidence of the uniqueness of the two constructs. More specifically, it showed that the correlation between the PWE and work centrality latent variables was 0.43 (Paullay et al., 1994). There is therefore a moderate correlation between the constructs of PWE and work centrality. Paullay et al. (1994) argue that endorsement of PWE may influence the degree of work involvement, but that they should be regarded as separate, but correlated constructs.

Although there seems to be reasonable clarity and agreement on the definition of the construct of work involvement, a clear understanding on the origin and antecedents of work involvement have still not been established. For instance, Lefkowitz, Somers and Weinberg (1984) found that work involvement was stronger related to higher-order motivation needs (such as self-actualisation and interesting work) than to the satisfaction of both lower-order needs (such as security and high pay). In a similar vein, Loscocco (1985) found in her study of 52 American (N = 3549), and 46 Japanese manufacturing plants (N = 368) that work commitment was positively

related to intrinsic rewards (0.31, $p < 0.01$). According to Super and Sverko (1995), the importance of the work role is determined by three basic components viz. commitment (emotional component), participation (behavioural component) and knowledge (cognitive component).

Sverko (1989) comments that the assertion that work involvement is produced by cultural conditioning or socialisation is too general. He notes that it does not explain the cognitive process through which the socialisation process influences individual differences in the importance of work (Sverko, 1989). Moreover, it reduces the individual's attitudes to work to a passive product of early socialisation. Sverko (1989) developed a model of work importance determinants (Figure 3). The central place in the model is given to work values, serving as important goals which individuals seek to attain in their work (Sverko, 1989). The more important such values are to individuals, the more important or salient their working roles will be to them as well. Sverko (1989) argues that the work-values aspect which exerts the major influence on the importance attached to work is the individual's perceptions of the value-attainment possibilities in work (VAP) (Sverko, 1989).

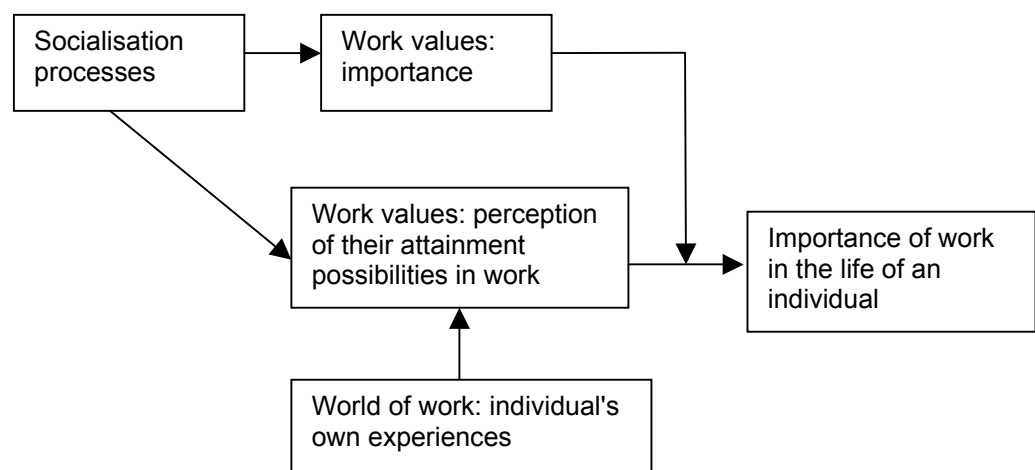


Figure 3. Sverko's (1989) model of determinants of work-importance.

Sverko (1989) reports that results from his study (four samples, $N = 923, 949, 348$ and 344 respectively) provide support for his model (Figure 3) of work-importance. The determinants ranged from $F = 19.73$ to 5.13 ($R = 0.66$ to 0.73 , significant at $p < 0.001$) for the four different sample groups. The model (Figure 3) further shows that

work values are influenced by the socialisation processes, which also influence the values attainment perceptions (Sverko, 1989). Finally, the VAP are also determined by the individual's own experiences from the world of work. Sverko (1989) notes that the model presumes that individuals have thoughts, expectations, and anticipations which affect their attitudes and behaviour. Thus, it adopts a cognitive approach, assuming a cognitive structure of attitudes, to motivation and work behaviour (Sverko, 1989).

Loscocco (1989) reports that the results of her study (N = 4604) suggest that the strength of people's commitment to work is determined in response to the whole configuration of their work and non-work experiences. For instance, age ($r = 0.25$, $p < 0.01$), education (-0.097 , $p < 0.01$), promotion opportunities (0.31), and intrinsic rewards (0.41) all correlated somewhat with commitment to work. She also comments that one cannot generalise about the effect of gender on work commitment since it depends upon the type of work role that an individual holds (Loscocco, 1989).

Paullay et al. (1994) note that because work centrality is partly the result of cultural conditioning or socialisation processes, it is presumed to be a relative stable set of beliefs that does not fluctuate greatly in response to conditions in the immediate work environment. Ros et al. (1999) comments that differences in the meaning of work can be dependent on differences in the importance of work to individuals. Moreover, differences in the meaning of work apparently reflect differences in the experiences that respondents have in the world of work (Ros et al., 1999).

No research studies could be found that investigate the possibility that work involvement could have any relationship or association with existential constructs such as having meaning or a purpose in life. This is deemed an oversight as it is difficult today for people to separate work from the rest of their being. People spend too much of their time at work or in work-related social and leisure activities to compartmentalise their lives into separate work, family, religious and social domains. If personal or social transformation is to take place, it will most likely take place at work (Fairholm, 1996). Most of the other facets and dimension of life and their relationships with work have been investigated, except for the spiritual dimension. It

is therefore of the utmost importance that the relationship between work and a person's spirituality is investigated and understood.

2.4.3. The role of "meaning" in work

If man lives by his work, so too may he sicken and die by his work, as well as suffer and develop mental illness as a result of it.

Bryant (1972a)

Giving meaning to work implies giving people a sense that they are not instruments in the hands of others, but that they are responsible participants in a larger process (World Council of Churches, 1949). According to Menninger (Neff, 1965), 75% of psychiatric patients are suffering from an incapacity of satisfaction in work or from their inability to work. Too often, the fact that man's physical and mental conditions are significantly related to his occupational specialisation is overlooked (Bryant, 1972b). Pathological idiosyncratic behaviour patterns, neurotic tendencies, and mental breakdowns are legendary in business, and the pressures of bureaucratic existence may produce psychological disorders. Similarly, the relationship between the monotony and the meaninglessness of work, and mental malaise has been recognised (Bryant, 1972b).

Sargent (1973) reports alienation as an increasing issue in the workplace. Alienation indicates a lack of integration between the private and public worlds of the worker. Instead of working for himself directly, or working in a small community where his services are easily evaluated, a person works for others and is usually separated from his community. His children often have no conception of what he does from the time he leaves the house in the morning until he returns home in the evening (Sargent, 1973). Often a person's only sense of worth and status is conferred by his title, occupation and salary. In this orientation a person values himself only to the extent he has economic value to others, and therefore he denies himself leisure (Sargent, 1973).

Cherrington (1980) developed a matrix to illustrate the importance of meaning in life. His matrix also illustrates the relationship between meaning in life and meaningful work. This matrix explains the concept of dual meaning, i.e. meaningful life and meaningful employment, is illustrated in Figure 4.

| | | View of work | |
|--------------|---------------------|---|--|
| | | Work is meaningful | Work is meaningless |
| View of life | Life is meaningful | Strong work ethic Happy and productive workers. Work is a terminal and/or instrumental value. | Work is an obligation that is not consistent with the meaning of life. Solution: inculcate work values, redesign the job, or change jobs. |
| | Life is meaningless | Work is a displaced terminal value. Work is the reason for existence. Solution: enforced rest, assessment of priorities, and diversification of interest. | Work is soulless, mind-numbing drudgery. Welfare is preferred to work. Solution: "right actions" and "contributing to live". |

Figure 4. Cherrington's (1980) matrix of meaning in life and meaningful work

The areas in the quadrants describe the outcomes of the resulting combinations of the matrix according to Cherrington (1980). Cherrington's (1980) matrix suggests that the ultimate state of meaning is reached if a person finds both life and his work meaningful. It is in this stage that the individual will be work motivated and work committed. If a person's personal sense of purpose is congruent with his occupation, his work becomes an expression of meaning (Savickas, 1991).

One way to relate occupation to meaning is through the use of time (Howard & Howard, 1997). An appreciation of time as an exhaustible resource gives people ultimate meaning. Doerr (1998) comments that some people are retiring early because they want more time and more meaning in their lives. However, having time available is not the only issue. For instance, the unemployed has lots of time available, but being unemployed is very different from having leisure time (Fryer & Payne, 1986). Pascarella (1998) notes that people are seeking out "communities of

meaning" in the workplace where they often sacrifice financial rewards to meet a more balanced set of needs (Pascarella, 1998).

Most people do not understand how to go about finding meaningful work. Individuals therefore expect organisations to promote their search for meaning (Smircich & Morgan (1982). Employees consequently often look to those in authority to tell them what is meaningful in their work life (Gemmil & Oakley, 1992). Leaders are therefore being called on to facilitate the spiritual development of their followers (Konz & Ryan, 1999). Sosik and Dworakivsky (1998) confirmed some of these theorisations about leadership finding meaning in the workplace. They found in their study of 64 managers and 194 subordinates that leaders' purpose-in-life scores were significantly and positively related to charismatic leadership (path coefficient = 0.21, $t(9) = 33.71$, $p < 0.01$).

2.4.4. Boredom in the workplace from a lack of meaning

Boredom occurs when people are unable to find or create meaning in their work life and existence altogether (Frankl, 1992; Gemmil & Oakley, 1992; Terkel, 1985). The technological revolution of work has been accompanied by fragmentation of labour, increasing complexity and bureaucratisation of organisations. These phenomena tend to make work meaningless (Appiganesi, 1994). Consequently, work has for some members of the workforce become a monotonous, repetitive and seemingly meaningless routine (Howard & Howard, 1997). The amount of research devoted to the topic of boredom is astonishingly small when compared to the importance of the topic in the workplace. In reviewing studies of boredom from the period of 1926 to 1981, Gemmil and Oakley (1992) found only 40 articles directly concerned with boredom, which is less than one article per year for 53 years.

Gemmil and Oakley (1992) conclude that research indicates that boredom is associated to *either* too little *or* too much stimulation; repetition per se does not result in boredom. Repetitive work can free the mind and spirit to a state similar to meditation, and can be experienced as quite meaningful. In contrast, highly stimulating work can be experienced as meaningless, and overwhelming (Gemmil &

Oakley, 1992). According to Frankl, the issue is whether a continuous basis exists for experiencing personal meaning in the activity. Without such a basis every choice seems random and arbitrary (Gemmil & Oakley, 1992).

However, admission of boredom in one's own personal life is often seen as a sign of personal failure or sickness (Gemmil & Oakley, 1992). People therefore fear to discuss their thoughts and feelings about boredom and meaninglessness in their organisational life. By developing a better understanding of the meaning of boredom in organisations, organisation members can learn to confront their boredom constructively, thereby expanding their awareness and unblocking repressed feelings (Gemmil & Oakley, 1992). The net effect of exploring such deeper meanings is the infusion of a new personal meaning into the experience of work (Thomas, 1999).

2.4.5. The increasing role of meaning in the work environment

There is a widespread belief that attitudes to work are changing, particularly in industrialised societies. Most organisations have been designed and managed using a paradigm based largely on a logical and mechanistic, machine era paradigm (Biberman & Whitty, 1997). This has given rise to practices such as scientific management as proposed by Henry Fayol (1949), and Max Weber's (1984) bureaucracies. Unfortunately, these organisational forms tend to view workers as inert instruments performing the tasks assigned to them (Blau, 1970; Dessler, 1986; Rogers & McIntire, 1983). People perceive this impersonality as creating distance between them and their work (Wieland & Ullrich, 1976). High specialisation further reinforces feelings of being irrelevant (Jackson & Morgan, 1982).

Extended education has brought with it rising expectations that personal needs will be met, and that one is entitled to have his expectations met in the workplace (Davis, 1980). Young people are beginning to claim the right to an interesting, meaningful and self-fulfilling centred job (Davis, 1980). Increased educational opportunities and higher standards of living create a disparity for many people between their

aspirations and realisations (Shimmin, 1980; Terkel, 1985). These aspirations can also be translated as a search for meaning in work.

According to Renesch (1995) people increasingly are seeking more "intrinsically valued" lifestyles. Fairholm (1996) concludes that people are hungry for meaning in their lives, they are trying to integrate their spiritual selves with their work lives. However, this concept seems to be timeless. A recent survey of UK and US employees (Doerr, 1998) found that what the well-educated new entries to the workforce wanted more than anything else was meaningful employment - with time to pursue other interests besides work. Welch (1998) agrees that many people are looking for more meaning in their work and finding it less. Growing numbers of people are starting to look for personal meaning in their work and to give their lives a better balance.

The nature of work is undergoing a transformation. In response to economic pressures, organisations are reshaping themselves into totally new forms (Guevare & Ord, 1996). The boundaries which have traditionally existed between organisations, family, home life and community disappear as work increasingly becomes situation-independent and sentenced in the home through advances in information technology (Guevare & Ord, 1996). Contingency work is increasingly being seen as a way of life for many professional, technical, and managerial people (Allen & Sienko, 1998). People's traditional understanding of work becomes increasingly obsolete and therefore forces individuals to search for new meanings of work in their lives.

Cavanagh (1999) reports that business people often feel a separation from other people, alienation from their work, and a lack of meaning in their lives. They experience their work, family life and their faith to be in separate compartments. This separation leaves them feeling dry, unfulfilled and unhappy, and is often experienced as a profound void or absence in their lives (Cavanagh, 1999), or an existential vacuum as Frankl postulated. The increasing demand that work should have some meaning beyond material needs is part of a new social revolution. In the post-modern future, humankind's eternal search for meaning will require not only reinventing work and the workplace, but also a renewed sense of the deepest

intentions behind human activity, and in spirituality (Biberman & Whitty, 1997). Persons operating from a spiritual paradigm perspective would be more open to change (Biberman & Whitty, 1997). Organisations are therefore beginning to show an interest in spirituality and spiritual values (Biberman & Whitty, 1997).

2.4.6. Meaning as spirituality in the workplace

Frankl (1969, 1970, 1975, 1984a) describes meaning essentially as being part of man's spiritual dimension. Spiritual growth, as described by Jung (1933), allows individuals to find meaning and purpose in their work. Spirituality can be seen as a building block, and a part of the search and will to meaning (Neck & Milliman, 1994). Questions which employees might ask themselves in this regard include the following (Neck & Milliman, 1994):

- What is my purpose here at work?
- Where is this job leading me?
- What is it that I have to offer? What do I want to leave behind here?

Spirituality does not equate to religion (Frankl, 1984a; Howard & Howard, 1997). Spirituality stresses the person's subjective experience of something or someone greater than himself. Religion, on other hand, refers to the more formalised aspects of spirituality, such as belief, dogma, and ritual (Howard & Howard, 1997). Spirituality has traditionally been an individual concern, and the same could be said about spirituality in business. However, people as individuals find meaning in their work. Organisations are therefore slowly evolving from arenas of purely economic and social activity into places of spiritual development (Konz & Ryan, 1999).

Spirituality is becoming a major issue in workplaces (Vogl, 1997). At the 1998 annual meeting of the Academy of Management, at least seven sessions explicitly discussed spirituality and its relation to leadership and work (Cavanagh, 1999). Although this represents a small percentage of the total session, it is significant that the number of sessions on spirituality has grown from zero from five years before (Cavanagh, 1999). A bibliography distributed on spirituality in the organisation lists

no fewer than 72 books on the subject of spirituality and business, 54 of these books have been published since 1992 (Cavanagh, 1999).

Spirituality provides people with meaning and gives them motivation (Howard & Howard, 1997). Workers are looking to business to answer questions about meaning. This trend is driven by people's desire to bring meaning to their lives and gain control over their lives (Vogl, 1997). However, for the individual's efforts toward self-awareness to be fully actualised, it is necessary for the organisation to be structured to support the individual's spiritual growth (King & Nicol, 1999; Neal, Lichtenstein & Banner, 1999). The organisation's spirituality would be the foundation of the organisation's culture (Konz & Ryan, 1999). Leaders' basic assumptions about the appropriate way for humans to act in turn reflect the organisation culture (Neal, Lichtenstein & Banner, 1999; Schein, 1992). Therefore, leadership and spirituality is closely related. Konz and Ryan (1999) note that as the concern for finding meaning in work became greater, managers and leaders moved into the role as aids to the search for meaning in the workplace.

It is obvious that there is a soul-searching epidemic afoot in the workplace (Caudron, 2000). Employees are no longer content with just a paycheque and good benefits; they want meaning and passion. They search for something greater than themselves to believe in, they cannot help but to extend that search to their work lives (Caudron, 2000).

2.5. WORK COMMITMENT AND ITS RELATIONSHIP WITH MEANING

Creating the work one loves challenges someone to be his true, authentic self, and to resolutely believe in his unique gifts.

Giesbrecht (1998).

The construct of work commitment is well researched. However, most of the research has been directed to clarify the characteristics, the antecedents, and the outcomes of the specific facets of commitment. Little attention was given to investigate the reasons for becoming work committed holistically. In other words,

what stimulates the facets of work commitment such as work values, job involvement, career commitment and organisational commitment simultaneously? It is postulated that purpose in life, having found meaning in life, can be a major source for people becoming committed to what they do in the workplace. This study focuses specifically on three facets of work commitment, namely work values, job involvement and career commitment. The selection of these three facets of work commitment is motivated in the next section.

2.5.1. The work commitment construct

Steers and Porter (1979) posit that people tend to evaluate themselves according to what they have been able to accomplish. If they see their job as hampering the achievement of their full potential, it often becomes difficult for them to maintain a sense of purpose at work (Steers & Porter, 1979). Hence, the nature of the job and the meaning it has for the employee can have a profound impact on employee attitudes and work behaviour (Steers & Porter, 1979). Levels of work commitment could have serious implications for an organisation's productivity.

Extensive studies have been undertaken on the different facets of work commitment. However, there is still not uniform agreement or clarity on what the construct of work commitment consists of. For instance, Morrow (1983) suggests that work commitment comprises of five different facets: organisational commitment, career commitment (career salience), job involvement (Morrow (1983) includes work centrality in job involvement), work values (PWE), and union commitment. Morrow (1983) suggests that a degree of redundancy exists among these constructs, but sees it as a problem of instrumentation rather than of conceptual overlap.

In another study, Morrow, Eastman and McElroy (1991) investigated the validity of five work commitment constructs (PWE, career salience, job involvement, work as a central life interest and organisational commitment). They found that some degree of concept redundancy existed among job involvement, career salience and work as a central life interest. Organisational commitment and PWE scales demonstrated the least redundancy; i.e. they appeared to be clearly separate concepts (Morrow et al.,

1991). Blau, Paul and St John (1993) tested for redundancy among four work commitment facets i.e. career commitment, job involvement, work values and organisational commitment. Blau et al. (1993) conclude that their results indicate that occupational commitment, job involvement, work values and organisational commitment are distinct work commitment facets.

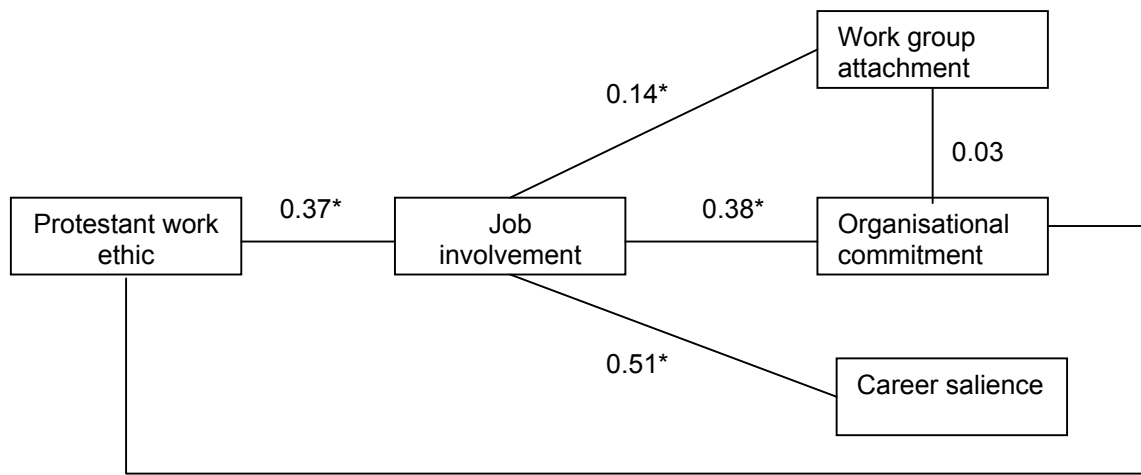
2.5.2. The interrelationships between work commitment facets

The antecedents and consequences of a variety of work commitment constructs have been widely investigated (Morrow, 1983). However, most of these studies treated the facets of work commitment in isolation. Furthermore, the theoretical linkages among the major facets of work commitment have not been the focus of much comparative study, and are not fully understood (Randall & Cote, 1991). Studies that did focus on the interrelationships and linkages between the facets of work commitment include those of Randall and Cote (1991), Cohen (1999), and Cohen (2000). As these studies are fundamental to the research design, they will be discussed in more detail.

Randall and Cote (1991) tested the relationships between the different constructs in their hypothesised work commitment model with data from a sample of 455 university employees. The hypothesised model, a relationship model, not a causal model, was developed through a process that conceptually integrated previous studies. Their survey instrument used five specific scales, tapping different facets of work commitment, namely: PWE, job involvement, organisational commitment, career salience, and work group attachment. Randall and Cote (1991) found that the strongest relationships were found for the effects of job involvement on organisational commitment and career salience. Job involvement explained 25.5% of the variance in career salience and 14.8% of the variance in organisational commitment. In addition, job involvement was significantly influenced by the PWE (explaining 13.6% of the variance in job involvement) and work group attachment (explaining 2% of the variance in job involvement). Contrary to their expectation, work group attachment had no significant effect on organisational commitment; it appeared to influence organisational commitment only through job involvement.

Consistent with their expectations, Randall and Cote (1991) found that work group attachment had no direct effect on either PWE or career salience.

The results of Randall and Cote (1991) study can be graphically illustrated as indicated in Figure 5. The relationships indicated are the standardised estimates derived from the factor loadings. Randall and Cote (1991) did not indicate the significance of the path between PWE and organisational commitment.



* Significant at 0.01 level,
(no * = not significant)

Figure 5. Randall and Cote's (1991) model of relationships between work commitment constructs

Randall and Cote (1991) comment that the findings point to the pivotal role that job involvement plays in a unified theory of work commitments constructs. Job involvement appears to directly and strongly influence organisational commitment and career salience. Further, individuals holding a strong PWE, appear to be highly involved in their jobs (Randall & Cote, 1991). Randall and Cote (1991) observed that it appears that individuals highly committed to the value of work may develop a strong loyalty to the organisation. Thus, higher levels of the PWE may lead to greater organisational commitment (Randall & Cote, 1991).

Cohen (2000) comments that in the Randall and Cote (1991) model, Protestant work ethic and workgroup commitment are the exogenous variables that affect job involvement. People with a strong work ethic may be motivated to apply more effort, to continue to do so even when bored or tired, and to take responsibility for their work. They may feel a moral obligation to perform the task to the best of their ability. Thus, they are more likely to be job involved than people with lower levels of PWE (Cohen, 2000).

Morrow (1993) also proposed a conceptualised model to reflect the relationships between the various facets of work commitment. Her model suggests that of all forms of commitment the job is the closest, and most immediate, tangible and concrete focus. Job involvement was postulated to be affected by work situation variables (Morrow, 1993). Therefore, changes in the work setting will have an immediate effect on job involvement. The placement of group commitment as the second moderator is based on a similar rationale as job involvement. Group commitment, like job involvement, can also be perceived in Morrow's (1993) terms as a close, immediate, tangible and concrete focus. According to Morrow's (1993) model, job involvement and group commitment should mediate the relationship between the other commitment foci and work outcomes. Figure 6 illustrates Morrow's model of work commitment relationships.

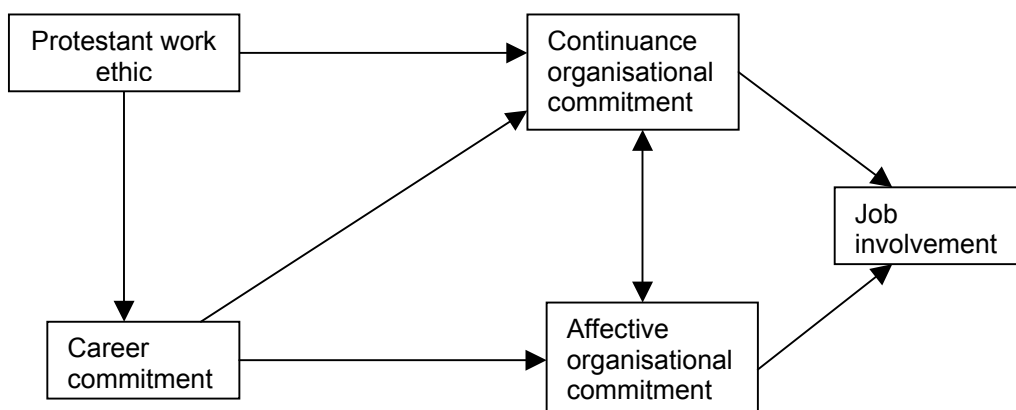


Figure 6. Morrow's (1993) model of work commitment relationships

Cohen (1999) tested Morrow's (1993) conceptualisation in comparison with the empirical alternative by Randall and Cote (1991). Cohen (1999) reports that results

of Confirmatory Factor Analysis (N = 238) and correlation analysis showed an acceptable discriminant validity among the five commitment foci (career commitment, job involvement, PWE, continuance organisational commitment, and affective organisational commitment). However, he reports that the results of path analysis showed a poor fit with Morrow's (1993) model and a better fit with Randall and Cote's (1991) model. Revised versions of both models, based on modification suggestions that became apparent from the fit indices were also investigated by Cohen (1999). Again the fit indices supported the Randall and Cote (1991) approach better than Morrow's model (Cohen, 1999).

The correlations among the work commitment facets in Cohen (1999) study showed that the PWE has a nonsignificant relationship with the two forms of organisational commitment ($r = 0.062$, and $r = 0.070$), and significant but weak correlations with career commitment ($r = 0.112$) and job involvement ($r = 0.272$). The correlations indicate a pattern where strong intercorrelations exist among affective organisational commitment with job involvement ($r = 0.53$) and career commitment ($r = 0.48$) (Cohen, 1999).

Figure 7 illustrates Cohen's assessment of Randall and Cote's (1991) model. This model fitted the data better than Morrow's (1993) model. The strengths of the various path coefficients as found by Cohen (1999) are indicated in the model.

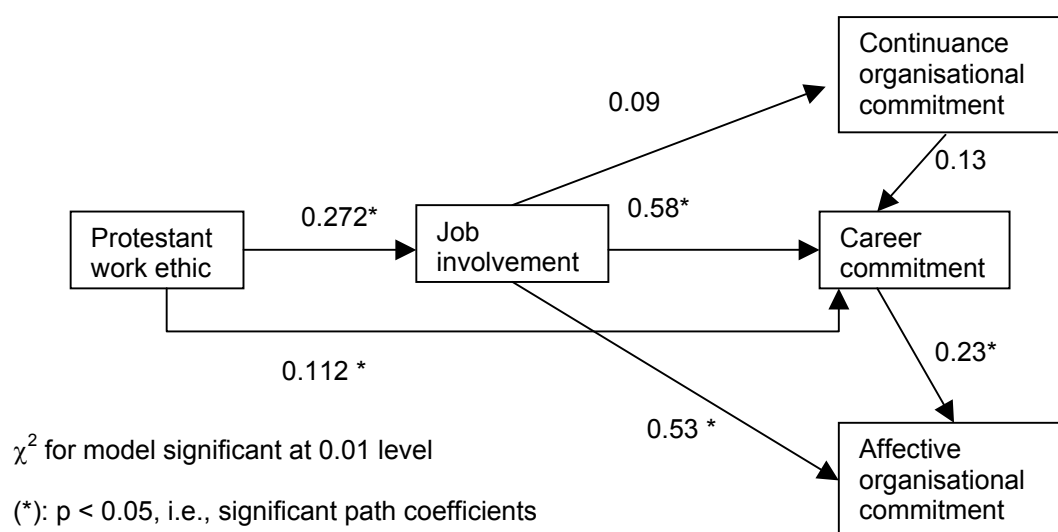
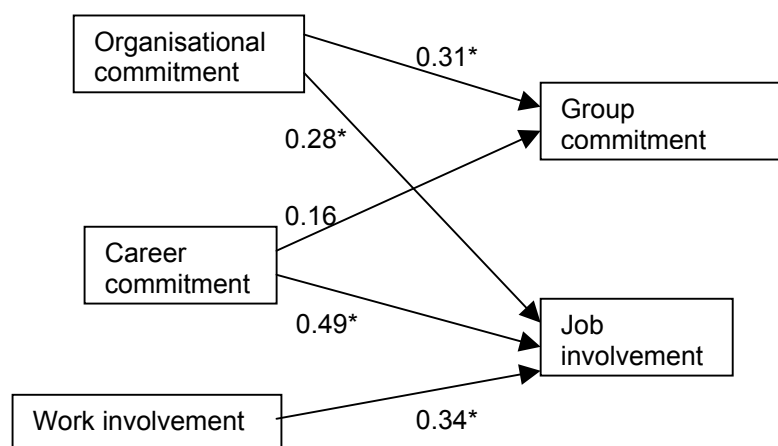


Figure 7. Cohen's (1999) analysis of the Randall and Cote (1991) model.

After his 1999 study, Cohen (2000) examined the relationships between work commitment foci and work outcomes. Again he based his analysis on Morrow's (1993) conceptualisation, and Randall and Cote's (1991) model. Cohen (2000) applied path analysis to both models with a sample of 283 nurses from hospitals in Israel. Cohen (2000) reports that the result of analysis again showed a better fit to the data of the Randall and Cote (1991) model than that of Morrow (1993).

Morrow's (1993) model was only partially supported by the path coefficients. The findings showed the job involvement mediated the relationship as expected (Cohen, 2000). It was related to the three exogenous variables, work involvement (0.34), organisational commitment (0.28), and occupational commitment (0.49). Only one exogenous variable, organisational commitment (0.31) was related to group commitment. Moreover, group commitment was not related to any of the outcome variables (Cohen, 2000). The model and the various relationships are illustrated in Figure 8.

The other work outcomes measured by Cohen (2000) namely absenteeism, turnover intentions and turnover are not indicated in Figure 8 or discussed further as they were deemed to be outside the scope of this study. The various path coefficients as found by Cohen (2000) are indicated in the model.



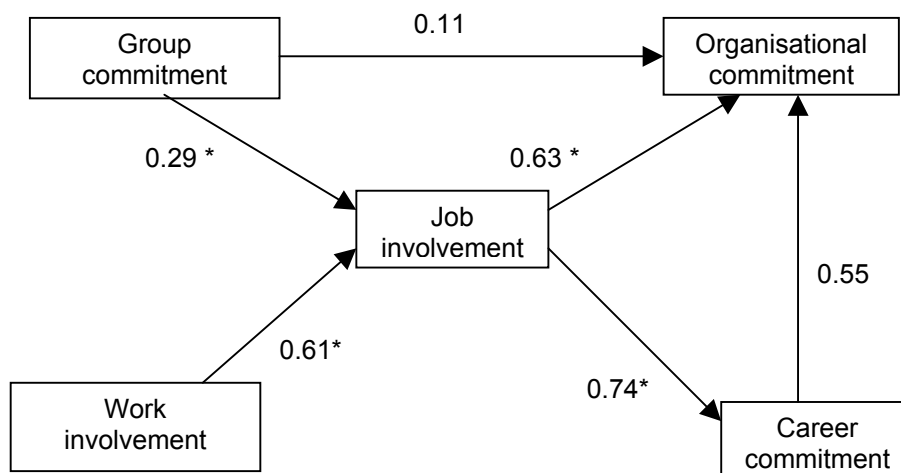
χ^2 for model significant at 0.01 level

(*): $p < 0.05$, i.e., significant path coefficients

Figure 8. Cohen's (2000) analysis of the Morrow (1993) model.

In contrast to Marrow's (1993) model, Cohen (2000) comments that the strength of the Randall and Cote (1991) model is the strong support that its anticipated path coefficients received from the data. All three mediation processes suggested by the model were supported: job involvement mediated the interrelationships among commitment foci; occupational commitment and organisational commitment mediated the relationship between commitment foci and turnover intentions; and turnover intentions mediated the relationship of organisational commitment and occupational commitment actual turnover (Cohen, 2000).

The findings showed that job involvement mediated the relationships as expected. It was related to the three exogenous variables, work involvement (0.34), organisational commitment (0.08) and occupational commitment (0.49) (Cohen, 2000). According to the Randall and Cote (1991) model, job involvement mediated the relationship of group commitment and work involvement to occupational commitment and organisational commitment. All four path coefficients were significant: from group commitment to job involvement (0.29); from work involvement to job involvement (0.61); from job involvement to occupational commitment (0.63); and to organisational commitment (0.63) (Randall & Cote, 1991). These relationships are graphically illustrated in Figure 9.



χ^2 for model significant at 0.01 level

(*): $p < 0.05$, i.e., significant path coefficients

Figure 9. Cohen's (2000) analysis of the Randall and Cote (1991) model.

Again, as in the case with Morrow's (1993) model, the other work outcomes measured by Cohen (2000) namely absenteeism, turnover intentions and turnover are not indicated in Figure 9 or discussed further.

Cohen (2000) concludes that the findings support Randall and Cote's (1991) argument that job involvement seems to be a key moderating variable in the interrelationships among work commitment constructs (Cohen, 2000). It affects organisational commitment because situational factors have been identified as potentially the most important set of antecedents to organisational commitment. Job involvement was also found to predict career salience because it fosters job challenge, which in turn leads to career identification (Cohen, 2000). Job involvement itself is strongly affected by work involvement, which has a key role in influencing an employee's affective responses in the workplace (Cohen, 2000).

Cohen (2000) questions the usefulness of group commitment as one of the commitment foci in terms of the relationship with work outcomes based on his findings. He argues that this view was initiated by the very few significant paths of this focus with any other commitment foci and by the nonsignificant relationship of this focus with any of the work outcomes. This finding was quite consistent across all the models tested (Cohen, 2000). Based on this argument of Cohen (2000), group commitment was not used in this research study.

The work commitment models of Randall and Cote (1991), Cohen (1999) and Cohen (2000) suggest that prevailing facets of work commitment are work values, job involvement, and career commitment. These three constructs are discussed in more detail in the following sections.

2.5.3. Work values

Frankl (1967) posits that values aid one's search for meaning, and that values furnish the meaning in the typical situations that occur in life. Rokeach (1973) differentiates between two types of values namely terminal values (desirable end-

states of existence such as exciting life and self-respect) and instrumental values (preferred modes of behaviour such as logical, responsible and broad-minded). The framework against which most research on work values has been conducted is Max Weber's PWE (Hoole, 1997). Weber's writings have been so influential that most studies of the PWE tend to assume, rather than test its existence. The PWE refers to the extent to which a person feels that personal worth results from self-sacrificing work or occupational achievement (Blood, 1969).

Blood (1969) found correlations between the PWE and satisfaction, whereas non-PWE is inversely related to satisfaction. This implies that the stronger a worker's work values, the more he will be satisfied in his work and with life in general. Blood (1969) concludes that the way a person evaluates work is related to his attitudes toward his particular job, thereby suggesting a relationship between work values and job involvement. He argues that someone who thinks that work is to be undertaken only when all other strategies fail, will likely be unhappy even in the most pleasant work situation. On the other hand, a person who feels that personal worth results from self-sacrificing work or occupational achievement would derive some satisfaction, even in a menial position (Blood, 1969).

Furnham (1990b) identified eight different scales commonly used for measuring work values. He administered all eight questionnaires to large groups of subjects from different nationalities (over 1000 subjects) and factor analysed all the items from all the questionnaires. Furnham (1990b) found that the different scales of work values showed dramatically different sets of correlations with other variables. He also found that the different questionnaires focus unevenly on different aspects of the work values. Furnham (1990b) concludes that as each of the scales focus on different aspects, different results will occur depending on the scale that is used. Furnham (1990b) concludes that psychometricians concerned with devising PWE measures have been more concerned with reliability of the scales, than validating whether it is measuring the PWE as conceived by Weber.

In a related observation, Niles (1999) comments that there are few clear statements about what constitutes the work values. It has been linked to many different constructs such as achievement motivation, authoritarianism, and postponement of

gratification. It has also been linked to several attitudinal correlates such as attitude to leisure, money, time, and success. Niles (1999) concludes that the way work values are operationalised in contemporary literature, seems to be different from Weber's proposal. The scales that attempt to measure work values seem to be tapping largely into one primary dimension, which is a commitment to hard work (Niles, 1999).

Although Weber linked this work ethic to Protestants, research results are not conclusive in this regard. In support of this association, Giorgi and Marsh's (1990) results confirmed that Protestants were more likely than Catholics to have high scores on the work ethic factor. They found that both individual religious denomination and national religious culture produced significant effects. On the other hand, there can be a stronger commitment to a "Protestant" work ethic among non-Protestant cultures. Niles (1999) conducted a study of Sri Lankans (assumed to be non-Protestant) and Australians (generally Protestant), using the Australian Work Ethic scale (Ho & Lloyd, 1984) as a measure of PWE. The Sri Lankans scored significantly higher than the Australians did, suggesting that Sri Lankans endorse a commitment to hard work more strongly. However, Niles (1999) found that the two groups emphasised different work-related values. He concluded that hard work appeared to be universally seen as an end in itself and even as morally right.

Work values are a particularly important work commitment construct as it plays a key role in influencing an employee's affective responses in the workplace. For instance, Morrow (1983) views work values as a personality variable and note that it is assumed to be a relatively fixed attribute over an individual's life course. Randall and Cote (1991) found that individuals holding strong work values were more involved with their jobs. Some researchers report that individuals were more committed to the organisation when their values were congruent with those of their managers (Sagie et al., 1996).

2.5.4. Job involvement

If a person has a clear purpose in life, his job can be one of the ways that fulfils this purpose, or through which he fulfils his purpose. If this holds true, he should also identify psychologically with his job, which in turn will influence his behaviour. The psychological identification with one's job, or job involvement, has received substantial attention in commitment and motivation literature (Paterson & O'Driscoll, 1990).

Kanungo (1979) describes job involvement as the opposite pole of work alienation and argues that a distinction should be made between what he calls (a) involvement in a particular job context and (b) involvement in work generally. He regards job involvement as a term descriptive of an individual's belief about one's present job, a function of the satisfaction of the individual's present needs. He goes on to argue that job involvement is a specific belief resulting from the relationship with one's present job. Kanungo (1979, 1982) relates job involvement to the importance of a person's intrinsic and extrinsic needs. On the other hand he sees work involvement as the result of socialisation, which he warns must not be confused with intrinsic motivation. Work involvement is however also seen as satisfaction with work in general, and the perceptions a person has about the need-satisfying potential of his/her work.

A major determinant of job involvement is a value orientation learned early in the socialisation process (Blau, 1985a). An individual who has internalised the work ethic will probably be job involved, regardless of the context within which he or she might be employed. Indirect empirical support suggests a direct relationship between the PWE and job involvement (Randall & Cote, 1991). Blau (1985a) found that the psychological identification of job involvement conceptualisation was empirically independent and can operationally be distinguished from other related constructs such as intrinsic motivation.

Although job involvement has not been related previously to the construct of meaning, the degree of a person's job involvement has been found to be related to several personal and situational characteristics. For instance, Lorence (1987) found

a curvilinear relationship between age and job involvement. Paterson and O'Driscoll (1990) report that positive relationships between job involvement and the number of regular hours worked, amount of unpaid overtime and effort put into the job suggest that the concept of job involvement may be a potential predictor of performance-related behaviours. Paterson and O'Driscoll (1990) comment that job satisfaction was positively related to well-being and negatively associated with turnover intentions.

Randall and Cote (1991) describe job involvement as a moderating variable in work commitment. In their study, job involvement strongly influences both organisational commitment and career commitment. Further, individuals holding strong PWE and, to a lesser extent, those with strong work group attachments appear to be highly involved in their jobs (Randall & Cote, 1991). Job involvement has been positively linked with PWE (Blau, 1987), and job satisfaction (Brown, 1996b).

Furnham, Brewin and O'Kelly (1994) examined (N = 100) the relationship between work-specific cognitive style, and measures of organisational commitment, job satisfaction, and involvement. Perception of personal control over positive outcomes were positively correlated with job commitment ($r = 0.48$, $p < 0.001$), job involvement ($r = 0.61$, $p < 0.001$) and job satisfaction ($r = 0.54$, $p < 0.001$), a finding that appears to generalise across different occupational groups. Furnham, Brewin and O'Kelly's (1994) study indicated strong correlations between locus of control and some of the facets of work commitment. These findings have specific implications for this study which investigates the relationship between work commitment and meaning as it has been shown in other studies that meaning also correlates strongly with internal locus of control (Crumbaugh, 1971; Battista & Almond, 1973; Furnham, Brewin & O'Kelly, 1994; Hardcastle, 1985; Reker, 1977; Phillips, 1980; Yarnell, 1972).

Riipenen (1997) found that job involvement was significantly positively correlated with positive life affects (e.g. happiness, satisfaction, self-esteem), and negatively correlated with negative life affects (e.g. anxiety, depression, hopelessness). However, Riipenen (1997) concludes that the relationship depends on the basis of the involvement. Job involvement was positively related to well-being with the level of well-being was higher in the cases where the persons experienced need fulfilment

in the job. Correspondingly, job involvement that was not based on need fulfilment was independent from, or negatively related to well-being. These findings of Riiipenen (1997) provide support for a hypothesis that job involvement will be related to meaning.

2.5.5. Career commitment

A person's commitment to his career field or role is to be distinguished from commitment to his daily job (i.e. job involvement), or to his organisation (i.e. organisational commitment). Career commitment refers to the importance of an individual's career in his life. Carson and Bedeian (1994) defined career commitment as one's motivation to work in a chosen vocation or in a chosen career role.

One can speculate that if a person experiences life as meaningful and his career is one of the ways of exercising his meaning, then he can be expected to be committed to that career. Greenhaus (1973) found significant relationships between career commitment (career salience) and congruence between the individual's self-perception and his occupation. They also found significant relationships between career commitment and the tendency to choose an ideal occupation, and between career commitment and self-esteem. Based upon their review of the literature on professionalism, Kerr, Von Glinow, and Schriesheim (1977) outlined six characteristics of "ideal" professions: expertise, autonomy, commitment to work and the profession, identification with the profession, ethics, and collegial maintenance of standards. The term profession as described by Kerr et al. (1977) is very similar to Gouldner's (1957) description of cosmopolitans.

Blau (1988a) confirmed that career commitment is distinct from other forms of commitment such as job involvement and organisational commitment. However, he comments that professions are a special type of vocation. Blau (1988a) suggests that the term "profession" should only be applied to people who are consistently high on all six characteristics discussed by Kerr et al. (1977). Based upon this discussion, Blau (1988a) suggests the change in definition of career commitment, as noted

earlier, to "one's attitude towards one's vocation, *including* a profession" (Blau, 1988a).

Boshoff, Bennet and Kellerman (1994) argue that a career develops through different stages during a person's life with a resulting change in career anchors, with these anchors then influencing a person's career commitment differently. Konz and Ryan (1999) comment that an individual's business career is a path of spiritual growth. A career becomes a path to personal enlightenment, leading through the mastery of material skills to spiritual growth and self-knowledge. They posit that organisations which provide their employees with opportunities for spiritual development perform better than those that do not provide such developmental opportunities (Konz & Ryan, 1999).

Carson and Bedeian (1994) report concerns with Blau's (1985b) measure of career commitment. They argue that career commitment has more dimensions, these components are career identity, career resilience, and career planning. Career resilience is the persistence component of commitment; commitment to a career in the face of adversity (Carson & Bedeian, 1994). Career identity is the directional component of commitment embodying one's emotions; career identity taps into professional or occupational commitment. The career planning dimension is relevant to several career dimensions; it has been utilised to tap career salience (Carson & Bedeian, 1994). Carson and Bedeian (1994) developed a career commitment measure in an attempt to provide a psychometrically sound instrument in terms of their conceptualisation of career commitment.

Carson and Bedeian's (1994) measure of career commitment is used in this study due to its ability to measure three different dimensions of career commitment. The psychometric properties of Carson and Bedeian's (1994) career commitment measure are discussed in this dissertation in section 3.2.5.

2.5.6. Personal meaning and work commitment

Battista and Almond (1973) suggest that an individual's ability to perceive himself as fulfilling the criteria of his life-framework belief system will depend upon finding a realistic fit between the values, goals, needs, and roles of the individual, as well as the values, goals, needs and roles of the social structure within which he works. This description of Battista and Almond (1973) comes very close to the facets of work commitment and work motivation, suggesting that meaning is related to work motivation and commitment.

Baumeister (1991) comments that meanings and values also play a significant role in defining one's sense of self and identity. Lack of meaning and value result in an amorphous or a fragile sense of self as is often found in borderline personality disorders (Baumeister, 1991). On the other hand, surplus meaning and an excess of value placed on the self may strain its resources to the limits and lead to various forms of escape behaviours, both benign (e.g., preoccupation with physical fitness and spiritual practices) and self-destructive (e.g., excessive use of alcohol and other mind-altering drugs and thrill-seeking) (Baumeister, 1991).

2.6. WORK MOTIVATION AND ITS RELATIONSHIP WITH MEANING

To Frankl (1970), a person's primary source of motivation is his "will to meaning". This section investigates other theories of work motivation in order to evaluate Frankl's view of motivation. There is so much research in motivation that any attempt to be comprehensive would have stretched this dissertation into several long volumes. The discussion rather provides an overview of the current state of theories of work motivation and brings these theories in relation to Frankl's theory of motivation.

2.6.1. The current state of work motivation theories

At some level and in some way, work must make sense to an individual before he will perform it.

Victor Vroom (1964)

Interest in work motivation peaked in the 1970s and early 1980s, with the last 15 years seeing little empirical or theoretical research on work motivation (Ambrose & Kulik, 1999). Over the years, numerous theories have been proposed, attempting to capture the various sources of motivation energising individual behaviour as indicated in the previous discussion. These theories all propose a limited set of motivational sources, differing with respect to the degree to which they theorise a dominant source of motivation.

Porter (1968) as well as Steers and Porter (1979) describe the basic building blocks of a generalised model of most theories of work motivation as: (1) needs or expectations; (2) behaviour modification; (3) goals; and (4) some form of feedback. Motivation theories posit that individuals possess a multitude of needs, desires and expectations. The emergence of such a need, desire, or expectation generally creates a state of disequilibrium within the individuals which they will try to reduce (Steers & Porter, 1979). Information feeds back to the individuals concerning the impact of their behaviour. Such cues may lead them to modify their present behaviour or may reassure them that their present course of action is correct (Steers & Porter 1979).

Eight main theories of work motivation are described in OB literature. Table 6 summarises the main theories of motivation, and was constructed through analysis of the writings of the main theorists, as well as by authors such as Lawler (1969), Steers and Porter (1979), Naylor, Pritchard and Ilgen (1980), Leonard, Beauvais and Scholl (1995a, 1995b), Muchinsky (1987), Carlisle and Manning (1994), Pinder (1984, 1998), Carver (1997), Van Eerde and Thierry (1996), Stajkovic and Luthans (1997), Luthans and Stajkovic (1999), and Ambrose and Kulik (1999). These models differ with respect to the degree to which they theorise a dominant source of motivation.

Table 6

Main theories of motivation

| Theory | Source of motivation | Main theorists |
|------------------------------------|--|--|
| Need theories | People have different needs and desires, which cause individuals to pursue certain courses of action in an effort to regain internal equilibrium | Maslow (1954), Herzberg, Mausner and Snyder (1959), McClelland (1961), Alderfer (1972) |
| Equity theory | Drive to reduce feelings of tension caused by perceived iniquity. How hard a person is willing to work is a function of a perceptual comparison of efforts and rewards with efforts and rewards of others. | Adams (1963) |
| Expectancy theory | Relationship among desired outcomes, performance-reward and effort-variables. People are seen to deliberately choose how hard to work based on the gains they expect to receive from their efforts. | Vroom (1964) |
| Reinforcement theory | Schedule of reinforcement used to reward people for their performance. Behaviour is a function of its consequences. | General, mainly based on the contributions of B.F Skinner. |
| Goal-setting theory | Behaviour is directed by setting specific target objectives and pursuing of these goals. | Locke (1968), Locke and Latham (1990) |
| Intrinsic motivation theory | Feelings of competence and self-control are subjective rewards that come from performing tasks well and from enjoyment. | Lawler (1969), Deci (1975), Deci and Ryan (1985) |
| Self-concept theory | People are motivated to enhance their self-esteem, self-worth and self-consistency. | Carlisle and Manning (1994) |

Muchinsky (1987) reports that research on need theories provided mixed support for the theories. It was found that need importance is not related to need deficiency. Yet, positive correlations were found between need fulfilment and life satisfaction

(Muchinsky, 1987). For instance, some of Maslow's (1954) propositions were totally rejected in some research studies, whilst other studies provide some support for the importance of basic needs; the least evidence was for the higher-level needs.

In terms of the equity theory, predictions regarding the effects of under-compensation have proven to be very robust, predicting behaviour in both the laboratory and the field (Ambrose & Kulik, 1999; Muchinsky, 1987). However, there continues to be ambiguity about the effects of overpayment inequity (Ambrose & Kulik, 1999). As a result, the equity theory largely fell out of favour in the organisational behaviour literature (Ambrose & Kulik, 1999).

In terms of intrinsic motivation, Muchinsky (1987) reports that research is dominated by laboratory research and anecdotes, and that it is not tested enough under field conditions. He concludes that the theories of intrinsic motivation have not been of much help in explaining work motivation. One can speculate that this might have been due to intrinsic motivation historically being associated with hedonistic type pleasure, rather than being grounded in an existential base such as meaning.

Expectancy theory is a highly rational and conscious explanation of human motivation. However, research suggests that people differ in the extent to which their behaviour is motivated by rational processes (Muchinsky, 1987). Yet, while not all research on expectancy theory is totally supportive, the results generally have tended to confirm its predictions (Muchinsky, 1987). Muchinsky (1987) notes that research has also shown that there are some personality correlates of expectancy theory. Individuals for whom the theory is most predictive have an internal locus of control. Muchinsky (1987) concludes that while other motivation theories also show promise for explaining selected aspects of behaviour, probably none has received the consistent support or has the generalisability of expectancy theory (Muchinsky, 1987). Ambrose and Kulik (1999) conclude that expectancy theory has become a standard in motivation theories.

Research on expectancy theory also indicated associations with goal attainment theory. For example, difficult goals were associated with higher instrumentality - that is, achieving higher goals was more associated with a series of specific outcomes

(e.g., showing competence, developing ability) (Mento, Locke, & Klein, 1992). Ambrose and Kulik (1999) confirm substantial research support for the principles of goal-setting theory. They confirm that research indicates consistently that specific difficult goals lead to better performance than specific easy goals, general goals, or no goals. They also confirm that goal setting is most effective when there is feedback showing progress towards the goal (Ambrose & Kulik, 1999). However, Ambrose and Kulik (1999) comment that the relationship between goal difficulty and performance assumes that the individual is committed to the goal and possesses the knowledge and skills necessary to achieve it.

The empirical support for the various work motivation theories and the industrial applicability of these theories is summarised in Table 7. This summary is based mainly on the analyses of Muchinsky (1987) and Ambrose and Kulik (1999), but also includes the contributions from authors such as Steers and Porter (1979), Naylor et al. (1980), Leonard et al. (1995a, 1995b), Muchinsky (1987), Carlisle and Manning (1994), Pinder (1984, 1998), Carver (1997), Van Eerde and Thierry (1996), and Stajkovic and Luthans (1997), and Luthans and Stajkovic (1999).

Table 7

Evaluation of support for main work motivation theories and their applicability

| Theory | Empirical support | Industrial applicability |
|------------------------------------|---|--|
| Need theory | Weak: Little support for proposed relationships among needs | Very limited: Theory lacks sufficient specificity to guide behaviour |
| Equity theory | Mixed: Good support for underpayment inequity, weak support for overpayment inequity | Limited: Social comparisons are made but feelings of inequity can be deduced through means other than increased motivation |
| Expectancy theory | Moderate-strong: More strongly supported in within-subject than a cross-subject experiments | Strong: Theory provides a rational basis for why people expend effort, although not all behaviour is as consciously determined as postulated |
| Reinforcement theory | Moderate: Ratio reinforcement schedules evoke superior performance compared to interval schedules, but little difference exists among various ratio schedules | Moderate: Contingent payment for performance is possible in some jobs, although ethical problems can be present in an organisation's attempt to shape employee behaviour |
| Goal-setting theory | Moderate-strong: Performance on the goal-setting conditions usually superior to conditions under which no goals are set | Strong: Ability to set goals is not restricted to certain types of people or jobs |
| Intrinsic motivation theory | Mixed: Extrinsic and intrinsic rewards do not seem to be additive, but extrinsic rewards do not always decrease intrinsic motivation | Limited: Little evidence that intrinsically motivated tasks remain intrinsically motivating for long periods of time |
| Self-concept theory | Little: This is a new notion to work motivation and few empirical studies has been conducted | Moderate: Assisting people to change their perceptions of self-worth, and self-esteem is difficult, but should have long lasting effects. |

Leonard et al. (1995b) studied the sources of motivation as they have been reflected in themes from the various theories of motivation and research studies over the years (as summarised in Table 6). They conclude that all the motivational theories

add up to five basic sources of motivation as described in their Sources of Motivation model (Table 8).

Table 8

Sources of motivation model (Leonard et al., 1995a)

| Sources of Motivation | Description |
|-------------------------------|---|
| Intrinsic Process | Individuals primarily motivated by intrinsic process will engage in activities which offer subjective rewards, especially if they can be considered as fun. Feedback will not serve to motivate continued performance. |
| Instrumental | Instrumental rewards are a motivating source when individuals believe their behaviour will lead to certain outcomes such as pay, praise, etc. Reinforcement, expectancy and equity theories are models of motivation based on exchange relationships. |
| Self Concept: External | The individual is primarily other-directed, and attempts to meet the expectations of others by behaving in ways that will elicit social feedback consistent with self-perceptions. The individual strives to earn the acceptance and status of reference group members. |
| Self Concept: Internal | Internal standards become the basis for the ideal self. The individual tends to use fixed standards of self-measurement as he attempts to achieve higher levels of competency. The motivating force for individuals who are inner-driven and motivated by their self-concept is task feedback. |
| Goal Identification | Behaviour is motivated by goal internalisation when the individual adopts attitudes and behaviours because their content is congruent with their value system. The individual believes in the cause, and as such is willing to work towards the goals of an organisation supporting this cause. |

The various theories of work motivation attempt to capture some of these types of sources of motivation affecting organisational members. However, it appears that the proponents of different theories seem to be more obsessed with distinguishing the theory from the others than they are with showing how an organisation can develop a motivating and satisfying total work system (Lawler, 1980). Katzell and Thompson (1990) conclude that although much has been learned about work motivation, there is still a long way to advancing the understanding of its ingredients and in perfecting techniques for applying that understanding.

Goal attainment and intrinsic motivation will be used in measuring work motivation in this study. The reason for selecting these measurements of work motivation is mainly their postulated association with meaning as discussed in more detail in section 3.2.1. The theoretical background of these two theories and their relationships with meaning are discussed in more detail in the following sections.

2.6.2. Motivation through the attainment of goals

Goal setting theory assumes that human action is directed by conscious goals and intentions (Locke & Latham, 1990). The origin of the term *goal* lies within the sporting context. It actually refers to the "posts between which the ball is to be driven in order to score" in games such as soccer (Hornby & Cowie, 1974, p. 371). Goals can therefore be defined as a person's vision, desires, strategies, and plans, expressed as measurable results (French & Bell, 1978), with the intention to direct and align his energy and effort (Mink, Shultz & Mink, 1991). In goal setting literature, goals are usually defined in terms of the performance standards to be attained. Researchers investigate the impact of variables such as goal specificity, goal difficulty, and goal acceptance on goal attainment (Locke & Latham, 1990). The present study focus on the motivational potential of goals and not on performance or the reaching of these goals. The ability of the individual to achieve goals or to perform is therefore not included in this discussion.

According to Locke (1968) who introduced goal attainment theory, goals have two major functions: goals are a basis for motivation, and goals direct behaviour. Locke (1968) stipulates that two conditions must be met before goals can influence performance. First, the individual must be aware of the goal and know what must be accomplished. Second, the individual must accept the goal and intend to engage in the behaviour needed for goal attainment (Locke, 1968). Locke (1968) states that goals that are more difficult lead to higher levels of performance. He believes that the commitment to a goal is proportional to its difficulty. Thus, goals that are more difficult engender more commitment to the attainment. The more specific the goal, the more concentrated the individual's effort in its pursuit and the more directed the behaviour (Locke, 1968). However, Locke (1968) comments that goals can be

rejected because they are seen as too difficult or too easy, or because the person does not know which behaviours are needed for goal attainment.

Goal setting and goal attainment are related to meaning and having a purpose in life. Battista and Almond (1973) indicated relationships between goal attainment and having meaning in life. They found in their study (N = 229) that subjects high on positive life regard (purpose in life) saw themselves as more fulfilled in the ultimate life-goals ($p < 0.01$). Similarly, positive life regard subjects thought that their lives were making significantly greater rate of change for the better ($p < 0.01$). Thirdly, the positive life regard subjects had, relative to the negative life regard subjects, higher goal-positions than in the past ($p < 0.05$). Fourthly, positive life regard subjects perceived themselves as doing better than they had expected to do on their life-goals ($p < 0.05$).

Latham and Locke (1979) comment that goal setting has been found to be one of the most effective motivators. Locke, Shaw, Saari and Latham (1981) reviewed 12 years of goal-setting research studies and found that 90% of the studies showed that specific and challenging goals lead to higher motivation and output than easy goals, general goals, or no goals. They conclude that goal setting improves performance when subjects have sufficient ability, feedback is provided on progress, rewards are given for goal attainment and when individuals accept assigned goals (Locke et al., 1981).

Dweck (1986) proposed that most individuals naturally have goal orientations: dispositions toward developing or demonstrating ability in achievement situations. Goal orientation also influences how individuals respond to task difficulty or task failure (Elliot & Dweck, 1988). Dweck (1991) notes that goal orientation creates the mental framework within which individuals interpret and respond to situations. For instance, goal orientation influences how individuals view effort (Leggett & Dweck, 1986).

Harackiewicz and Sansone (1991) propose a process model of intrinsic motivation that focuses on the types of goals individuals pursue. They identify two levels of goals most relevant to an individual's performance: higher-level purpose goals and

task-specific target goals. Purpose goals suggest the "why" for performing a behaviour and target goals provide the "how" (Harackiewicz & Sansone, 1991). The purpose goals can on a higher level be seen as being related to meaning and purpose in life.

Vandewalle (1997) confirms that higher level, more super-ordinate classes of goals influence the longer-term orientations and attitudes of individuals. Harackiewicz and Elliot (1998) emphasise that congruence between individuals' purpose and target goals is a key determinant of intrinsic motivation. Specifically, when target goals are congruent with higher order purpose goals, then can guide behaviour and foster task involvement, goal attainment and satisfaction.

Given all these contributions that seem to support goal attainment theory, goal setting seems to be generalisable as a theory of work motivation. It is not limited in applicability to highly rational people, though it does assume that people cognitively follow through with their intentions. Furthermore, goal orientation seems to be related to work intrinsic motivation. Vandewalle's (1997) goal orientation measure will be used in this study as a measure of work motivation.

2.6.3. Intrinsic motivation

The distinction between internal and external work motivation originated with Herzberg, Mausner and Snyderman's (1958) study of determinants of job satisfaction. Lawler (1969) formally introduced the concept of intrinsic motivation, conceptualised as the degree to which a jobholder is motivated to perform well because of some subjective reward or internal feelings that he expects to receive or experience as a result of performing well. Later on, Warr et al. (1979) referred to intrinsic job motivation as the degree to which a person's work performance affects his self-esteem.

In support of Lawler's (1969) conceptualisation of intrinsic motivation, Lawler and Hall (1970) report that the results from their study indicated that job-involvement, higher order need-satisfaction and intrinsic motivation are separate and distinct kinds

of attitudes toward a job. These three types of attitudes were found to be related differentially to job design factors and to job behaviour (Lawler & Hall, 1970). Intrinsic motivation was less strongly related to the job characteristics measures, but was strongly related to both effort and performance. Intrinsic motivation was the strongest related to creativity, autonomy, relevance and effort.

Different theorists argue for various approaches to intrinsic motivation. For instance, Etzioni (1975) argues for three types of motivation based on member involvement: alienative, calculative, or moral. Alienative and calculative involvement are explained by exchange processes. Moral involvement is more complex and involves two types: pure and social. Katz and Khan (1978) characterised internalised motivation as self-expression, derived directly from role performance and internalised values. This result when group or organisational goals become incorporated into the value system of the individual.

One of the most influential theories invoked in the study of intrinsic and extrinsic motivation is the Cognitive Evaluation Theory (CET), originally put forward by Deci (1975) and further developed by Deci and Ryan (1985). Deci's (1975) CET suggests that there are two motivational subsystems: an extrinsic subsystem and an intrinsic subsystem. Intrinsic motivation (IM) refers to the fact of doing an activity for itself, and the pleasure and satisfaction derived from participation (Deci, 1975; Deci & Ryan, 1985, 1987, 1991). The rewards are inherent in the activity. Deci and Ryan (1985) posit that IM stems from the innate psychological needs of competence and self-determination. Thus, activities that allow individuals to experience such feelings will be engaged in freely out of IM (Vallerand & Pelletier, 1992). People are said to be more intrinsically motivated when they perceive themselves to be the source of their behaviour. People will be intrinsically motivated in work environments which maximise feelings of competence and self-determination (Wiersma, 1992).

Deci (1975) proposes that people expend effort due to IM as well as extrinsic motivation (EM). Contrary to IM, EM pertains to a wide variety of behaviours which are engaged in as a means to an end and not for their own sake (Deci, 1975). Leonard et al. (1995a) conclude that the dichotomy of IM versus EM characterises their different loci of causality. Intrinsically motivated behaviours are said to

represent internal causality, whereas behaviours that are induced by external forces are said to represent external causality.

Muchinsky (1987) confirms that research supports the fact that intrinsic motivation is not additive. He observes that if people perform a task for sheer pleasure, paying them will not necessarily add to their motivation to perform it. On the contrary, it appears to have the reverse effect. In further support, Kristjansson (1993) notes that intrinsically motivated activity diminishes after the subject had been rewarded for it and the rewards are subsequently terminated. Bumpus and Olbeter (1998) also confirm the detrimental effects of external rewards on intrinsic motivation.

Intrinsic motivation received mixed support. Kristjansson (1993) argues that CET can be shown to consist of common-sense psychology, hence empirical research aimed at testing the validity of its propositions is pointless and should be abandoned. Yet, Lu (1999) reports that his research results indicate that work motivation has substantial influence on well-being. Intrinsic motivations contribute positively to overall job satisfaction, whereas extrinsic motivations contribute positively to depression. It therefore warrants further research (Lu, 1999)

From an existential perspective, one can criticise the CET on its emphasis on a hedonistic type of pleasure as the source of intrinsic motivation. If Frankl's (1984a) postulation holds true that man's primary motivation is his search and will for meaning, then one should be able to derive intrinsic motivation from his efforts in striving to a higher cause. This cause is not pleasure related, nor satisfaction oriented. It is therefore postulated that intrinsic motivation can be associated with meaning in life.

2.6.4. Meaning and meaningful work

It was illustrated that work is central to many people's lives. It follows that the nature of the work, specifically a person's job, could have a significant influence on a person's psychological state. Lawler (1969) concludes that when a job is structured in a way that makes intrinsic rewards appear, then the job itself can be an effective

motivator. He suggested that in order for a job to be a source of motivation, jobs must be enlarged on both the vertical and horizontal dimensions. Pinder (1984) defines this as job enrichment. Job enrichment entails that higher levels of challenge and responsibility, task variety and task significance should result in higher job satisfaction. Although job enrichment appears to have been and still is a major job design strategy (Pinder, 1984; Pollock, Whitbred, & Contractor, 2000), there is not agreement on the desirability of job enrichment. Steers and Porter (1979) note that neither everyone wants to the same degree to have an enriched job, nor does everyone necessarily perform better when assigned one. Lawler (1980) comments that the focus on job enrichment has had a negative effect in the sense that it has suggested that it can be dealt with in isolation.

There is not clarity or agreement on the characteristics of a job that will be meaningful to the jobholder. Numerous studies attempted to discover the desired contents for jobs. Typical factors mentioned include advancement, autonomy, type of work, pay, benefits, scope of work and working conditions (Campion & McClelland, 1991; Hirschfeld, 2000; Jurgensen, 1978; Kanungo, 1981; Kelly, 1992; Locke, 1976). These factors seem to be related to both the environment and the personality of the individual. The concept of meaningful work is also often addressed in literature (Guion & Landy, 1972; Hackman & Oldham, 1980; Kanungo, 1981; Pinder, 1984; Pollock et al., 2000). However, meaningful work as described by these authors is vastly different to the definition of meaningfulness as proposed by Frankl. These studies and conclusions are therefore rather about work design theories than about meaning in life. However, no study could be found that investigated meaning, or purpose in life, as a variable that can potentially contribute to the experience of a job as being worthwhile.

Battista and Almond (1973) emphasise the importance of Person-Environment fit (or P-E fit) in the development of purpose in life. The concept of an ideal or congruent fit between individuals and their work environments has been expressed in various areas of psychology and forms the basis of Holland's (1973, 1985) theory. Holland (1973, 1985) describes that the lack of P-E fit results in stress disorders, low job satisfaction, dissatisfaction and burnout. On the other hand, functional P-E fit responses include a higher job involvement, higher organisational commitment and

less stress (Furnham & Walsh, 1991; Muchinsky, 1987). However, Pool (1997) reports that his research indicated that the most powerful predictor of job satisfaction was work motivation and not the other way around. For most people, it is unlikely that a satisfying job can compensate for a meaningless life (Ingeborg, 2000).

The concept of meaning as defined by Frankl does not appear in theories of meaningful work. Although many theorists on work design attest to the importance of giving people meaningful work, they use a more superficial definition of meaning. Meaningful work is generally equated with job enrichment, which is vastly different from having found meaning in life, or having a purpose in life. This distinction is significant and essential. Giving meaningful work, or doing meaningful work as defined by these authors, is based on an outside-in approach and thereby reactive. Having a purpose in life and finding work meaningful because of having a purpose implies an inside-out approach and is pro-active. Frankl's will to meaning is postulated to have a significant effect on people finding their work meaningful, even if their job designs do not per se offer job satisfaction. If someone found meaning in life, and his job is aligned with this meaning, he should be motivated notwithstanding the nature of the job.

2.6.5. Work motivation as a manifestation of meaning

All men have purposes, and these purposes affect the way they work

Gellerman (1963)

Saari (1991) posits that motivation and the intention to exert effort belongs to the realm of meaning. Victor Vroom suggested already in 1964 that at some level and in some way, work must make sense to an individual before he will perform it. He also suggested that the choice to work should be the principal focus of work motivation research (Vroom, 1964). Leonard et al. (1995a) emphasise the need to explain non-calculative-based work behaviour. Most currently popular theories of work motivation assume that individuals are either driven through needs, or are rational maximisers of personal utility. These theories of work motivation seek to explain why people behave by assuming that something drives the person. However, Frankl's existential

approach towards meaning posits that a higher cause “pulls” the person to exert certain behaviour.

Maddi (1970) describes the understanding of how man searches for, and finds meaning as the ultimate problem of motivational psychology. He reasons that a person cannot live fully without having considered what is worthwhile, what is true, or what is worth doing. Whatever a person does is because of activities that somehow achieve meaning for him (Maddi, 1970). Sargent (1973) suggests that people are increasingly looking for more meaning in their work and finding it less. He reasons that this phenomenon serves to underline the importance of the role of meaning in work commitment and work motivation (Sargent, 1973). Frankl (1975) sees the midlife crisis from which managers often suffer as a crisis of meaning. He mentions Rolf von Eckartsberg who surveyed Harvard graduates 20 years after their graduation and found that a significant percentage, most with successful careers and orderly and outwardly happy lives, complained about a deep-seated feeling of meaninglessness (Frankl, 1975).

Notwithstanding these postulations, meaning received virtually no empirical attention in OB literature. Sargent (1973) was one of the very few (if not the only) researchers that examined the relationship between meaning and work motivation. He investigated whether work motivation can be seen as a manifestation of man's "will to meaning" as defined in Victor Frankl's (1969) logotherapy. Sargent's (1973) sample was composed of 153 subjects from eight different groups: white-collar graduate students, white-collar undergraduate students, navy personnel, employees of a New York brokerage house, advanced cardiac nurses, nursing educators, emergency room nurses, industrial nurses. Sargent (1973) applied the Work Motivation Questionnaire (Meltzer & Ludwig, 1969), PIL Questionnaire (Crumbaugh & Maholic, 1964), and a Semantic Differential indicator of attitude towards work.

Sargent (1973) used several three-way analyses of variance designs to test the hypotheses of the study. He reports his major results as follows:

- The mean PIL scores for work-motivated individuals were 117.1, and for non-work motivated individuals were 116.0, indicating a tendency for work motivated individuals to have higher PIL scores than non work-motivated individuals. This is not a significant difference (F-ratio 0.276, significant at 0.05 level, degrees of freedom (df) equal 1 and 92).
- The mean PIL score for higher organisational levels were 118.4, and for lower organisational levels were 115.1, indicating a tendency for higher organisational levels to have higher PIL scores. It is not a significant difference according to the F-ratio (2.59, significant at 0.05 level, df 1 and 92).
- The mean attitude scores of the motivated and non-motivated subjects toward the concept of work were 37.6 and 36.70 respectively, indicating a tendency for work motivated individuals to evaluate the concept of work more favourably than individuals that were not work motivated. It is not a significant difference according to the F-ratio.
- The mean attitude scores of individuals high and low on PIL, toward major life concepts were 37.9 and 35.9 respectively. The F-ratio (37.82, significant at 0.05 level, df 1 and 639) indicated a significant difference between the scores of the two groups. Sargent (1973) concludes that there is a significant tendency for the major life concepts (work, employing organisation, purpose, family, leisure, and life) to be more favourably evaluated by individuals with high PIL scores.

Sargent (1973) comments that the interactions between the PIL scores and work motivation were in the expected directions, but not as strong as expected. Likewise, the interactions between the meaning of work and the motivation to work were in the expected directions, but less than expected. Sargent (1973) notes that the differences could not be attributed to sex differences since these were controlled for in the study.

Sargent (1973) highlights a number of flaws and problems in the methodology of his study. First, all the variables were measured with attitudinal measures. He argues that the extent to which attitude measures are not the best indicators of the

motivation to work, the will to meaning, or the meaning of work, the study suffered. Sargent (1973) argues that the instruments did not tap deeply enough into the level of meaning as described in Frankl's theories. He argues that using the evaluative scale on the semantic differential as the total definition of "meaning of work" did not provide enough dimensions of meaning to discriminate groups in the sample from each other. Moreover, Sargent (1973) comments that salary is not a good indicator of organisational level across such a varied sample. Meltzer and Ludwig's (1968) Work Motivation Questionnaire actually only measures the extent of a person's positive attitude towards work, which is hardly a good measure of work motivation as defined by Muchinsky (1987).

Based on direct correspondence with Victor Frankl about his research results, Sargent (1973) reasons that the PIL test is less of a measure of the strength of the will to meaning, than it is a measure of the degree to which that will to meaning has been frustrated or fulfilled. Thus, the person who scores low on the PIL may be high in job involvement and work motivation as a compensation (Sargent, 1973). Conversely, a person scoring high on the PIL but low on work motivation and job involvement may simply be finding his meaning in other areas of life. This is where the limitation of the definition of the term work as paid work, or a job, may affect the generalisation. Sargent (1973) reports that Frankl noted in their correspondence that many people find meaning in of-the-job work, in their play, or with family and friends. Sargent (1973) argues that while it would not be the general expectation that these reversals between PIL and work motivation scores would occur, they are certainly possible (Sargent, 1973).

In spite of the problems of Sargent's (1973) study, his findings have practical implications. Sargent (1973) found that people with higher PIL scores, those who see a clearer meaning and purpose in life, have more positive attitudes toward work, the organisations they work for, purpose in life, family, leisure and life.

Terez (1999) suggests a difference between job satisfaction and workplace meaning. Satisfaction includes conformance to standards and when needs and expectations are being met. Meaning goes deeper: in a meaningful workplace it is less about needs and expectations and more about mission, possibilities and fulfilment. Terez

(1999) notes that people define a meaningful workplace in different ways, each person has a unique set of top priorities. He reports that his research indicate that purpose stands out as the most-cited source of work related meaningfulness. Terez (1999) argues that virtually all people have a desire to make a difference. He found an almost desperate eagerness to talk about meaning in the workplace.

Ingeborg (2000) argues that the technical and material changes which take place in the workplace are no longer connected with socially accepted ultimate goals. This means that individuals have to produce their own meaning and have to motivate themselves. They have to choose which goals to pursue, which type of happiness they want to strive for. Ingeborg (2000) emphasises that meaning and the belief in the future of man are not abstract intellectual notions. They deeply influence man's attitude towards life as a whole. She argues that the belief in the meaningfulness of life leads to a joy of life which finds its expression in a joy of acting - an element practically disregarded in the modern analysis of work.

It appears that the construct of meaning can assist in explaining how and why a worker behaves. If his life makes some sense to him personally, if he has found some way of structuring his view of life, then he will work as though his life made a difference. He simply acts with meaning. High internal work motivation is then the result of experienced meaningfulness of the work and experienced purpose for outcomes of the work. People with higher purpose in life, those who see a clearer meaning, also have more positive attitudes toward work, the organisation, family, leisure, and life in general.

However, neither the five sources of motivation defined by Leonard et al. (1995b) (Table 8), nor the eight main motivation theories indicated in Table 6 make allowance for an existential approach such as Frankl's (1984a, 1984b) postulation that man's primary motivational source is the will to meaning. If the propositions postulated in this research study are true, there should be at least one other source of motivation, namely an existential source. This existential source of motivation can be defined somewhat as indicated to Table 9, which could serve as an addition of Table 8.

Table 9

An existential source of motivation

| Sources of Motivation | Description |
|-----------------------|---|
| Existential | The will to meaning is the primary motivation for man. Meaning indicates a striving for a higher purpose in life that results in a perceived existence of significance. If his life and work make some sense to him personally, if he has found some purpose to fulfil, i.e., when he has found meaning, then he will work as though life makes a difference. |

2.6.6. Developments in work motivation theories

Over the years, numerous theories have been proposed, attempting to capture the various sources of motivation energising individual behaviour. These theories, some content theories and some process theories, all propose a limited set of motivational sources. There is a growing realisation that traditional models of motivation do not explain the diversity of behaviour found in organisational settings. Most of these traditional models on work motivation are built on the premise that individuals act in ways to maximise the value of exchange with the organisation. Nevertheless, a task may be motivating due to its meaning for the individual (Carlisle & Manning, 1994) without bringing with it reward from the individual. Reker, Peacock and Wong mentioned already in 1987 that the whole issue regarding the effect of meaningfulness (or meaninglessness) on work outcomes remains uncharted territory awaiting exploration (Reker, Peacock & Wong, 1987). Yet having meaning in life, having a higher purpose for living and working, did not receive attention in OB since this idea was expressed.

Ambrose and Kulik (1999) argue that running through almost all of the approaches of work motivation are a series of implicit, but erroneous assumptions. These assumptions are that all employees are alike, all situations are alike, and that there is one best way to motivate people. Although research has provided strong support for calculative models, they cannot account for the full range of motivated behaviour (Leonard, Beauvais & Scholl, 1999). The motivational drives from within every

individual worker, originating from his spiritual dimension, and from having a purpose and meaning in life, has been completely neglected in work motivation theories.

Ambrose and Kulik (1999) analysed over 200 studies of work motivation published between January 1990 and December 1997. Ambrose and Kulik (1999) report that organisational behaviour research has largely abandoned the broad concept of work motivation. Researchers have replaced this broad concept with more specific measures of employee behaviour such as achievement motivation, self-efficacy, self-concept, PWE, and organisational citizenship behaviours (Ambrose & Kulik, 1999; Locke & Latham, 1990).

An existential approach to work motivation would not discard the conclusions from the other theories. However, it theorises that not all behaviour is rational or for personal gain. The main premises of Frankl include that people exercise effort because of their "will to meaning". In other words, being significant and striving to fulfil a higher purpose. Being significant and fulfilling a higher purpose is not necessarily rational, and mostly not for personal gain. As Frankl (1984a) said, meaning can only be achieved in a cause greater than yourself, or outside yourself. This will to meaning is so strong that people are willing to die for it. It is uncertain whether the effect of the other eight main theories of work motivation can be as strong.

2.7. THE NEED FOR THIS RESEARCH

Research on work motivation and work commitment and their various constructs such as job involvement has widespread implications within organisations. Studies suggest that it may be useful in predicting organisational benefits such as greater productivity, the opportunities of changes in experienced satisfaction and motivation, and job-related attitudes. As for work commitment, most of the traditional motivation theories have received considerable empirical support. However, research selectively continues to refine the models and to suggest moderators and boundary conditions. The basic tenets of goal setting, equity theory, expectancy theory and CET remain unchallenged. Ambrose and Kulik (1999) do not foresee any major

paradigm shifts in the understanding of employee motivation. As a result, they see little need for organisational behaviour research to continue conducting simple empirical tests of the existing basic theories. Similarly, most of the research on work commitment rather attempts to analyse the factor structures of work commitment or the facets of work commitment than bringing new wisdom to the understanding of work commitment.

Not much new contributions or insights were added in the field of OB over the last decade. This observation becomes obvious if one compares the contents of the older versions of well-known textbooks on OB, e.g., Callahan, Fleenor and Knudson (1986), or Luthans (1989), versus the contents of the more recent well known OB textbooks, e.g. Kreitner and Kinicki (1999), or Luthans (1999). The contents of the textbooks have remained virtually the same over a decade or more. This is especially true for the areas of work commitment and work motivation. Most of the changes appear to be improved descriptions, based on marginally improved understanding of the same constructs. Few new constructs or relationships are discussed. It appears that the field of OB has become stagnant.

Crumbaugh and Maholick commented already in 1964 that the fact that existentialism accept intuitive as well as irrational and empirical knowledge in arriving at values and meanings has been anathema to North American behavioural scientists. Scientists have tended to write it off as a conglomeration of widely diverging speculations without consistency for operational use. It is obvious from this review of work motivation theories that the existential approach has not been included in any of these theories. All of the main theories of work motivation expect people to be rational and to behave only for personal gain, whether material or intrinsic.

Thus, the construct of meaning in life has been ignored in the field of OB. Although it received marginal attention in the fields of clinical psychology and psychiatry, it also tended to be ignored in mainline empirical work. This is perhaps because of difficulty in conceptualisation, and because questions relating to the meaning of life are regarded by many as more philosophical than scientific psychology (Chamberlain & Zika, 1988). Problems also arise when concepts as broad as the 'search for

meaning' or 'finding meaning in an event' has to be operationalised for research purposes (Thompson & Janigian, 1988). Hoeller (1990) defines extraordinary science as the revolutionary stage in a field of science which marks out the transition from one paradigm to another. It is a philosophical period that offers competing paradigms to explain a significant anomaly that normal science can neither explain nor do away with. Being virtually stagnant over more than a decade as indicated, the field of Organisational Behaviour desperately needs such a revolutionary period, initiating a completely new paradigm of understanding through the introduction of a new philosophy.

Yalom (1980) identifies four ultimate human existential concerns: fear of death, freedom and responsibility, isolation and purposefulness and meaning in life. Against these existential fears, man will only have a future if he can find a universal framework of meaning. In today's world of heightened change, many individuals are suffering from a perceived loss of meaning and purpose in their lives, engendering a sense of spiritual desolation and impelling a spiritual quest (King & Nicol, 1999). The work environment, so central to their existence, often contributes to the sense of desperation and thwarts individual growth. However, if management recognises the potential for mutual benefit between the individual's spiritual odyssey and the structure of the organisation, the organisation's contribution can be truly positive. With such perspective, management enhances the organisation's capacity to foster heightened initiative and productivity from its members (King & Nicol, 1999).

The organisation has the capacity to support the spiritual growth of its members and, as consequence, unleash its potential (King & Nicol, 1999). The organisation can maximise the energy present in the dreams, skills and aspirations of those that make up its reality. If the organisation encourages spiritual development and thus enables individuals to achieve their individual wholeness, people are far more likely to make a truly valuable contribution to the organisation (King & Nicol, 1999). This requires a new integral vision of man which encompasses all dimensions of the human being, particularly the spiritual one (Ingeborg, 2000).

There are four main reasons why there is a need to research meaning-based motivation and work commitment theory: (1) to explain non-calculative-based work

behaviour; (2) to better account for internal sources of motivation and commitment; (3) to integrate dispositional and situational explanations of behaviour; and (4) to understand the sources of commitment in order to be able to improve it. What happened to Frankl - being interned in the concentration camps of World War II - can happen to anyone in a metaphorical sense. Metaphorically speaking, potentially many people land in a concentration camp; existentially many people experience work situations resembling a concentration camp. There is thus a desperate need for extraordinary science to be able to quantify this phenomenon, to understand these people's situation and to be able to assist them in gaining their "freedom."

2.8. RESEARCH PROBLEM

All humans have purposes, and these purposes affect the way they work.

Gellerman (1963)

2.8.1. The research argument

The problem investigated in this study is whether relationships exist between man's "will to meaning" as defined by Victor Frankl (1969, 1975, 1984a, 1984b, 1992) and work commitment and work motivation. Victor Frankl (1984a) views the "will to meaning" as the primary motivational force in man. Therefore, if this will to meaning is the primary motivational force, and if this will to meaning is being fulfilled whilst working, and meaning is congruent with a person's career, with working being central to a person's life, then people with a high sense of personal meaning is postulated to be more work committed and motivated.

Deductive logic was used to initiate the research question, inspired by an intense interest in the work and contribution of Victor Frankl. Deductive reasoning begins with a preconceived idea that seems to be true. It starts the quest for knowledge from a dogmatic premise and pursues it to a logical conclusion (Leedy, 1993). However, inductive reasoning was used to arrive at the final research question and the final research proposition. Inductive reasoning relies on the observation of facts

which are then translated into a meaningful conclusion (Cook & Campbell, 1979). This section takes the reader of this dissertation through this inductive reasoning.

A theoretically derived model of how meaning manifests in work motivation and work commitment was developed by integrating four different, empirically developed, models together. These are the models of Sargent (1973) which indicates a relationship between meaning and work motivation, Randall and Cote's (1991) conceptualisation of work commitment, Cohen's (1999) evaluation of Randall and Cote's (1991) model, and Cohen's (2000) evaluation of Randall and Cote's (1991) conceptualisation of work commitment.

Much attention has been devoted to work commitment and motivation to work, but no systematic attempt has been made to analyse it through Frankl's theoretical framework except for the study by Sargent (1973). The main outcome of Sargent's (1973) research is illustrated graphically in Figure 10.

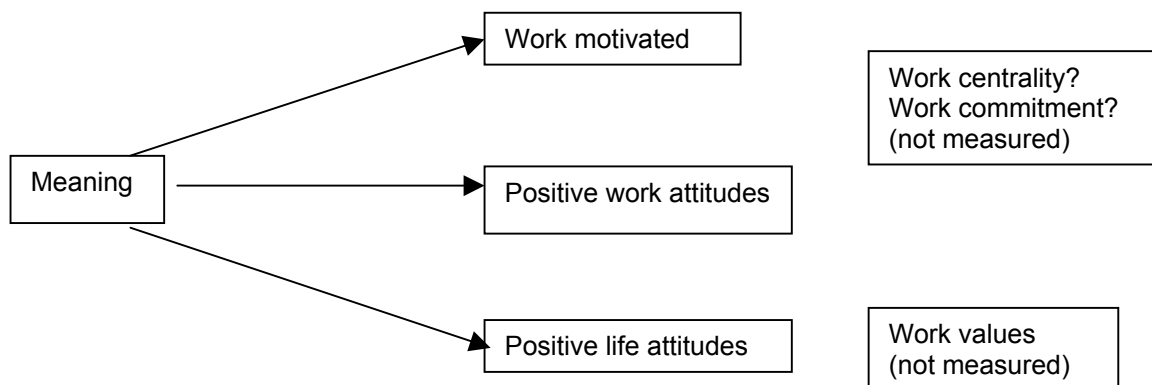


Figure 10. Sargent's (1973) primary findings.

However, Sargent's (1973) study was subject to some flaws as discussed earlier. Furthermore, Sargent (1973) did not measure whether work was central to these people's lives, or whether there was congruence between the sense of meaning and the careers they were following. From the literature study it follows that one could also investigate the relationship of meaning with work commitment facets such as work values, job involvement and career commitment in addition to Sargent's (1973) study.

This research study therefore builds on the work of Victor Frankl and on the study of Sargent (1973). Additionally, this study investigates both work commitment and work motivation as manifestations of a will to meaning. If one integrates the research of Sargent (1973) (Figure 10) with the research on work commitment as integrated by Randall and Cote (1991) (Figure 5, page 70) and by Cohen (1999, 2000) (Figure 7, page 72, and Figure 9, page 74) into one diagram, the result is as illustrated in Figure 11.

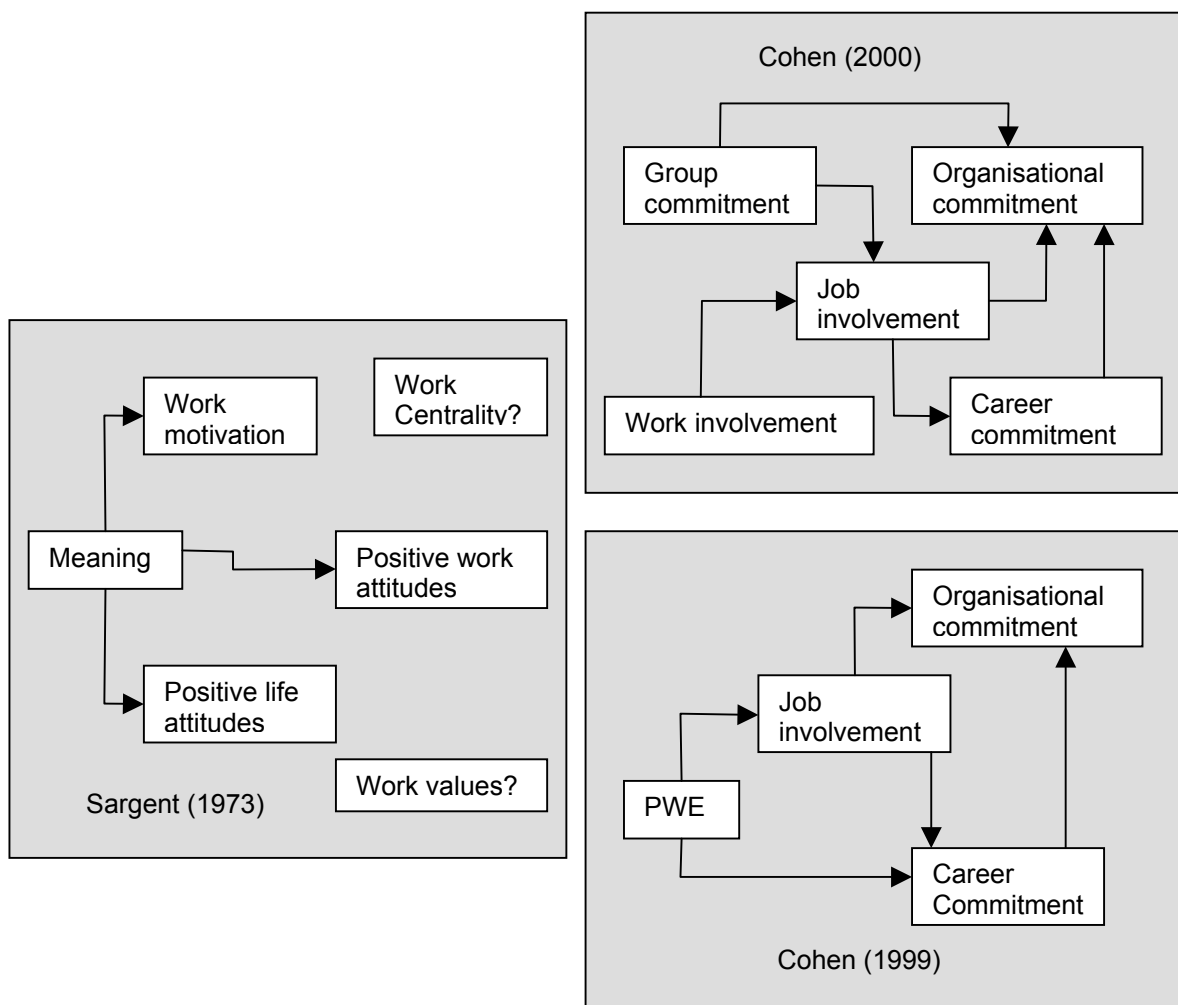


Figure 11. Integration of work motivation and work commitment models (Cohen, 1999, 2000; Sargent, 1973).

Cohen (1999) reports that the relationships between job involvement and continuance organisational commitment as well as between continuance

organisational commitment and career commitment is statistically insignificant. Furthermore, Cohen (2000) reports that the relationships between group commitment and organisational commitment, and between career commitment and organisational commitment are statistically insignificant.

If one now removes the relationships that were found to be insignificant by Cohen (1999) and Cohen (2000), the result is the relationships as indicated in the model in Figure 12. The relationships between job involvement and affective organisational commitment, as well as between career commitment and continuance organisational commitment were found to be significant by Cohen (1999). However, the models in Figure 12 do not make any distinction between the different forms of organisational commitment. These relationships were therefore maintained.

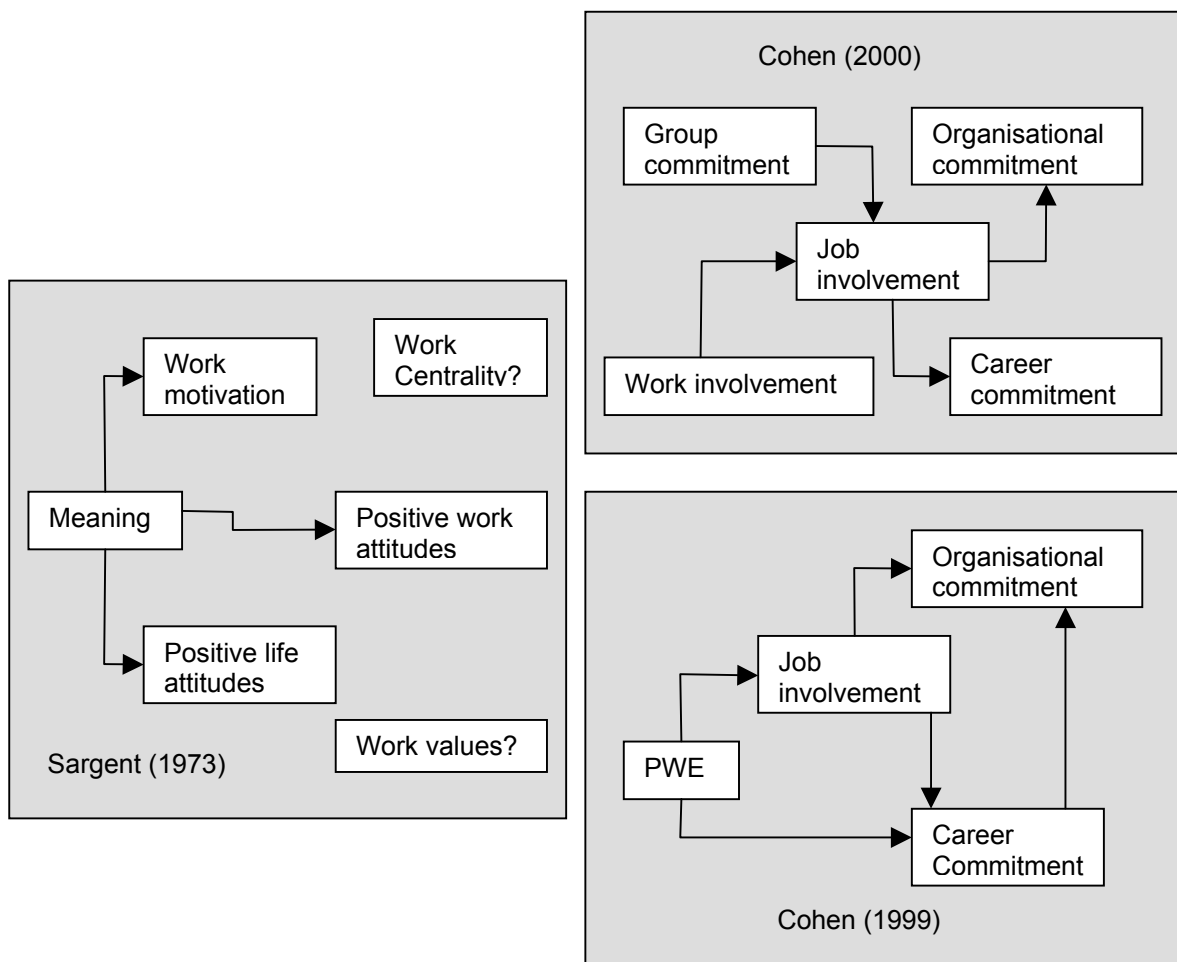


Figure 12. Integration model with "irrelevant" or "insignificant" relationships removed.

It is clear from the findings of both studies of Cohen (1999, 2000) that organisational commitment is an outcome of the other facets of work commitment. Cohen (2000) also questions the usefulness of group commitment as one of the commitment foci. This is because of the very few significant paths of this focus with any of the other commitment foci (consistent across all the models tested), and because of the non-significant relationship of this focus with any of the work outcomes. Organisational commitment is regarded as an outcome rather than an antecedent of work commitment and is therefore omitted from the rest of this study

Now, if one removes organisational commitment, as well as group commitment and merges the three different models, the result would be as illustrated in Figure 13. Work centrality, also called work involvement, was not measured by Sargent (1973). However, one can argue that positive attitudes towards work are related to work involvement; these three constructs are therefore put together. It was shown that PWE is often defined as one of the forms of work motivation (Ambrose & Kulik, 1999; Buchholz, 1977; Cassidy & Lynn, 1989; Furnham, 1990b; Holland, 1985; McClelland, 1961; Ros et al., 1999; Super & Sverko, 1995) and a theorised link between these two constructs has therefore been added.

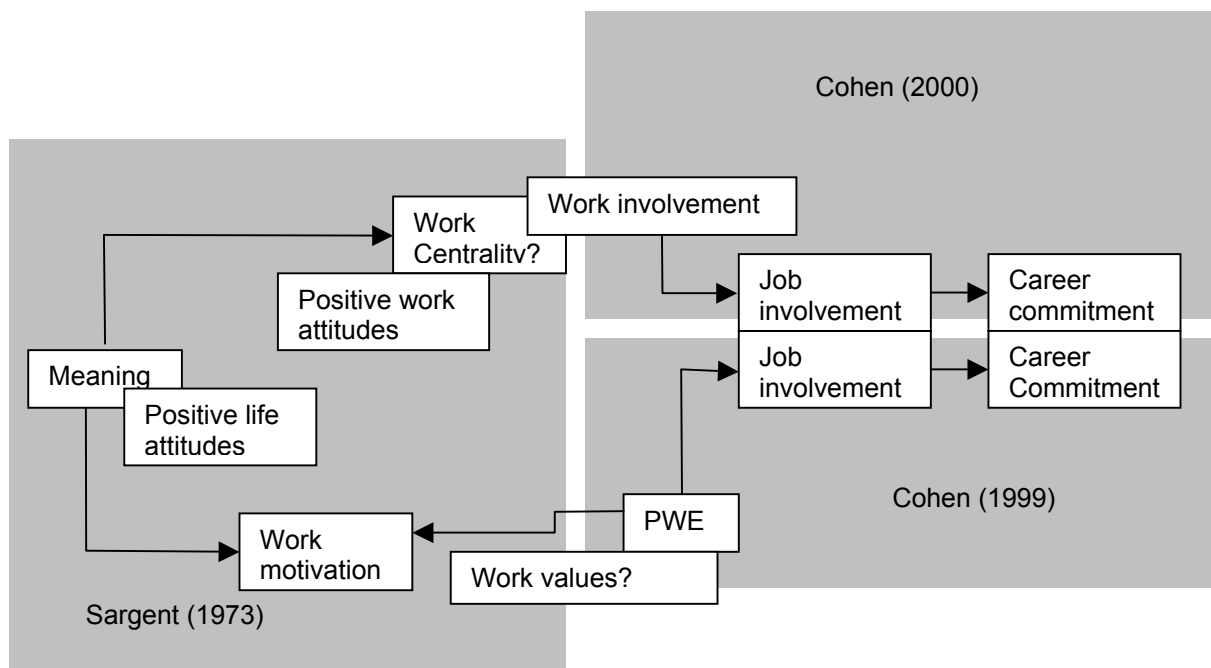


Figure 13. Integration model with "outcomes" removed.

If these three models are now further integrated and merged into one model, and if construct redundancy is removed, the model as illustrated in Figure 14 results.

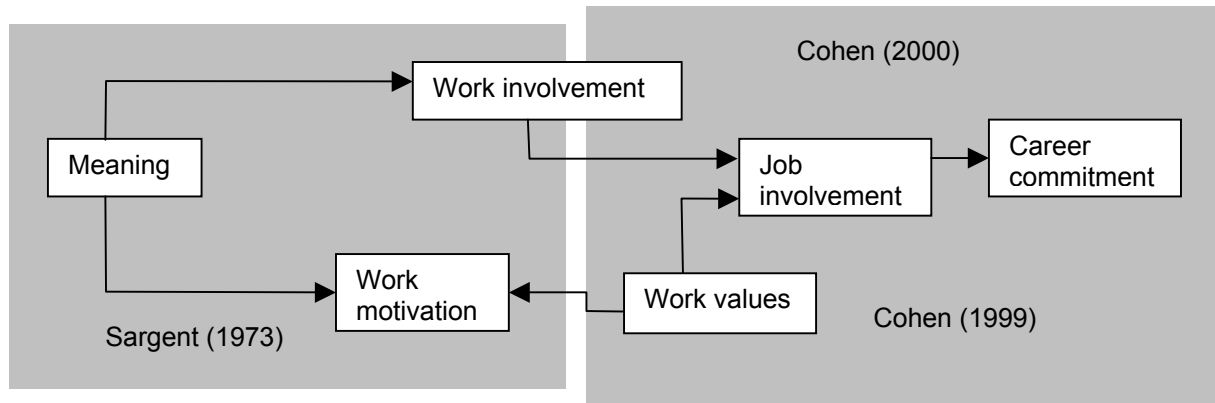


Figure 14. Merging of three sub-models, with construct redundancy removed.

However, according to Frankl's existential theories, values stem not only from socialisation, but higher order values often are the result of a person's sense of meaning and purpose in life. The route to motivation is therefore seen as through values, rather than from motivation to values. If one now adds the existential theory as proposed by Frankl and other theories around work involvement as postulated in the research and discussed in the previous sections, the model ends up as illustrated in Figure 15. This model forms the basis of the research question posted in this research.

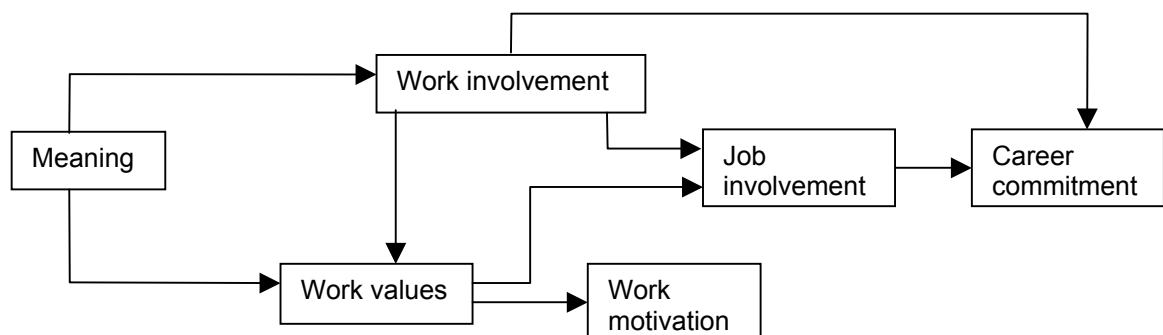


Figure 15. The merged model, enriched with theory.

This proposition, deduced from the empirically derived models of Sargent (1973), Randall and Cote (1991), and Cohen (1999, 2000), enriched with Frankl's existential theories basically states that if a person has found a meaning for his existence, this sense of meaning should positively influence his work values. Furthermore, if work is central to his life (work involvement), his work values should be further influenced positively. This in turn should lead to higher work motivation, higher levels of job involvement and career commitment. Inversely, if the person has not found meaning in life, scores on all the other constructs should be relatively lower. Work involvement is seen here as a moderating variable, i.e., if the person has found meaning in his existence, but work is not central to his existence, the other measurements will not be as high as in the first case. This scenario is seen as very probable by Frankl (Frankl, 1992; Sargent, 1973), as not everyone finds meaning in his work. Work is therefore not necessarily central to a person who experiences his life as meaningful. This proposition is represented in Figure 16 in a slightly different manner to illustrate the research argument.

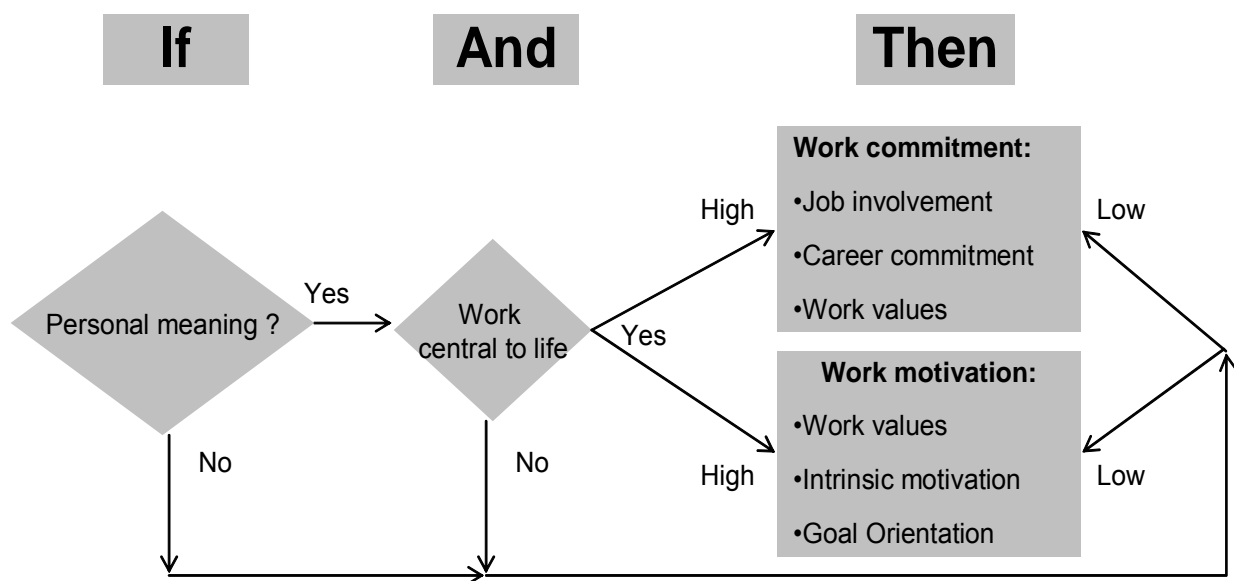


Figure 16. Research proposition.

The argument of this proposition is as follows: Firstly, the sense of personal meaning of the subjects is measured. The ultimate proposition of this research is that meaning is the independent variable, and that all the other variables investigated in this

research are in some way functions of this variable. Secondly, the centrality of work in the subjects' lives will be measured as a moderating variable. The reason is that not everyone finds meaning in work, and unless work is central to their lives, it is unlikely that the person will find meaning in his work.

Thirdly, the level of work commitment will be investigated by measuring work values, job involvement and career commitment. According to Cohen (2000), these measurements are antecedents of organisational commitment, and according to Hoole (1997), together these four measurements result in Work Commitment. Organisational commitment was not tested as it was shown clearly by Randall and Cote (1991), Cohen (1999) and Cohen (2000) to be an outcome of the other facets of work commitment. In an attempt to keep the questionnaire as short as possible, the measurement of organisational commitment was therefore omitted.

Lastly, the level of work motivation will be measured. The measures used for work motivation is intrinsic motivation, goal orientation and work values. This approach supports the definition of work motivation as described by Pinder (1998). This point of view is supported by Ambrose and Kulik (1999) who conclude that organisational behaviour research has largely abandoned the general concept of motivation and has replaced this broad concept with more specific measures of employee behaviour (e.g. task performance, organisational citizenship behaviours). Ambrose and Kulik (1999) argue that a general measurement of work motivation is actually redundant, specific aspects of motivation to work need to be measured in order to draw useful conclusions.

2.8.2. Research question and sub-questions

The research question in this study is whether work commitment and work motivation can be seen as manifestations of a person's sense of meaning. In order to be able to answer this question, the following measurable research questions are asked and investigated in this study:

1. Are biographical/demographic variables related to a sense of meaning?
2. Are certain lifestyle variables and a person's orientation towards work and life related to a sense of meaning?
3. Is there a relationship between a sense of meaning and work involvement?
4. Is there a relationship between a sense of meaning and work commitment as measured through:
 - a. Work values?
 - b. Job involvement?
 - c. Career commitment?
5. Is there a relationship between a sense of meaning and work motivation as measured through:
 - a. Intrinsic motivation?
 - b. Goal orientation?
6. Does work involvement play a moderating role in the relationships between meaning and work commitment and work motivation?
7. Is there statistical evidence that the postulated model of relationships amongst meaning, work commitment and work motivation, could be a valid representation of the relationships?

In order to answer the above questions a large sample of managerial employees from six different organisations will be studied.

2.8.3. Objectives of the research

The objective of this research is to investigate whether the origins and sources for work commitment and work motivation are more intrinsic and on a deeper personal psychological and spiritual level, than postulated in previous work commitment and

work motivation theories. This was done through investigating the existence of relationships between meaning with these variables. This study also investigates the relationships between meaning with biographic/demographic type variables, and between meaning and work and life orientation variables. This was done to improve the understanding of the role of meaning in work and in a person's work life.

This research postulates that an essential source for work commitment and work motivation originates from the noögenic dimension of a person because of his will to meaning, whereas the existing theories on work commitment and work motivation rely on sources from the psychological and somatic dimensions. The objective is not to discredit any of the established work commitment and work motivation theories, or to imply that the theory of man's will to meaning as a source for work commitment and work motivation is the only valid theory. It is rather postulated that this theory is complementary to the already established theories. However, this theory, and man's will to meaning as such, has been neglected previously in work commitment and work motivation research.

If the proposition that is postulated in this research proves to be valid, it will substantially enhance the current body of knowledge in understanding the sources of work motivation and work commitment. It will simultaneously broaden the understanding of work motivation and work commitment, indicate the need and value for searching deeper and for more fundamental sources of work motivation and work commitment.

Individuals are looking to their organisational leaders to help them in their search for meaning. Organisations are therefore also being challenged to maintain spirituality (Konz & Ryan, 1999). An organisation whose work environment responsively supports the quest for individual unity and direction, and fosters spiritual development, will realise heightened individual and organisational performance (King & Nicol, 1999). Practical value of this model can lie in organisations assisting employees to find their personal meaning and by making the striving of the organisation to be a source of meaning for their employees. This might include activities ranging from personal counselling, up to having a re-evaluation of the vision and mission of the organisation.

CHAPTER 3

RESEARCH METHODOLOGY

Babbie (1998) suggests that surveys may be used for descriptive, explanatory, and exploratory purposes. He comments that they are chiefly used in studies that have individual people as the units of analysis. He describes survey research as the best method available to the social scientist interested in collecting data for describing a population too large to observe directly. Babbie (1998) notes that surveys are excellent vehicles for measuring attitudes and orientations in a large population (Babbie, 1998). It was obvious that survey research, specifically self-administered questionnaires, was the obvious choice for this study and the only practical method of conducting the research.

3.1. SAMPLE AND PARTICIPANTS

Babbie (1998) notes that the norm of generalised understanding in social science should suggest that scientific findings are most valuable when they apply to all kinds of people. The units of analysis or units of observation in the study would be individuals, irrespective of their membership in social groupings. When this is true, the findings should be generalisable to most kinds of people.

Babbie (1998) notes that in some instances, one may wish to study a small subset of a larger population in which many members of the subset are easily identified, but the enumeration of all of them would be nearly impossible. In such circumstances, 'purposive' or 'judgmental' sampling would be the right approach to the sampling of subjects. Although there might be randomisation within this sampling, it is essentially a non-probability sampling method (Babbie, 1998).

In the present study, the population will be all working people, with the definition of "work" being "paid work" as discussed earlier in this document. The sample included in this study should ideally represent the total working population of the whole world.

As the intent of the present research is to study a smaller subset of the larger population of which the enumeration would be nearly impossible, it was decided that the "judgmental" sampling would be the right approach to the sampling of the study elements, or the research subjects. Six different organisations in South Africa were selected to provide the study population. The sampling frame was decided to be the individuals in the leadership levels within these organisations. These companies were selected to represent different industries and sectors within industries to try to enhance the representativeness of the sample. For practical reasons, only organisations in South Africa were selected. The following types of organisations were selected: a manufacturing company, a mining company, a marketing company, a refinery, an administrative oriented company and an engineering company.

Friedman and Havighurst (1954), Morse and Weiss (1955), and Orzack (1972) all concluded that work centrality and meaningful work seem to be more important for white-collar workers than for blue-collar workers. It was therefore decided to use only white-collar workers in the sample, represented by the managerial category in the selected organisations in the sample. The well-known Paterson (1972) grading system was used to discriminate between the managerial category and the remainder of the employees. Individuals in positions with a Paterson grading (Paterson, 1972) of D, E and F were seen as potential candidates.

Within the sampling units discussed above, all people in the leadership categories (Paterson grades D, E and F) (Paterson, 1972) were identified as part of the potential sample population. This provided a total sample population of approximately 2300 subjects. However, the statistical methods to be employed to analyse the data required only about 65 persons per organisation, or a total of about 400 respondents. The sampling procedure was therefore amended to reduce the sample population to about 400. Babbie (1998) comments that a response rate of 50% is adequate for analysis and reporting, a response of 60% is good, and a response rate of 70% is very good. It was therefore decided to assume a response rate of 60%. This meant that the initial sample had to consist of at least 600 subjects, or at least 100 subjects per organisation.

To obtain a significantly large group ($N > 600$) to whom the questionnaires could be sent, the names of the potential subjects in the managerial categories were arranged alphabetically per organisation. Systematic sampling techniques were then used to select the final sample randomly according to the following procedure:

- Refinery - every third person: 127 subjects
- Marketing company - every second person: 100 subjects
- Manufacturing company - every 5th person: 133 subjects
- Mining company - every second person: 112 subjects
- Administrative oriented company - every second person: 112 subjects
- Engineering company - every fourth person: 121 subjects
- Total: 705 subjects

The sampling procedure is illustrated in Figure 17.

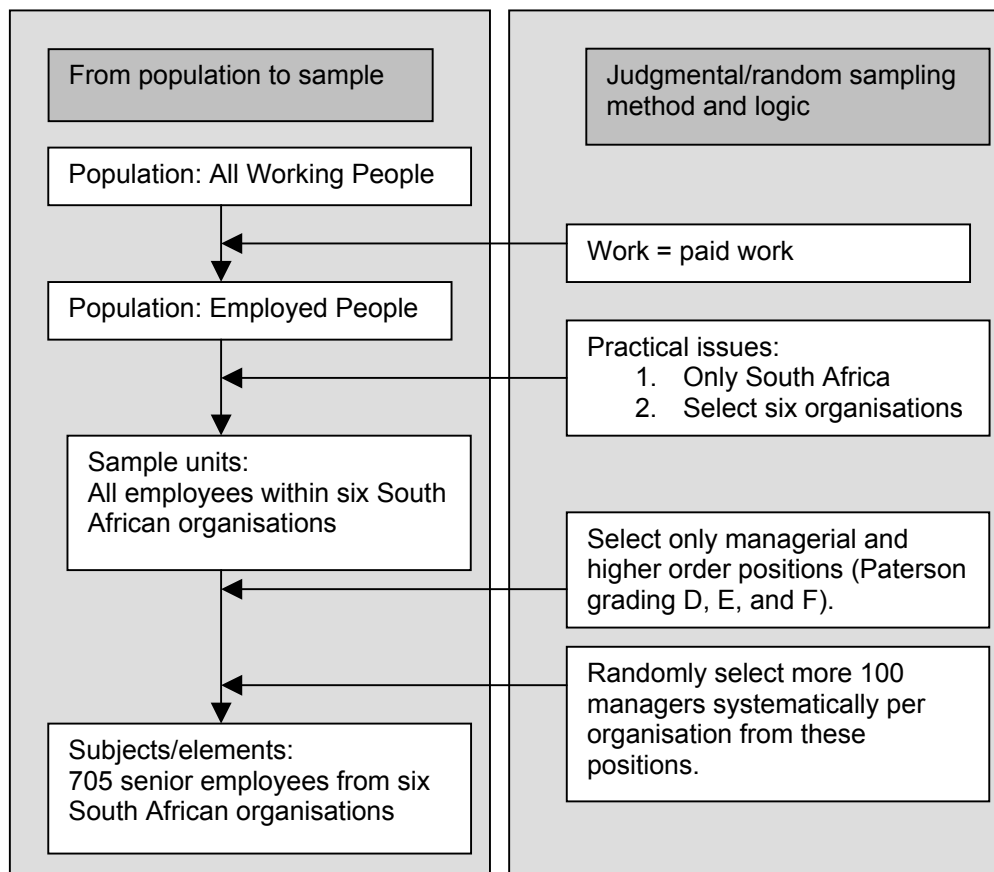


Figure 17. The logic followed in selecting the sample.

Bentler and Chou (1987) note that if the sample cannot be defined as coming from a relevant population, any obtained results may be uninformative about a theory.

Thus, it is important to know whether the theory one is evaluating should hold for males as well as females, only for a given ethnic group, or only with certain other groups (Bentler & Chou, 1987). The way this research is overcoming this limitation, was by ensuring that the sample came from a relevant population, and by investigating differences in the responses of the different groups.

The biographical and lifestyle characteristics of the sample and sub-samples are discussed in order to get a portrayal of the survey group. Information will be given on all the questions that were posed in the last part of the questionnaire that dealt with these aspects. All the information will be displayed in both table and graphical formats. Missing responses on a measure was considered low and insignificant if it was less than 1%.

The response rates of the total sample, and of the sub-samples from the six different organisations, are shown in Table 10 and illustrated in Figure 18.

Table 10
Questionnaire response rates (N = 458)

| Organisation | Questionnaires | | Percentage | |
|---------------|----------------|----------|------------|--------------|
| | Sent out | Returned | Responses | Total sample |
| Refinery | 127 | 107 | 84.25 | 23.36 |
| Marketing | 100 | 62 | 62.00 | 13.54 |
| Manufacturing | 133 | 84 | 63.16 | 18.34 |
| Mining | 112 | 71 | 63.39 | 15.50 |
| Admin | 112 | 55 | 49.11 | 12.01 |
| Engineering | 121 | 79 | 65.29 | 17.25 |
| Total | 705 | 458 | 64.96 | 100.00 |

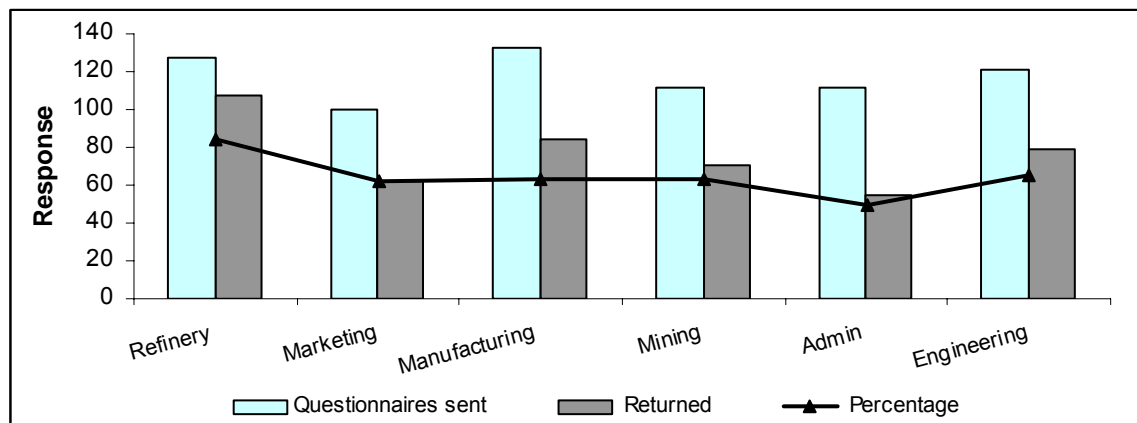


Figure 18. Response rates per participating organisation.

It can be seen that the overall response rate of 64.96% was very good (Babbie, 1998), as 458 of the initial 705 questionnaires were returned. Most of the response rates of the sub-samples were also good, with the best return rate (84.25%) from the organisation that operates as a Refinery. The response rates of all the other organisations were higher than 60%, which can be regarded as good according to Babbie (1998). In only one of the organisations, the administrative oriented organisation, was the response rate lower than 60%, namely 49.11%. However, Babbie (1998) still regards a response rate of 50% as adequate.

The age distribution of the respondents is shown in Table 11 and illustrated in Figure 19.

Table 11

Age distribution of the respondents (N = 458)

| Age | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| 27 | 1 | 0.22 | 1 | 0.22 |
| 28 | 6 | 1.31 | 7 | 1.53 |
| 29 | 8 | 1.75 | 15 | 3.28 |
| 30 | 20 | 4.37 | 35 | 7.64 |
| 31 | 18 | 3.93 | 53 | 11.57 |
| 32 | 15 | 3.28 | 68 | 14.85 |
| 33 | 4 | 0.87 | 72 | 15.72 |
| 34 | 10 | 2.18 | 82 | 17.90 |
| 35 | 12 | 2.62 | 94 | 20.52 |
| 36 | 15 | 3.28 | 109 | 23.80 |
| 37 | 18 | 3.93 | 127 | 27.73 |
| 38 | 16 | 3.49 | 143 | 31.22 |
| 39 | 22 | 4.80 | 165 | 36.03 |
| 40 | 15 | 3.28 | 180 | 39.30 |
| 41 | 19 | 4.15 | 199 | 43.45 |
| 42 | 29 | 6.33 | 228 | 49.78 |
| 43 | 25 | 5.46 | 253 | 55.24 |
| 44 | 13 | 2.84 | 266 | 58.08 |
| 45 | 15 | 3.28 | 281 | 61.35 |
| 46 | 25 | 5.46 | 306 | 66.81 |
| 47 | 13 | 2.84 | 319 | 69.65 |
| 48 | 14 | 3.06 | 333 | 72.71 |
| 49 | 14 | 3.06 | 347 | 75.76 |
| 50 | 10 | 2.18 | 357 | 77.95 |
| 51 | 13 | 2.84 | 370 | 80.79 |
| 52 | 13 | 2.84 | 383 | 83.62 |
| 53 | 15 | 3.28 | 398 | 86.90 |
| 54 | 14 | 3.06 | 412 | 89.96 |
| 55 | 12 | 2.62 | 424 | 92.58 |
| 56 | 7 | 1.53 | 431 | 94.10 |
| 57 | 4 | 0.87 | 435 | 94.98 |
| 58 | 7 | 1.53 | 442 | 96.51 |
| 59 | 12 | 2.62 | 454 | 99.13 |
| 60 | 2 | 0.44 | 456 | 99.56 |
| 62 | 1 | 0.22 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

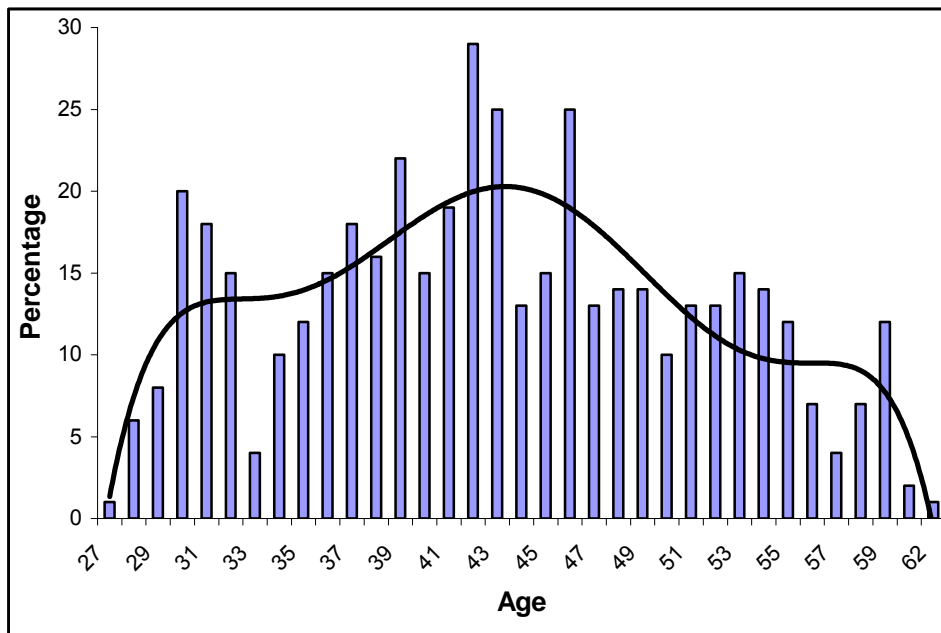


Figure 19. Age distribution of the respondents.

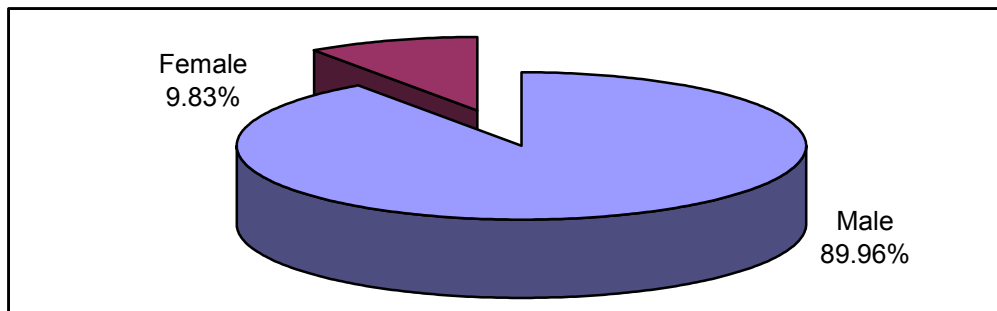
The mean age of the respondents ($N = 457$) is 42.96 years ($SD = 8.31$). The maximum age is 62, and the minimum age 27, with the largest single group of the respondents being 42 years of age. A polynomial trend line was added to the data in Figure 19 to improve the visualisation of the trend in the age distribution. Categorising the respondents who supplied their ages into age cohorts (≤ 29 , 30 – 39, 40 – 49, 50 – 59, ≥ 60), it becomes clear that 3.28 % of the sample were classified as younger than 30, while fewer than 1% were 60 years or older. The 30 – 39 and 40 – 49 age years of age cohorts respectively contained 32.75% and 36.46% of the members of the sample, while the 50 – 59 years cohort represented 23.37% of the respondents. The respondents who were 40 years or older therefore formed 60.48% of the sample. It is obvious from the data and the graph that most of the respondents were forty years or older, typically at the ages when people have settled in their careers and came to terms with their occupational roles (Clark et al., 1996).

The gender distribution of the sample is shown in Table 12 and illustrated in Figure 20.

Table 12

Gender distribution (N = 458)

| Gender | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Male | 412 | 89.96 | 412 | 89.96 |
| Female | 45 | 9.83 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

Figure 20. Gender distribution.

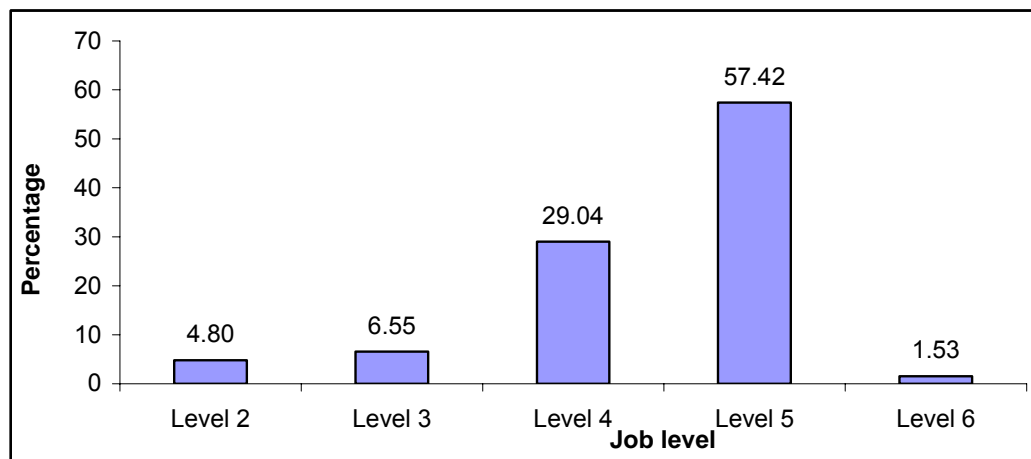
The respondents who provided information on their gender were predominantly male (N = 412), i.e., (89.96%) of the sample. The females respondents (N = 45) formed less than one tenth (9.83%) of the total sample.

Table 13 and Figure 21 indicate the distribution of the respondents over the hierarchical job levels recognised by the organisations.

Table 13

Hierarchical, seniority levels of the sample (N = 458)

| Job level | Frequency | Percentage | Cumulative | |
|-----------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Level 2 | 22 | 4.80 | 22 | 4.80 |
| Level 3 | 30 | 6.55 | 52 | 11.35 |
| Level 4 | 133 | 29.04 | 185 | 40.39 |
| Level 5 | 263 | 57.42 | 448 | 97.82 |
| Level 6 | 7 | 1.53 | 455 | 99.34 |
| Total | 455 | 99.34 | 455 | 99.34 |
| Missing | 3 | 0.66 | 458 | 100.00 |

Figure 21. Levels of job seniority of the subjects.

All of the job levels refer to Paterson's (1972) bands of job grading. Level 2 refers to Paterson's (1972) F band (top management), level 3 refers to Paterson's (1972) E bands (senior management), level 4 and 5 refer to Paterson's (1972) D2 to D4 bands (middle management), and level 6 refers to Paterson's (1972) D1 band (junior management). Most of the respondents (N = 133 and N = 263 respectively) came from level four (29.04%) and level five (57.42%), in other words from middle management. The distribution indicates that about 10% of the respondents came from senior and top management, 6.59% and 4.84% respectively. The low representation from junior management (N = 7), i.e., 1.53% was unexpected as members of this group were thought to make up a larger proportion of the population and therefore the sample. It is unclear whether this is a case of sampling error, or whether respondents in this job category behaved differently in returning, or not

returning, the questionnaires. Due to the high response rate of individuals in other categories, and because the intention of the sampling methodology was to reach the more senior people in the organisations, this is not regarded as a major problem.

The distribution of the highest qualifications of the respondents is indicated in Table 14 and Figure 22.

Table 14

Highest qualifications obtained by respondents (N = 458)

| Qualifications | Frequency | Percentage | Cumulative | |
|---------------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Secondary school | 1 | 0.22 | 1 | 0.22 |
| Standard 10 | 11 | 2.40 | 12 | 2.62 |
| Certificate/diploma | 13 | 2.84 | 25 | 5.46 |
| National diploma | 113 | 24.67 | 138 | 30.13 |
| Bachelor's degree | 111 | 24.24 | 249 | 54.37 |
| Honours degree | 83 | 18.12 | 332 | 72.49 |
| Masters degree | 114 | 24.89 | 446 | 97.38 |
| Doctoral | 12 | 2.62 | 458 | 100.00 |
| Total | 458 | | | |

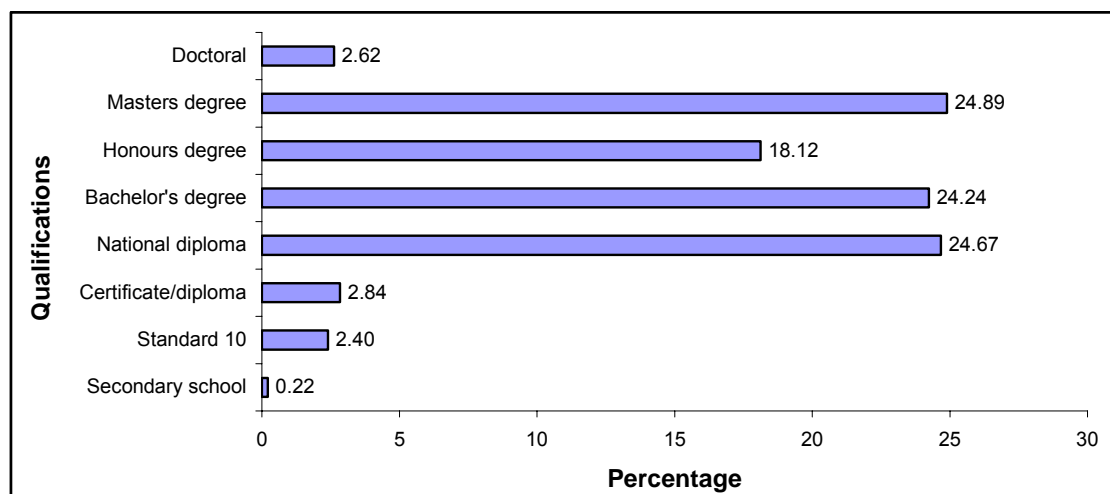


Figure 22. Highest qualifications obtained by the respondents.

Most of the sample, 95.54% (N = 433), have at least a National or Higher National Diploma as highest qualification, while large portions of the sample are in possession

of Bachelor degrees, (24.24%, N = 111), or Honours degrees, (18.12%, N = 83). Nearly a quarter of the sample, (24.89%, N = 114), is in possession of Masters degrees. As a generalisation, the sample can be seen as a highly educated group of people – knowledge workers.

One can conclude from the information on the highest qualifications of the respondents that the sample is truly a “white-collar” sample as was the intention of the sampling procedure. One should therefore be careful not to generalise any of the results to blue-collar workers or to any group who differs from the present sample on, for instance, qualifications.

Table 15 and Figure 23 indicate the changes in fields of study from the respondents’ initial post-school studies to their more recent studies. Similarly, Table 16 and Figure 24 indicate the respondents’ changes in career fields from their initial employment to their current employment.

Table 15

Changes in fields of study (change in interest) over years (N = 458)

| Fields of study | Initial studies | | | | Recent Studies | | | |
|------------------|-----------------|---------|------------|---------|----------------|---------|------------|---------|
| | | | Cumulative | | | | Cumulative | |
| | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Engineering | 244 | 53.28 | 244 | 53.28 | 67 | 14.63 | 67 | 14.63 |
| Human Resources | 13 | 2.84 | 257 | 56.11 | 18 | 3.93 | 85 | 18.56 |
| Econ and Finance | 64 | 13.97 | 321 | 70.09 | 84 | 18.34 | 169 | 36.90 |
| Management | 9 | 1.97 | 330 | 72.05 | 175 | 38.21 | 344 | 75.11 |
| Natural Sciences | 56 | 12.23 | 386 | 84.28 | 22 | 4.80 | 366 | 79.91 |
| Law | 5 | 1.09 | 391 | 85.37 | 12 | 2.62 | 378 | 82.53 |
| Education | 9 | 1.97 | 400 | 87.34 | 0 | 0.00 | 378 | 82.53 |
| Medicine | 1 | 0.22 | 401 | 87.55 | 1 | 0.22 | 379 | 82.75 |
| Other | 33 | 7.21 | 434 | 94.76 | 24 | 5.24 | 403 | 87.99 |
| Total | 434 | 94.76 | 434 | 94.76 | 403 | 87.99 | 403 | 87.99 |
| Missing | 24 | 5.24 | 458 | 100.00 | 55 | 12.01 | 458 | 100.00 |

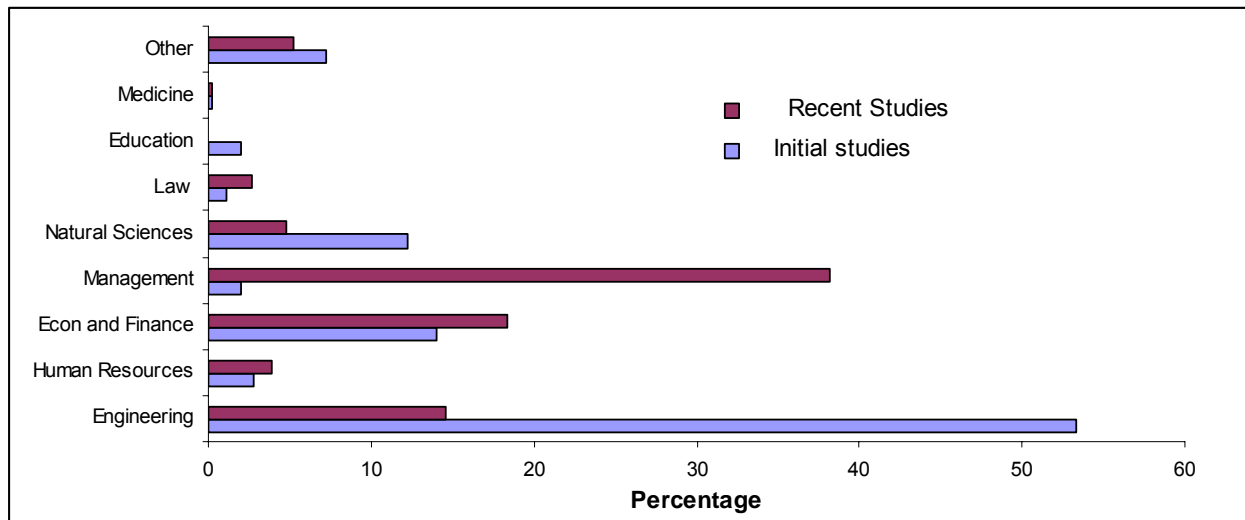


Figure 23. Changes in fields of study, from initial studies, to latest studies.

Table 16

Changes in fields of employment (careers) over years (N = 458)

| Fields of Employment | Initial employment | | | | Current employment | | | |
|-------------------------|--------------------|---------|------------|---------|--------------------|---------|------------|---------|
| | | | Cumulative | | | | Cumulative | |
| | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Engineering | 219 | 47.82 | 219 | 47.82 | 134 | 29.26 | 67 | 14.63 |
| Human Resources | 15 | 3.28 | 234 | 51.09 | 16 | 3.49 | 83 | 18.12 |
| Econ and Finance | 59 | 12.88 | 293 | 63.97 | 65 | 14.19 | 148 | 32.31 |
| Management | 3 | 0.66 | 296 | 64.63 | 153 | 33.41 | 301 | 65.72 |
| Natural Sciences | 45 | 9.83 | 341 | 74.45 | 20 | 4.37 | 321 | 70.09 |
| Law | 8 | 1.75 | 349 | 76.20 | 7 | 1.53 | 328 | 71.62 |
| Education | 15 | 3.28 | 364 | 79.48 | 1 | 0.22 | 329 | 71.83 |
| Medicine | 2 | 0.44 | 366 | 79.91 | 1 | 0.22 | 330 | 72.05 |
| Other | 54 | 11.79 | 420 | 91.70 | 35 | 7.64 | 365 | 79.69 |
| Total | 420 | 91.70 | 420 | 91.70 | 432 | 94.32 | 365 | 79.69 |
| Missing | 38 | 8.30 | 458 | 100.00 | 26 | 5.68 | 458 | 100.00 |

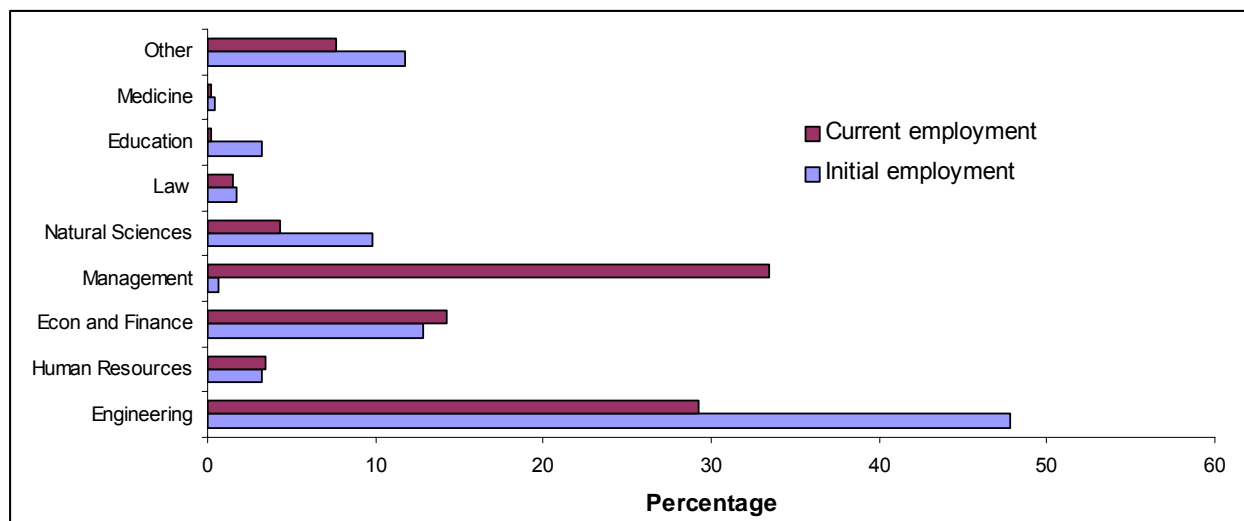


Figure 24. Changes in fields of employment, from initial employment to current.

It is obvious from these tables and graphs that the engineering profession is dominant in the sample, both for study field and employment. More than half of the respondents (53.28%, N = 244), initiated their studies in the engineering field, and

almost all of them (47.82%, N = 219), were subsequently employed in the engineering field. A shift toward managerial studies and employment seemed to have happened. A large proportion of the respondents (38.21%, N = 175), reported their more recent studies to be in the managerial field, whilst the largest single group of the respondents (33.41%, N = 153) reported to be currently employed as managers. There was thus a shift towards managerial employment, only 0.66% of the respondents were initially employed as managers, and 33.41% of the respondents are now employed as managers.

The high frequency of missing responses on fields of study and fields of employment is regarded as significant and a concern. In all four response categories were large portions of responses missing. Initial field of study was not answered by 5.24% of the sample. The corresponding figures for the other categories were: recent field of study 12.01%, initial field of employment 8.30%, and current field of employment 5.68%. It is speculated that some respondents were not sure into which category their initial and current jobs should be classified.

The questions were possibly not understood clearly, or were difficult to interpret. For instance, if someone is employed as a manager of engineering activities, should he respond that he is employed as an engineer, or as a manager? Similarly, if someone completed a course on financial management, were the studies in the field of finance, or in the field of management? Care should therefore be exercised in forming generalisations based on this set of information. This information should probably be used mainly for descriptive purposes.

Table 17 and Figure 25 indicate the number of years that the respondents have been employed by their current employer.

Table 17

Years with current employer (N = 458)

| Years | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| 1 | 13 | 2.84 | 13 | 2.84 |
| 2 | 15 | 3.28 | 28 | 6.11 |
| 3 | 16 | 3.49 | 44 | 9.61 |
| 4 | 18 | 3.93 | 62 | 13.54 |
| 5 | 22 | 4.80 | 84 | 18.34 |
| 6 | 20 | 4.37 | 104 | 22.71 |
| 7 | 15 | 3.28 | 119 | 25.98 |
| 8 | 15 | 3.28 | 134 | 29.26 |
| 9 | 13 | 2.84 | 147 | 32.10 |
| 10 | 25 | 5.46 | 172 | 37.55 |
| 11 | 16 | 3.49 | 188 | 41.05 |
| 12 | 16 | 3.49 | 204 | 44.54 |
| 13 | 26 | 5.68 | 230 | 50.22 |
| 14 | 15 | 3.28 | 245 | 53.49 |
| 15 | 24 | 5.24 | 269 | 58.73 |
| 16 | 8 | 1.75 | 277 | 60.48 |
| 17 | 16 | 3.49 | 293 | 63.97 |
| 18 | 18 | 3.93 | 311 | 67.90 |
| 19 | 18 | 3.93 | 329 | 71.83 |
| 20 | 34 | 7.42 | 363 | 79.26 |
| 21 | 19 | 4.15 | 382 | 83.41 |
| 22 | 10 | 2.18 | 392 | 85.59 |
| 23 | 7 | 1.53 | 399 | 87.12 |
| 24 | 7 | 1.53 | 406 | 88.65 |
| 25 | 6 | 1.31 | 412 | 89.96 |
| 26 | 4 | 0.87 | 416 | 90.83 |
| 27 | 8 | 1.75 | 424 | 92.58 |
| 28 | 6 | 1.31 | 430 | 93.89 |
| 29 | 2 | 0.44 | 432 | 94.32 |
| 30 | 7 | 1.53 | 439 | 95.85 |
| 31 | 2 | 0.44 | 441 | 96.29 |
| 32 | 2 | 0.44 | 443 | 96.72 |
| 33 | 6 | 1.31 | 449 | 98.03 |
| 34 | 2 | 0.44 | 451 | 98.47 |
| 35 | 2 | 0.44 | 453 | 98.91 |
| 37 | 1 | 0.22 | 454 | 99.13 |
| 40 | 1 | 0.22 | 455 | 99.34 |
| Total | 455 | 99.34 | 455 | 99.34 |
| Missing | 3 | 0.66 | 458 | 100.00 |

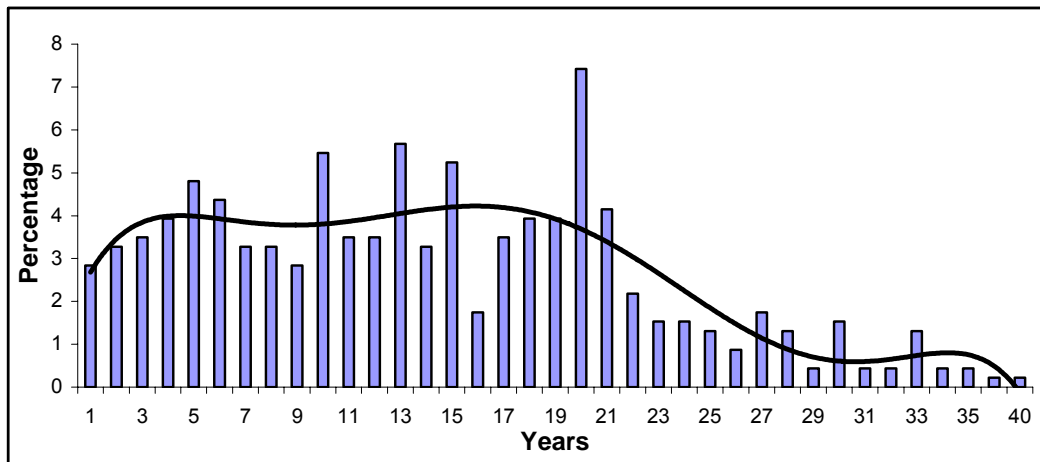


Figure 25. Number of years with current employer.

From Table 17 and Figure 25 and it is clear that the respondents tend to have long relationships with their current employer. Most of the respondents, (67.9%, $N = 321$) have 10 years or longer service with their current employer, with a mean employment history of 14.01 years ($SD = 8.23$) and a maximum employment history of 40 years. The largest single number of respondents (7.42%), is at 20 years of employment ($N = 34$).

The polynomial trend fit line in Figure 25 indicates that the trend is skewed to the left, in other words, toward fewer years of service. However, the line flattens between 6 and 20 years of employment, confirming relatively long years of service. A substantial portion of the sample, 28.17%, has 20 years or longer service ($N = 126$). What makes this even more noteworthy is the mean age of the population that is only 43 years (Table 10). One can speculate that a substantial proportion of the sample has spent their working lives up to the time of the present study with their current employer.

The number of participants indicating that they made substantial career changes and those who did not are shown in Table 18 and illustrated in Figure 26.

Table 18

Subjects that feel they made substantial career changes (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 266 | 58.08 | 266 | 58.08 |
| No | 190 | 41.48 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

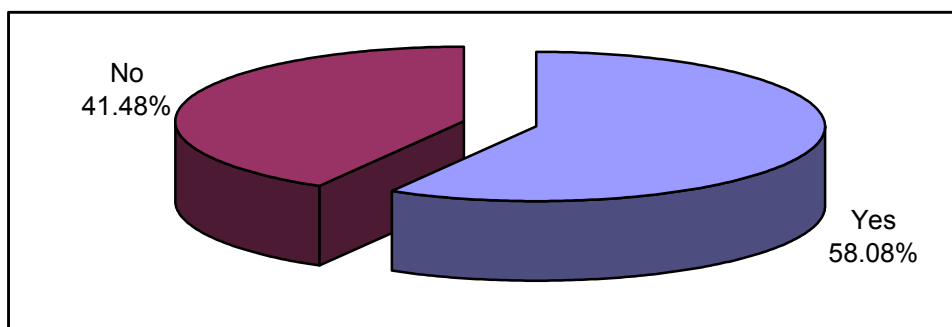


Figure 26. Subjects that feel they made substantial career changes or not.

A total of 266 of the participants, 58.08%, indicated that they made substantial career changes somewhere in their working life, forming a majority of the sample.

Table 19 and Figure 27 indicate the satisfaction of the respondents with their career progress.

Table 19

Satisfaction with career progress (N = 458)

| Level of satisfaction | Frequency | Percentage | Cumulative | |
|-------------------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Completely satisfied | 67 | 14.63 | 67 | 14.63 |
| Satisfied | 269 | 58.73 | 336 | 73.36 |
| Not sure | 29 | 6.33 | 365 | 79.69 |
| Dissatisfied | 82 | 17.90 | 447 | 97.60 |
| Completely dissatisfied | 7 | 1.53 | 454 | 99.13 |
| Total | 454 | 99.13 | 454 | 99.13 |
| Missing | 4 | 0.87 | 458 | 100.00 |

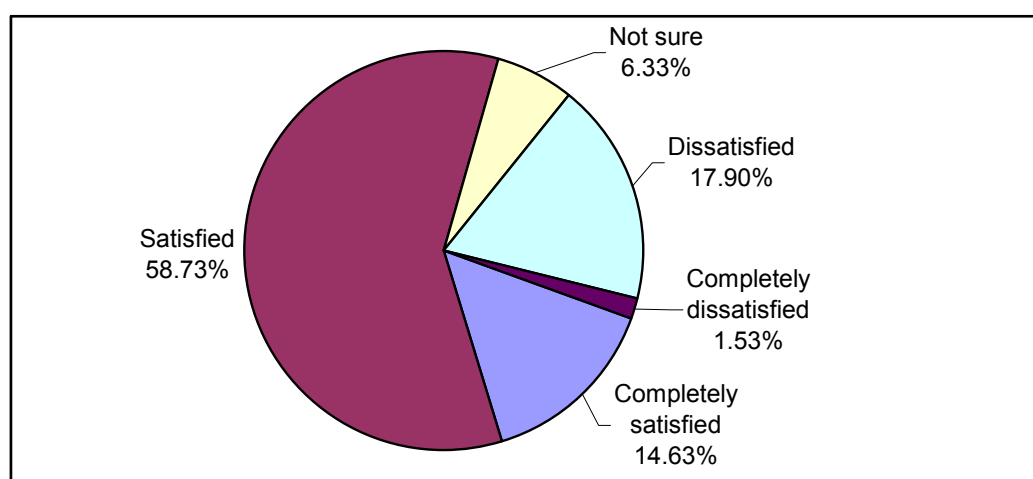


Figure 27. Satisfaction with career progress.

A clear majority of the respondents, 73.36% (N = 336), indicated that they are either completely satisfied, or satisfied with their career progress. Only 17.90% (N = 82) indicated that they are dissatisfied with their career progress, and a mere 1.53 percent (N = 7) indicated that they are completely dissatisfied with their career progress up-to-date. These responses appear to be congruent with a relatively young group of people who already are in very senior positions, i.e., who have made rapid progress.

Table 20 and Figure 28 indicate the responses on whether the respondents would continue working if they won enough money to be self-sufficient. Table 20 and

Figure 298 indicate the responses that would continue with their present job if they won the money.

Table 20

Responses to the lottery question (N = 458)

| Would you continue working if you win R20 million in the lottery? | | | | |
|---|-----------|------------|------------|------------|
| | Frequency | Percentage | Cumulative | |
| | | | Frequency | Percentage |
| Yes | 344 | 75.11 | 344 | 75.11 |
| No | 112 | 24.45 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

Would you continue with your present job if you win R20 million in the lottery?

| Would you continue with your present job if you win R20 million in the lottery? | | | | |
|---|-----------|------------|------------|------------|
| | Frequency | Percentage | Cumulative | |
| | | | Frequency | Percentage |
| Yes | 196 | 42.79 | 196 | 42.79 |
| No | 255 | 55.68 | 451 | 98.47 |
| Total | 451 | 98.47 | 451 | 98.47 |
| Missing | 7 | 1.53 | 458 | 100.00 |

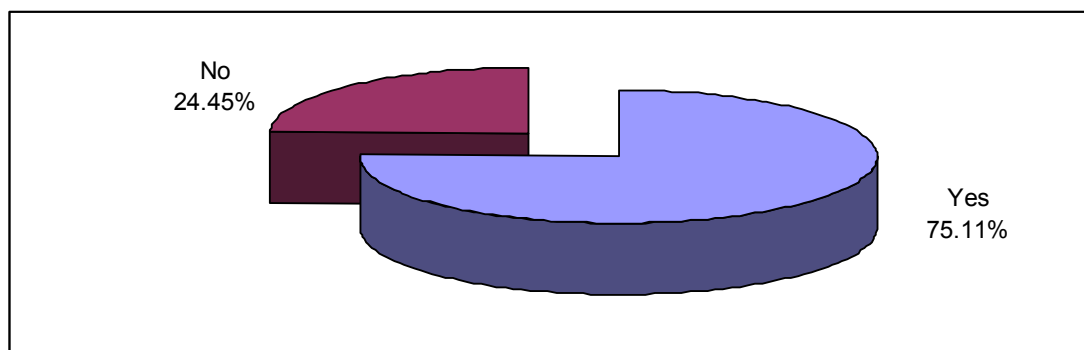


Figure 28. Respondents that will continue working if they won the lottery.

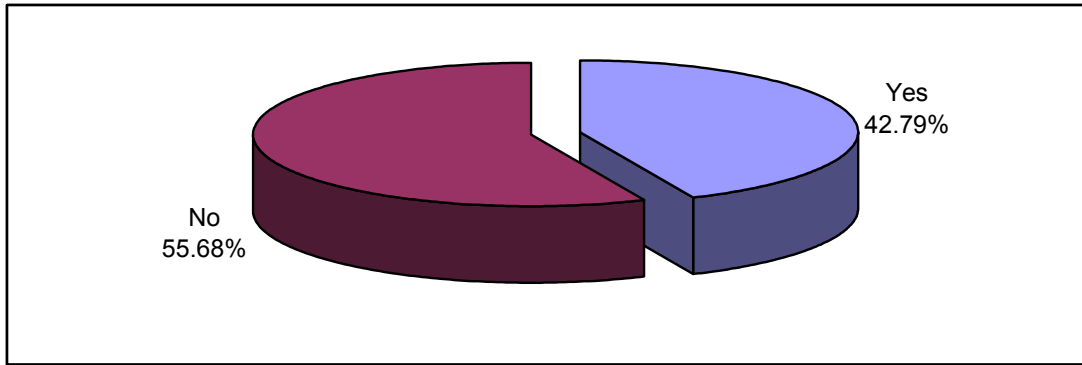


Figure 29. Respondents that will continue **with their present jobs** if they won the lottery.

Although more than three quarters of the respondents (75, 44%, N = 344), indicated that they would continue working if they won R20 million in the lottery, less than half (42.79%, N = 196) indicated that they would continue with their present jobs.

The results that indicate a willingness to continue working beyond the reason of economic utility working appears to correspond with Morse and Weiss' (1955) results of 80% for a similar sample. However, the large portion that indicated that they would not continue with their present jobs appears to be significant. This finding does not appear to correspond with Morse and Weiss' (1955) finding of 61% for a similar sample. It appears that most of the respondents would prefer to do something else, although they are apparently happy with their career progress, although they appear to be in senior positions relative to their ages.

Table 21 and Figure 30 indicate the responses regarding the average number of hours that the respondents actually work per week.

Table 21

Actual working hours per week (N = 458)

| Hours | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| 10 | 1 | 0.22 | 1 | 0.22 |
| 30 | 4 | 0.87 | 5 | 1.09 |
| 35 | 3 | 0.66 | 8 | 1.75 |
| 36 | 1 | 0.22 | 9 | 1.97 |
| 37 | 2 | 0.44 | 11 | 2.40 |
| 38 | 2 | 0.44 | 13 | 2.84 |
| 40 | 46 | 10.04 | 59 | 12.88 |
| 41 | 1 | 0.22 | 60 | 13.10 |
| 42 | 5 | 1.09 | 65 | 14.19 |
| 43 | 5 | 1.09 | 70 | 15.28 |
| 44 | 9 | 1.97 | 79 | 17.25 |
| 45 | 70 | 15.28 | 149 | 32.53 |
| 46 | 9 | 1.97 | 158 | 34.50 |
| 47 | 5 | 1.09 | 163 | 35.59 |
| 48 | 24 | 5.24 | 187 | 40.83 |
| 49 | 2 | 0.44 | 189 | 41.27 |
| 50 | 111 | 24.24 | 300 | 65.50 |
| 52 | 12 | 2.62 | 312 | 68.12 |
| 53 | 4 | 0.87 | 316 | 69.00 |
| 54 | 4 | 0.87 | 320 | 69.87 |
| 55 | 57 | 12.45 | 377 | 82.31 |
| 56 | 5 | 1.09 | 382 | 83.41 |
| 57 | 1 | 0.22 | 383 | 83.62 |
| 58 | 5 | 1.09 | 388 | 84.72 |
| 59 | 1 | 0.22 | 389 | 84.93 |
| 60 | 48 | 10.48 | 437 | 95.41 |
| 64 | 1 | 0.22 | 438 | 95.63 |
| 65 | 6 | 1.31 | 444 | 96.94 |
| 66 | 1 | 0.22 | 445 | 97.16 |
| 68 | 1 | 0.22 | 446 | 97.38 |
| 70 | 6 | 1.31 | 452 | 98.69 |
| 72 | 1 | 0.22 | 453 | 98.91 |
| 77 | 1 | 0.22 | 454 | 99.13 |
| 80 | 1 | 0.22 | 455 | 99.34 |
| 85 | 1 | 0.22 | 456 | 99.56 |
| 90 | 1 | 0.22 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

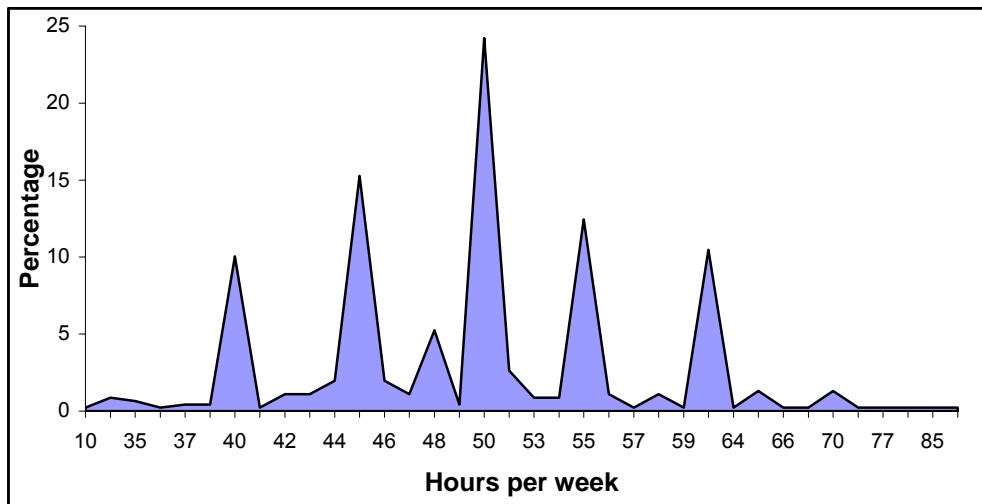


Figure 30. Actual working hours per week.

It is clear that most of the respondents tend to work long hours, with the mean reported working hours per week being 50.08 hours (SD = 7.94). The largest single group of the respondents, 24.24% (N = 111) indicated that they work around 50 hours per week. Approximately 12% of the sample reported working 55 hours per week (12.47%) and about 10% said that they work 60 hours per week (10.50%). The highest reported working hours per week was 90. Almost 90% (87.12%) of the sample reported that they work longer than the expected minimum of 40 hours per week.

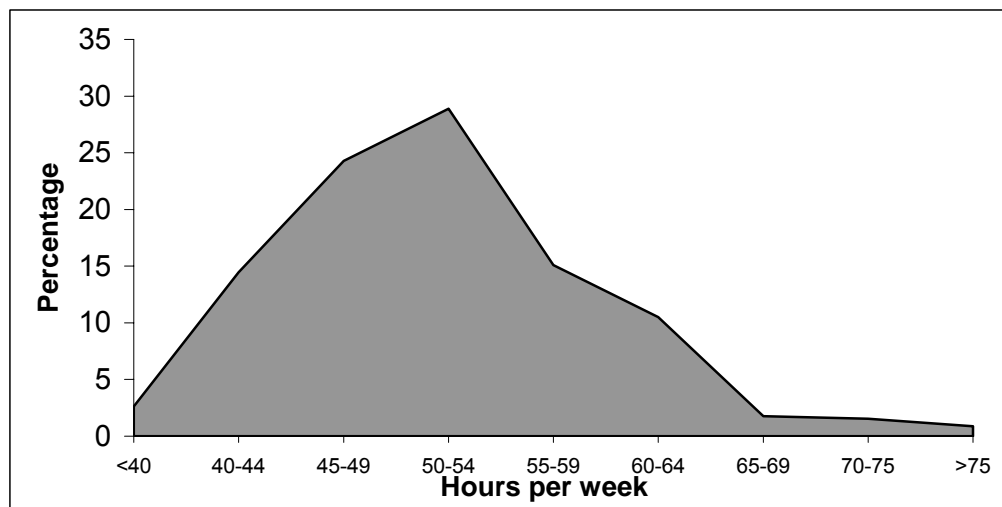
It appears from Figure 30 that respondents possibly rounded off the actual working hours per week to the nearest factor of five. This makes the actual working hours per week somewhat difficult to interpret.

In Table 22 and Figure 31, the actual working hours reported by the respondents were clustered in bandwidths of five hours.

Table 22

Actual working hours per week within bandwidths (N = 458)

| Hours | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| <40 | 12 | 2.62 | 12 | 2.62 |
| 40-44 | 66 | 14.41 | 78 | 17.03 |
| 45-49 | 111 | 24.24 | 189 | 41.27 |
| 50-54 | 132 | 28.82 | 321 | 70.09 |
| 55-59 | 69 | 15.07 | 390 | 85.15 |
| 60-64 | 48 | 10.48 | 438 | 95.63 |
| 65-69 | 8 | 1.75 | 446 | 97.38 |
| 70-75 | 7 | 1.53 | 453 | 98.91 |
| >75 | 4 | 0.87 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

Figure 31. Working hours per week within bandwidths.

This information indicates clearly that most of the respondents actually work between 45 and 60 hours per week, with 14.66% (N = 67) of the respondents working 60 hours per week or more. In other words, they work 50% more than the officially expected hours per week.

Table 23 and Figure 32 indicate the number of hours officially required from the respondents, according to their self reports.

Table 23

Official working hours required per week (N = 458)

| Hours | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| 35 | 1 | 0.22 | 1 | 0.22 |
| 38 | 36 | 7.86 | 37 | 8.08 |
| 39 | 2 | 0.44 | 39 | 8.52 |
| 40 | 345 | 75.33 | 384 | 83.84 |
| 41 | 1 | 0.22 | 385 | 84.06 |
| 42 | 16 | 3.49 | 401 | 87.55 |
| 43 | 3 | 0.66 | 404 | 88.21 |
| 44 | 3 | 0.66 | 407 | 88.86 |
| 45 | 29 | 6.33 | 436 | 95.20 |
| 46 | 2 | 0.44 | 438 | 95.63 |
| 47 | 1 | 0.22 | 439 | 95.85 |
| 48 | 15 | 3.28 | 454 | 99.13 |
| 50 | 1 | 0.22 | 455 | 99.34 |
| 60 | 1 | 0.22 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

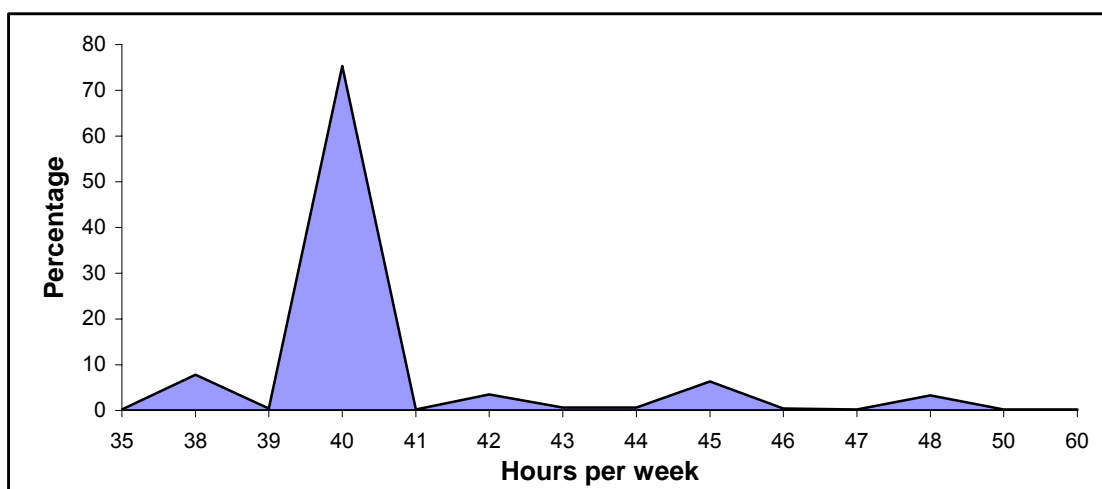


Figure 32. Official working hours required per week.

It is clear that the largest proportion of the respondents, 75.66% (N = 345), are required to work 40 hours per week (mean = 40.63, SD = 2.31). The longest official workweek that has been reported is 60. The frequency of missing responses (N = 2) on official working hours required per week is regarded as low and insignificant.

In Figure 33 the actual working hours of the respondents is compared with the official working hours required.

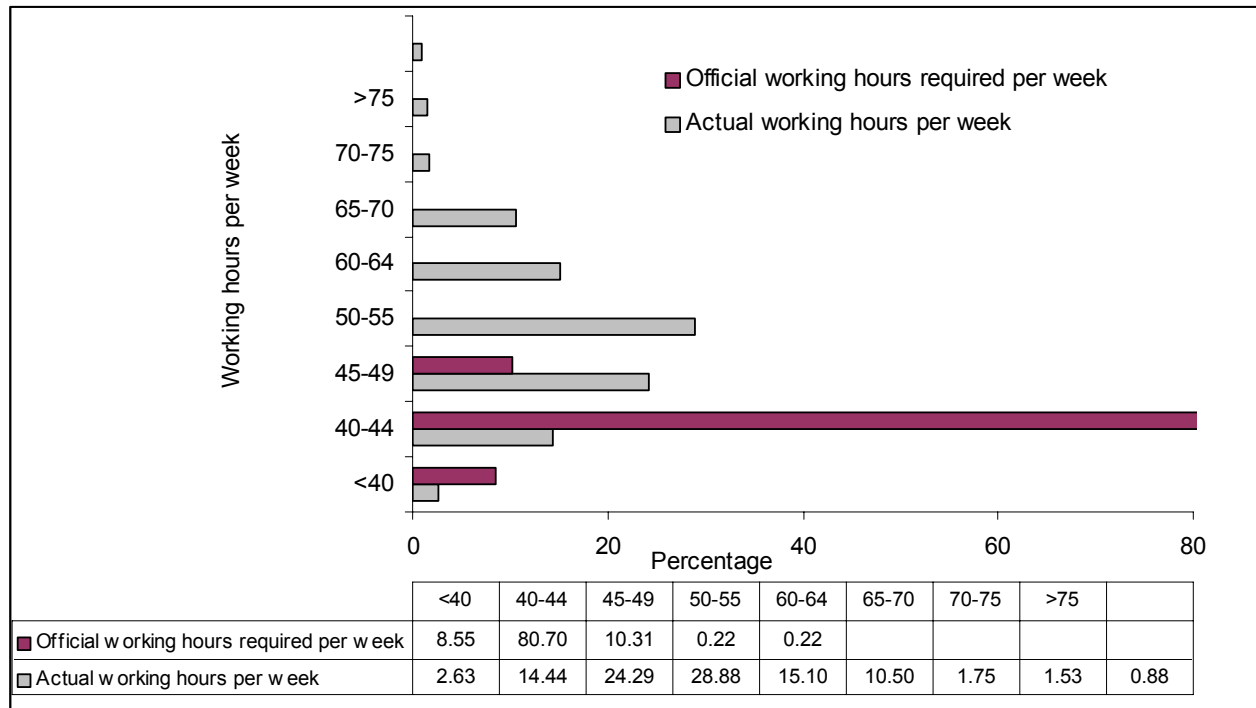


Figure 33. Actual working hours versus official working hours required per week.

The official working hours required was clustered in the same bandwidths than those in Table 22. More than 80% of the respondents (82.93%) work longer hours than what is officially required from them by their employing organisations. Possible explanations for this phenomenon can be that it has to do with the level of seniority of the respondents in the sample, or that it might be a case of PWE. The latter explanation would be congruent with the majority of the respondents being Protestants, and having strong religious orientations. Senior managers, according to previous findings (Mintzberg, 1973), usually work long hours. This seems to have been confirmed by the present findings.

Table 24 and Figure 34 indicate the number of respondents that regularly work over weekends or holidays.

Table 24

Respondents that regularly work over weekends or holidays (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 205 | 44.76 | 205 | 44.76 |
| No | 251 | 54.80 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

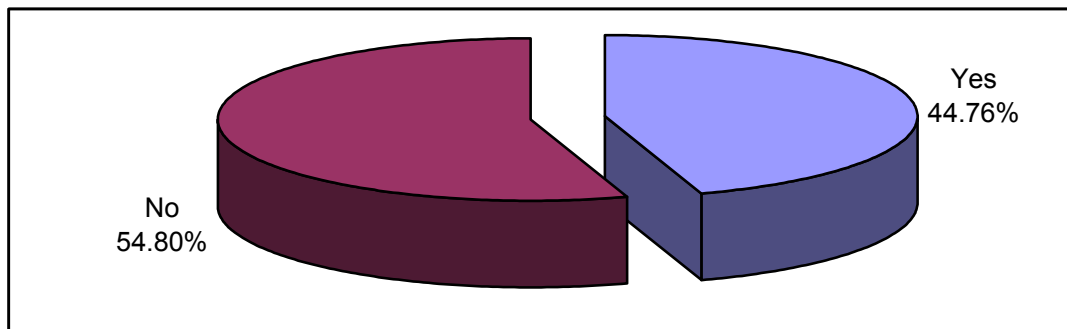


Figure 34. Respondents working regularly over weekends and holidays.

These results indicate that more than two fifths of the respondents (44.76%, N = 205), reported that they regularly work over weekends or during holidays.

In Table 25 and Figure 35, the typical number of days per year that the respondents report taking vacation is indicated.

Table 25

Typical number of vacation days that respondents report taking per year (N = 458)

| Days | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| 0 | 1 | 0.22 | 1 | 0.22 |
| 5 | 5 | 1.09 | 6 | 1.31 |
| 8 | 1 | 0.22 | 7 | 1.53 |
| 10 | 32 | 6.99 | 39 | 8.52 |
| 11 | 1 | 0.22 | 40 | 8.73 |
| 12 | 30 | 6.55 | 70 | 15.28 |
| 13 | 2 | 0.44 | 72 | 15.72 |
| 14 | 51 | 11.14 | 123 | 26.86 |
| 15 | 49 | 10.70 | 172 | 37.55 |
| 16 | 4 | 0.87 | 176 | 38.43 |
| 17 | 3 | 0.66 | 179 | 39.08 |
| 18 | 7 | 1.53 | 186 | 40.61 |
| 19 | 3 | 0.66 | 189 | 41.27 |
| 20 | 83 | 18.12 | 272 | 59.39 |
| 21 | 61 | 13.32 | 333 | 72.71 |
| 22 | 3 | 0.66 | 336 | 73.36 |
| 23 | 2 | 0.44 | 338 | 73.80 |
| 24 | 8 | 1.75 | 346 | 75.55 |
| 25 | 26 | 5.68 | 372 | 81.22 |
| 26 | 4 | 0.87 | 376 | 82.10 |
| 27 | 1 | 0.22 | 377 | 82.31 |
| 28 | 16 | 3.49 | 393 | 85.81 |
| 30 | 50 | 10.92 | 443 | 96.72 |
| 32 | 1 | 0.22 | 444 | 96.94 |
| 33 | 2 | 0.44 | 446 | 97.38 |
| 35 | 5 | 1.09 | 451 | 98.47 |
| 36 | 1 | 0.22 | 452 | 98.69 |
| 40 | 1 | 0.22 | 453 | 98.91 |
| 46 | 1 | 0.22 | 454 | 99.13 |
| 56 | 1 | 0.22 | 455 | 99.34 |
| Total | 455 | 99.34 | 455 | 99.34 |
| Missing | 3 | 0.66 | 458 | 100.00 |

The results indicate that the largest individual groups (18.24%, N = 83 and 13.41%, N = 61) take either 20 or 21 days vacation during the course of the year. The mean number of days taken is 19.61 days (SD = 8.67). The official number of vacation days offered by the employing organisations, according to the HR managers, varies between 30 and 42 calendar days per year, depending on years of employment.

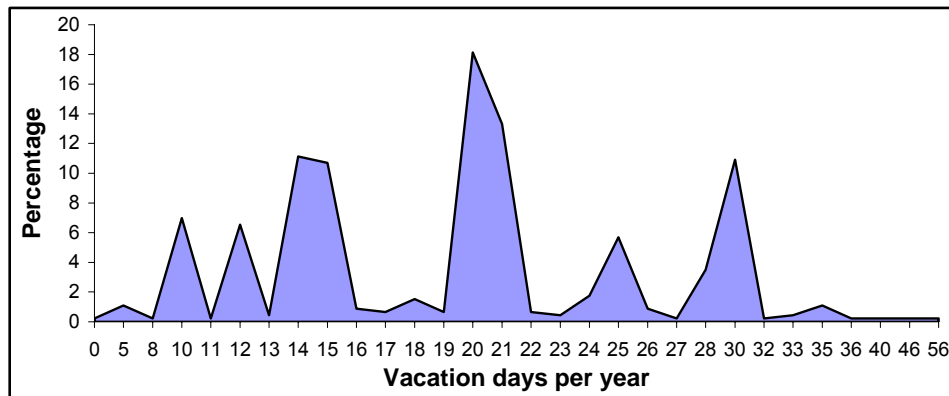


Figure 35. Typical number of vacation days that respondents take per year.

The peaks in Figure 35 suggest that the respondents possibly rounded their responses to a few numbers such as 14/15, 20/21 and 30. The results were reworked in Table 26 and Figure 36 to group the responses into bandwidths.

Table 26

Typical number of vacation days taken per year (frequencies clustered) (N = 458)

| Days | Frequency | Percentage | Cumulative | |
|------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| 10 or less | 39 | 8.52 | 39 | 8.52 |
| 11 to 15 | 133 | 29.04 | 172 | 37.55 |
| 16 to 20 | 100 | 21.83 | 272 | 59.39 |
| 21 to 25 | 101 | 22.05 | 373 | 81.44 |
| 26 to 30 | 70 | 15.28 | 443 | 96.72 |
| 31 or more | 12 | 2.62 | 455 | 99.34 |
| Total | 455 | 99.34 | 455 | 99.34 |
| Missing | 3 | 0.66 | 458 | 100.00 |

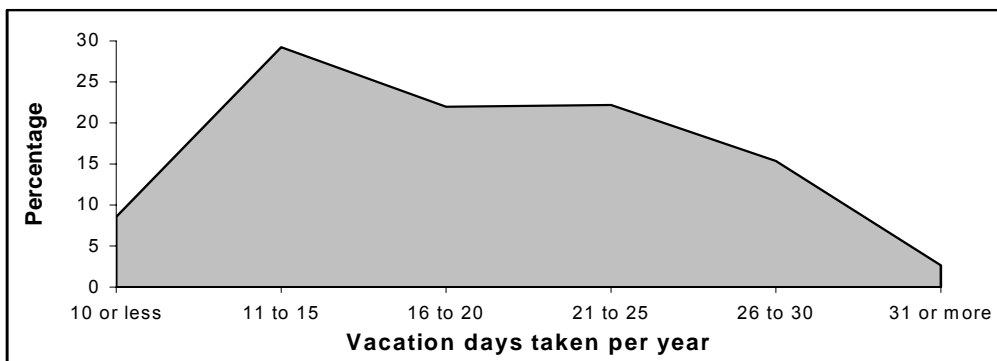


Figure 36. Typical number of vacation days taken per year (frequencies clustered)

It is clear that the largest proportion of days vacation reported by the respondents lies between 11 and 25, representing 73.41% of the responses (N = 334), with the majority of the responses being skewed to the left, i.e., to the lower end. More than two thirds of the respondents (37.80%) took fewer than 16 days leave per year.

Table 27 and Figure 37 indicate the responses to the question whether the respondents actively make time to be alone.

Table 27

Respondents that purposely make time to be alone (N = 458)

| | Frequency | Percentage | Cummulative | |
|---------|-----------|------------|-------------|------------|
| | | | Frequency | Percentage |
| Yes | 275 | 60.04 | 275 | 60.04 |
| No | 181 | 39.52 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

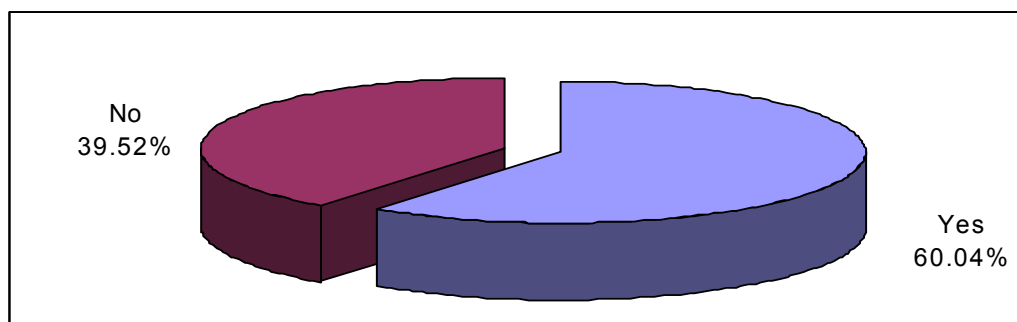


Figure 37. Respondents purposely making time to be alone.

The majority of the respondents, 60.04% (N = 275) indicated that they purposely make time to be alone. Similarly, the majority of respondents do not find it difficult not being engaged in specific activities.

The respondents' indication on whether they find it difficult not to be engaged in activities is shown in Table 28 and illustrated in Figure 38.

Table 28

Respondents finding it difficult not being engaged in specific activities (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 92 | 20.09 | 92 | 20.09 |
| No | 365 | 79.69 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

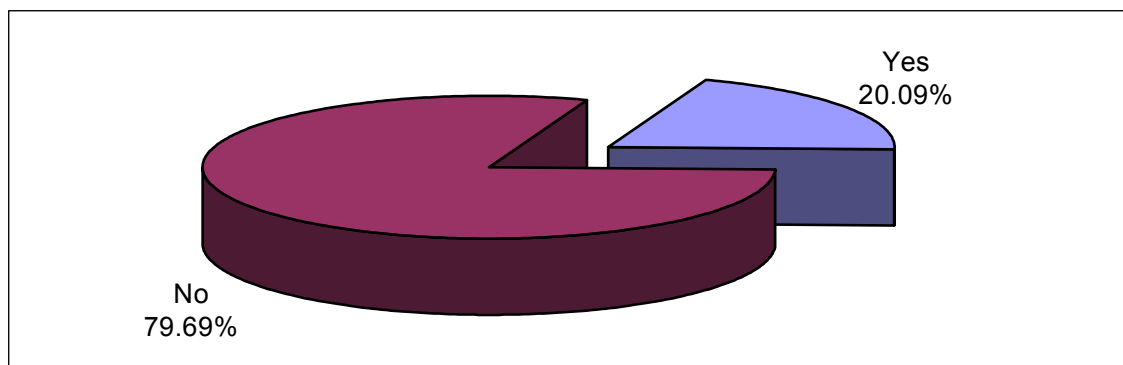


Figure 38. Respondents finding it difficult not being engaged in specific activities.

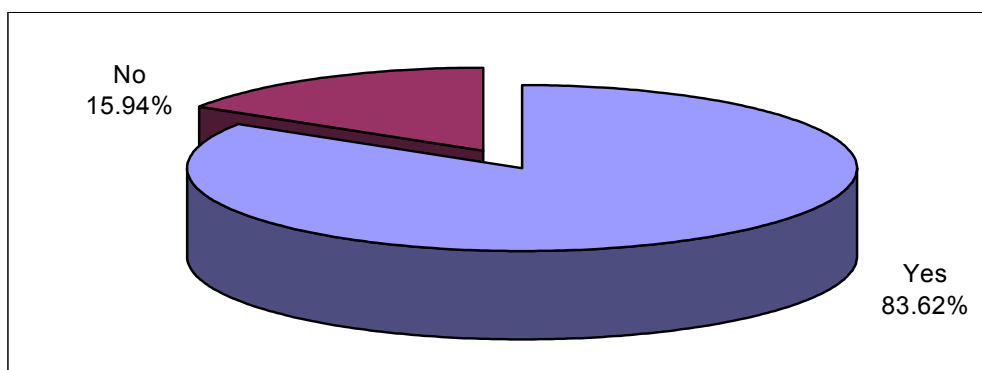
Almost 80% of the respondents (79.69%, N = 365) reported that they do not find it difficult if they are not engaged in specific activities.

The number of respondents that purposely make time for leisure is shown in Table 29 and illustrated in Figure 39.

Table 29

Respondents that purposely make time for leisure (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 383 | 83.62 | 383 | 83.62 |
| No | 73 | 15.94 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

Figure 39. Respondents purposely making time for leisure.

More than 80 % of the respondents (83.62%, N = 383) report that they actively make time for leisure.

Similarly does the large majority of respondents, with 91.25% (N = 417) indicating that they purposely make time to spend with a family or friends (Table 30 and Figure 40).

The respondents' indication whether they purposely make time to spend with family or friends is shown in Table 30 and illustrated in Figure 40.

Table 30

Respondents purposely making time to spend with their family (or friends) (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 417 | 91.05 | 417 | 91.05 |
| No | 40 | 8.73 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

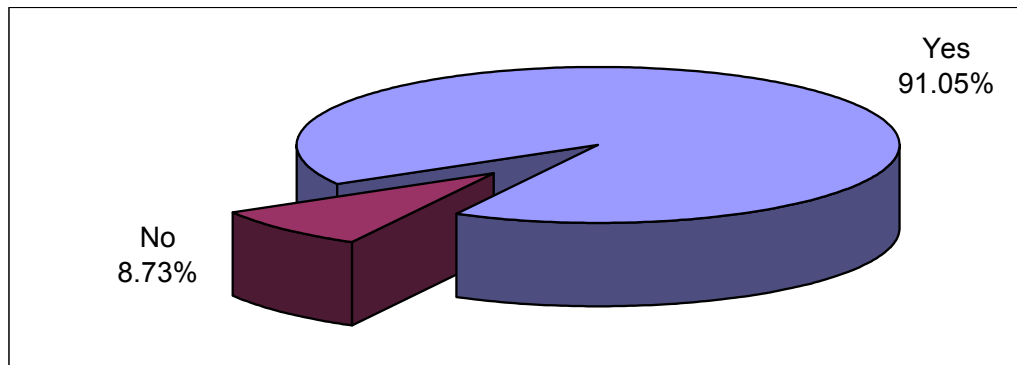


Figure 40. Respondents purposely making time to spend with their family (or friends).

The largest proportion of the respondents (91.05%, N = 417) indicated that they purposely make time to spend with family and friends.

The indication of respondents whether they actively take part in a sport or a hobby is shown in Table 31 and illustrated in Figure 41.

Table 31

Respondents actively taking part in a sport or a hobby (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 335 | 73.14 | 335 | 73.14 |
| No | 120 | 26.20 | 455 | 99.34 |
| Total | 455 | 99.34 | 455 | 99.34 |
| Missing | 3 | 0.66 | 458 | 100.00 |

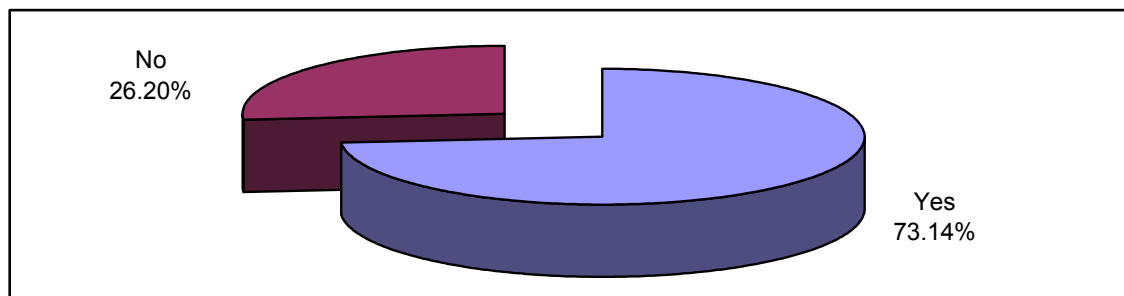


Figure 41. Respondents actively taking part in a sport or a hobby.

It is clear that almost three-quarters of the respondents (73.14%, N = 335) have a hobby or sport in which they actively take part.

Table 32 and Figure 42 indicate the respondents' active involvement, or non-involvement in community work. Table 33 and Figure 43 indicate the responses towards regular contribution to welfare or community work.

Table 32

Respondents being actively involved in community work or welfare work (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 175 | 38.21 | 175 | 38.21 |
| No | 281 | 61.49 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

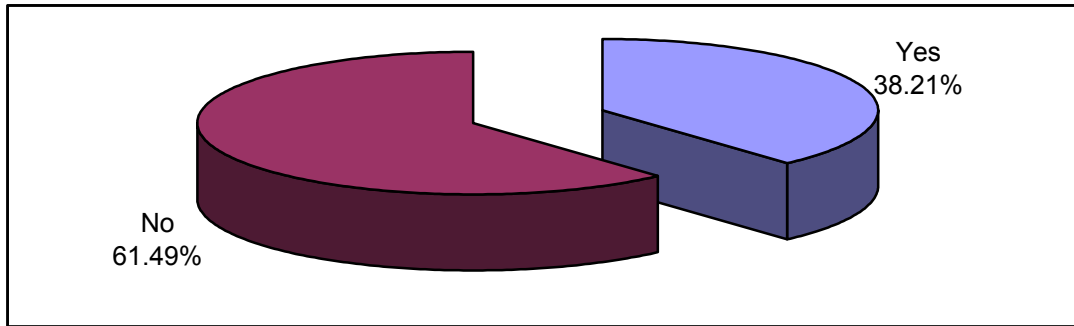


Figure 42. Respondents being actively involved in community work or welfare work.

Table 33

Respondents contributing financially to community work or welfare work (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Yes | 307 | 67.03 | 307 | 67.03 |
| No | 147 | 32.17 | 761 | 166.16 |
| Total | 454 | 99.13 | 761 | 166.16 |
| Missing | 4 | 0.87 | 458 | 100.00 |

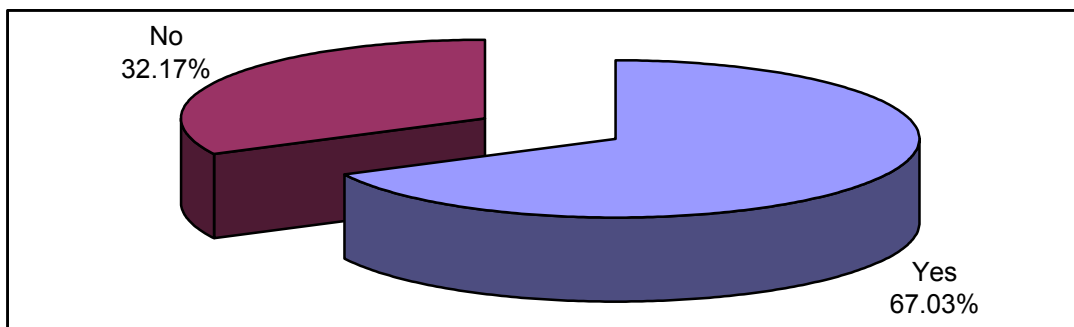


Figure 43. Respondents contributing financially in a regular fashion to community work or welfare work.

Less than two fifths (38.21%, N = 175) of the respondents indicated that they are actively involved in community work or welfare work. However, in contrast to being actively involved themselves in community work or welfare work, more than two thirds of the respondents (67.03%, N = 307) indicated that they contribute financially on a regular fashion to community work or welfare work.

The marital status of the respondents at the time of the survey is shown in Table 34 and illustrated in Figure 44.

Table 34

Marital status of the respondents (N = 458)

| | Frequency | Percentage | Cumulative | |
|---------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Never married | 26 | 5.68 | 26 | 5.68 |
| Married | 413 | 90.17 | 439 | 95.85 |
| Widow(er) | | 0.00 | 439 | 95.85 |
| Divorced | 17 | 3.71 | 456 | 99.56 |
| Estranged | | 0.00 | 456 | 99.56 |
| Cohabiting | 1 | 0.22 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

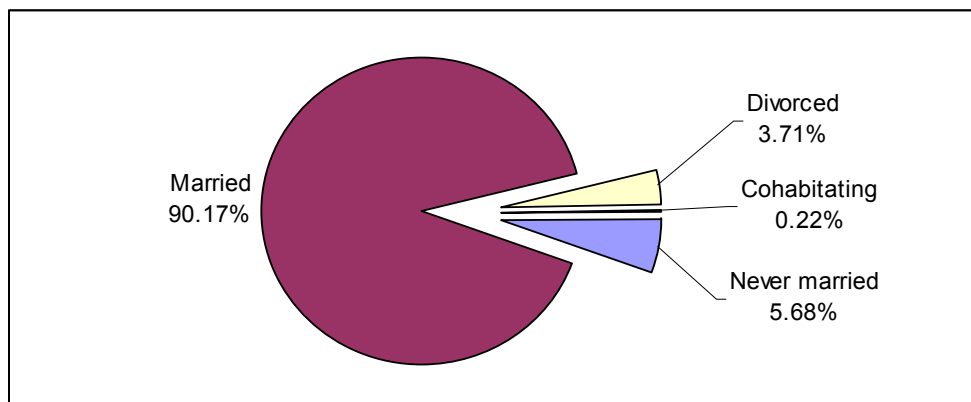


Figure 44. Marital status of the respondents.

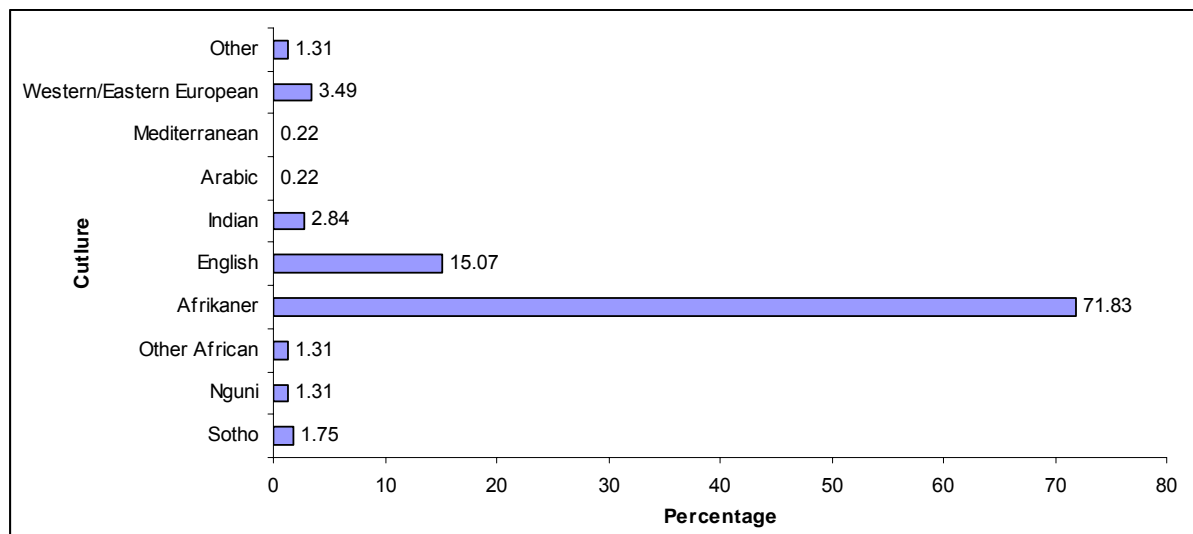
It is clear that the vast majority of the respondents (90.17%, N = 413) is married. It was found interesting that none of the respondents was widowed, nor did any of the respondents report to being estranged with their partners. Only one respondent indicated that he/she is cohabiting without being married to his/her partner.

The dominant social heritage, upbringing or culture of the respondents is shown in Table 35 and illustrated in Figure 45.

Table 35

Dominant source of social heritage, upbringing or culture (N = 458)

| Culture | Frequency | Percentage | Cumulative | |
|--------------------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Sotho | 8 | 1.75 | 8 | 1.75 |
| Nguni | 6 | 1.31 | 14 | 3.06 |
| Other African | 6 | 1.31 | 20 | 4.37 |
| Afrikaner | 329 | 71.83 | 349 | 76.20 |
| English | 69 | 15.07 | 418 | 91.27 |
| Indian | 13 | 2.84 | 431 | 94.10 |
| Arabic | 1 | 0.22 | 432 | 94.32 |
| Mediterranean | 1 | 0.22 | 433 | 94.54 |
| Western/Eastern European | 16 | 3.49 | 449 | 98.03 |
| Other | 6 | 1.31 | 455 | 99.34 |
| Total | 455 | 99.34 | 455 | 99.34 |
| Missing | 3 | 0.66 | 458 | 100.00 |

Figure 45. Dominant source of social heritage, upbringing or culture.

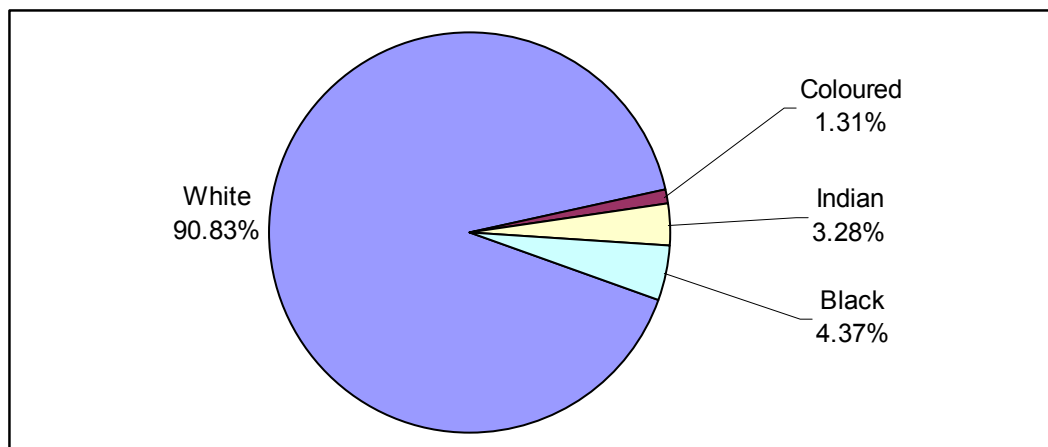
It is clear that almost three quarters of the respondents have an Afrikaner cultural background (71.83%, N = 329) of the total sample. This is followed a long way off by a background of English culture at 15.07% (N = 68).

The ethnical groupings of the respondents is shown in Table 36 and illustrated in Figure 46.

Table 36

Ethnical groupings (race) (N = 458)

| Grouping | Frequency | Percentage | Cumulative | |
|----------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| White | 416 | 90.83 | 416 | 90.83 |
| Coloured | 6 | 1.31 | 422 | 92.14 |
| Indian | 15 | 3.28 | 437 | 95.41 |
| Black | 20 | 4.37 | 457 | 99.78 |
| Total | 457 | 99.78 | 457 | 99.78 |
| Missing | 1 | 0.22 | 458 | 100.00 |

Figure 46. Ethnical groupings (race).

It is clear that the largest proportion of the respondents is members of the white ethnic group (race). Whites represent more than 90% (90.83%, N = 416) of the respondents, with members of the black ethnic group representing less than 5% (4.38%, N = 20) of the respondents.

The information in Table 37, Figure 48, and Figure 47 illustrate the religious orientations of the respondents.

Table 37

Religious orientations (N = 458)

| Religion | Frequency | Percentage | Cumulative | |
|---------------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Christian | 427 | 93.23 | 427 | 93.23 |
| Jewish | 1 | 0.22 | 428 | 93.45 |
| Islamic or Muslim | 2 | 0.44 | 430 | 93.89 |
| African traditional | 2 | 0.44 | 432 | 94.32 |
| Hindu | 11 | 2.40 | 443 | 96.72 |
| Other | 4 | 0.87 | 447 | 97.60 |
| Agnostic/Atheist | 9 | 1.97 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

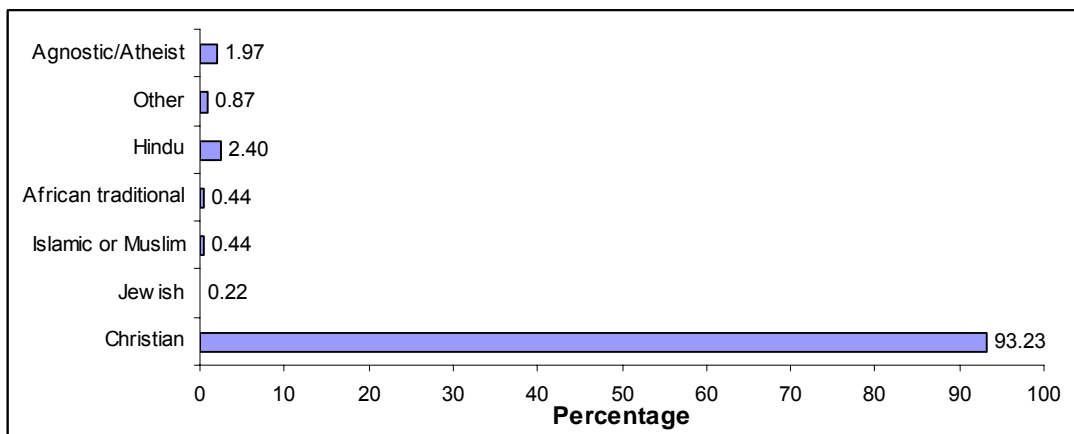


Figure 47. Religious orientations.

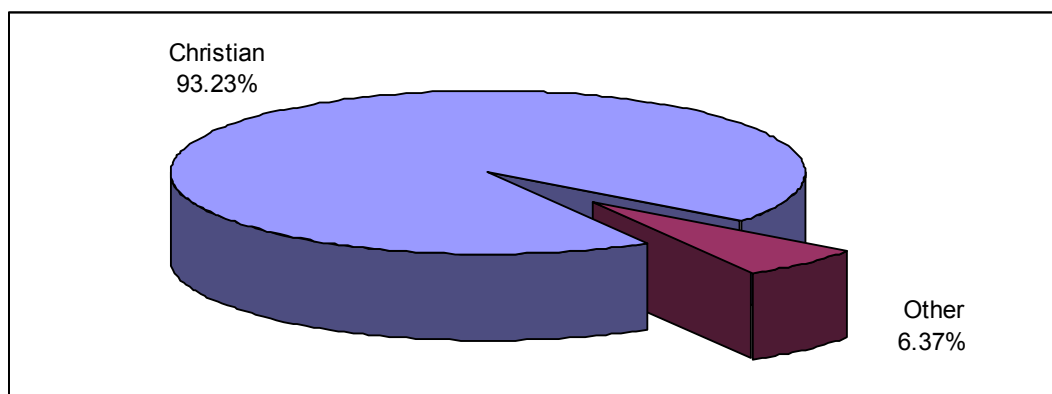


Figure 48. Religious orientations: Christianity versus other religions.

The largest proportion of the respondents' religious orientation is clearly towards Christianity, representing more than 90% (93.23%, N = 427) of the respondents. The other religions represent less than 10 % (6.37%, N = 29) of the respondents, with Hindu (2.40%) and Agnostic/Atheism (1.97%) the second and third most indicated religious orientations.

The ratio of Protestants versus Catholics among the Christian respondents is shown in Table 38 and illustrated in Figure 49.

Table 38

Orientation of Christians: Protestant versus Catholic (N = 427)

| | Frequency | Percentage | Cumulative | |
|------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Protestant | 388 | 84.72 | 388 | 84.72 |
| Catholic | 28 | 6.11 | 416 | 90.83 |
| Total | 416 | 90.83 | 416 | 90.83 |
| Missing | 42 | 9.17 | 458 | 100.00 |

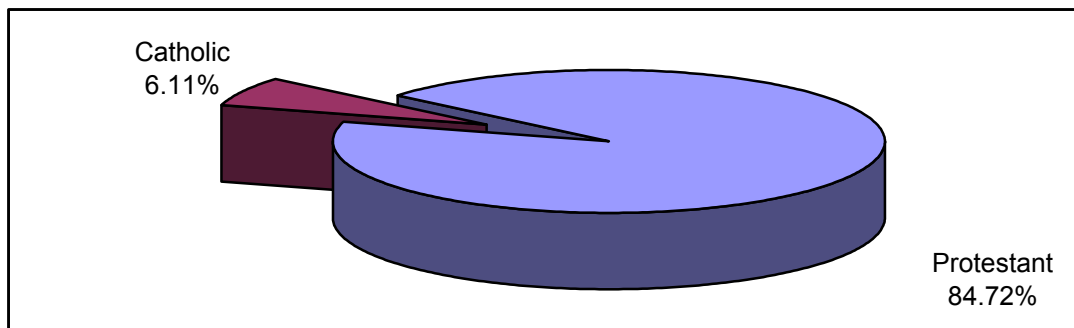


Figure 49. Orientation of Christians: Protestant versus Catholic.

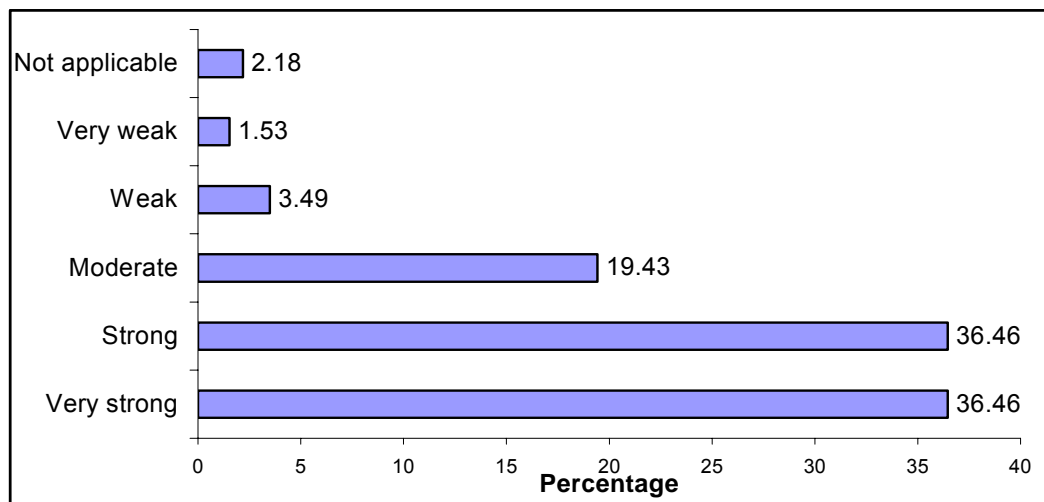
More than four fifths of the Christian respondents (84.72%, N = 388) indicated that they are Protestants. However, the relative high frequency of missing responses (9.17%, N = 42) suggests that one should be cautious in making conclusions or generalisations from this specific set of information.

Table 39 and Figure 50 indicate the strength of the religious orientations of the respondents.

Table 39

Strength of religious convictions (N = 458)

| Strength | Frequency | Percentage | Cumulative | |
|----------------|-----------|------------|------------|------------|
| | | | Frequency | Percentage |
| Very strong | 167 | 36.46 | 167 | 36.46 |
| Strong | 167 | 36.46 | 334 | 72.93 |
| Moderate | 89 | 19.43 | 423 | 92.36 |
| Weak | 16 | 3.49 | 439 | 95.85 |
| Very weak | 7 | 1.53 | 446 | 97.38 |
| Not applicable | 10 | 2.18 | 456 | 99.56 |
| Total | 456 | 99.56 | 456 | 99.56 |
| Missing | 2 | 0.44 | 458 | 100.00 |

Figure 50. Strength of religious convictions.

The majority of the respondents appear to have strong religious convictions. Almost three quarters of the respondents (72.93%, N = 334), indicated the strength of their religious convictions as either “very strong”, or “strong”, with equal numbers of respondents choosing these options. Less than one fifth (19.43%, N = 89), indicated the strength of their conviction as moderately strong, with only 5.02% (N = 23) indicating “weak” or “very” weak religious orientations. A total of 10 respondents (2.18%) considered the question was to be not applicable to them.

3.2. MEASURING INSTRUMENTS

3.2.1. General

The nature of survey research requires that the levels of measurement of all the variables should be at least at the ordinal level (Babbie, 1998). Babbie (1998) comments that Likert scales have a greater rigour and structure than other response formats. All the standardised measuring instruments used in this research are well established and tested instruments, which use Likert-type ordinal scales.

The aim of the present study is to investigate the relationships between meaning and biographic and lifestyle variables, work involvement, work commitment and work motivation. The following instruments were used to measure the variables in the study:

- Personal meaning:
 - Battista and Almond's (1973) Life Regard Index
- Work involvement:
 - Kanungo's (1982) Work Involvement Questionnaire
- Work commitment:
 - Kanungo's (1982) Job Involvement Questionnaire
 - Carson and Bedeian's (1994) Career Commitment Scale
 - Ho and Lloyd's (1984) Australian Work Ethic Scale
- Work motivation:
 - Warr, Cook and Wall's (1979) Intrinsic Motivation Measure
 - Vandewalle's (1997) Goal Orientation Instrument

3.2.2. Battista and Almond's (1973) Life Regard Index (LRI)

Initially, empirical studies of meaning and purpose in life have relied almost exclusively on the Purpose in Life (PIL) test. The PIL is a one-dimensional scale designed to measure the degree to which an individual experiences a sense of meaning and purpose in life (Reker et al., 1987). On the other hand, Debats (1999) reports that recent quantitative studies have increasingly employed the Life Regard Index (LRI) (Battista & Almond, 1973). Battista and Almond (1973) designed the LRI

as a value-independent operationalisation of the construct of positive life regard, a term used synonymously with the terms meaningful life and purpose in life (Debats, 1999).

Battista and Almond (1973) developed the Life Regard Index (LRI) to overcome some difficulties they identified in the PIL. Battista and Almond (1973) argue that Crumbaugh and Maholick's (1964), and Crumbaugh's (1968) PIL represents a satisfactory definition of meaning in life, but contained some serious flaws. Battista and Almond (1973) note that of the 20 items in the PIL, five items measure the individual's ability to see his life within some framework, nine items measure his satisfaction with his life, and one item considers both constructs simultaneously. Battista and Almond (1973) reason that difficulties arise from the unequal distribution of these items, the straightforward manner in which questions are presented in a seven point semantic differential type scale, and the failure to control for the effects of social desirability or denial in answering the questionnaire.

Battista and Almond (1973) add that the value of the PIL test is further lessened by the inclusion of five items which reflect certain value orientations presumed to be present in the person with positive life regard, thus making the test biased. Battista and Almond (1973) posit that it is not clear that the experience of one's life as meaningful is related to these beliefs. Other criticisms of the PIL include questioned validity (Battista & Almond, 1973; Ebersole & Quiring, 1989; Yalom, 1980), vulnerability to social desirability (Battista & Almond, 1973; Sargent, 1973) and for being confounded with Protestant ethics (Yalom, 1980).

The Life Regard Index, based on the concept of meaning in life as described by Victor Frankl, was developed by Battista and Almond (1973) in an attempt to provide a simple, non-biased measure of meaning in life. Battista and Almond (1973) state that a "positive life regard" refers individual's belief that he is fulfilling a meaningful life. The individual's highly valued life-framework or life-goals underlie this fulfilment.

The LRI measure of Battista and Almond (1973) is composed of 28 items, responded to on a five-point scale and divided into two sub-scales: Framework and Fulfilment. The Framework sub-scale (FR) measures the ability of an individual to see his life

within some perspective or context and to have derived a set of life-goals, purpose in life, or life-view from them. The Fulfilment sub-scale (FU) measures the degree to which an individual sees himself as having fulfilled or as being in the process of fulfilling his framework or life goals. Each scale is composed of 14 items, half phrased positively, half phrased negatively, to control for response set. The sum of these two scales comprises the Life Regard Index (LRI) scale (Battista & Almond, 1973).

Battista and Almond (1973) distributed the LRI to 350 medical students of the Stanford University, whilst 229 of the questionnaires were returned and analysed. The sub-scales of the Life Regard Index, as well as the sum of the scales, were found to have a normal distribution and can thus be used to differentiate groups according to standard statistical methods. The data show that the FR and FU sub-scales are highly correlated with the total LRI scale (0.94 and 0.93 respectively), implying that the LRI scale can be utilised as a good indicator of overall level of life regard (Battista & Almond, 1973). Battista and Almond (1973) do not indicate the statistical methods used in calculating the correlations.

Table 40 presents the minimum, maximum, mean and standard deviation for the Framework and Fulfilment scales and for their sum, the Life Regarded Index Scale as found by Battista and Almond (1973).

Table 40

Data for Framework and Fulfilment scales (Battista & Almond, 1973)

| Scales | Score | | | Standard Deviation (SD) |
|--------|---------|---------|------|-------------------------|
| | Minimum | Maximum | Mean | |
| FR | 19 | 70 | 49.8 | 10.5 |
| FU | 15 | 70 | 48.8 | 9.5 |
| LRI | 36 | 137 | 96.8 | 18.8 |

Battista and Almond (1973) reason that the high correlation between FR and FU scales (0.76) suggests either that individuals find it very difficult to retain their beliefs in a life-framework that they are unable to fulfil, or that the development of a life-

framework is the limiting factor in developing meaning in life. Although the first of these ideas seems more likely, a longitudinal study is necessary to differentiate between these two propositions. Finally, Battista and Almond (1973) comment that the data reveal social desirability to be only mildly correlated with positive life regard, accounting for only 4% of the variation in the index. Battista and Almond (1973) conclude that the LRI can be utilised to differentiate the positive and negative life regard groups without a significant, confounding influence of social desirability.

In terms of the construct validity of the instrument, Battista and Almond (1973) report that the LRI correlated 0.62 with self-esteem as measured by the Rosenberg Self-Esteem Scale. Furthermore, the scores on the index related in predicted ways to a variety of criteria, including observer ratings of meaningfulness of an individual's life, openness and defensiveness, number and duration of psychiatric visits, family background and work measures, environmental fit and goals (Battista & Almond, 1973).

Battista and Almond (1973) also investigated the discriminant validity of the LRI. A structured interview was conducted with some of the study subjects: the 14 subjects with the highest total life regard scores, whose FR and FU scores were at least 1.5 standard deviations greater than the mean and whose social desirability scores were < 1.5 standard deviation from the mean were selected. Similarly, 16 subjects with the lowest total life regard scores were selected. A structured interview was then conducted with each of these subjects on his or her life-goals and satisfaction with life. The subjects did not know the reason they were interviewed and the interviewer did not know if they came from a positive or negative life regards group. Utilising this technique the interviewer was able to correctly identify 14/14 of the high meaning in life group, and 14/16 of the low meaning in life group ($p < 0.001$) proving the discriminant validity of the LRI as well as the ability to discriminate between high and low scorers on purpose in life (Battista & Almond, 1973).

To evaluate the reliability of the Life Regard Index, Battista and Almond (1973) studied the test-retest reliability of the LRI. The test-retest reliability of the Life Regard Index was extremely high: 0.94 (Battista & Almond, 1973). Battista and

Almond (1973) do not specify the period between the two administrations in the test-retest investigation.

Several studies attest to the satisfactory psychometric properties of the LRI. Chamberlain and Zika (1988) evaluated the three main measures of meaning in life, namely the PIL, LRI, and SOC based on the responses of 194 subjects. The inter-correlation matrix between PIL, the LRI sub-scales and the SOC sub-scales, was subjected to principal factor analysis to determine the dimensionality of the sub-scale measures. A clear one-factor solution emerged, accounting for 64% of the variance. All the measures had high factor loadings, ranging from 0.68 to 0.90. This result suggests a general meaning in life dimension underlying all three measures (Chamberlain & Zika, 1988).

Chamberlain and Zika (1988) report that a principal components analysis of the LRI items produced six components with Eigenvalues > 1 . Six factors, accounting for 47% of the total variance, were extracted with a principal factor analysis. The varimax and oblimin rotations led to selection of the oblique result, which improved both the hyperplane account (from 27 to 45%) and the variable complexity index (from 1.6 to 1.36). Chamberlain and Zika (1988) conclude that this analysis indicated that the factor structure reflects the rational construction of the scale reasonably well.

Chamberlain and Zika (1988) comment that meaning in life does appear to be a multidimensional construct (whilst the PIL can only measure one dimension). Chamberlain and Zika (1988) conclude that as the results from their study appear quite promising, it is unfortunate that the LRI has not been more widely used and evaluated.

Debats (1990) investigated the reliability and factorial validity of the LRI. He reports that a principal components factor analysis performed on the responses of 122 undergraduate psychology students yielded two factors: fulfilment and framework. This result confirmed the theoretical structure of the LRI. Cronbach Alpha estimates of internal consistency ranged from 0.86 (Index), 0.80 (Fulfilment), to 0.79 (Framework). Debats (1990) notes that a clear philosophy of life, education and psychological counselling correlated significantly with the degree of meaning in life

as measured by the LRI. Debats (1990) recommends the use of the LRI instrument in further research.

In a study by Debats et al. (1993) to investigate the reliability and validity of the LRI, a sample (N = 176) selected from the general population, Cronbach Alphas ranging from 0.84 (Framework) to 0.87 (Fulfilment) and 0.91 (Index) were found. Debats et al. (1993) report that the two sub-scales correlated moderately ($r = 0.54$ to 0.68). They comment that this indicates that framework and fulfilment are not independent, but interrelated (Debats et al., 1993). Debats et al. (1993) recommend the LRI for research purposes, as it allows one to embark on research on the sparsely researched subject of meaning in life. They comment that the LRI's independence of any particular theory regarding the nature of meaningfulness of life and the absence of associations with specific values or belief systems, as confirmed in their study, make the LRI an adequate research instrument. Debats et al. (1993) also comment that the LRI enables further study of the conditions under which people will develop a positive life regard.

Debats and Drost (1995) found in their study (N = 122) that the LRI was strongly associated with the interpersonal dimension of well-being. The exchange of both positive and negative feelings was associated with positive life regard. Effective coping with stressful life events in the past was associated with a sense of meaningfulness as measured with the LRI ($t(116) = 2.48$, $p < 0.01$). Debats and Drost (1995) also tested the LRI in relation to their subjects' qualitative experiences of meaningfulness and meaninglessness as expressed in responses to open-ended questions. Their results indicated t values of between 2.59 ($p < 0.05$) and 5.6 ($p < 0.0001$) between the LRI results and the open-ended questionnaire results. Debats and Drost (1995) conclude that the findings support the clinical significance of the construct of meaning in life and add to the validity of the LRI. Debats and Drost (1995) conclude that, given its psychometric properties, the LRI can be regarded as a useful tool for the empirical study of the construct of meaning in life.

Several studies therefore attest to the satisfactory psychometric properties of the LRI as indicated (Battista & Almond, 1973; Chamberlain & Zika, 1988; Debats, 1990; Debats et al. 1993; Debats & Drost, 1995). All of these studies also recommend the

use of the LRI in further research on the subject of meaning in life. However, Debats and Drost (1999) comment that unfortunately few social scientists have further tested or developed the LRI. Furthermore, the scarce empirical literature on meaning in life that does exist shows that very little is known about the components of the experience of one's life as meaningful.

3.2.3. Kanungo's (1982) Work Involvement Questionnaire (WIQ)

Kanungo (1982) makes a distinction between work involvement (work centrality) and job involvement. Work involvement is seen as a relatively enduring belief about the value of work in one's life, transcending a specific job (Kanungo, 1982), involving psychological identification and engagement with work in general. Job involvement is the worker's psychological identification with a specific job context (Blau, 1985a; Kanungo, 1982). Kanungo (1982) further argues that work involvement should be distinguished from the Protestant ethic. He states that although the belief in the centrality of work might have been the result of Protestant ethic type socialisation, the two are not identical.

According to Kanungo (1982), earlier studies failed to distinguish between a job and a general work context. He notes that due to conceptual confusion between work centrality and job involvement in the literature, instruments designed to measure these constructs suffer from construct validity problems. Later researchers also indicated that some instruments measure involvement with the present job, others involvement with work in general, but most measure both of these constructs without distinguishing between the two (Hoole, 1997).

Kanungo (1982) used three different measurement formats in the development of both his job and work involvement scales namely a questionnaire, semantic differential scale and a graphic technique. Questionnaire items that reflected a cognitive state of psychological identification with a job or with work were judged by 10 graduate students as to their suitability for the purpose of conceptualising the essence of work involvement. There was complete agreement on nine. After item analysis, three items were dropped based on item-total correlations. Six graduate

students identified eleven bipolar items (using available literature and dictionaries for synonyms and antonyms) on which there was total agreement (Kanungo, 1982). These items, with a 7-point response format, were used to construct a Work Involvement Semantic Differential (WISD) scale. Two graphic items representing psychological identification with work were selected for the graphic scale. The final questionnaire was administered to French and English-speaking employees enrolled at three different universities, 703 questionnaires were returned. A parallel study was performed, three weeks apart, at two of the universities to establish test-retest reliabilities of the measures (Kanungo, 1982).

Kanungo (1982) reports that the Alpha coefficients of the three measures of work involvement were 0.83 (semantic differential), 0.75 (questionnaire) and 0.68 (graphic items). The test-retest correlations on the three measures for work commitment were 0.78, 0.67 and 0.67 respectively (in the same order). Factor analysis revealed two separate factors for job and work involvement. Kanungo (1982) comments that evidence of the reliability of the work commitment scale was given by the intercorrelations among the six involvement scales (three scales from work and job involvement each). All the correlations were statistically significant suggesting convergent validity.

In order to assess the discriminant validity of the work involvement scale, Kanungo (1982) compared the monotrait-heteromethod values (agreement between different ways of measuring the same trait) with the heterotrait-heteromethod values (the first should exceed the latter). The results indicated that the monotrait-heteromethod values were higher than the heterotrait-heteromethod values. Another criterion for discriminant validity is when there is agreement between different traits measured the same way. The semantic differential format did not meet this criterion. This conclusion was reached because the correlations between the WISD, Work Involvement Questionnaire and the Work Involvement Graphic measure did not exceed the correlations between the WISD and the Job Involvement Semantic Differential Scale (Kanungo, 1982).

Kanungo (1982) concludes that his 6-item scale for measuring work involvement (WIQ) can be used in future research. Hoole (1997) concludes that evidence for the

distinction between job and work involvement was obtained when Kanungo (1982) found two clearly separate factors when the items in his job and work involvement scales were factor analysed together.

Morrow (1993) stated that Kanungo's (1982) WIQ measure did not receive sufficient support in the empirical literature. She could not evaluate Kanungo's (1982) contention that work involvement is distinct from the PWE due to the lack of empirical evidence. However, Morrow (1993) concluded that his measure seemed to have adequate reliability and that the measure demonstrated excellent isomorphy with its conceptual definition. Morrow (1993) recommended that the measure be used more frequently.

Paullay et al. (1994) investigated work centrality by using Kanungo's (1982) WIQ. They report that the results from Confirmatory Factor Analysis (CFA) (correlation = 0.80 in CFA) from the study (N = 313) confirmed that work centrality can be measured with Kanungo's (1982) WIQ (Paullay et al., 1994). Paullay et al. (1994) comment that Kanungo's (1982) WIQ capture the idea that involvement in the present job is quite different from involvement with work in general. As such, Paullay et al. (1994) conclude that Kanungo's (1982) WIQ appears to be the only instrument designed to measure work centrality.

3.2.4. Kanungo's (1982) Job Involvement Questionnaire (JIQ)

Kanungo (1982) proposed a ten-item measure of job involvement which he felt was representative of the conceptualisation of job involvement. Kanungo's (1982) scale built on Lodahl and Kejner's (1965) work, including four of the items of the original scale that appeared to tap the "psychological identification" dimension unambiguously. He developed the JIQ in the same study in which he developed the WIQ, using the methodology as described earlier. Kanungo (1982) reports the Alpha coefficients for the three job involvement measures (semantic differential, questionnaire and graphic items) used in the development of his scale to be 0.81, 0.87 and 0.70 respectively. Criterion validity was illustrated by significant correlations with job satisfaction (Kanungo, 1982). He reports test-retest coefficients of 0.74, 0.85

and 0.82 respectively for the three forms of the JIQ. Kanungo (1982) concludes that his factor analysis proved job involvement to be a uni-dimensional construct and states that his JIQ showed reasonably high levels of internal consistency, test-retest reliability, as well as convergent and discriminant validity.

Blau (1985a) investigated the psychometric properties of the JIQ and reports Cronbach Alphas ranging from 0.83 to 0.87 in four samples of university employees. He comments that these findings suggest the Kanungo (1982) scale exhibits acceptable internal and test-retest reliability. Blau (1985a) also concludes that the result of his study suggests that the Kanungo (1982) measure of job involvement is a slightly "purer" operationalisation of the psychological identification conceptualisation of job involvement than is the Lodahl and Kejner (1965) measure. In addition, Blau (1985a) also found that job involvement items and generalised work attitudes loaded on separate factors. He found distinctions between job involvement and intrinsic motivation.

Paterson and O'Driscoll (1990) investigated Kanungo's (1982) conceptualisation of job involvement and the usefulness of his 10-item JIQ, using a stratified sample of 157 New Zealand workers. They report Alpha coefficients of 0.81 and 0.83, and a test-retest correlation of 0.86, showing the scale to have reasonable reliability. Positive relationships between job involvement and the number of hours worked, amount of unpaid overtime and effort put into the job further demonstrated the criterion validity of the measure (Paterson & O'Driscoll, 1990). Overall, Paterson and O'Driscoll (1990) conclude that their findings provide evidence confirming the usefulness of Kanungo's (1982) cognitive conceptualisation of job involvement and the JIQ.

Kaplan (1990) concludes from his factor analytical study on a South African sample (N = 1791) of fourteen professional groups, that the Kanungo (1982) JIQ is a robust and uni-dimensional measure, seeing that all but one of the job involvement items loaded well above the 0.30 criterion on the single job involvement factor. He found that item number seven did not load statistically significant with the other items on the measurement. These results support Blau's (1985a) view that the factor structure

of the Kanungo (1982) JIQ is not only stable across samples but also across cultures (Kaplan, 1990).

Boshoff and Hoole (1998) report that a re-analysis of Kaplan's (1990) data based on a sample of 1791 white collar South African professionals, shows an acceptable internal consistency (Cronbach Alpha 0.83) of the Kanungo (1982) JIQ. One factor was measured accounting for 44.1% of the total variance. Only one item (no 7) was eliminated in this analysis. Boshoff and Hoole (1998) conclude that this scale is uni-dimensional. They further state that the JIQ could be used with a great deal of confidence in South African samples and regard the construct to be quite portable between the USA and South Africa.

Kamfer, Venter and Boshoff (1998) report from a sample of 237 employees of the South African Department of Correctional Services that eight of the original 10 items could be retained after factor analysis (discarding the two negatively phrased items numbers 2 and 7). These authors confirm that the Job Involvement single-factor solution has good internal consistency. Kamfer et al. (1998) suggest a one-factor solution for the Kanungo Job Involvement scale with a Cronbach Alpha of 0.86, which explains 47.95% of the total variance. The Confirmatory Factor Analysis done by these authors showed this to represent a good model-data fit. Kamfer et al. (1998) conclude that the scale could be considered highly applicable to non-native English speakers in South Africa.

Van Wyk, Boshoff and Owen (1999) describe that a Principal Factor Analysis followed by a Direct Quartimin rotation was carried out to determine the underlying dimensions of job involvement as manifested in the responses of the sample (N = 375). The analysis of the 10 items yielded one Eigenvalue > 1 of 5.03. Van Wyk et al. (1999) comment that a clear break existed between the first and second Eigenvalues, suggesting a one-factor solution (Cronbach Alpha = 0.88, total variance = 45.55%). All ten items loaded > 0.25 on the one factor. Van Wyk et al. (1999) comment that the indices showed a good fit between the data and the one-factor structure, and that based on these findings they conclude that the job involvement construct is uni-dimensional.

In summary it can be said that Kanungo (1982) reported that his 10-item JIQ had acceptable convergent and discriminant validity and indicated that job involvement proved to be a one-dimensional construct. This was supported by various studies (Blau, 1985a; Boshoff & Hoole, 1998; Kaplan, 1990; Kaplan, Boshoff & Kellerman, 1991; Paterson & O'Driscoll, 1990; Van Wyk et al., 1999). The reported internal reliabilities for the Kanungo (1982) scale are uniformly high, generally between 0.81 and 0.87. Kaplan (1990), and Van Wyk et al., (1999) further report that Kanungo's (1982) job involvement scale's factor structure seemed to be stable across samples and even cultures. Similar factor structures were obtained using French and English Canadian employees (Kanungo, 1982), American nurses and several categories of university employees (Blau, 1985b), New Zealand employees (Paterson & O'Driscoll, 1990), and English and Afrikaans South African professionals (Kaplan, 1990; Van Wyk et al., 1999). Hoole (1997) concludes that studies of Kanungo's (1982) scale have shown this instrument to be superior to other measures of job involvement.

3.2.5. Carson and Bedeian's (1994) Career Commitment Scale

Carson and Bedeian (1994) attempted to develop a psychometrically sound career commitment measure. They conceptualised career commitment as a multi-dimensional construct and defined it as one's motivation to work in a chosen vocation. The development of their measure took place in three phases (Carson & Bedeian, 1994). As a first step, 87 items were generated to represent the full range of the career commitment domain. All items indicating some degree of overlap and concept redundancy with other work commitment constructs were eliminated. Four judges reviewed all the items and a total of 36 items were retained (Carson & Bedeian, 1994).

Two studies were conducted to investigate the factor structure and the reliabilities of the intended measure (Carson & Bedeian, 1994). A third study was performed to test the discriminant, convergent and construct validity of the measure. In the first phase, six factors were extracted of which factor four (three items with negative loadings) and factor six, which contained only one item, were dropped. Alpha

coefficients for the four remaining factor scales were all above 0.78 (Carson & Bedeian, 1994).

In the second phase, Carson and Bedeian (1994) examined the psychometric properties of the remaining 20 items. Principal Factor Analysis was carried out and all items not loading > 0.40 were eliminated. Four factors were obtained but factor four was dropped because of its relatively low reliability (Cronbach Alpha coefficient = 0.69). The other three factors could be interpreted as career identity, career resilience and career planning. The Cronbach Alpha coefficients for the three factors were all above 0.81, and the scale now consisted of 12 items (Carson & Bedeian, 1994).

In the field test, Carson and Bedeian (1994) chose a three-factor solution and all the items, except one, loaded above 0.50. The three-factor solution explained approximately 64% of the total variance and coefficient Alpha reliabilities of the factors ranged from 0.79 to 0.85. No items had even moderate cross-loadings with the other factors (Carson & Bedeian, 1994). The three factors were described as career identity, career resilience and career planning.

Carson and Bedeian (1994) report that a correlation of 0.63 (corrected value = 0.75) between Blau's (1985b) measure and their new career commitment measure provided evidence for convergent validity. They comment that the results showed that the new career commitment measure was "clean" from overlapping problems with withdrawal cognitions. Carson and Bedeian (1994) note that all three of the included withdrawal items loaded with the seven items of Blau's (1985b) career commitment scale, where none of the items of the new scale loaded with the withdrawal items.

Carson and Bedeian (1994) comment that their career commitment measure was also able to detect differences in career commitment levels associated with varying degrees of professionalism across occupational groups. To assess the distinctiveness of the contents of the career commitment measure, Carson and Bedeian (1994) performed a factor analysis on the responses to the career commitment measure, responses to a measure of affective commitment, and a

measure of job involvement, to discern whether the constructs are distinguishable. They note that all items loaded cleanly on the factor they were intended to measure. Carson and Bedeian (1994) conclude that taken together the results indicated a valid and reliable measure of career commitment which seems promising for use in future research.

3.2.6. Ho and Lloyd's (1984) Australian Work Ethic Scale

Ho and Lloyd (1984) developed a seven-item scale, which they called the "Australian Work Ethic Scale," to measure work values and work ethic in Australia. In designing the Australian work ethic scale, Ho and Lloyd (1984) generated a total of 60 work value statements and applied it to 175 participants to represent the full range of the work values domain. They scored these work value statements on a four-point Likert scale. The mean, mode, and standard deviation of each of the 60 items were examined and items with extreme means or modal values of zero and restricted variance were rejected. A total of 11 items were removed from the questionnaire, and the remaining 49 items were subjected to a principle-component analysis (Ho & Lloyd, 1984). After a Varimax Rotation, 27 items were retained through using the criteria of selecting statements with factor loadings \geq to 0.33, and no significant cross loading. Of the 27 statements, 19 loaded on one factor and eight loaded on another factor. On inspection of the statements representing the first factor, it was found that the statements reflected general attitudes towards unemployment (Ho & Lloyd, 1984). The eight statements representing the second factor appeared to measure adherence to a tightly integrated set of beliefs about the significance of work. Factor 1 was thus discarded and factor 2 was retained (Ho & Lloyd, 1984).

In order to maximise the internal consistency of the scale, Ho and Lloyd (1984) item analysed the statements representing the scale. On the basis of retaining only those statements which showed item-total correlations of more than 0.3, one statement was rejected. The final Australian Work Ethic Scale (AWES) consists of seven items (Ho & Lloyd, 1984). The scale has a Cronbach coefficient Alpha of 0.76, indicating satisfactory internal consistency for the scale as a whole (Ho & Lloyd, 1984).

Ho and Lloyd (1984) further note that validation of the scale found that it has convergent and concurrent validity. Specifically, it correlated highly with both the Mirrels and Garrett (1971) Protestant work ethic scale and Blood's (1969) pro-Protestant ethic scale (Ho & Lloyd, 1984). In examining the three work scales, Ho and Lloyd (1984) observe that the items representing Blood's (1969) pro-Protestant ethic scale were designed specifically to tap attitudes about the significance of work. They note that the AWES and the Mirels and Garrett (1971) Protestant work ethic scale, on the other hand, include items designed to measure not only attitudes about the significance of work, but also the belief that effort leads to success. Ho and Lloyd (1984) argue that as both these assumptions form part of an integrated work ethic belief system, it appears then that the AWES and the Mirels and Garrett (1971) Protestant Ethic Scale come closer to designing an ideology espoused by the work ethic than Blood's (1969) pro-Protestant Ethic Scale.

In order to test for convergent and concurrent validity, Ho and Lloyd (1984) carried out Pearson's product-moment correlations on the AWES, the Mirels and Garrett (1971) Protestant Work Ethic Scale, and the pro-Protestant Ethic Scale (Blood, 1969). They report that the correlation of the AWES with the Mirels and Garrett (1971) scale was 0.65 and 0.59 with Blood's (1969) scale. Ho and Lloyd (1984) argue that the highly significant intercorrelations between these work ethic scales demonstrate that AWES has convergent validity. They state that the overall intercorrelations also demonstrate that the AWES has concurrent validity.

Furnham (1990b) applied seven of the best-known PWE questionnaires to over 1000 subjects and factor analysed the responses to the total of 78 questions from all the questionnaires. He found that the factor analysis indicated that more than 30 percent of the items loaded larger than 0.30 on the first factor, which he considered to be the fundamental dimension underlying the PWE - respect for, admiration of, and willingness to take part in hard work. Furnham (1990b) reports that all seven items (100%) of the Ho and Lloyd (1984) scale loaded on this factor. He concludes that Ho and Lloyd's (1984) AWES has acceptable face validity. In terms of convergence validity, Furnham (1990b) found that the AWES correlates positively with other scales, 0.65 with Mirels and Garret's (1971) well-known PWE scale; and

0.59 with Blood's (1969) PWE scale. This is exactly the same correlations that were found by Ho and Lloyd (1984).

3.2.7. Warr, Cook and Wall's (1979) Intrinsic Motivation Measure

Warr, Cook and Wall (1979) developed the Intrinsic Motivation Measure (IMM) to measure intrinsic motivation, along with seven other concepts, through two structured interview studies with blue-collar workers (N = 200 and N = 390). Warr, Cook and Wall (1979) drew the initial pool of items from literature. Individual structured interviews were carried out by trained interviewers. The interviewer read the instructions and items to the respondent, who selected his answer from a set of alternatives. Seven-point Likert-type responses (agree/disagree format) were sought. Each scale's score was the unweighted sum of the responses to the included items (Warr et al., 1979).

Warr et al. (1979) note that after study 1, the items were factor analysed and 6 factors emerged. The factors were then cleaned from items with lower loadings. Factor Analysis with Varimax-Rotated axes yielded a single factor for intrinsic motivation, with the Alpha coefficients loadings ranging between 0.48 and 0.76. The test-retest reliability of the intrinsic motivation measure (over a 6-month period) indicated a test-retest correlation coefficient of 0.65 (Warr et al., 1979). Warr et al. (1979) concluded that their measure of intrinsic motivation has proved to be acceptable and that its psychometric properties appear to be good.

3.2.8. Vandewalle's (1997) Goal Orientation Instrument

Realising the potential value of making a conceptual distinction between different dimensions of a performance goal orientation, Vandewalle (1997) developed three dimensions and definitions of goal orientation:

- Learning goal orientation: a desire to develop the self by acquiring new skills, mastering new situations and improving one's competence.

- Prove (performance) goal orientation: the desire to prove one's competence and to gain favourable judgements about it.
- Avoid (performance) goal orientation: the desire to avoid the disproving of one's competence and to avoid negative judgements about it.

Vandewalle (1997) conducted a study to generate and select instrument items for the hypothesised three-factor measure of goal orientation and to examine the psychometric qualities of a resulting instrument. He collected and used data from four samples to develop and validate items for the goal orientation instrument. Sample A was composed of 66 university students enrolled in an undergraduate management course. Sample B was composed of 198 university students enrolled in sections of an undergraduate management courses. Sample C was composed of 239 students enrolled in business administration and psychology courses at two suburban community colleges. Sample D consisted of students enrolled in an introductory accounting course at an urban community college. At the beginning of the academic term, 58 participants of this sample completed the goal orientation instrument. Of the original participants, 53 completed the instrument again at the end of the semester, 3 months later.

Vandewalle (1997) comments that participants in the four samples were appropriate as a data source for examining goal orientation in the work domain as they were primarily non-traditional students with an average age of 26.2 years. Vandewalle (1997) compiled a pool of 50 items to reflect the dimensions of goal orientation, namely: learning, proving, and avoiding. This item pool was reviewed for face validity by a panel of management faculty and PhD students. After the review, a pilot instrument was developed and administered to the Sample A participants. Focus group comments and statistical analyses of the data (reliability analysis and exploratory factors analysis) were used to make judgements on revising the pilot instrument. This procedure produced a 16-item instrument.

Vandewalle (1997) conducted four forms of statistical analyses: (a) an Exploratory Factor Analysis of the Sample B data to examine the factor structure of the instrument, (b) a Confirmatory Factor Analysis to test the fit of the measurement

model to the Sample C data, (c) reliability analysis (internal consistency) on the Sample C data, and (d) reliability analysis (test-retest) on Sample D data.

The participants in Sample B completed the 16-item instrument, and the data was analysed through Exploratory Factor Analysis (Vandewalle, 1997). Vandewalle (1997) removed three items, increasing the Alpha values for the Learning Scale from 0.85 to 0.88, for the Avoid Scale from 0.80 to 0.83, whilst the Prove Scale, rendered no improvements beyond the Alpha value of 0.84. The factor structure for the 13 items retained after the analysis of the Sample B data was cross validated with the Sample C data with Confirmatory Factor Analysis. For each factor, all of the standardised estimates had values of 0.72 or higher and were statistically significant at the 0.01 level (Vandewalle, 1997). Cronbach Alpha values for the Sample C data were: Learning, Alpha = 0.89; Prove, Alpha = 0.85; and Avoid, Alpha = 0.88.

Vandewalle (1997) reports the following test-retest reliability correlation coefficients: Learning, $r = 0.66$; Prove, $r = 0.60$; and Avoid, $r = 0.57$. Vandewalle (1997) conclude that the results of the statistical analyses suggest that scores on the instrument and the proposed three-factor structure are valid for the measurement of the construct. Vandewalle (1997) describes the instrument as a useful tool to assess goal orientation in empirical research that seeks to explain such behaviours (Vandewalle, 1997).

For the purpose of the present study, the 'Prove' dimension of Vandewalle's (1997) Goal Orientation Scale was omitted in the final questionnaire as this dimension was regarded as not relevant to this particular study. The face validity of the items under these dimensions seems to be redundant with the intentions of the present study.

3.3. PROCEDURES

3.3.1. Questionnaire administration

Babbie (1998) suggests beginning a self-administered questionnaire with basic instructions for completing it, telling potential respondents exactly what is wanted, and how they are to indicate the answers to questions. Babbie (1998) reasons that short introductions make the questionnaire seem less chaotic, especially when it asks a variety of data, and help to put the respondent in the proper frame of mind for answering the questions. In this study, a short introduction that covered a few general instructions on the completion of the questionnaire was given at the start of the instrument, followed by specific instructions at each instrument. Wherever possible, the exact instructions as in the original instrument were repeated ad verbatim. However, the original instructions were not available for all the instruments, and a very short introductory sentence and a general type instruction were then given.

Babbie (1998) and Bailey (1994) recommend beginning the questionnaire with the most interesting set of items that will stimulate the respondent to complete the questionnaire. Bailey (1994) also suggests that the first questions on the questionnaire should be relatively easy to answer. However, at the same time, Babbie (1998), and Bailey (1994) caution that the initial items should not pose a threat to the respondent in answering them. He suggest that one should place sensitive questions late in the questionnaire. Babbie (1998) also cautions against randomising questions from different instruments as it will strike respondents as chaotic and worthless. It will be difficult to answer since they must continually switch their attention from one topic to another (Babbie, 1998).

All of the instruments used in this research can potentially be experienced as threatening as they measure attitudes, beliefs and orientations that are deeply personal and intense. It was therefore decided to follow the advice of Babbie (1998) and Bailey (1994). Based on their advice it was decided to keep the instruments separate, beginning the final questionnaire with Ho and Lloyd's (1984) AWE scale which was considered the least threatening of all the instruments. This instrument

was followed by Kanungo's (1982) WIQ, Carson and Bedeian's (1994) CCS, Warr, Cook and Wall's (1979) IMM, Kanungo's (1982) JIQ, Vandewalle's (1997) Goal orientation instrument and lastly, the potentially very sensitive Battista and Almond's (1973) LRI. The questionnaire was concluded with questions on biographical information and lifestyle orientations. Even these questions can be experienced as threatening as they include, for instance, questions on religious orientations and racial classifications. See Appendix A for a copy of the final questionnaire.

Because of Babbie's (1998) comments on randomisation of items and the logic and the structure of questionnaires, it was decided to keep the different questionnaires separate. This approach should, according to Babbie (1998), lessen confusion in the questionnaire, and therefore improve the response rate and the quality of the responses. This approach was also essential as the different questionnaires use different response scales. Although all the questionnaires used Likert-type strongly agree/strongly disagree scales, they use different ranges of response categories, ranging between four and seven. The original ranges of the scales were honoured so as not to potentially jeopardise the validity and reliability of the scales. An advantage of the use of different scales a questionnaire is that it reduces the threat of mono-method variance (Rahim, 2001).

It was considered that an added advantage of following these suggestions was that the sequence described above also allowed for a logical flow of thought resulting from the items included in the various instruments. It started with questions about general attitudes and beliefs, relatively "outside" the spiritual dimension of the respondent, and progressively became more specific and moving closer to the inner and spiritual dimensions of the individual. It was thought that this sequence allowed a natural progression from one instrument to another.

Babbie (1998) cautions against establishing a response set, the tendency to reply to items in a particular way, regardless of the questions' content or the correct answer. He notes that social desirability, which is a potential danger in this specific research, is particularly promoted by response sets. Furthermore, as these instruments are all well-established instruments of which the psychometric properties have been tested, in some cases specifically to limit social desirable responses, and stood up to

acceptable criteria, response sets were generally not considered to be a particular threat. However, because Battista and Almond's (1973) LRI is ordered into four specific categories (see Appendix A) it is subject to the danger of response sets. It was thus decided to randomise the items within the LRI to avoid the probability of response sets. Randomisation was carried out through the use of a random numbers table included in Kerlinger and Lee (2000).

Bailey (1994) notes that reverse scored questions are often used to check reliability and to limit response sets. Most of the instruments also made use of reverse scored questions in line with Bailey's (1994) suggestions. Furthermore, according to Rahim (2001), the use of some reverse scored questions within instruments also reduce the threat of mono-method variance.

Babbie (1998) suggests that pre-testing a questionnaire helps to ensure that error is minimised. He notes that it is not usually essential that the pre-test subjects comprise a representative sample, although one should use subjects to whom the questionnaire is relevant. The questionnaire used in this research was pre-tested against a diverse group of five subjects (three white males, one black male, and one white woman) who were part of the sampling population, but not part of the final sample. Valuable comments and input were obtained from the pre-test-group which were used to finalise the questionnaire, especially on the general and specific instructions, as well as on the biographical and lifestyle questions.

The questionnaires were distributed as hard copies through the internal mail systems of the six different organisations, addressed personally to every subject in the sample. Babbie (1998) notes that control is particularly difficult and under threat in self-administered survey questionnaires. To enhance the control, the envelopes were marked "Personal Attention" to ensure that the envelopes were not to be opened by anyone else (e.g., secretaries) except the potential respondent. In the covering letter it was explained why the potential respondent should complete the questionnaire and why he should complete it personally. For control purposes, it was instructed that the subject should rather not return the questionnaire than to have it completed by someone else.

The purpose of the research was explained to the potential respondent in a covering letter (Appendix B) attached to the questionnaire, and the potential respondents were urged to complete the questionnaire as quickly as possible and to return it to the researcher in the pre-addressed envelopes that were provided with the questionnaires. These envelopes were marked "Confidential" to enhance confidentiality and control. The included envelopes were addressed to a centralised mailbox and returned through the internal mail systems of the organisations.

Babbie (1998) recommends that one should record the rates of return of questionnaires. He suggests that follow-up mailings should take place if potential respondents have not returned their questionnaires after two or three weeks. He also suggests that the questionnaires should be redistributed as the questionnaires probably have been lost or misplaced. Babbie (1998) notes that methodological literature on follow-up mailings strongly suggests that it is an effective method for increasing return rates in mail surveys.

Based on these recommendations of Babbie (1998), it was decided beforehand to distribute reminders and to redistribute questionnaires to increase the response rate. The following procedure was decided on, and followed: an introductory cover letter (Appendix B) was distributed with the questionnaire, explaining the reasons for the research and encouraging the potential respondents to fill in the questionnaire and to return it in a stamped and pre-addressed envelope that was provided with the questionnaire. A single page reminder letter (Appendix C) was distributed ten days later to remind respondents to fill in and return the questionnaire. A further ten days later, another reminder (Appendix D) was sent out to all potential respondents, together with a copy of the questionnaire and a pre-addressed envelope to cater for respondents that possibly mislaid their questionnaires or envelopes.

3.3.2. Handling of data and return questionnaires

Babbie (1998) notes that the inferential statistics used in connection with survey analysis assumes that all members of the initial sample complete and return their questionnaires. Babbie (1998) posits that a low response rate is a danger signal,

because the “non-respondents” are likely to differ from the respondents in ways other than just their willingness to participate in the survey. Babbie (1998) suggests that a response rate of 50% is adequate for analysis and reporting, a response of 60% is good, and a response rate of 70% is very good. As the response rate was still only 54% a week after the second reminder (Appendix D), it was decided to issue another single page reminder (Appendix E) to all potential respondents. Again, the respondents were urged to complete the questionnaires and to return them in the envelopes previously provided.

The analysis of the responses was planned and directed by the present author in co-operation with the promoter and co-promoter, and the statistical analysis was carried out at the Department of Statistics of the University of Pretoria. The responses on the return questionnaires were coded to compensate for reverse score items, whereafter the data was entered into the computer. The BMDP and SAS programmes were used to carry out the statistical analysis.

The first step in the analysis was to Factor Analyse the responses to all the in the final questionnaire through the procedure of Principle Factor Analysis with Direct Quartimin Rotation. This step was to determine whether the constructs were related and on similar levels of abstraction. Eigenvalues were calculated to determine the factor structure of all the items combined.

The issue of cross-cultural measurement is of universal concern. The application of psychometric instruments to people from different cultural backgrounds has been questioned by Anastasi (1990). Anastasi (1990) argues that cultural differences may lead to group differences that affect responses to particular psychometric instruments, thus reducing the validity of a particular instrument for specific groups. She also argues that it would be futile to try to devise an instrument that is free from cultural influences, seeing that the behaviour of the individual is affected by the cultural milieu, which encourages and fosters certain abilities and forms of behaviour and discourages others. Van Wyk et al. (1999) infer that it is risky to apply a psychometric instrument developed in an American culture (such as most of the instruments used in this research) to a South African culture, without re-validating the instrument.

Of the seven instruments used in this study, only the portability of Kanungo's (1982) JIQ to South African samples has previously been investigated (Kamfer et al., 1998; Kaplan, 1990; Van Wyk et al., 1999). However, based on the demographic properties of the present sample (senior managerial employees with a strong Western and USA orientation and exposure) and the excellent portability of the JIQ to similar samples in South Africa, this shortcoming was not expected to be fatal. Nevertheless, the cultural portability of all the instruments used in this research was investigated through factor analysis.

The next step was therefore to subject every instrument individually to Principle Factor Analysis with Direct Quartimin Rotation of the axes. This was to determine the factor structure of each instrument to confirm whether the factor structure was similar to that described in the theory and by previous studies. Items that did not show acceptable loadings (≥ 0.25), were removed after the first round of factor analysis, and the factor analysis was repeated until all the remaining items showed acceptable loadings.

Once the factor structures of the various instruments were confirmed, the next step was to investigate the relationships of the biographic/continuous variables with meaning, and the relationships of the dependent variables as measured by the other instruments with meaning. The procedure of Analysis Of Variance (ANOVA) was firstly considered as the correct statistical procedure for this investigation. However, in order to use ANOVA, one must assume that each of the samples is drawn from a normally distributed population and that each of these populations has the same variance (Levin, 1987). The next step was therefore to investigate the normality of the distributions of the continuous biographic/lifestyle variables and the distributions of the responses to the various instruments. For this analysis, the procedure of Univariate Analysis in SAS was used. This analysis confirmed that the distributions were not normal. It was therefore decided to use where possible non-parametric procedures in the remainder of the analyses.

The SAS statistical procedure of Non-parametric, One-Way Analysis of Variance (NPAR1WAY) was used to investigate the relationship between meaning and the

biographic/lifestyle variables measured on discrete scales. Significance of differences was determined by interpreting the results of Kruskal-Wallis tests. In order to investigate the relationship between meaning and the biographic/lifestyle variables measured on continuous scales the statistical procedure of Spearman's Rho was used as a non-parametrical statistical procedure. This procedure was also used to investigate the intercorrelations between the scores on the various instruments that represented the dependent and independent variables. Normality of distributions was assessed through the following statistical tests: Shapiro-Wilk, Kolmogorov-Smirnov, Cramer-Von Mises, and Anderson Darling.

Partial Correlation Analysis and Stepwise Multiple Regression were used to investigate the role of work involvement as a potential moderating variable. The final analysis was the application of Structural Equations Modelling (SEM) to test the hypothesised model of relationships.

The following abbreviations are used in the remainder of the study for the various variables:

- meaning in life – meaning
- career commitment – career
- career commitment factor 1 – Career1 (career identity)
- career commitment factor 2 – Career2 (career planning)
- career commitment factor 3 – Career3 (career resilience)
- goal orientation – Goal
- goal orientation factor 1 – Goal1 (goals to learn)
- goal orientation factor 2 – Goal2 (avoidance of difficult goals)
- work involvement – Workinv
- job involvement – Jobinv
- intrinsic motivation – Intrinsic
- work values – values

3.3.3. Factor structure of the total questionnaire

The first analysis investigated through Factor Analysis whether the independent variables and dependent variables measured and the items from these measures were related on similar levels of abstraction. The biographic/lifestyle items were not included in this analysis. Eigenvalues > 1.00 were identified and “clear” breaks between the Eigenvalues > 1.00 were identified by means of a Scree test. These identified breaks were taken as one of the indications of the number of possible factors. A Principal Factor Analysis with Direct Quartimin rotation was done according to the number of determined factors. The BMDP 4M programme was used for this purpose. If the Scree test identified that potentially three, four, five, etc. factors were present, then Principal Factor Analyses were done on the responses to all the items specifying three, four or five factor solutions respectively (Van Wyk et al., 1999).

The results of the Principal Factor Analysis were evaluated by considering the following: (a) items were identified which did not load ≥ 0.25 on any factor in any solution, as well as (b) items that loaded on more than one factor in any of the solutions (even if they loaded ≥ 0.25). These identified items were left out of the following round of Principal Factor Analysis. With the results of this subsequent round of Principal Factor Analysis, the same decision rules were followed as in the previous round: should an item not load ≥ 0.25 on any factor in any solution or load ≥ 0.25 on more than one factor in any solution, these factors were removed from further analysis (Van Wyk et al., 1999). The process was repeated until no “problematic” items remained in any factor according to the described evaluative procedure. In order to choose the best solution, Confirmatory Factor Analysis was done using SAS (Proc Callis) on the “clean” structures selected.

The results of the statistical analysis of the different instruments used for measuring the variables included in the study are presented next. The squared multiple correlations of each variable ($N = 78$) from the standard instruments used, with all other variables, with that variable removed yielded a Cronbach Alpha of 0.9221. This high correlation suggests that all the variables are related. In other words, the

high correlation between all the variables suggests that one is dealing with a specific underlying construct, and that the items measuring this construct are on similar levels of abstraction.

Table 41 and Figure 51 indicate that the Eigenvalues suggest that the number of factors covered by all seven instruments could range between one and 17 (for Eigenvalues ≥ 1.00). A one-factor solution would yield an Eigenvalue of 13.92, with a 17-factor solution yielding an Eigenvalue on the last factor of 1.01. The histogram of the Eigenvalues is illustrated in Figure 51, and the factor loadings on the individual items are indicated in Table 41.

Table 41

Eigenvalues with all items included in Principal Factor Analysis (N = 458)

| Number of Factors | Eigenvalue |
|-------------------|------------|
| 1 | 13.920 |
| 2 | 7.236 |
| 3 | 3.338 |
| 4 | 2.739 |
| 5 | 2.446 |
| 6 | 2.337 |
| 7 | 1.915 |
| 8 | 1.813 |
| 9 | 1.638 |
| 10 | 1.455 |
| 11 | 1.393 |
| 12 | 1.313 |
| 13 | 1.251 |
| 14 | 1.214 |
| 15 | 1.149 |
| 16 | 1.061 |
| 17 | 1.010 |

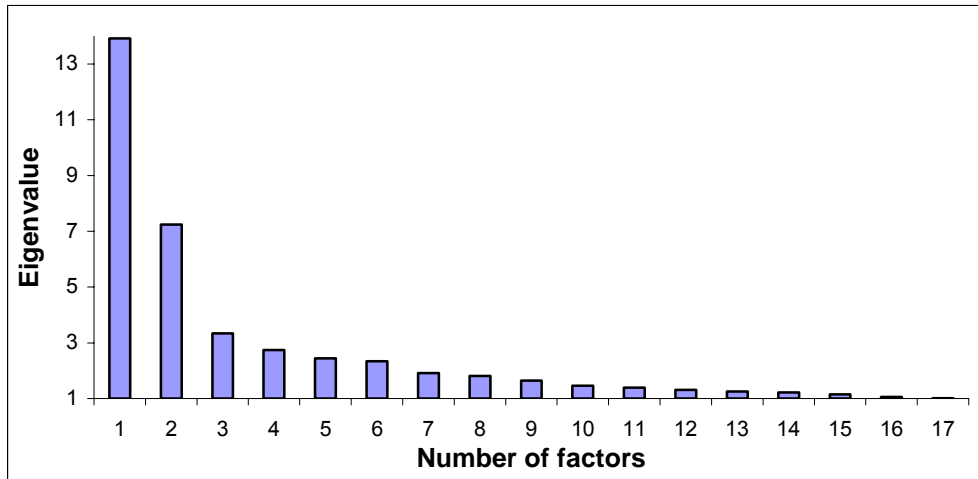


Figure 51. Eigenvalues higher than 1.00, all items included.

Table 42 indicates the Eigenvalues of the items that loaded ≥ 0.25 in the one factor solution, without statistically significant cross loadings. All references to item numbers refer to the item numbers (V numbers) in the final questionnaire, Appendix A.

Table 42

Rotated Factor Loading Pattern (correlation ≥ 0.25) for a one factor solution (first round) (N = 458)

| Item number | Loading | Construct | Item number | Loading | Construct |
|--------------------|----------------|----------------------|--------------------|----------------|----------------------|
| V67 | 0.72 | Meaning | V70 | 0.45 | Meaning |
| V82 | 0.72 | Meaning | V21 | 0.45 | Career |
| V66 | 0.66 | Meaning | V86 | 0.43 | Meaning |
| V61 | 0.66 | Meaning | V48 | 0.42 | Goal orientation |
| V63 | 0.65 | Meaning | V34 | 0.42 | Intrinsic Motivation |
| V81 | 0.63 | Meaning | V71 | 0.41 | Meaning |
| V65 | 0.63 | Meaning | V49 | 0.41 | Goal orientation |
| V77 | 0.63 | Meaning | V46 | 0.39 | Goal orientation |
| V85 | 0.60 | Meaning | V50 | 0.38 | Goal orientation |
| V72 | 0.59 | Meaning | V25 | 0.36 | Career |
| V84 | 0.59 | Meaning | V19 | 0.36 | Career |
| V79 | 0.59 | Meaning | V32 | 0.35 | Intrinsic Motivation |
| V80 | 0.58 | Meaning | V30 | 0.35 | Intrinsic Motivation |
| V73 | 0.58 | Meaning | V51 | 0.35 | Goal orientation |
| V62 | 0.58 | Meaning | V42 | 0.34 | Job involvement |
| V59 | 0.58 | Meaning | V78 | 0.32 | Meaning |
| V76 | 0.57 | Meaning | V28 | 0.31 | Career |
| V64 | 0.55 | Meaning | V38 | 0.30 | Job involvement |
| V75 | 0.51 | Meaning | V52 | 0.30 | Goal orientation |
| V23 | 0.51 | Career | V27 | 0.30 | Career |
| V60 | 0.49 | Meaning | V8 | 0.29 | Work ethic |
| V22 | 0.49 | Career | V45 | 0.28 | Job involvement |
| V69 | 0.49 | Meaning | V54 | 0.28 | Goal orientation |
| V35 | 0.49 | Intrinsic Motivation | V53 | 0.28 | Goal orientation |
| V24 | 0.48 | Career | V10 | 0.27 | Work ethic |
| V47 | 0.45 | Goal orientation | V29 | 0.25 | Career |
| V68 | 0.45 | Meaning | V7 | 0.25 | Work ethic |

This one-factor solution was not accepted as an acceptable solution. Firstly, because a large number of items (24) got “lost” in this solution. Secondly, the one-factor could not be interpreted easily or with confidence.

From Figure 51 it appeared that the last significant step (“clear break”) in correlations was at three factors, suggesting that three factors might produce the best solution for the data. A three-factor solution was selected based on the histogram in Figure 51, and also because this study is concerned with three main factors, meaning in life, work commitment and work motivation. A fourth factor, possibly work involvement as a separate construct, did not become obvious through the histogram.

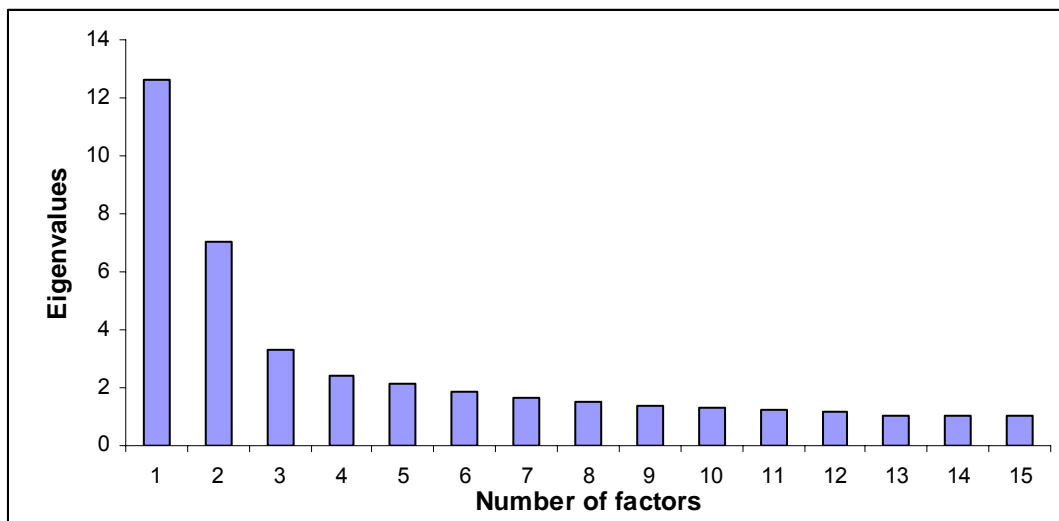
A series of Principal Factor Analyses with Direct Quartimin rotation of the axes with extraction of, respectively, three, four, and five factors was run in which items that showed loadings < 0.25 were left out of further analyses. This was repeated until all the items loaded positively ≥ 0.25 on only one factor. A total of 12 items with loading ≤ 0.25 were eliminated (Appendix A: Final Questionnaire; V5, V 9, V 22, V23, V26, V29, V30, V31, V42, V74, V83, and V85). All references to item numbers refer to the item numbers (V numbers) in the final questionnaire, Appendix A.

The Cronbach Alpha of all the items in the finally accepted three-factor solution was 0.928. The Eigenvalues ≥ 1.00 , for a three-factor solution with all the items loading ≥ 0.25 on only one factor, are shown in Table 43 and illustrated in Figure 52.

Table 43

Eigenvalues with items loading < 0.25 omitted (N = 458)

| Number of Factors | Eigenvalue |
|-------------------|------------|
| 1 | 12.591 |
| 2 | 7.014 |
| 3 | 3.278 |
| 4 | 2.400 |
| 5 | 2.150 |
| 6 | 1.875 |
| 7 | 1.643 |
| 8 | 1.490 |
| 9 | 1.399 |
| 10 | 1.306 |
| 11 | 1.270 |
| 12 | 1.195 |
| 13 | 1.055 |
| 14 | 1.029 |
| 15 | 1.003 |

Figure 52. Three factor solution with Eigenvalues higher than 1.00.

The three-factor structure obtained is shown in Table 44.

Table 44

Rotated Factor Loading Pattern for the three-factor solution (N = 458)

| Factor 1 | | Factor 2 | | Factor 3 | | | | |
|---------------------------|-----------|----------|---------------------------|----------|------------------|---------------------------|--------|----------------------|
| r | Construct | r | Construct | r | Construct | | | |
| V67 | 0.778 | Meaning | V44 | 0.758 | Job involvement | V48 | 0.847 | Goal orientation |
| V77 | 0.702 | Meaning | V43 | 0.753 | Job involvement | V47 | 0.799 | Goal orientation |
| V63 | 0.656 | Meaning | V40 | 0.748 | Job involvement | V46 | 0.762 | Goal orientation |
| V82 | 0.670 | Meaning | V39 | 0.726 | Job involvement | V50 | 0.625 | Goal orientation |
| V66 | 0.662 | Meaning | V45 | 0.681 | Job involvement | V49 | 0.526 | Goal orientation |
| V76 | 0.652 | Meaning | V16 | 0.625 | Work involvement | V35 | 0.436 | Intrinsic motivation |
| V80 | 0.643 | Meaning | V36 | 0.622 | Job involvement | V52 | 0.396 | Goal orientation |
| V61 | 0.632 | Meaning | V15 | 0.607 | Work involvement | V34 | 0.370 | Intrinsic motivation |
| V73 | 0.622 | Meaning | V17 | 0.563 | Work involvement | V32 | 0.316 | Intrinsic motivation |
| V79 | 0.622 | Meaning | V41 | 0.563 | Job involvement | V53 | 0.310 | Goal orientation |
| V65 | 0.610 | Meaning | V38 | 0.537 | Job involvement | V51 | 0.307 | Goal orientation |
| V72 | 0.607 | Meaning | V18 | 0.486 | Career | V33 | 0.300 | Intrinsic motivation |
| V70 | 0.604 | Meaning | V37 | 0.484 | Job involvement | V54 | 0.293 | Goal orientation |
| V64 | 0.600 | Meaning | V12 | 0.482 | Work involvement | V25 | 0.273 | Career |
| V84 | 0.599 | Meaning | V13 | 0.468 | Work involvement | | | |
| V59 | 0.583 | Meaning | V19 | 0.438 | Career | | | |
| V75 | 0.571 | Meaning | V21 | 0.377 | Career | | | |
| V81 | 0.509 | Meaning | V14 | 0.338 | Work involvement | | | |
| V69 | 0.485 | Meaning | V8 | 0.306 | Work ethic | | | |
| V62 | 0.450 | Meaning | V20 | 0.306 | Career | | | |
| V71 | 0.447 | Meaning | V6 | 0.296 | Work ethic | | | |
| V68 | 0.438 | Meaning | V11 | 0.277 | Work ethic | | | |
| V60 | 0.417 | Meaning | V10 | 0.275 | Work ethic | | | |
| V86 | 0.404 | Meaning | V7 | 0.266 | Work ethic | | | |
| V78 | 0.336 | Meaning | | | | | | |
| V28 | 0.297 | Career | | | | | | |
| V27 | 0.290 | Career | | | | | | |
| V24 | 0.267 | Career | | | | | | |
| Alpha | 0.927 | | Alpha | 0.896 | | Alpha | 0.831 | |
| Total variance explained | 18.06% | | Total variance explained | 9.64% | | Total variance explained | 4.07% | |
| Common variance explained | 56.84% | | Common variance explained | 30.35% | | Common variance explained | 12.81% | |

The intercorrelations between the three factors are shown in Table 45.

Table 45

The intercorrelations of the factors for a three-factor solution (N = 458)

| | Factor 1 | Factor 2 | Factor 3 |
|----------|----------|----------|----------|
| Factor 1 | 1.000 | | |
| Factor 2 | 0.161 | 1.000 | |
| Factor 3 | 0.413 | 0.188 | 1.000 |

The results support a three-factor solution with high Alphas on all three factors. Together, these three factors explain 31.77% of the total variance. Of the common variance, factor one explains 56.84%, factor two explains 30.35% and factor three explains 12.81%.

Although the measurements used in this research were expected to yield four factors as represented by the four different constructs measured, it was not the case. However, it is clear from Table 44 that the three factors that came out of the factor analyses can be seen as closely representing the three main constructs addressed in this study. They are meaning in life, work commitment and work motivation. It is however interesting to note that work involvement loaded with the work commitment items on factor two, rather as a separate factor. The results suggest that the items included in the questionnaire are related and on similar levels of abstraction. The results also suggest that one is dealing here with one construct, with at least three related, but different dimensions. The results provide a statistically sound basis for the analysis to answer the research question and to test the research propositions.

3.3.4. Factor structures of the individual instruments

The responses to the items in all the instruments used in the study were factor analysed (by instrument) by means of Principal Factor Analysis with Direct Quartimin rotation of the axes. The main purpose of this was to establish whether the instruments that had been developed in other cultures (USA, Canada and Australia)

are portable to the South African sample. Van Wyk et al. (1999) cautioned that instruments are not generally or necessarily portable to different cultures. Each instrument was therefore individually subjected to a Principal Factor Analysis with Direct Quartimin rotation of the axes to confirm their factor structures when used on the present sample. The first solution asked for always contained the number of factors obtained by the developers. If this factor structure failed to yield a satisfactory solution, a structure that appeared from the data to be more appropriate was investigated. The items that did not load satisfactorily ($r \geq 0.25$ with no significant cross loading) on a factor were removed and the factor analysis repeated until all items in the factor structure loaded satisfactorily.

Battista and Almond (1973) and Debats et al. (1993) describe the LRI as consisting of two dimensions: framework and fulfilment. A two-factor solution was therefore tried initially. However, the factor analysis failed to yield a satisfactory two-factor solution on the first run of the factor analysis. Of the 28 items in the LRI, only 22 items loaded positively ≥ 0.25 . Of these 22 items, 20 items loaded strongly on only one factor (Alpha = 0.91), with only two items loading moderately on the second factor (Alpha = 0.27). The Cronbach Alpha for all the items was high at 0.93. Consequently, a one-factor solution was investigated. This time 26 of the 28 items loaded satisfactorily (0.33 to 0.774), yielding a Cronbach Alpha of 0.9266. Two items failed to load satisfactorily (V74, loading 0.15 and V83, loading 0.19). The Factor Analysis with a one-factor solution specified was executed again, this time without the two items that did not have loadings ≥ 0.25 . All 26 items loaded satisfactorily. The one-factor structure is shown in Table 46.

Table 46

One-factor structure of LRI (Battista & Almond, 1973) (N = 458)

| Item | Loading |
|--------------------------|---------|
| V67 | 0.775 |
| V82 | 0.730 |
| V66 | 0.688 |
| V77 | 0.683 |
| V63 | 0.680 |
| V61 | 0.669 |
| V65 | 0.639 |
| V79 | 0.628 |
| V76 | 0.627 |
| V80 | 0.621 |
| V73 | 0.618 |
| V72 | 0.618 |
| V84 | 0.615 |
| V59 | 0.613 |
| V81 | 0.603 |
| V64 | 0.599 |
| V85 | 0.583 |
| V75 | 0.558 |
| V62 | 0.539 |
| V70 | 0.527 |
| V69 | 0.511 |
| V68 | 0.469 |
| V60 | 0.460 |
| V71 | 0.447 |
| V86 | 0.433 |
| V78 | 0.331 |
| Cronbach Alpha | 0.932 |
| Total variance explained | 35.45% |

All 26 items showed satisfactory loadings (0.33 to 0.76), improving the Cronbach Alpha slightly to 0.9319. One can conclude that Battista and Almond's (1973) LRI, with these two items removed, is portable to the South African sample used in the study. It is therefore an acceptable instrument for measuring the construct of

meaning in life as expressed through positive life regard. However, it should be used as a uni-dimensional instrument.

Factor Analysis of Kanungo's (1982) WIQ supported a one-factor solution as described in the theory on the first round of the Principal Factor Analysis with Direct Quartimin rotation of the axes. The outcome of the Factor Analysis is shown in Table 47.

Table 47

Factor Loading Pattern for the one-factor solution of Kanungo's (1982) WIQ (N=458)

| Item | Loading |
|--------------------------|---------|
| V16 | 0.734 |
| V15 | 0.712 |
| V17 | 0.701 |
| V12 | 0.580 |
| V13 | 0.527 |
| V14 | 0.318 |
| Cronbach Alpha | 0.767 |
| Total variance explained | 37.55% |

All six items indicated satisfactory loadings (0.32 to 0.73), with a resulting acceptable Cronbach Alpha of 0.77. One can conclude that Kanungo's (1982) WIQ is portable to the South African sample used in the study. It is therefore an acceptable instrument to measure the construct of work centrality as expressed through work involvement.

Principal Factor Analysis with Direct Quartimin rotation of the axes of Kanungo's (1982) JIQ supported a one factor solution as described by the author of the instrument with a Cronbach Alpha = 0.86. However, the seventh item showed a low loading (V42, loading 0.202), whilst nine of the items showed statistically satisfactory loadings (0.47 to 0.77). Item seven is the same item that was found by Kaplan (1990) not to load statistically significantly with the other items in the instrument. In contrast, Van Wyk et al. (1999) found this item to load significantly on a one-factor

solution. The factor analysis was executed again without this item. The result of the second factor analysis on the items in Kanungo's (1982) JIQ is shown in Table 48.

Table 48

Factor Loading Pattern for the one-factor structure of Kanungo's (1982) JIQ (N=458)

| Item | Loading |
|--------------------------|---------|
| V40 | 0.772 |
| V39 | 0.770 |
| V44 | 0.763 |
| V43 | 0.748 |
| V45 | 0.699 |
| V36 | 0.608 |
| V41 | 0.569 |
| V38 | 0.555 |
| V37 | 0.468 |
| Cronbach Alpha | 0.875 |
| Total variance explained | 40.84% |

All nine of the remaining items showed high loadings (loading 0.47 to 0.77), with the Cronbach Alpha increasing slightly to 0.88. One can conclude that Kanungo's (1982) JIQ, with the seventh item removed, is portable to the South African sample used in the study. It is therefore an acceptable instrument for measuring the construct of job involvement.

Principal Factor Analysis with Direct Quartimin rotation of Carson and Bedeian's (1984) Career Commitment Scale supported the three-factor solution as described by Carson and Bedeian (1984) exactly in the first round. The outcomes of the factor analysis are shown in Table 49 and in Table 50.

Table 49

Rotated Factor Loading Pattern for the three-factor structure of Carson and Bedeian's (1984) Career Commitment Scale (N = 458)

| Item | Factor 1 Career resilience (Career 1) | Factor 2 Career planning (Career 2) | Factor 3 Career identity (Career 3) |
|---------------------------|---|---|---|
| V28 | 0.902 | | |
| V27 | 0.722 | | |
| V29 | 0.693 | | |
| V24 | 0.476 | | |
| V23 | | 0.767 | |
| V22 | | 0.753 | |
| V25 | | 0.647 | |
| V19 | | 0.589 | |
| V18 | | | 0.742 |
| V21 | | | 0.680 |
| V20 | | | 0.662 |
| V26 | | | 0.463 |
| Cronbach Alpha | 0.789 | 0.787 | 0.735 |
| Total variance explained | 23.06% | 16.31% | 8.52% |
| Common variance explained | 48.32% | 33.99% | 17.87% |

Table 50

Intercorrelations for rotated factors of Carson and Bedeian's (1984) Career Commitment Scale (N = 458)

| | Factor 1 | Factor 2 | Factor 3 |
|----------|----------|----------|----------|
| Factor 1 | 1.000 | | |
| Factor 2 | 0.242 | 1.000 | |
| Factor 3 | 0.136 | 0.408 | 1.000 |

All 12 items showed satisfactory loadings (0.46 to 0.90) on the three-factor solution with a resulting overall Cronbach Alpha of 0.77. The three factors individually also had satisfactory Alphas, namely career resilience 0.79 (loadings 0.48 to 0.90), career

planning 0.79 (loadings 0.59 to 0.77), and career identity 0.73 (loadings 0.46 to 0.74) (see Table 49) (the terms in brackets (e.g., Career 1) are the abbreviations that will be used in further discussions for the particular dimension). One can conclude that Carson and Bedeian's (1984) Career Commitment Scale is portable to the South African sample used in the study. It is therefore an acceptable instrument for measuring the construct of career commitment and its three dimensions.

Principal Factor Analysis with Direct Quartimin rotation of the axes of Vandewalle's (1997) Goal Orientation measure supported the two-factor solution described in his theory after the first round in which this solution was specified. The factor structure of Vandewalle's (1997) Goal Orientation measure is shown in Table 51.

Table 51
Factor Loading Pattern for the two-factor structure of Vandewalle's (1997) Goal Orientation Measure (N = 458)

| Item | Factor 1 Learning orientation (Goal 1) | Factor 2 Avoid orientation (Goal 2) |
|---------------------------|--|---|
| V48 | 0.858 | |
| V47 | 0.783 | |
| V46 | 0.742 | |
| V50 | 0.668 | |
| V49 | 0.545 | |
| V53 | | 0.902 |
| V54 | | 0.840 |
| V51 | | 0.862 |
| V52 | | 0.498 |
| Cronbach Alpha | 0.844 | 0.811 |
| Total variance explained | 38.10% | 15.63% |
| Common variance explained | 70.91% | 29.09% |

All nine items showed satisfactory loadings (0.50 to 0.90) on one of the two factors with as overall Cronbach Alpha of 0.508. The Alphas of the two factors were substantially higher than that of the total measure, namely learning goal orientation

0.84 (loadings 0.55 to 0.86) and avoidance goal orientation 0.81 (loadings 0.50 to 0.90). This is a clear indication that the two dimensions measured by this instrument are independent from each other. The intercorrelation between the two factors was -0.42. The items included in the third factor, goal orientation to prove one's worth, were omitted from the final questionnaire as it was regarded as not relevant to this study. One can conclude that these two factors of Vandewalle's (1997) Goal Orientation measure is portable to the South African sample used in the study. It is therefore an acceptable instrument for measuring the construct of work motivation as expressed through goal orientation.

The results of the Principal Factor Analysis with Direct Quartimin rotation of the axes of Ho and Lloyds' (1984) AWES is shown in Table 52. All seven items loaded satisfactory on the first round of Factor Analysis.

Table 52

Factor Loading Pattern for the one-factor structure of Ho and Lloyds' (1984)

Australian Work Ethic Scale (N = 458)

| Item | Loading |
|--------------------------|---------|
| V8 | 0.788 |
| V7 | 0.722 |
| V6 | 0.635 |
| V10 | 0.586 |
| V11 | 0.530 |
| V5 | 0.434 |
| V9 | 0.339 |
| Cronbach Alpha | 0.776 |
| Total variance explained | 35.32% |

The items in Ho and Lloyds' (1984) AWES had satisfactory loadings for all seven items (loadings 0.34 to 0.79) on the first round of factor analysis. The measure showed a Cronbach Alpha of 0.78. One can conclude that Ho and Lloyds' (1984) Australian Work Ethic Scale is portable to the South African sample used in the

study. It is therefore an acceptable instrument for measuring the construct of work values as expressed through work ethics.

Principal Factor Analysis with Direct Quartimin rotation on the items of Warr, Cook and Wall's (1979) Intrinsic Motivation Measure showed that most items loaded satisfactorily (loadings 0.45 to 0.67) in a one-factor solution, except for one item (V31, loading = 0.2). This analysis showed a Cronbach Alpha of 0.686. The factor analysis was executed again without the item that showed a weak loading. The results of this iteration of the factor analysis are shown in Table 53.

Table 53

Factor Loading Pattern for the one-factor structure of Warr, Cook and Wall's (1979)

Intrinsic Motivation Measure (N = 458)

| Item | Loading |
|--------------------------|---------|
| V34 | 0.690 |
| V35 | 0.631 |
| V32 | 0.610 |
| V30 | 0.534 |
| V33 | 0.426 |
| Cronbach Alpha | 0.712 |
| Total variance explained | 34.23% |

All the remaining items showed high satisfactory loadings (0.43 to 0.69) in a one-factor solution, and the Cronbach Alpha increased to 0.712. One can conclude that Warr, Cook and Wall's (1979) Intrinsic Motivation Measure, with this item removed, is portable to the South African sample used in the study. It is therefore an acceptable instrument for measuring the construct work motivation, expressed as intrinsic motivation.

3.3.5. Groupings of classes of biographical/lifestyle variables

The respondents of the classes within certain discrete variables were amended in order to arrive at groupings of more significant proportions. Variables with the prefix “V” used further in this discussion and analysis indicate the variables with classes as initially defined in the questionnaire (see Appendix A: Final Questionnaire). Variables with the prefix “VV” indicate variables with new groupings of the respondents. The new grouping of classes within the variables supersedes the initial groupings. The new groupings of classes within variables are shown in Table 54.

Table 54

New groupings of classes within certain discrete variables (N = 458)

| Variable | Grouping | Description | Frequency | % | Cummulative | |
|----------|----------|-------------------------------|-----------|-------|-------------|--------|
| | | | | | Frequency | % |
| VV89 | 1 | Level 2 (most senior) | 22 | 4.80 | 22 | 4.80 |
| | 2 | Level 3 | 30 | 6.55 | 52 | 11.35 |
| | 3 | Level 4 | 133 | 29.04 | 185 | 40.39 |
| | 4-5 | Levels 5 & 6 | 270 | 58.95 | 455 | 99.34 |
| VV90 | 1-4 | Up to Diploma | 138 | 30.13 | 138 | 30.13 |
| | 5 | Bachelors degree | 111 | 24.24 | 249 | 54.37 |
| | 6 | Hounours degree | 83 | 18.12 | 332 | 72.49 |
| | 7-8 | Masters and doctorate | 126 | 27.51 | 458 | 100.00 |
| VV97 | 1 | Completely satisfied | 67 | 14.63 | 67 | 14.63 |
| | 2 | Satisfied (career progress) | 269 | 58.73 | 336 | 73.36 |
| | 3 | Not sure | 29 | 6.33 | 365 | 79.69 |
| | 4-5 | Dissatisfied | 89 | 19.43 | 454 | 99.13 |
| VV111 | 1, 4, 6 | Not married | 44 | 9.61 | 44 | 9.61 |
| | 2 | Married | 413 | 90.17 | 457 | 99.78 |
| VV113 | 1 | Christian | 427 | 93.23 | 427 | 93.23 |
| | 2-9 | Non-Christian | 29 | 6.33 | 456 | 99.56 |
| VV115 | 1 | Very strong | 167 | 36.46 | 167 | 36.46 |
| | 2 | Strong (religious conviction) | 167 | 36.46 | 334 | 72.93 |
| | 3 | Moderate | 89 | 19.43 | 423 | 92.36 |
| | 4-6 | Weak or not applicable | 33 | 7.21 | 456 | 99.56 |
| VV116 | 1 | White | 416 | 90.83 | 416 | 90.83 |
| | 2-4 | Non-white | 41 | 8.95 | 457 | 99.78 |

3.3.6. Normality of distributions of the variables

In order to use ANOVA, one must assume that each of the samples is drawn from a normal population and that each of these samples has the same variance (Levin, 1987). The next step was to investigate the normality of the continuous distributions of the biographic/lifestyle variables, as well as the normality of the distribution of the measurement of meaning itself.

The Univariate procedure was carried out for the statistical testing of normality of the distributions of the continuous variables. The results of the Univariate analysis of the continuous biographic/lifestyle variables assessed whether these distributions conformed to the requirements of normal distributions. Normality was assessed through the following statistical tests: Shapiro-Wilk, Kolmogorov-Smirnov, Cramer-Von Mises, and Anderson Darling. Significance levels (p values) refer to the risk of error in drawing conclusions from data. Anastasi and Urbina (1997) suggest that most psychological research applies either the 0.01 or 0.05 levels. This study accepted significance at $p \leq 0.05$. In these tests, the p value indicates the probability that the distributions are not skewed. In other words, a low p value indicates that the probability is very small that the distribution is not skewed. A low p value therefore suggests that the distribution is probably skewed and therefore not normal.

None of the continuous biographic/lifestyle variables conformed to the requirements of normal distributions (all the p values were ≤ 0.05).

The same Univariate procedure was carried for the statistical testing of normality of the individual distributions of the responses of the independent variable (meaning), and the six dependent variables. The results of the Univariate analysis of the variables assessed whether these distributions conformed to the requirements of normal distributions. The results of the Univariate procedure of the distribution of responses on the measurement of meaning are shown in Table 55.

Table 55

Conformance of the distribution of scores on meaning to the requirements of normal distributions (N = 458)

| Test | p value |
|--------------------|---------|
| Shapiro-Wilk | 0.0013 |
| Kolmogorov-Smirnof | <0.0100 |
| Cramer-Von Mises | <0.0101 |
| Anderson-Darling | <0.0085 |

It is obvious that the distribution of the responses on the measurement of meaning itself in general also did not conform to the requirements of a normal distribution ($p > 0.05$). The conformance of the distributions to normality of the other variables as measured by the various instruments was also investigated, using Univariate analysis. The results of these analyses indicated that only work involvement, career commitment (but not its three factors individually), work values, Goal1 and Goal2 (the factors of goal commitment, but not goal commitment itself), conformed to the requirements of normal distributions. According to the Univariate analysis, the distributions of responses on job involvement, Career1, Career2, Career3, goal commitment and intrinsic motivation therefore did not conform to the conditions of normality.

It was clear from the results that neither the biographic/lifestyle variables, nor the variables measured by the various instruments generally displayed normal distributions. This observation is peculiar for the large sample size of $N = 458$. After all, Levin (1987) suggests that if sample sizes are large enough, one does not need the assumption of normality. As these distributions were not normal, it was decided that statistical procedures that assume normality could generally not be used further in the analysis. It was therefore decided to revert to non-parametric statistical methods as the preferred approach of analysis for the remainder of the analyses. Kerlinger and Lee (2000) state that non-parametric tests do not depend on any assumption as to the form of the sample population or the values of the population parameters.

CHAPTER 4

RESULTS

4.1. THE LEVEL OF MEANING IN THE PRESENT SAMPLE

Before the results of the relationship between meaning and the dependent variables are presented or further analysed, it is necessary to assess the level of the scores of the respondents in the present sample on meaning. This is in order to assess the importance of the role that meaning plays in the lives of the respondents in the present sample relative to other samples. The mean, standard deviation, maximum and minimum scores of the responses on meaning of the present study are shown in Table 56, and compared to the results of Battista and Almond's (1973) study.

Table 56

Comparative data on levels of meaning scores in two samples

| | N | <u>Mean</u> | <u>SD</u> | Minimum | Maximum | Items | Mean score per item |
|-------------------------------|-----|-------------|-----------|---------|---------|-------|---------------------|
| Present study (N = 458) | 458 | 97.6 | 13.0 | 44 | 125 | 26 | 3.75 |
| Battista and Almond (1973) | 229 | 98.6 | 18.8 | 36 | 137 | 28 | 3.52 |

The data in table 56 seems to indicate that the responses of the two samples corresponded to a relatively high degree.

4.2. RELATIONSHIP OF MEANING WITH BIOGRAPHICAL/LIFESTYLE VARIABLES

This section presents the results of the analyses to find answers to the first two research questions.

The statistical procedure of Non-parametric, One-Way Analysis of Variance (NPAR1WAY) was used to investigate the relationship of meaning with the biographic/lifestyle variables measured on discrete scales. Significance of the relationship was calculated by carrying out Kruskal-Wallis tests, with $p \leq 0.05$ regarded as a statistically significant relationship. Kerlinger and Lee (2000) suggest that the Kruskal-Wallis method specifically is simple, effective and analogous to One-way Analysis of Variance. Wilcoxon Scores (rank sums) were used to establish the ranking of the strength of the relationship of meaning with the biographic/lifestyle variables for every item.

The discrete biographic/lifestyle variables that showed statistically significant relationships with meaning are shown in Table 57. Chi-square is indicated by the symbol χ^2 , degrees of freedom (df) are indicated in brackets after the variable description. Ranking was done according to the groupings' mean scores on the LRI. The groupings are shown in the order of their scores ranking on the LRI. The values of χ^2 are those obtained from Kruskal-Wallis calculations.

Table 57

Biographic/lifestyle variables showing significant relationship with meaning (N = 458)

| Variable (df) | χ^2 | p value | Classes description | Mean scores on meaning |
|---------------------------|----------|---------|------------------------------------|------------------------|
| Seniority (3) | 17.18 | 0.0006 | Level 3 (senior management) | 312.17 |
| | | | Level 2 (Top management) | 269.43 |
| | | | Level 4 (middle management) | 228.80 |
| | | | Level 5/6 (Junior management) | 214.88 |
| Career changes (1)* | 7.45 | 0.0064 | Did make sustantial changes | 242.73 |
| | | | Did not make subst. changes | 208.58 |
| Career progress (1)* | 47.60 | <0.0001 | Completely satisfied | 308.56 |
| | | | Satisfied | 231.72 |
| | | | Dissatisfied | 176.64 |
| | | | Unsure | 157.14 |
| Continue working (1)* | 4.05 | 0.044 | In absence of financial necessity | 235.59 |
| | | | Not continue without fin necessity | 206.74 |
| Continue working (1)* | 21.84 | <0.0001 | Continue with same job | 258.70 |
| | | | Not with same job | 200.87 |
| Time to be alone (1)* | 10.98 | <0.0001 | Purposely make time | 245.08 |
| | | | Do not make time | 203.30 |
| Being alone (1)* | 6.38 | 0.0115 | OK in the absence of activities | 236.83 |
| | | | Difficult if no activities | 197.93 |
| Time for leisure (1)* | 19.22 | <0.0001 | Purposely make time | 240.31 |
| | | | Do not make time | 166.56 |
| Family & friends (1)* | 8.63 | 0.0033 | Purposely make time | 234.62 |
| | | | Do not make time | 170.43 |
| Sport/hobby (1)* | 14.36 | 0.0002 | Active participation | 241.97 |
| | | | Not active participation | 188.99 |
| Community/welfare (1)* | 15.78 | <0.0001 | Active involvement | 259.55 |
| | | | Not active involvement | 209.76 |
| Community/welfare (1)* | 7.22 | <0.0001 | Regular financial contribution | 238.94 |
| | | | Not regular financial contribution | 203.60 |
| Religious conviction (1)* | 43.27 | <0.0001 | Very strong | 275.50 |
| | | | Strong | 219.85 |
| | | | Moderate | 186.87 |
| | | | Weak/not applicable | 148.86 |

The relationships of the variables which were regarded as lifestyle variables are indicated with asterisks.

All but one of the variables in this table of variables that show significant relationships with meaning, indicate people's orientations towards work and life. The only exception is seniority levels that might be described as a biographical type variable. It is therefore clear from this table that meaning in general showed statistically significant relationships with variables that indicate a certain orientation towards work and life. These results also appear to suggest a tendency for meaning to be associated with balanced lifestyle variables (e.g., time for self, family and friends, participation in sport/hobbies and reaching out into the community). The statistically significant relationship of strength of religious conviction with meaning supports Frankl's (1969, 1984a) postulation that meaning operates on the spiritual level.

The discrete biographic/lifestyle variables that failed to show significant variance with meaning are shown in Table 58. Chi-square is indicated by the symbol χ^2 , degrees of freedom (df) are indicated in brackets after the variable description. Mean scores are indicated, but no ranking of groups' scores was done, as the ranking was not statistically significant ($p \leq 0.05$).

Table 58

Discrete biographic/lifestyle variables that did not show significant variance with meaning (N = 458)

| Variable (df) | χ^2 | p value | Classes | Mean scores on meaning |
|---------------------------------|----------|---------|-----------------------------|------------------------|
| Gender (1) | 0.57 | 0.448 | Male | 230.6 |
| | | | Female | 214.8 |
| Qualifications (3) | 2.93 | 0.403 | Up to National Diploma | 223.7 |
| | | | Bachelors Degree | 216.2 |
| | | | Honours Degree | 236.8 |
| | | | Masters/Doctoral Degree | 242.8 |
| Initial field of study (8) | 6.77 | 0.562 | Engineering | 206.4 |
| | | | Human Resources | 241.2 |
| | | | Economic and Financial | 223.3 |
| | | | Management | 223.2 |
| | | | Natural sciences | 230.6 |
| | | | Law | 181.9 |
| | | | Education | 242.1 |
| | | | Medicine | 197.5 |
| | | | Other | 254.4 |
| | | | Field of recent studies (8) | 11.23 |
| Human Resources | 237.8 | | | |
| Economic and Financial | 193.4 | | | |
| Management | 211.2 | | | |
| Natural sciences | 193.1 | | | |
| Law | 224.5 | | | |
| Education | NA | | | |
| Medicine | 332.5 | | | |
| Other | 222.3 | | | |
| Field of initial employment (8) | 8.11 | 0.423 | | |
| | | | Human Resources | 252.9 |
| | | | Economic and Financial | 207.8 |
| | | | Management | 314.0 |
| | | | Natural sciences | 220.9 |
| | | | Law | 227.3 |
| | | | Education | 230.5 |
| | | | Medicine | 269.3 |
| | | | Other | 224.2 |

Table 58 (continues)

Discrete biographic/lifestyle variables that did not show significant variance with meaning (N = 458)

| Variable (d.o.f) | χ^2 | p value | Classes | Mean scores on meaning |
|---------------------------------|----------|---------|-------------------------------|------------------------|
| Field of current employment (8) | 13.22 | 0.105 | Engineering | 189.3 |
| | | | Human Resources | 190.8 |
| | | | Economic and Financial | 224.0 |
| | | | Management | 234.8 |
| | | | Natural sciences | 227.4 |
| | | | Law | 190.6 |
| | | | Education | 298.5 |
| | | | Medicine | 359.0 |
| | | | Other | 230.9 |
| Working holidays/weekends (1)* | 0.15 | 0.703 | Do work holidays/weekends | 231.1 |
| | | | Do not work holidays/weekends | 226.4 |
| Marital status (1) | 0.92 | 0.338 | Married | 230.9 |
| | | | Not married | 210.9 |
| Culture/social heritage (9) | 14.01 | 0.112 | Sotho | 307.8 |
| | | | Nguni | 216.0 |
| | | | Other African | 334.7 |
| | | | Afrikaner | 229.7 |
| | | | English | 197.9 |
| | | | Indian | 283.1 |
| | | | Arabic | 121.5 |
| | | | Mediterranean | 264.0 |
| | | | Western/Eastern European | 217.7 |
| Other | 200.8 | | | |
| Religious orientation (1)* | 0.39 | 0.540 | Christian | 239.5 |
| | | | Non-Christian | 213.9 |
| Christian orientation (1)* | 1.70 | 0.190 | Protestant | 210.6 |
| | | | Catholic | 179.9 |
| Ethnical grouping (Race) (1) | 2.71 | 0.100 | Non-White | 261.4 |
| | | | White | 221.8 |

The relationships of the variables which were regarded as lifestyle variables are indicated with asterisks.

All the variables in this table can be described as biographical/demographic type variables, failing to show a statistical significant relationship with meaning. The results of this table therefore suggest that meaning is independent of biographical/demographic type variables.

In order to investigate the relationships between meaning and the continuous biographic/lifestyle variables Spearman's Rho was used as statistical procedure. The reason for the use of this non-parametric procedure was that the distributions were not normal (see section 3.3.6). Significant correlations are considered to be as $r \geq 0.25$, and $p \leq 0.05$. The results of the Spearman's Rho procedure are shown in Table 59.

Table 59

Relationships of continuous biographical/lifestyle variables with meaning (N = 458)

| Variable | Correlation (Spearman's Rho) | p value | Common variance |
|------------------------------|---------------------------------|---------|--------------------|
| Age | -0.005 | 0.92 | 0.00% |
| Years with current employer* | 0.002 | 0.96 | 0.00% |
| Actual working hours* | 0.127 | 0.006 | 1.61% |
| Actual days vacation* | 0.133 | 0.004 | 1.77% |

The relationships of the variables which were regarded as lifestyle variables are indicated with asterisks.

Age and years of employment with the present employer failed to show any statistically significant but very small correlations with meaning. Both these variables can be described as biographical/demographic type variables. Working hours and days vacation showed very small correlations with meaning ($r = 0.13$, $p = 0.006$ and $r = 0.13$, $p = 0.004$ respectively). However, the very small degrees of common variance (1.6% and 1.8% respectively) suggest that these variables also failed to show statistically or conceptually significant correlations with meaning. The latter two variables can be regarded as variables indicating certain orientations towards work and life.

4.3. SUMMARY: RELATIONSHIPS OF BIOGRAPHICAL/LIFESTYLE VARIABLES WITH MEANING

The biographic/lifestyle variables that showed statistically significant variance with meaning can be summarised as shown in Table 60.

Table 60

Biographical/lifestyle variables with statistically significant relationship with meaning
(N = 458)

| Variable | χ^2 | p value | Grouping with highest numerical score on meaning |
|-----------------------|----------|---------|--|
| Seniority | 17.18 | 0.0006 | Top and senior management |
| Career changes* | 7.45 | 0.0064 | Did make substantial changes |
| Career progress* | 47.60 | <0.0001 | Completely satisfied |
| Continue working* | 4.05 | 0.0440 | In absence of financial necessity |
| Continue working* | 21.84 | <0.0001 | Continue with same job |
| Time to be alone* | 10.98 | <0.0001 | Purposely make time |
| Being alone* | 6.38 | 0.0115 | OK in the absence of activities |
| Time for leisure* | 19.22 | <0.0001 | Purposely make time |
| Family & friends* | 8.63 | 0.0033 | Purposely make time |
| Sport/hobby* | 14.36 | 0.0002 | Active participation |
| Community/welfare* | 15.78 | <0.0001 | Active involvement |
| Community/welfare* | 7.22 | <0.0001 | Regular financial contribution |
| Religious conviction* | 43.27 | <0.0001 | Very strong |
| | | | |

The relationships of the variables which were regarded as lifestyle variables are indicated with asterisks. The biographic/lifestyle variables that failed to show statistically significant variance with meaning are summarised in Table 61.

Table 61

Biographical/lifestyle variables without statistically significant relationship with meaning (N = 458)

| Variable | χ^2 | p value | | |
|------------------------------|---|----------------|--|--|
| Gender | 0.57 | 0.448 | | |
| Qualifications | 2.93 | 0.403 | | |
| Initial field of study | 6.77 | 0.562 | | |
| Field of recent studies | 11.23 | 0.129 | | |
| Field of initial employment | 8.11 | 0.423 | | |
| Field of current employment | 13.22 | 0.105 | | |
| Working holidays/weekends | 0.15 | 0.703 | | |
| Marital status | 0.92 | 0.338 | | |
| Culture/social heritage | 14.01 | 0.112 | | |
| Religious orientation* | 0.39 | 0.540 | | |
| Christian orientation* | 1.70 | 0.190 | | |
| Ethnical grouping (Race) | 2.71 | 0.100 | | |
| | | | | |
| | Correlation (Spearman's Rho) | p value | | |
| Age | -0.005 | 0.92 | | |
| Years with current employer* | 0.002 | 0.96 | | |
| Actual working hours* | 0.127 | 0.006 | | |
| Actual days vacation* | 0.133 | 0.004 | | |
| | | | | |
| | | | | |

The relationships of the variables which were regarded as lifestyle variables are indicated with asterisks.

The results presented in Tables 57, 58, 59, 60 and 61 can be summarised as follows:

1. Levels of seniority of the respondents showed a statistically significant relationship with meaning, with the ranking according to seniority.
2. Having made a substantial change in career during the respondents' working life showed a statistically significant relationship with meaning.
3. Respondents' satisfaction with career progress showed significant relationship with meaning.
4. Respondents' intention to continue working in the absence of financial necessity showed a statistically significant relationship with meaning. Similarly, respondents' intention to continue with their present job in the absence of financial necessity showed a statistically significant relationship with meaning.
5. Purposely making time to be alone by the respondents showed statistically significant relationship with meaning. Similarly, being comfortable to be alone in the absence of engagement in activities also showed a significant relationship with meaning.
6. Purposely making time for leisure, and spending time with family (or friends) both showed significant relationships with meaning.
7. Active participation in a sport or a hobby showed a statistically significant relationship with meaning.
8. Respondents' active involvement in welfare and community work, as well as their regular financial contribution to welfare or community work showed significant relationships with meaning.
9. Religious orientation of the respondents, both outside and inside of Christianity, failed to show a statistically significant relationship with meaning.
10. However, the strength of the respondent's religious conviction showed a statistically significant relationship with meaning, with the stronger convictions relation to higher scores on meaning.
11. The respondents' age failed to show a statistically significant correlation with meaning.
12. Years of employment of the respondents with their current employers failed to show significant correlations with meaning.

13. Both the initial fields of studying of the respondents, as well as their most recent fields of studying failed to show statistically significant relationships with meaning.
14. Similarly, fields of employment of the respondents, whether initial or current, failed to show statistically significant relationships with meaning.
15. Both actual working hours and days vacation taken by the respondents failed to show statistically significant correlations with meaning.
16. Differences in the respondents' sex did not vary significantly with meaning. Nor did the respondents' marital status show a statistically significant relationship with meaning.
17. The respondents' academic qualifications failed to show a statistically significant relationship with meaning.
18. The respondents' cultural heritage or social upbringing did not show significant variance with meaning. Similarly, their ethnical grouping (race) failed to show a significant relationship with meaning.

It appears from this summary that, in general, all biographical/demographical variables failed to show significant variance with meaning. The only exception was level of seniority, which did show significant variance with meaning. These results support the notion that meaning in life is a universal phenomenon that is independent of specific demographics (Debats, 1999; Debats et al., 1993). On the other hand, most of the lifestyle and work and life orientation variables in general appear to show significant variance with meaning. Only two out of 17 (11.8%) of the lifestyle, or life and work orientation variables failed to show a statistically significant relationship with meaning. These findings support the notion that meaning is inherent in the way one experience life and one's existence (Antonovsky, 1979; Reker & Wong, 1988; Thompson & Janigian, 1988).

4.4. THE RELATIONSHIP BETWEEN MEANING AND THE DEPENDENT VARIABLES

This section presents the results of research questions three, four and five. In other words, the relationship between meaning and work involvement, work commitment and work motivation.

In order to investigate the relationship between meaning (independent variable) and the work involvement, the variables of work commitment and work motivation (dependent variables), the following statistical procedures were used:

- Spearman's Rho (Spearman Intercorrelation Coefficients).

The results of the Spearman's Rho procedure are shown in Table 62. Correlations are considered to be significant where Spearman's Rho (r) ≥ 0.25 and $p \leq 0.05$.

Table 62
Results from Spearman's Rho Correlation Coefficients of factor variables (N = 458)

| Variable | | Meaning | Workinv | Career | Career1 | Career2 | Career3 | Intrinsic | Jobinv | Values | Goal | Goal1 | Goal2 |
|-----------|---------|----------|---------|----------|----------|----------|----------|-----------|---------|----------|---------|----------|---------|
| Meaning | r | 1.0000 | | | | | | | | | | | |
| | p value | | | | | | | | | | | | |
| Workinv | r | 0.17047 | 1.00000 | | | | | | | | | | |
| | p value | 0.0002 | | | | | | | | | | | |
| Career | r | 0.49405 | 0.26659 | 1.00000 | | | | | | | | | |
| | p value | <0.0001 | <0.001 | | | | | | | | | | |
| Career1 | r | 0.30507 | 0.04033 | 0.70994 | 1.00000 | | | | | | | | |
| | p value | <0.0001 | 0.3892 | <0.0001 | | | | | | | | | |
| Career2 | r | 0.45952 | 0.22247 | 0.71707 | 0.18653 | 1.00000 | | | | | | | |
| | p value | <0.0001 | <0.0001 | <0.0001 | <0.0001 | | | | | | | | |
| Career3 | r | 0.25161 | 0.34412 | 0.62837 | 0.11582 | 0.33929 | 1.00000 | | | | | | |
| | p value | <0.0001 | <0.0001 | <0.0001 | 0.0131 | <0.0001 | | | | | | | |
| Intrinsic | r | 0.34829 | 0.20145 | 0.33232 | 0.10647 | 0.31342 | 0.30576 | 1.00000 | | | | | |
| | p value | <0.0001 | <0.0001 | <0.0001 | 0.0227 | <0.0001 | <0.0001 | | | | | | |
| Jobinv | r | 0.09854 | 0.62362 | 0.3107 | -0.01421 | 0.24867 | 0.50139 | 0.26522 | 1.00000 | | | | |
| | p value | 0.0350 | <0.0001 | <0.0001 | 0.7616 | <0.0001 | <0.0001 | <0.0001 | | | | | |
| Values | r | 0.18176 | 0.36652 | 0.2536 | 0.07480 | 0.25977 | 0.21816 | 0.20135 | 0.27955 | 1.00000 | | | |
| | p value | <0.0001 | <0.0001 | <0.0001 | 0.1099 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | | | | |
| Goal | r | -0.04325 | 0.11704 | 0.06358 | -0.03614 | 0.08000 | 0.11585 | 0.23557 | 0.19030 | 0.12485 | 1.00000 | | |
| | p value | 0.3558 | 0.0122 | 0.1744 | 0.4404 | 0.0872 | 0.0131 | <0.0001 | <0.0001 | 0.0075 | | | |
| Goal1 | r | 0.3749 | 0.12453 | 0.35558 | 0.15302 | 0.36299 | 0.23843 | 0.44494 | 0.15625 | 0.17576 | 0.39382 | 1.00000 | |
| | p value | <0.0001 | 0.0076 | <0.0001 | 0.0010 | <0.0001 | <0.0001 | <0.0001 | 0.0008 | 0.0002 | <0.0001 | | |
| Goal2 | r | -0.33041 | 0.02330 | -0.20749 | -0.15358 | -0.01965 | -0.06499 | -0.10166 | 0.07322 | -0.00796 | 0.71143 | -0.36579 | 1.00000 |
| | p value | <0.0001 | 0.6189 | <0.0001 | 0.0010 | <0.0001 | 0.1650 | -0.02960 | 0.1176 | 0.8651 | <0.0001 | <0.0001 | |

However, his study is not so much concerned about the relationships between the dependent variables. The focus of the study is rather on the interrelationships between the dependent variables with meaning as the independent variable. Table 63 is an abbreviated version of Table 62 showing only the relationships between meaning and the dependent variables. Significant correlations ($r \geq 0.25$, $p \leq 0.05$) are shown in bold.

Table 63

Result from Spearman's Rho Correlation Coefficients of meaning with the dependent variables (N = 458)

| Variable | | Meaning | 100*R ² | | |
|------------------|---------|-------------------|--------------------|--|--|
| Workinv | r | 0.17 | 2.91% | | |
| | p value | 0.0002 | | | |
| Career | r | 0.49 | 24.41% | | |
| | p value | <0.0001 | | | |
| Career 1 | r | 0.31 | 9.31% | | |
| | p value | <0.0001 | | | |
| Career 2 | r | 0.46 | 21.12% | | |
| | p value | <0.0001 | | | |
| Career 3 | r | 0.25 | 6.33% | | |
| | p value | <0.0001 | | | |
| Intrinsic | r | 0.35 | 12.13% | | |
| | p value | <0.0001 | | | |
| Jobinv | r | 0.10 | 0.97% | | |
| | p value | 0.0350 | | | |
| Values | r | 0.18 | 3.30% | | |
| | p value | <0.0001 | | | |
| Goal | r | -0.04 | 0.19% | | |
| | p value | 0.3558 | | | |
| Goal 1 | r | 0.37 | 14.05% | | |
| | p value | <0.0001 | | | |
| Goal 2 | r | -0.33 | 10.92% | | |
| | p value | <0.0001 | | | |
| | | | | | |
| | | | | | |

From table 63 it can be seen that seven of the variables had significant relationships with meaning. No significant relationships existed between meaning and four variables.

4.5. WORK INVOLVEMENT AS A MODERATING VARIABLE

This section presents the results on the sixth research question: does work involvement act as a moderating variable of the relationship between meaning and work commitment and work motivation.

In order to investigate whether work involvement acts as a moderating variable between meaning and work commitment and work motivation, a Pearson Partial Correlation analysis was carried out. Through the Pearson Partial Correlation analysis, the effect of work involvement (WI) on the relationship between meaning and the dimensions of work commitment and work involvement were removed. The results are shown in Table 64. The column in Table 64 where effects of WI was not removed was extracted from Table 62, the Spearman's Rho Correlation Coefficients between meaning and the relevant variables. The column where the effect of WI was removed is the result of the Pearson Partial Correlation Coefficient analysis.

Table 64

Correlation Coefficients of meaning with dependent variables (N = 458)

| Variable | | Correlation with meaning | | Common variance difference |
|-----------|---------|--------------------------|-------------------|----------------------------|
| | | WI effect not removed | WI effect removed | |
| Career | r | 0.49 | 0.47 | 2.10% |
| | p value | <0.0001 | <0.0001 | |
| Career 1 | r | 0.31 | 0.30 | 0.13% |
| | p value | <0.0001 | <0.0001 | |
| Career 2 | r | 0.46 | 0.44 | 1.86% |
| | p value | <0.0001 | <0.0001 | |
| Career 3 | r | 0.25 | 0.29 | -1.83% |
| | p value | <0.0001 | <0.0001 | |
| Intrinsic | r | 0.35 | 0.33 | 1.55% |
| | p value | <0.0001 | <0.0001 | |
| Jobinv | r | 0.10 | -0.01 | 0.96% |
| | p value | 0.0350 | 0.83 | |
| Values | r | 0.18 | 0.13 | 1.61% |
| | p value | <0.0001 | 0.01 | |
| Goal | r | -0.04 | -0.06 | -0.23% |
| | p value | 0.3558 | 0.17 | |
| Goal 1 | r | 0.37 | 0.36 | 0.97% |
| | p value | <0.0001 | <0.0001 | |
| Goal 2 | r | -0.33 | -0.34 | -0.60% |
| | p value | <0.0001 | <0.0001 | |

It appears from the results in Table 64 that work involvement does not have a significant moderating effect on the relationship between meaning and the dependent variables and their dimensions. Only one of the relationships of the dependent variables with meaning changed more than 2% when the effect of work involvement was removed.

The postulated moderating effect of work involvement on the relationship between meaning and work commitment and work motivation was further investigated through a Stepwise Multiple Regression Analysis. Multiple regression analysis is a method for studying the effect (and the magnitudes of the effect) of more than one

independent variable on one dependent variable, using principles of correlation and regression (Babbie, 1998; Hammond, 1995; Kerlinger & Lee, 2000). The principal advantage of multiple regression is that it allows utilisation of more than one independent variable to estimate the dependent variable (Hammond, 1995).

In the present study, the effects of two independent variables (meaning and work involvement) on two dependent variables (work commitment and work motivation with their eight dimensions) were studied. The effects of the independent variables (meaning and work involvement) were assessed individually on each of the dependent variables on their own. In the first round of regression analyses, work involvement was entered in as the first regression step as independent variable on every assessment, whilst meaning was allowed to enter on the second step. Through this methodology, work involvement was “forced” into the Stepwise Multiple Regression Analysis in order to “force” a resultant calculated contribution of the strength of work involvement to “predict” each dependent variable (Table 65). On the second round, the usual approach to Stepwise Multiple Regression Analysis was followed and neither of the two independent variables was “forced” into the regression model (Table 66).

The information in Tables 65 and 66 is interpreted as follows:

Variables: The second column lists the dependent variables entered at each stage to “predict” the dependent variables listed in the first column.

F (df): This F value indicates the ratio of the regression mean square to the error mean square. This value demonstrates the strength of the contributions of the independent variable as entered stepwise and the dimensions of the dependent variables (Kaplan, 1990). The symbol (df) presents the degrees of freedom used in the computation at each step.

p: This symbol is an indication of the significance of the relationship of the independent and dependent variables as calculated at each step (Kaplan, 1990). It is therefore an estimation of the probability of a larger F value occurring by chance.

R^2 : The R^2 value is an indicator of how well the model fits the data (e.g., an R^2 close to 1.0 indicates that one has accounted for almost all of the variability with the variables specified in the model) (Babbie, 1998). The partial R^2 demonstrates the strength of contribution of the “prediction” of a variable at each step. The model R^2 demonstrates the combined strength of the “prediction” of the independent variables up to that step (Kaplan, 1990). This is seen as the variation in the dependent variable that can be ascribed to variation in the model of the independent variables.

C_p : In the final column, the C_p value represents a good fit where the C_p value first approaches the number of variables in the model (Kaplan, 1990). This author verifies that a variable is only entered into the model providing that it significantly and independently relates to the dependent variable.

The results of the Stepwise Multiple Regression Analysis in which meaning and work involvement as independent variables were regressed on the dependent variables are shown in Table 65. The statistical program was configured in this analysis in a manner that only independent variables that contributed to the model at the $p \leq 0.15$ significance level remained. Cases where the contribution was not at the $p \leq 0.15$ significance level are indicated with “X”.

Table 65

Stepwise Multiple Regression Analysis with work involvement “forced” into the regression model (N = 458)

| Dependent Variable | Independent Variable | F (df = 457) | p value | R ² (Partial) | R ² (Model) | C(p) |
|--------------------|----------------------|--------------|---------|--------------------------|------------------------|------|
| Career | Workinv | X | X | X | X | X |
| | Meaning | 130.68 | <0.0001 | 0.2073 | 0.2783 | 3.00 |
| Career1 | Workinv | X | X | X | X | X |
| | Meaning | 45.95 | <0.0001 | 0.0916 | 0.0932 | 3.00 |
| Career2 | Workinv | X | X | X | X | X |
| | Meaning | 108.53 | <0.0001 | 0.1831 | 0.2326 | 3.00 |
| Career3 | Workinv | X | X | X | X | X |
| | Meaning | 20.69 | <0.0001 | 0.0383 | 0.1568 | 3.00 |
| Jobinv | Workinv | X | X | X | X | X |
| | Meaning | X | X | X | X | X |
| Intrinsic | Workinv | X | X | X | X | X |
| | Meaning | 53.84 | <0.0001 | 0.1015 | 0.1421 | 3.00 |
| Goal | Workinv | X | X | X | X | X |
| | Meaning | X | X | X | X | X |
| Goal1 | Workinv | X | X | X | X | X |
| | Meaning | 68.5 | <0.0001 | 0.1288 | 0.1443 | 3.00 |
| Goal2 | Workinv | X | X | X | X | X |
| | Meaning | 59.25 | <0.0001 | 0.1152 | 0.1157 | 3.00 |
| Values | Workinv | X | X | X | X | X |
| | Meaning | 7.83 | 0.0053 | 0.0147 | 0.1490 | 3.00 |

The results from the Stepwise Multiple Regression Analysis as shown in Table 65 indicate that work involvement as independent variable did not contribute significantly ($p \leq 0.15$) on its own to the “prediction” of any of the dependent variables. Meaning made significant contributions ($p \leq 0.0001$) to the strength of the “prediction” of all the dependent variables, except for goal orientation (Goal) and job involvement, when work involvement was forced into the regression models.

In terms of the weak contribution of meaning to “predict” goal orientation (Goal), the moderate “predictions” of meaning for Goal1 (goals to learn, 12.88%) and Goal2 (accepting difficult goals, 11.52%) suggest that it might be the combined effect of the positive correlation (Table 62) of meaning with Goal 1 and the negative correlation with Goal 2 that present this result.

The ability of meaning to “predict” some of the career commitment dimensions with work involvement “forced” into the regression model is moderate to strong (Career = 20.73%, Career1 (career identity) = 9.16%, Career2 (career planning) = 18.31%). The ability of meaning to “predict” intrinsic motivation also appears to be moderate (10.15%). The ability of meaning to “predict” Career 3 (career resilience) and work values with work involvement “forced” into the model is weak (3.83% and 1.47%) respectively. As the C(p) values are the same as the number of variables in all the models (3.00), the Stepwise Multiple Regression Analysis suggests a good fit for all of the models when work involvement was “forced” into the models.

In the next analysis work involvement was not “forced” into the regression models. The results of this analysis are shown in Table 66.

Table 66

Stepwise Multiple Regression Analysis with work involvement not “forced” into the regression model (N = 458)

| Dependent Variable | Independent Variable | F (df = 457) | p value | R ² (Partial) | R ² (Model) | C(p) |
|--------------------|----------------------|--------------|---------|--------------------------|------------------------|-------|
| Career | Meaning | 147.24 | <0.0001 | 0.2441 | 0.2441 | 22.60 |
| | Workinv | 21.6 | <0.0001 | 0.0343 | 0.2783 | 3.00 |
| Career1 | Meaning | 46.79 | <0.0001 | 0.0931 | 0.0931 | 1.07 |
| | Workinv | X | X | X | X | X |
| Career2 | Meaning | 122.06 | <0.0001 | 0.2112 | 0.211 | 13.69 |
| | Workinv | 12.69 | 0.0004 | 0.0214 | 0.2326 | 3.00 |
| Career3 | Meaning | 61.25 | <0.0001 | 0.1184 | 0.1184 | 21.69 |
| | Workinv | 20.69 | <0.0001 | 0.0383 | 0.1568 | 3.00 |
| Jobinv | Workinv | 290.2 | <0.0001 | 0.3889 | 0.3889 | 1.05 |
| | Meaning | X | X | X | X | X |
| Intrinsic | Meaning | 62.95 | <0.0001 | 0.1213 | 0.1213 | 12.03 |
| | Workinv | 11.03 | 0.001 | 0.0208 | 0.1421 | 3.00 |
| Goal | Workinv | 6.33 | 0.0122 | 0.0137 | 0.0137 | 2.91 |
| | Meaning | X | X | X | X | X |
| Goal1 | Meaning | 74.57 | <0.0001 | 0.1405 | 0.1405 | 3.01 |
| | Workinv | X | X | X | X | X |
| Goal2 | Meaning | 55.88 | <0.0001 | 0.1092 | 0.1092 | 4.36 |
| | Workinv | 3.36 | 0.0674 | 0.0065 | 0.1157 | 3.00 |
| Values | Workinv | 70.76 | <0.0001 | 0.1343 | 0.1343 | 8.83 |
| | Meaning | 7.83 | 0.0053 | 0.0147 | 0.1490 | 3.00 |

The Stepwise Multiple Regression Analysis as shown in Table 66 indicates that meaning made significant contributions (at least $p \leq 0.0053$) to the strength of the “prediction” of all the dependent variables, except for goal orientation (Goal) and job involvement. Meaning made stronger contributions than work involvement to “predict” all the dependent variables, except for the “prediction” of job involvement (no statistically significant contribution), goal orientation (Goal1) and work values. Again, in terms of the weak contribution of meaning to “predict” goal orientation (Goal), the moderate “predictions” of meaning for Goal1 (goals to learn, 14.05%) and

Goal2 (accepting difficult goals, 10.92%) suggest that it might be the combined effect of the positive correlation (Table 62) of meaning with Goal 1 and the negative correlation with Goal 2 that present this result.

The ability of meaning to “predict” some of the career commitment dimensions is relatively strong in the case of Career = 24.41%, weak in the case of Career1 (career identity) = 9.31% and Career3 (career resilience) = 11.84% and moderate when Career2 (career planning) is the dependent variable (21.12%). The ability of meaning to “predict” intrinsic motivation also appears to be moderate (12.13%). The ability of meaning to “predict” work values is weak (1.47%).

The results of Table 65 and Table 66 are compared in Table 67 to assess the role of work involvement to act as a moderating variable between meaning and the dependent variables. The second column indicates the partial contribution of meaning to “predict” the dependent variables in the Stepwise Multiple Regression Analysis where work involvement (WI) was “forced” into the regression models. The second column in Table 67 indicates the partial contribution of meaning to “predict” the dependent variables in the Stepwise Multiple Regression Analysis without work involvement (WI) being “forced” into the regression models.

Table 67

Partial contribution of meaning to predict dependent variables (N = 458)

| Dependent Variable | Partial contribution of meaning (R ²) | | Common variance difference |
|--------------------|---|----------------------------|----------------------------|
| | WI “forced” into model | WI not “forced” into model | |
| Career | 0.2073 | 0.2441 | -1.66% |
| Career1 | 0.0916 | 0.0931 | -0.03% |
| Career2 | 0.1831 | 0.2112 | -1.11% |
| Career3 | 0.0383 | 0.1184 | -1.26% |
| Jobinv | X | X | X |
| Intrinsic | 0.1015 | 0.1213 | -0.44% |
| Goal | X | X | X |
| Goal1 | 0.1288 | 0.1405 | -0.32% |
| Goal2 | 0.1152 | 0.1092 | 0.13% |
| Values | 0.0147 | 0.0147 | 0.00% |

It appears from Table 67 that work involvement does not act as a moderating variable between meaning and the dependent variables. On the contrary, the partial contribution of meaning to “predict” the dependent variables *increased*, but apparently only marginally, on all but one of the models when work involvement was not “forced” into the models.

4.6. A MODEL OF RELATIONSHIPS

This section presents the results on the seventh research question. In other words, whether the postulated model of relationships (Figure 1) between the dependent and independent variables does exist.

Andrews, Klem, O'Malley, Welch, and Davidson (1998) recommend that Structural Equation Modelling (SEM) is the correct statistical technique to be used in research where a distinction is made between dependent and independent variables, where relationships among the variables are to be treated as additives, and where the analysis include at least one intervening variable. Furthermore, Hoyle (1995)

describes SEM as a comprehensive statistical approach to testing hypotheses about relationships among observed and latent variables.

As the postulated model satisfies the recommendations of Andrews et al. (1998), SEM was viewed as the correct statistical technique to analyse the postulated relationships in the model. Figure 53 illustrates the postulated model of relationships (Figure 1) as a Structural Equations model.

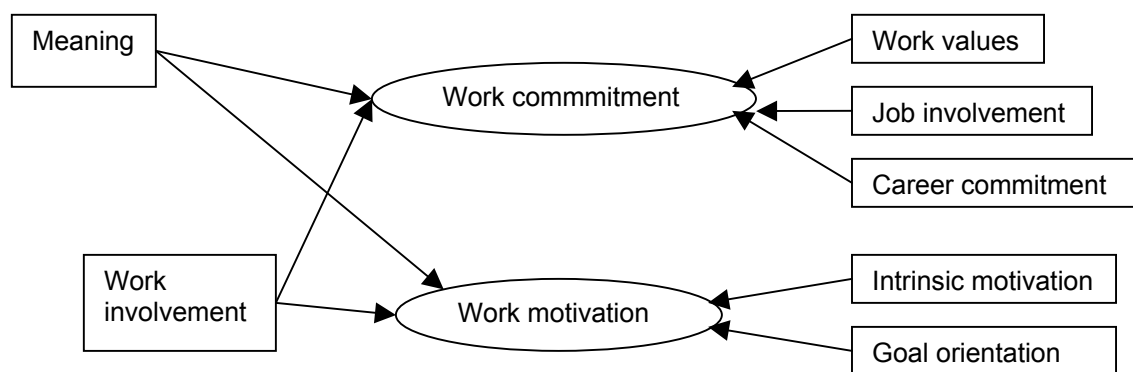


Figure 53. Theoretical Structural Equations model of the postulated relationships.

However, Bentler and Chou (1987) caution against “data snooping”, that is to capitalise on chance associations in the data. In other words, unless the model is based on well-established theory, one might capitalise on chance associations in the data with Structural Equations Analysis (Bentler & Chou, 1987). Bentler and Chou (1987) state that the statistical theory of SEM is based on the fundamental premise that the model itself has been specified completely prior to any analysis of data. That is, the model represents an a priori set of hypotheses, as was the case in the present study. Hair, Anderson, Tatham, and Black (1995) define theory in this regard as the systematic set of relationships providing a consistent and comprehensive explanation of a phenomenon.

With regard to the postulated model of relationships, the relationships amongst work involvement, work commitment and work motivation had previously been studied empirically (Cohen, 1999, 2000; Randall & Cote, 1991). However, the relationship

between meaning and these variables had not previously been studied empirically as far as could be determined, except for the attempt by Sargent (1973) who did not find concluding results. The postulated model is therefore not based on empirical theory, but rather on an inductive conceptualisation of existing theories. Furthermore, the Spearman's Correlation Coefficients (reported in section 4.4) indicated a lack of significant relationships between meaning and work commitment. The Spearman's Correlation Coefficients (reported in section 4.4) indicate that the postulated relationships between meaning and some of the dimensions of work involvement and work motivation are not statistically significant. These weak relationships suggest that the postulated model is not an adequate representation of the relationships. Furthermore, the results from the Stepwise Multiple Regression and Partial Correlations (reported in section 4.5) suggest that work involvement does not act as a moderating variable between meaning and the dependent variables.

Based on the caution of Bentler and Chou (1987) that models which are not theoretically sound should not be tested, it was decided not to subject the postulated relationship model to SEM. This is an explorative study, combined with the lack of statistically significant relationships between meaning and some of the dimensions of the dependent variables. Furthermore, work involvement does not act as an intervening variable. Combined, these findings gave rise to a concern that a good fit of the postulated model with the data could be a case of capitalising on chance associations in the data. The theoretically conceptualised Structural Equations Model (Figure 53) was therefore rejected.

A new model was developed to represent only the strongest empirical relationships found in the present study (the Spearman's Rho correlation coefficients as presented in Table 62) between meaning and dimensions of the dependent variables. This model was based on the same argumentative logic as the theoretically derived model in Figure 1. However, the dependent variables that showed weak Spearman's Rho correlations with the other variables were removed from the theoretical model in developing the empirical model. A slight adjustment to the theoretical derived model was also made in terms of the positioning of intrinsic motivation. This adjustment was based on the prevalence of moderately strong correlations between intrinsic motivation and some of the dependent variables. It was argued that intrinsic

motivation could form part of the path between meaning and dimensions of work commitment and work motivation that showed statistically significant relationships with intrinsic motivation. The empirically derived model is shown in Figure 55. The numbers next to the various paths are the Spearman's Rho correlation coefficients as shown in Table 62.

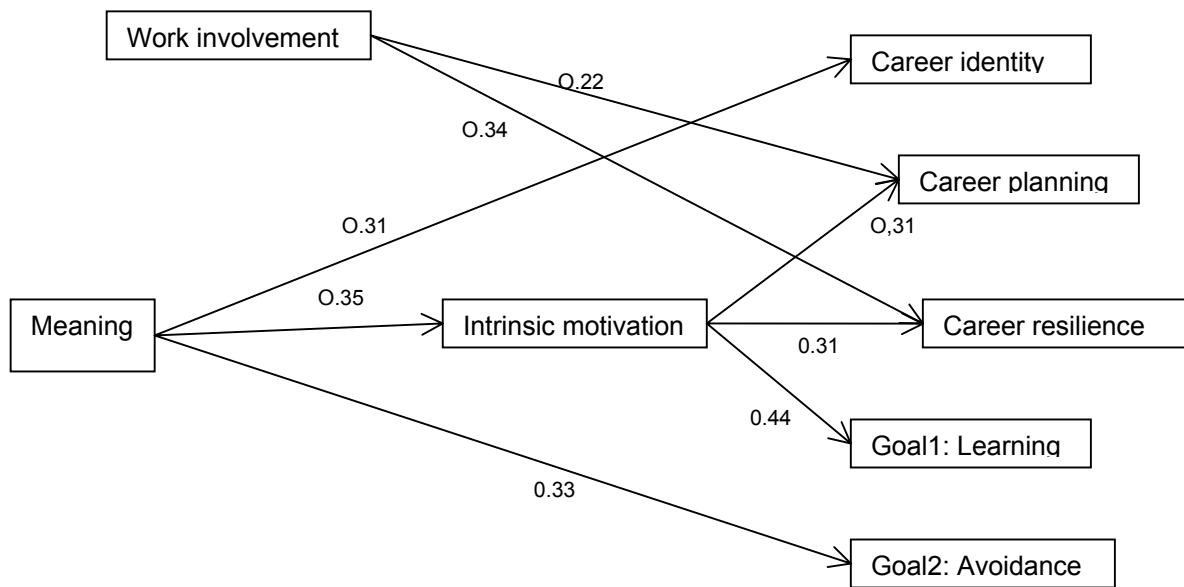


Figure 54. Empirically derived Structural Equations Model of relationships

This empirically derived model was subjected to SEM, and the results are shown in Table 68.

Table 68

Indices obtained from Structural Equations Analysis of the empirical derived relationship model (N = 458)

| Indices | Value |
|--|------------|
| Fit function | 18.0692 |
| Goodness of Fit Index (GFI) | 0.3459 |
| GFI Adjusted for Degrees of Freedom (AGFI) | 0.2948 |
| Root Mean Square Residual (RMR) | 0.2062 |
| Parsimonious GFI | 0.3323 |
| Chi-Square | 8239.5674 |
| Chi-Square (df = 26106, p > Chi-Square = 0.0001) | 1533 |
| Independence Model Chi-Square | 11414 |
| Independence Model Chi-Square DF | 1596 |
| RMSEA Estimate | 0.0979 |
| RMSEA 90% Lower Confidence Limit | 0.0 |
| RMSEA 90% Upper Confidence Limit | 0.0 |
| ECVI Estimate | 18.6722 |
| ECVI 90% Lower Confidence Limit | 18.0192 |
| ECVI 90% Upper Confidence Limit | 19.3443 |
| Probability of Close Fit | 0.0 |
| Bentler's Comparative Fit Index | 0.3169 |
| Normal Theory Reweighted LS Chi-Square | 24570.5835 |
| Akaike's Information Criterion | 5173.5674 |
| Bozdogan's (1987) CAIC | -2682.5722 |
| Schwarz's Bayesian Criterion | -1149.5722 |
| McDonald's (1989) Centrality | 0.0007 |
| Bentler and Bonnet's (1980) Non-normed Index | 0.2889 |
| Bentler and Bonnet's (1980) NFI | 0.2781 |
| James, Mulaik and Brett (1982) Parsimonious NFI | 0.2672 |
| Z-test of Wilson and Hilferty (1931) | 62.4443 |
| Bollen (1986) Normed Index Rho1 | 0.2485 |
| Bollen (1988) Non-normed Index Delta2 | 0.3213 |
| Hoelter's (1983) Critical N | 91 |

Hoyle (1995) notes that the most common index of fit between the model and the data is the chi-square goodness-of-fit. He also notes that fit indices varying between 1.0 and 0.90 are widely accepted as values such indices must exceed before a model can be viewed as consistent with the data from which it was estimated. The indices in Table 68 therefore indicate a rather poor fit of the model with the data (the highest GFI index = 0.33). Explanation of this poor fit must essentially be sought in the difficulties of constructing a model of this nature – no previous study, as far as could be determined, has been done with all the variables which were included in the present study.

It was in terms of the theory of Structural Equations Analysis not deemed advisable to modify the model further based on empirical results on the same set of data. This line of analysis was in terms of the principles of SEM to not pursue derived models as they could lead to quite heavy capitalisation on chance (Hair et al., 1995). It is therefore accepted that in a future study a model could be built which would possibly represent a better fit with the data. It would be preferable that the underlying theory of the role of meaning in work and in the workplace should be strengthened before such a model could be built.

CHAPTER 5

DISCUSSION

In this final chapter the research questions will be answered and the major findings of the study discussed. Thereafter the limitations and contributions of the present study will be discussed and recommendations for future research made.

5.1. THE FIRST RESEARCH QUESTION

The first research question enquires about the relationships between a sense of meaning and biographical/demographic type variables.

The relationships of the following biographic/demographic variables with meaning were investigated: age, sex, marital status, cultural background, employment, qualifications, fields of study, fields of employment and levels of seniority. Of these variables, only seniority levels in organisations showed a statistically significant relationship with meaning.

In terms of age, this finding is in agreement with previous findings that showed meaning not to be related to age or life stages (Crumbaugh, Ebersole & Kobayakawa, 1989; Crumbaugh & Maholick, 1964; Debats, 1990; Debats et al., 1993; Debats, 1999; Meier & Edwards, 1974; Reker & Cousins, 1979). In other studies the opposite was found, namely that meaning did show statistically significant relationships with age (Baum & Stewart, 1990; Clark et al., 1996; Peacock and Reker, 1982; Reker, 1994; Reker et al., 1987).

In terms of sex, this finding is congruent with numerous findings in previous empirical research (Crumbaugh & Maholick, 1964; Crumbaugh, Ebersole & Kobayakawa, 1989; Debats, 1990; Debats, 1999; Debats et al., 1993; De Vogler-Ebersole & Ebersole, 1985b; Meier & Edwards, 1974; Reker & Cousins, 1979) and confirms that for this sample, sex did not play a significant role in relation to meaning. In some

other studies the opposite was found, namely that meaning did show significant relationships with sex (Harlow et al., 1986; Sargent, 1973).

The relationships between the other biographic/demographic variables and meaning have not been investigated previously as far as could be established.

With regard to level of seniority, this was the only biographical/demographic variable which showed a statistically significant relationship with meaning. It seems as if a positive relationship exists between hierarchical level of participants and their scores on meaning in life. The rank order was Level 3 (senior management), Level 2 (top management), Level 4 (middle management) and then Level 5/6 (junior management). These results suggest that senior management and top management have higher meaning scores than middle or junior management. This finding is congruent with the findings of Sargent (1973). The reason why senior management ranked higher than top management is not clear. In correspondence with the Human Resources managers of the various organisations, they suggested that the distinction between levels 2 and 3 is actually very small. Furthermore, they noted that the distinctions between level 3 and 4, and between levels 4 and 5/6 are much larger in comparison.

The findings in this study showed that biographical/demographic variables in general failed to show statistically significant relationships with meaning. The only exception was level of seniority in the employing organisations which showed significant variance with meaning. However, it was argued that seniority is more of an outcome and a result of other variables, than a true biographical/demographic type variable. Debats et al. (1993) concluded that the absence of significant associations with sex, age and educational level, suggests that the search for meaning is a general phenomenon and not linked with demographic variables. The results of this study seem to suggest that meaning is a basic human drive. It can therefore be concluded that the present study provided empirical support to Debats' (1999) conclusion that meaning in life is a universal phenomenon that is independent of specific demographics.

5.2. THE SECOND RESEARCH QUESTION

The second research question enquires into the relationship between a sense of meaning with a person's orientations towards work and life. The relationships of the lifestyle variables of which the relationship with meaning scores were investigated are shown in Tables 57, 58 and 59 with asterisks.

The relationships between these variables were significant in the case of the majority of the variables. Of all the lifestyle variables shown in Tables 57, 58 and 59, only working hours, days vacation taken, working over weekends or holidays, years with current employer, religious orientation, adherence to Protestantism versus Catholicism were not statistically significant.

These findings clearly showed that the majority of lifestyle variables studied are related statistically significantly to the scores on meaning.

These findings appear to be in agreement with Victor Frankl's comments to Sargent (Sargent, 1973) that not all people find their meaning in work. Frankl noted that many people find meaning in off-the-job work, in their play, or with family and friends. This implies that meaning is a pervasive factor in many, if not all, aspects of a human being's life.

Actual working hours showed a statistically weak relationship with meaning. With the common variance only being 2.1%, this correlation can be regarded as not conceptually significant. This finding was supported by the absence of a statistically significant relationship that was found between working over weekends or holidays with meaning. These results indicate that people who see meaning in their lives do not necessarily work longer hours than those without meaning. These findings appear to be in agreement with the weak relationships between meaning with work values, job involvement and work involvement. It should be remembered that some of these relationships, although statistically significant do not necessarily indicate important common variance as the value of r can be statistically significant but extremely low. An example is that $r = 0.099$ indicating that the relationship between job involvement is significant at the level of $p = 0.035$, whilst the common variance is

less than 1%. However, it was surprising to find that working hours also did not show statistically significant relationships with job involvement, work involvement, and especially with work values.

The days leave that respondents on average take per year for vacation showed a very small correlation with meaning. With the common variance only being 1.8%, this correlation can be regarded as not of practical significance. This result indicates that there is a weak tendency for people with meaning to take more vacation than those without meaning. This finding appears to be in agreement with the weak relationships between meaning and work values, job involvement, and work involvement.

In terms of career changes, substantial career changes during their working lives of respondents showed significant higher common variance with meaning. This interesting phenomenon has not been measured or investigated previously as far as could be established. One might speculate that a person might be more willing to make a substantial career change once he discovers meaning, especially to find congruence between his sense of meaning and his daily work. However, this is speculative as temporal causality is not known. Was the career change caused by discovering meaning or a new purpose in life, or was meaning or purpose discovered because of a substantial change in career? This relationship appears to be in agreement with the significant positive correlations that were found between meaning and career commitment and all three dimensions of career commitment.

In terms of career progress, the level of subjective satisfaction with career progress showed a significant relationship with meaning. The relationship indicated that higher scores on satisfaction were related to higher scores on meaning. Career progress and satisfaction were never explicitly defined in the survey questionnaire. Career progress and satisfaction with career progress were thus interpreted subjectively by each respondent according to his own and personal definitions, perceptions and expectations. This means that both a person on a lower hierarchical level, or one on a more senior level, could have responded that they are completely satisfied with their career progress. This could have implied that they both feel that they achieved what they believed was within the range of the potential of their skills, talents and

contributions. It also could have implied that both these persons were content with the direction that their careers are taking. The outcome of this measure appears to be congruent to the previous measure of substantial career changes and the statistically significant relationship between meaning and career commitment. One might speculate that people who found meaning in life, make substantial career changes to ensure that their careers are congruent with their sense of meaning and therefore are more satisfied with their career progress, whatever this concept might mean to the individual. It is evident from the results that a sense of meaning has a definite relationship to a person's career, how he views his career, how he approaches his career, and how he experiences his career.

Respondents indicating that they would continue working in the absence of financial necessity ranked higher on meaning than those who indicated that they would not continue working. This finding is revealing in the light of the absence of significant relationships between meaning and work values, job involvement and work involvement. It therefore appears that people that score high on meaning work for different reasons than those measuring low on meaning. This finding is in agreement with the findings of Morse and Weiss (1955) who found that white-collar workers (such as in the sample in the present study) attached meanings beyond that of economic utility to work, they see a larger purpose or cause in their work than blue-collar workers.

The previous finding is supplemented by the statistically significant relationship that was found between meaning and respondents' willingness to continue with their present jobs in the absence of financial necessity. Respondents measuring higher on meaning indicated that they were more inclined to continue with their present job in the absence of financial necessity than those who measured low on meaning. Interestingly, less than half of the respondents (42.79%) indicated that they would continue with their present job in the absence of financial necessity. These findings are especially revealing in the light of the statistically significant relationship that was found between meaning and respondents who indicated that they have made substantial career changes in their working lives. Furthermore, a statistically significant relationship was also found between meaning and satisfaction with career progress as mentioned above. These findings thus suggest that people with meaning

probably align their jobs better with their sense of meaning, or/and that people with meaning experience more job satisfaction. If the latter statement is true, it is somewhat in agreement with Pool's (1997) research that the most powerful predictor of job satisfaction was work motivation and not the other way around. This finding also supports Ingeborg's (2000) statement that it is unlikely that a satisfying job can compensate for a meaningless life. Job satisfaction and meaning appear to go together.

A statistically significant relationship was found between meaning and purposely making time to be alone. This result was supplemented by the significant relationship that was found between meaning and respondents that do not find it difficult to be alone, even if they are not engaged in activities. Respondents measuring higher on meaning indicated a stronger inclination to make time to be alone. These results suggest a different orientation towards the "self" in people with meaning in comparison with those that do not have meaning. It appears that people with meaning are content with themselves, they seem to understand the importance and necessity to make time for healthy introspection. These results are in agreement with Frankl's (1984a, 1984b) view that people compensate for a lack of meaning by indulging in (sometimes trivial) activities.

The responses of the respondents that purposely make time for leisure showed a statistically significant relationship with meaning. The results showed that those respondents that measured higher on meaning also make more time for leisure. This result is supplemented by the finding that participation in sports or hobbies showed a statistically significant relationship with meaning. Respondents that indicated that they actively participate in a sport or a hobby ranked higher in relation to meaning than those who do not. These results were complemented by the results around making time to spend with family (or friends) which also showed a statistically significant relationship with meaning. Those respondents that measured higher on meaning also showed a higher inclination to purposely make time for their families and friends.

Together, these results form a picture. It suggests that meaning is significantly related to a healthy and balanced lifestyle as represented by these variables. These

findings also support the many relationships that were found by various researchers between meaning with psychological and psychosocial well-being, as discussed in section 2.3.3. However, the causality of the relationship is not known and might be of interest; does meaning cause a balanced lifestyle, or is it the result of a more balanced lifestyle? This question may warrant further research.

Active involvement in community or welfare work showed a statistically significant relationship with meaning. Participants that indicated active involvement in community or welfare work ranked higher in relation to meaning than those who are not actively involved in community or welfare work. Similar to this finding, regular financial contribution to welfare or community work also showed a statistically significant relationship with meaning. Respondents who indicated regular financial contributions to welfare or community work ranked higher on meaning than those who do not regularly contribute financially to welfare or community work. These findings are in agreement with Frankl's (1967, 1969, 1970, 1984a) theory that meaning is self-transcendent, in other words, focusing outside oneself and attending to the plight of others. It appears that individuals with meaning might be more inclined to find meaning in causes or situations outside themselves and in causes or situations greater than themselves. In other words, meaning appears to have a self-transcending quality and an external orientation.

The religious orientations of the respondents failed to show a statistical significant relationship with meaning. Furthermore, in terms of Christians, the distinction between Protestants and Catholics also failed to show a statistically significant relationship with meaning. However, the strength of religious conviction showed a statistically significant relationship with meaning. Respondents who indicated very strong religious convictions ranked the highest in terms of meaning, followed by strong convictions, moderate convictions and lastly, weak religious convictions/not applicable. These findings clearly illustrate that the denomination of a person's religious orientation is not related to meaning. However, the strength of an individual's religious conviction is significantly related to meaning. With religious conviction clearly a spiritual issue, these findings are further significant in that it confirms Frankl's (1969, 1975, 1984a, 1984b) postulations that meaning belongs to the spiritual dimension of the human psyche. What is not clear about this finding is

whether strength of religious conviction caused the stronger sense of meaning, or whether stronger religious convictions were the result of having had a sense of meaning and purpose in life.

5.3. THE THIRD RESEARCH QUESTION

The third research question investigates the possible relationship between meaning and work involvement as measured through Kanungo's (1982) Work Involvement Questionnaire. The relationship between meaning and work involvement was investigated through the application of the statistical procedure of Spearman's Rho.

Work involvement showed a weak relationship with meaning. With the common variance being only 2.91%, this relationship is regarded as not statistically significant. This finding is in agreement with Victor Frankl's comments to Sargent (Sargent, 1973) that work is not necessarily central to every individual's life. Frankl noted that not all people find their meaning in work and that work involvement should therefore not necessarily be related to meaning. Sargent (1973) reports that Frankl noted in their correspondence that many people find meaning in off-the-job work, in their play, or with family and friends. This point of view was confirmed by Kanungo (R. Kanungo, personal communication, August 3, 2001) to be conceptually valid.

Another interesting aspect of this finding of the lack of a statistically significant relationship between meaning and work involvement, is the significant relationship that was shown to exist between meaning and the intention to continue working in the absence of financial necessity. It is revealing that people with higher scores on meaning indicated that they would continue working in the absence of financial necessity even though work centrality did not correlate with meaning. This statement suggests that other factors might be at play.

Interestingly, as was the case for work values, work involvement also did not show statistically significant relationships with working hours or days vacation. Work involvement also showed a statistically significant relationship with career resilience. The reasons for this finding are not clear and might warrant further research.

It was shown that work values and work involvement did not show statistically relationships with meaning. In the literature review of the present study it was highlighted that both work values and work involvement are generally regarded as resulting from socialisation processes and the social learning flowing from these processes. Furthermore, the present study found that the biographical/demographic type variables did not show significant relationships with meaning. Most of the biographical/demographic type variables are inherently part of the socialisation process (Kanungo, 1982; Paullay et al., 1994). These findings are therefore congruent with each other and with social learning theory. The conclusion from this combination of findings and theory suggests that meaning stems from other processes than from socialisation processes or from social learning.

5.4. THE FOURTH RESEARCH QUESTION

The fourth research question investigates the possibility of relationships between meaning and work commitment as measured through:

- Ho and Lloyd's (1984) Australian Work Ethic Scale
- Kanungo's (1982) Job Involvement Questionnaire
- Carson and Bedeian's (1994) Career Commitment Scale.

The various relationships between meaning and these facets of work involvement were investigated through the application of the statistical procedure of Spearman's Rho.

5.4.1. Meaning and work values

Ho and Lloyd's (1984) measure of work values showed a weak relationship with meaning. However, with the common variance of this relationship only being 3.3%, this relationship is regarded as not conceptually significant.

These findings suggest that people with a sense of meaning do not value work according to the PWE. In other words, according to Furnham (1990b), they would not experience an obligation to fill their lives with hard work, or value work for its own sake. Furthermore, according to Ho and Lloyd (1984), people with meaning would not see work in relation to asceticism, hard work, salvation. This finding is in agreement with the finding that meaning is not statistically significantly related to working hours. According to Furnham (1990b), people with strong PWE are expected to spend long hours at work, with little or no time for personal recreation and leisure. In the light of these comments, it was surprising to find that the relationship between work values and working hours was statistically significant but practically very weak. Furthermore a statistically significant relationship was absent between work values and days vacation.

Although Ho and Lloyd's (1984) Australian Work Ethic Scale is regarded as a measure of PWE (Furnham, 1990b), it might not measure the full context of PWE. Based on the results that failed to show statistically significant relationships between work values and work hours or days vacation, one might question the ability of Ho and Lloyd's (1984) Australian Work Ethic Scale to reflect the true definition of the PWE accurately. Specifically, the wording of the first item of Ho and Lloyd's (1984) AWE seems suspicious. Although two sources (Furnham, 1990b; Ho & Lloyd, 1984) gave the wording of the first item as "People who work deserve success", the author of the present study feels that it should rather have read: "People who work *hard* deserve success".

One can conclude that it appears from these findings that people with a sense of meaning do not tend to show an inclination towards work values as measured through Ho and Lloyd's (1984) Australian Work Ethic Scale as a measure of PWE.

5.4.2. Meaning and job involvement

Kanungo's (1982) job involvement showed a weak relationship with meaning. However, with the common variance of this relationship being less than 1%, this relationship is regarded as not conceptually significant.

This conclusion supports Frankl's postulation on the relationship between meaning and job involvement. Sargent (1973) reports that Frankl mentioned in direct correspondence with him, that a person who scores low on meaning might score high on job involvement as a compensation for a lack of meaning. Conversely, a person scoring high on meaning but low on job involvement may simply be finding his meaning in other areas of life (Sargent, 1973). Kanungo (R. Kanungo, personal communication, August 3, 2001) agreed that Frankl conceptually presented a valid argument. However, if Frankl's postulation had been, an inverse relationship between meaning and job involvement could be expected. It appears that there is just no relationship between these constructs. The lack of a statistically significant relationship between meaning and job involvement appears to be in agreement with the finding discussed in the previous section on the lack of a statistically significant relationship between meaning and work values. Work values and job involvement showed a statistically significant relationship.

These findings are also in agreement with the findings that working hours and days vacation did not show statistically significant relationships with meaning. One might have expected people with high job involvement to work relatively longer hours and to take relatively less vacations. This postulation was partly confirmed by the moderate, but statistically significant relationship between working hours with job involvement ($r = 0.23$, $p < 0.0001$). Days vacation showed a statistically significant relationship with job involvement. This relationship ($r = -0.16$, $p = 0.0006$) is however not strong. It is noteworthy that none of these variables showed significant relationships with meaning.

Work involvement, in turn, showed statistically significant relationships with work values and with job involvement. This finding on the relationships between these constructs is in agreement with the results of Randall and Cote (1991), Cohen's

(1999) analysis of Randall and Cote's (1991) model, and Cohen's (2000) analyses of both Randall and Cote's (1991) model and Morrow's (1993) postulation. One can thus conclude that the interrelationships of these constructs were confirmed.

It appears from these findings that people with a sense of meaning do not necessarily tend to identify psychologically with their present jobs as measured by Kanungo's (1982) Job Involvement Questionnaire.

5.4.3. Meaning and career commitment

Carson and Bedeian's (1994) career commitment and its dimensions showed statistically significant relationships with meaning as assessed through the Spearman's Rho procedure. Career commitment showed a statistically significant relationships with meaning ($r = 0.49$, $p < 0.0001$). Furthermore, the three factors of career commitment also individually showed statistically significant relationships with meaning. Career planning (Career2) showed the strongest relationship with meaning ($r = 0.46$, $p < 0.0001$), followed by career identity (Career1, $r = 0.31$, $p < 0.0001$) and career resilience (Career3, $r = 0.25$, $p < 0.0001$).

These findings of relative strong relationships between meaning and career commitment are interesting in the light that no statistically significant relationships were found between meaning and the other facets of work commitment. It appears that meaning is more associated with the longer-term orientated aspects of work commitment (career commitment), than with the aspects that deal with the present and immediate situation and job (work values and job involvement).

The findings of relative strong relationships between meaning and career commitment appear to be in agreement with the findings that meaning showed significant relationships with seniority, making substantial career changes, satisfaction with career progress and working in the absence of financial necessity as discussed in sections 5.1 and 5.2. This finding is also in agreement with the finding of Morse and Weiss (1955) that white-collar workers (such as in this sample) indicated significant higher levels of career commitment.

It appears that people with meaning attend differently to their careers. One might speculate that people with meaning align their careers with their sense of meaning. That is why they identify stronger with their careers and are more inclined towards career planning. This might also indicate a longer-term orientation in people with meaning as mentioned above. Furthermore, this postulated alignment of careers with meaning appears to influence people to be more willing to make substantial career changes and to be less resilient about their present careers. However, once a substantial career change is made, one would expect these people to show more career resilience because of the same reasons of career/meaning alignment. In addition, people with meaning associate psychologically with their careers rather than with their present jobs, which in turn might support their willingness to work in the absence of financial necessity. One might speculate further that the results of these combined activities and influences lead to more subjective satisfaction with career progress (as defined and perceived by the individual) and objective career progress (actual promotions in the workplace as measured by hierarchical seniority). These speculations may warrant further research.

It appears from these findings that people with a sense of meaning tend to have stronger commitment to their careers as measured by Carson and Bedeian's (1994) Career Commitment Scale.

5.5. THE FIFTH RESEARCH QUESTION

The fifth research question investigates the possibilities of relationships between meaning and work motivation as measured through:

- Warr, Cook and Wall's (1979) Intrinsic Motivation Measure
- Vandewalle's (1997) Goal Orientation Instrument

The various relationships between meaning and these facets of work motivation were investigated through the application of the statistical procedure of Spearman's Rho.

5.5.1. Meaning and intrinsic motivation

Warr, Cook and Wall's (1979) measure of intrinsic motivation showed a statistically significant relationship with meaning.

This finding has important implications for existing work motivation theories. Although intrinsic motivation had been widely discussed in the literature, meaning apparently had never been seen as a factor contributing to intrinsic motivation. For instance, intrinsic motivation was thought to be related to creativity, autonomy, relevance and effort (Lawler & Hall, 1970); self-expression and internalised values (Katz & Khan, 1978); pleasure and satisfaction derived from participation and needs of competence and self-determination (Deci, 1975; Deci & Ryan, 1985; Deci & Ryan, 1992); maximising feelings of competence and self-determination (Wiersma, 1992). Causality was not investigated in this study and one can therefore not conclude that intrinsic motivation is a result of having meaning. However, the results of this study suggest that intrinsic motivation might be related to a deeper psychological level than what had previously been recognised, i.e., the spiritual level or noëtic level.

It appears from these findings that people with a sense of meaning tend to have stronger intrinsic motivation as measured by Warr, Cook and Wall's (1979) Intrinsic Motivation Measure.

5.5.2. Meaning and goal orientation

Vandewalle's (1997) measure of goal orientation showed statistically significant relationships between meaning and the two factors of goal orientation, but not between meaning and the total construct of goal orientation. The Spearman's Rho procedure showed that the respondents' orientation towards learning goals (goals that support the willingness to learn new things) showed the strongest relationship of the two with meaning.

The respondents' responses to the avoidance of difficult goals showed a statistically significant relationship with meaning, albeit a negative relationship. This negative

relationship between avoidance of difficult goals (goals that strongly represent a potential of failure) and meaning implies that the higher the sense of meaning, the lower the fear to attempt goals that inherently have the potential of failure. In other words, the higher an individual's sense of meaning the higher the willingness to attempt goals with a high possibility of failure.

Meaning did not show a statistically significant correlation with the construct of goal orientation. However, meaning showed statistically significant relationships with both dimensions of goal orientation. It is therefore expected that the lack of a statistical significant correlation between meaning and goal orientation might be due to the combined positive and negative effects of the almost equal correlations of the two factors of goal orientation.

It is interesting to note that statistically significant relationships were found between goal orientation and career commitment. Goal1 (learning goal orientation) showed significant correlations with career planning ($r = 0.36$, $p < 0.0001$) and career resilience ($r = 0.24$, $p < 0.0001$). These relationships seem to confirm that the respondents who have goals to learn new things also apply this behaviour in terms of their careers.

The relationships between meaning and goal orientations found in the present study have significant implication for existing work motivation theories. Most of the previous literature and research on goal orientation focused on the cognitive, calculative and instrumental aspects of goal orientation and goal commitment. In other words, previous theories and research focused on goals as a means of obtaining something that is of worth to the individual. However, the present study found that goals and goal orientation is also related to non-calculative behaviour, behaviour that arises from the spiritual level rather than the cognitive level. Although causality has not been investigated in this study, and one can therefore not imply that meaning causes this goal orientation, one might speculate that it is indeed the case. It appears that meaning can give direction to goal orientation (goals to learn new things), and impetus and energy to goals (willingness to set and strive for difficult goals).

It appears from these findings that people with a sense of meaning tend to higher goal orientations as measured by Vandewalle's (1997) Goal Orientation Instrument.

The statistically significant relationships that were found between meaning and intrinsic motivation and goal orientation as measures of work motivation, suggest that there might be an existential source of work motivation as postulated in section 2.6.5.

5.6. THE SIXTH RESEARCH QUESTION

The sixth research question investigates whether work involvement acts as a moderator in the relationships between meaning and work commitment, and meaning and work motivation.

Results from both the Pearson Partial Correlation analysis and the Stepwise Multiple Regression analysis indicate that work involvement does not act significantly as a moderating variable between meaning and the dependent variables, namely the facets of work commitment and work motivation. The relationships of only one of the dependent variables (career commitment) with meaning changed more than 2% when the effect of work involvement was removed in the Pearson Partial Correlation analysis.

In the Stepwise Multiple Regression Analysis, the partial contribution of meaning to "predict" the dependent variables *increased* on all but one of the models when work involvement was not "forced" into the models. None of the increases appears to be substantial.

Sargent's (1973) postulation that work involvement moderates the manifestation of work motivation as an outcome of meaning therefore does not appear to be true. Even Frankl's verbal comment to Sargent (1973) that individuals compensate for a lack of meaning by indulging in their work, resulting in high job involvement and work motivation, therefore appears to be questionable as measured in the present study.

The Spearman's Rho analysis showed high correlations between work involvement and job involvement (0.62). This result appear to suggest either that these two constructs as measured by Kanungo's (1982) WIQ and Kanungo's (1982) JIQ might be closer than what was previously anticipated, or that the sample in the present study did not fully distinguish between the contents of the items in the instruments. Furthermore, the Principal Factor Analysis in section 3.3.3 showed that work involvement loaded on the same factor as job involvement and not as a separate factor. This observation is deemed not to be the result of mono-method variance (Rahim, 2001). These two constructs (both measured on 6-point scales) were separated in the questionnaire by the measurement of career commitment (measured on a 5-point scale) and intrinsic motivation (measured on a 7-point scale). All of these instruments also employed some reverse questions. According to Rahim (2001), the use of different scales within a questionnaire, and the use of some reverse scored questions within instruments should reduce the threat of mono-method variance.

This observation that some construct redundancy appears to exist between job involvement and work involvement, as for this sample, may warrant further research. The role of different sample compilations, or the influence of culture on the distinction between these constructs can also be investigated further.

As to the debate whether work involvement and work values are the same or separate constructs, the results from the present study appear to suggest that they might indeed be separate constructs. Analysis of the data indicates only a moderate Spearman's Rho correlation between work involvement and work values (0.37). Furthermore, the ability of work involvement to "predict" work values as measured through the Stepwise Multiple Regression analysis appears to be relatively low (13.4%).

The results from the present study therefore appear to suggest that there does not exist construct redundancy between work involvement and work values as measured by Kanungo's (1982) WIQ and Ho and Lloyd's (1984) Australian Work Ethic Scale.

5.7. THE SEVENTH RESEARCH QUESTION

The seventh research question investigates whether the postulated model of relationships amongst meaning, work involvement, work commitment, and work motivation is a statistically valid representation of the model of relationships.

The model of the research argument (Figure 1) could not be analysed in this study due to weak statistical correlations between the variables. Even the empirically derived model (Figure 54) did not present a statistically significant fit. The goodness-of-fit (GFI) indices from the Structural Equations Analysis indicate a poor fit of the postulated relationship model with the data. The highest goodness-of-fit index (Parsimonious GFI) was merely 0.33, whereas indices of higher than 0.9 are required to indicate good measures of fit. The postulated model of relationships amongst meaning, work involvement, work commitment and work motivation is therefore rejected. It is expected that the reason for this poor fit must essentially be sought in the difficulties of constructing a model of this nature – no study, as far as could be determined, has been done with all the variables which were included in the present study.

Although neither the postulated model, nor the empirically derived model showed a good fit with the data, much insight was gained into the role and effects of meaning in work and in the workplace. Based on this new insight one can construct a new empirically derived conceptual model as presented in Figure 55. It should be emphasised that this postulated model is speculative and should be further investigated by empirical research.

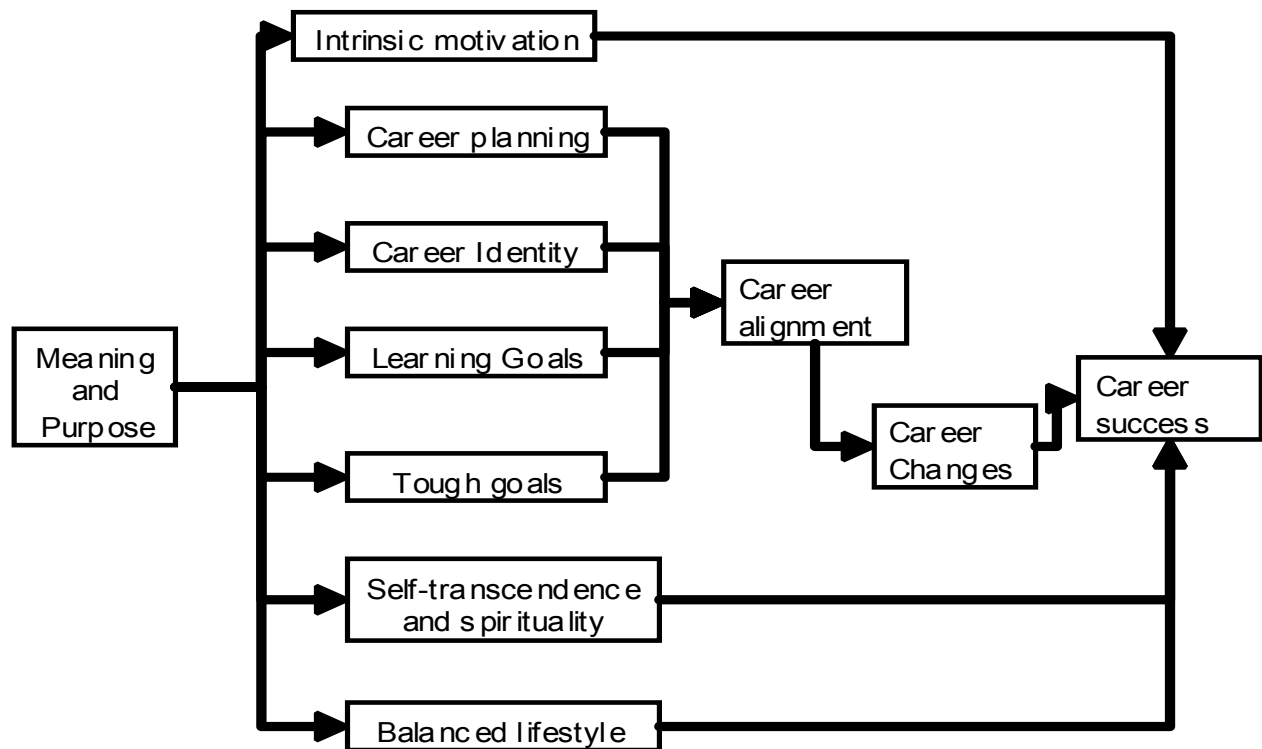


Figure 55. A new postulated model based on the results of this research, integrated with previous research and existing theories.

The reasoning for this model stems from the empirical results from the present explorative study combined with existing theories. All the hypothesised paths are based on the strong statistical correlations found in the present study.

The argument for the postulation of this model is as follows: having a sense of meaning or purpose in life results in a more balanced lifestyle as measured through aspects such as time to be alone, time for friends and family, time for leisure and participation in sports and hobbies. Meaning results in self-transcendence, focusing outside yourself on the plight of others. Meaning also is related to a higher spiritual involvement. Furthermore, this sense of meaning and purpose results in higher career commitment and higher work motivation (intrinsic motivation and goal orientation). However, meaning does not result in higher commitment that is “forced”, or unbalanced as for instance PWE, self-sacrificing for your work and work dominating your life. It appears that the orientations towards a balanced lifestyle,

self-transcendence and a spiritual involvement prevent such “over-commitment” towards work. The high correlations between meaning with a balanced lifestyle, self-transcendence and religious convictions support this postulation.

Meaning is further related with a higher willingness to make substantial career changes. It appears that the cause of this relationship might be the strong relationships of meaning with career commitment, intrinsic motivation and goal orientation. Together these factors might result in a higher desire and willingness to align you career with the direction and intensity of your purpose.

The combined result of all of these relationships suggest that a person with meaning and purpose is “more successful” as measured through satisfaction with career progress (as per the individual’s own personal definition) and more senior positions. These two types of career success can respectively be described as subjective and objective career success. This subjective and objective career success ensues without the person pursuing career success. Frankl repeatedly emphasised that success cannot be pursued, but that success is a result of the pursuit of a cause greater than oneself and outside oneself. If this speculation is true, it provides support to Frankl’s contention.

Apart from being very speculative, other shortcomings of such a model include that qualifications showed lack of a statistically significant relationship with meaning. However, the relationship between qualifications and both subjective and objective career success is not known and might influence the direction of this postulation. Furthermore, this model erroneously assumes equal potential, skills and abilities in all people. However, motivation and commitment does not equal performance, neither do they directly lead to performance. Performance is moderated by abilities, skills, competencies and traits (Porter & Lawler, 1968). The potential substantial influence of these aspects on this model has been neglected completely.

It was in terms of the theory of Structural Equations Analysis not deemed advisable to subject this model to Structural Equations Analysis. This reasoning was in terms of the principles of SEM, not to pursue derived models with the same set of data. Pursuing derived models with the same set of data could lead to quite heavy

capitalisation on chance associations with the data (Hair et al., 1995). It is therefore suggested that the fit of this model (or perhaps another related model) could be measured in a future study against a new set of data. However, it would be preferable that the underlying theory of the role of meaning in work, and in the workplace, should be strengthened before a new model could be built. As the conceptualisation of theory appears to be stronger than empirical evidence, strengthening of theory regarding meaning in work should rely heavily on empirical studies in the future.

5.8. CONTRIBUTIONS OF THE PRESENT STUDY

The role of meaning in work and in the workplace has long been absent and neglected in Organisational Behaviour research. This study was therefore an exploratory study to establish relationships and patterns that can be investigated further by other research studies. The present study brought new insight into the important role that meaning plays in work and in the workplace, it attests to the importance of meaning in work and to an individual's work life. The primary contribution of the study seems to be the determination of the relationships of meaning with career commitment as one of the facets of work commitment and with work motivation as measured through intrinsic motivation and goal orientation. A significant part of this contribution is the fact that the study has shown that relationships did not exist between meaning and work involvement; and between meaning and job involvement and work values as facets of work commitment.

In summary, the present study showed that

1. Meaning is not related to biographic/demographic variables.
2. Meaning is related to certain lifestyle variables such as having a balanced lifestyle, objective and subjective career progress and a strong religious conviction.
3. Meaning appears not to have a relationship with work involvement.
4. The following was found in terms of relationships between meaning and the facets of work commitment:
 - a. Work values – no relationship
 - b. Job involvement – no relationship
 - c. Career commitment – significant relationships.
5. The following was found in terms of relationships between meaning and work motivation variables:
 - a. Intrinsic motivation – a significant relationship
 - b. Goal orientation – significant relationships.
6. Work involvement does not appear to play a moderating role in the relationships between meaning, work commitment and work motivation.
7. Statistical evidence could not be found that the postulated model, or a derived model, of relationships amongst meaning, work commitment, and work motivation do exist.

These findings of the present study emphasise the important role that meaning plays in work and in the workplace. It shows that people with meaning approach work, their careers and goals with a purpose, within a balanced lifestyle, and with intrinsic motivation. It also shows that successful careers appear to develop through this approach. Successful careers in this sense are not only in terms of promotions and in terms of seniority (objective career success), but also in the way people experience and perceive their careers as successful (subjective career success). This is perhaps because career success might be seen as a by-product in a striving to a greater cause and not as an end in itself.

A second contribution of this study is the determination of the relationships of meaning with several orientations towards work and life in general. This study has shown successfully that meaning is significantly related to a healthy and balanced

life orientation and lifestyle, which eventually lead to success and progression in the workplace. In contrast, this study confirms that meaning is generally not related to biographic/demographic variables. It therefore suggests that meaning is a universal phenomenon.

A third contribution of this study is the confirmation of the role of spirituality in work and the workplace. For too long spirituality has been regarded to be not a work related issue, but an issue that only belongs to the domain of formalised religion. It was shown that meaning plays a significant role in work and in the work situation. However, Frankl emphasised that meaning acts in the spiritual dimension. Furthermore, the association of meaning with the strength of religious conviction, which is clearly a spiritual issue, has been confirmed in the present study. This confirms the important role of spirituality (not as religion) in the workplace.

A fourth contribution of this research is the insight gained that cultural borders do not necessarily determine the portability of an instrument to other cultures. The present study has shown that it is rather the type of sample and sampling method within the different cultures that might determine whether an instrument is portable over cultural borders. If the researcher selects his sample right, he might be able to use instruments that were developed in other cultures with minor adjustments. It is however still recommended to confirm the factor structure of the instrument in the new culture and to “clean” the instrument of non-contributing items before subjecting it to statistical analysis. With this insight, more research can be done across cultural borders with standardised instruments.

The present study brings a new perspective to the table towards an improved understanding of work motivation and work commitment. The present study shows that aspects of work commitment and work motivation lie on a deeper psychological and psychosocial level than what was previously anticipated. It shows that aspects and facets of work motivation and work commitment are also related to the spiritual level, for instance intrinsic motivation, career commitment and goal orientation. These insights open up new approaches and new research areas towards work motivation and work commitment. The present study does not attempt to provide or suggest a single source or model towards work motivation or work commitment such

as many other previous models attempted to do. However, it provides some insight into a more fundamental question: “Why are people motivated or committed at all?” This insight may go a long way towards the understanding of non-calculative and non-cognitive behaviour.

The lack of statistically significant relationships between meaning and work involvement, between meaning and job involvement, and meaning and work values is deemed to be a significant contribution of the present. These findings suggest that although meaning plays an important role in work, it acts in other areas than the centrality of work in an individual’s life, the individual’s psychological association with work, or the value of self-sacrificing hard work. The meaning appears to be associated more with longer-term oriented constructs such as career commitment and goal orientation independent of their work context, or with orientations towards life such as intrinsic motivation. One might speculate that hard work and positive work orientations are outcomes of the latter constructs; constructs which had been influenced by having meaning in life.

Hoeller (1990) defines extraordinary science as the revolutionary stage in a field of science which marks the transition from one paradigm to another. It is a philosophical period that offers competing paradigms to explain a significant anomaly that normal science can neither explain nor do away with. The introduction of the construct of meaning in life to Organisational Behaviour represents such a revolutionary period, initiating a completely new paradigm of understanding through the introduction of a new philosophy. This period of extraordinary science represents the new introduction of relationships that were not previously considered or investigated.

5.9. LIMITATIONS OF THE PRESENT STUDY

The major limitation of the present study seems to be its inability to provide insight on causality. This is because causality could not be investigated or determined through this research design. The design of this research was explorative in nature rather than confirmative. The research methodology and research design of this

study only allowed the determination of relationships, the direction of which was not confirmed. More insight could have been gained from the present study if not only new understanding of the relationships were found, but also their individual causes and temporal sequencing. Furthermore, some of the conclusions of the present study are speculative, albeit based on theories and previous postulation.

The present study was limited in the sense that work motivation could not be measured as a general construct. The two facets of work motivation that were measured are not representative of the whole construct of work motivation. Based on this study, one should therefore be careful in making conclusions about work motivation in general. In as far as these facets of work motivation are not representative of the total construct, the comprehensiveness and generalisability of the present study suffered.

Although Battista and Almond's (1973) LRI is described as a two-dimensional measure (meaning framework and meaning fulfilment) it did not behave as such in this study. The uni-dimensional behaviour of the LRI restricted some results and potential conclusions. It is expected that the differences between having a meaning framework, and experiencing meaning fulfilment in relation to the various variables measured could have lead to valuable insights and conclusions.

It appears that Ho and Lloyd's (1984) AWE as a measure of work values might not be a true measure of the PWE. Although the construct validity of this instrument as a measure of PWE has been confirmed by Furnham (1990b), the results of the present study put a question to the instrument's construct validity.

Although much effort was taken to obtain a representative and heterogeneous sample, the sample still appears to be rather homogeneous in terms of biographical/demographic variables. The sample can broadly be described as successful, well-educated, middle-aged, white Protestant Afrikaner males within permanent employment situations. Although this might be representative of the present South African managerial population, one should be careful about generalisations to other groups outside this population. Furthermore, with the emphasis on affirmative action in the South African situation, the profile of this

population is expected to change rapidly. In as far as biographical/demographic variables influence people's attitudes and orientations towards work and life, the richness of the results of the present study suffered. An additional limiting result of such a homogeneous sample is that the relationships found in the present study might be situational to this sample. However, the lack of statistically significant relationships between meaning and biographical/demographic variables does suggest that sampling error should not be much of a concern in this study.

5.10. RECOMMENDATIONS FOR FUTURE RESEARCH

The present study has highlighted the importance of meaning in a person's work and work life. However, due to the lack of attention that this aspect received in previous research, the nature of the present study was explorative. More confirmative empirical studies are needed to confirm the relationships found in the present study to different work situations and different samples. This step is regarded as essential in order to build a more solid theory of the role of meaning in work and the workplace.

Building on improved theories of the role of meaning in work and the workplace as mentioned above, future studies should focus more on the causality of these relationships. The model postulated in Figure 55 is speculative and the model should be investigated empirically to refine or change the model. Such research will improve the understanding of the relationships between meaning and work substantially. This step is essential if an organisation wants to understand how to assist their employees' quest for meaning.

Ideally, future studies on meaning and purpose in life should be longitudinal. Only then will causality really be determined. In other words, does absence/lack of purpose/meaning in life cause psychopathologies in the workplace or vice-versa. Furthermore, it is only then that it can be determined whether meaning is a cause or a result of the work and life orientations that showed significant relationships with meaning. Another aspect that longitudinal research should be able to provide insight

into, is how do the variables measured in this research change, if at all, once people discover meaning?

An aspect that has not been covered in detail in the present study, apart from in the literature review, is *how* to find meaning. It is not good enough for organisations only to know that their employees should have meaning, but they do not understand how to go about in helping their employees to find meaning. Future research will make a valuable contribution if it can provide direction to organisations on how to assist their employees to find meaning in their lives and existence. This might include activities ranging from personal counselling, up to having a re-evaluation of the vision and mission of the organisation.

Going together with this research recommendation, it is suggested that future research investigates the role that organisations' visions and missions (as defined in their formal statements) and organisational formal values play in their employees' sense of meaning. Building on this research, researchers can also investigate how organisational culture and leadership style influence employees' sense of meaning and the consequences of such influences.

Furthermore, future research may explore the type of organisations in which individuals experience a higher sense of purpose or meaning. The relationships of meaning with organisations' vision statements, mission statements, or statements of values could for instance provide new insights into the role of these statements in organisations. It may further be of value to investigate whether employees' meaning is related to organisational lifecycles, and in which phase of an organisation's lifecycle do employees experience the most meaning.

The role of meaning on performance has not been addressed in this study and warrants future research. It is suggested that future research investigates the potential relationship between meaning and performance. Such research should integrate all aspects that influence performance such as organisational structures and systems, as well individual skills and competencies.

Future research can also exploit the existence of potential relationships between entrepreneurial behaviour and entrepreneurial traits and characteristics. If meaning is related with career commitment, one can investigate whether there are any significant differences in the sense of meaning between people that are employed by organisations versus people that are self-employed. Furthermore, one can investigate whether meaning is a trait that is generally found in people that display entrepreneurial behaviour.

Some authors suggest that more empirical research is not needed on the construct of work commitment (Mackenzie, 2001). However, the results of the present study suggest that the constructs of work involvement and job involvement might be more related to each other than what was previously anticipated, or that the sample in the present study could not distinguish between the items in the questionnaire. The observation that construct redundancy appears to exist between job involvement and work involvement, as for this sample, might warrant further research. The role of different sample compilations, or the influence of culture on the distinction between these constructs should also be investigated further.

Furthermore, although much research had been conducted on clarifying the dimensions and factorial structure of work commitment, more research is needed on the practical influence of the dimensions of work commitment in the workplace (R. Kanungo, personal communication, August 3, 2001). For instance, the role of work commitment dimensions such as career commitment on objective and subjective career success, or on performance warrants further research.

The role of meaning in a person's work and work life has been neglected in previous Organisational Behaviour research. The present study confirmed that meaning plays a significant role in terms of a healthy work life and that it plays a significant role in terms of general psychological well-being. It also confirmed that meaning is a construct with definite and substantial influence on work and in the workplace. However, little is still known on the exact role and outcomes of meaning on work and in the work place. One can thus conclude that the future research possibilities on meaning in work and the work situation are almost unlimited at this point in time.

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APPENDIX A: FINAL QUESTIONNAIRE

STUDY OF WORK MOTIVATION AND COMMITMENT

A research project undertaken from the University of Pretoria.

Responsible Researchers

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Dear Respondent

We value your co-operation in completing this questionnaire. Your answers will be treated in strict confidence and your responses will be used for research purposes only. Your name should therefore not appear anywhere on this document.

The questions are intended to cover views towards work and life from various perspectives. There are no right or wrong answers to any of the questions, we are only interested in your personal opinions. You are participating in a scientific study; frank and truthful answers are the most important contributions you can make to its success.

It is essential that you complete the questionnaire personally. If you do not see your way open to complete it personally, rather do not return the questionnaire. Handing it to someone else to complete will jeopardise the validity of the results and conclusions.

If you are interested in receiving feedback with regard to the information provided, please complete the relevant section at the back of the questionnaire. The results of the study will then be sent to you.

Different instructions will precede different sets of questions. All the questions are from well-researched and established instruments, measuring different and unique perspectives. You will therefore find that the evaluation scales on some of the instruments differ. Scientific rigour prescribes that the original response formats of the questions should be maintained. Please follow the instructions as carefully as possible. Please answer all questions. Please mark one item per question only.

Thank you for your co-operation.

| FOR OFFICE USE ONLY | | | |
|---------------------|-------------------|----|--|
| 1 | Respondent number | V1 | <input type="text"/> <input type="text"/> <input type="text"/> 1 - 3 |
| 2 | Card number | V2 | <input type="text"/> <input type="text"/> 4 - 5 |
| 3 | Repeat number | V3 | <input type="text"/> 6 |
| 4 | Unit | V4 | <input type="text"/> 7 |

People have different attitudes towards working. We would like to ask you a few questions on the subject. We shall start with questions regarding your views on work in general.

Please respond to the following statements.

| |
|-------------------------|
| 1 = I strongly disagree |
| 2 = I disagree |
| 3 = I agree |
| 4 = I strongly agree |

Use the scale on the right to reflect your views.

Draw an X in the appropriate block

| | | | | | FOR OFFICE USE ONLY | | |
|---|--|---|---|---|---------------------|-----|-------------------------|
| 1 | People who work deserve success. | 1 | 2 | 3 | 4 | V5 | <input type="text"/> 8 |
| 2 | Hard work is fulfilling in itself. | 1 | 2 | 3 | 4 | V6 | <input type="text"/> 9 |
| 3 | Nothing is impossible if you work hard enough. | 1 | 2 | 3 | 4 | V7 | <input type="text"/> 10 |
| 4 | If you work hard, you will succeed. | 1 | 2 | 3 | 4 | V8 | <input type="text"/> 11 |
| 5 | You should be the best at what you do. | 1 | 2 | 3 | 4 | V9 | <input type="text"/> 12 |
| 6 | By working hard an individual can overcome most obstacles that life presents, and makes his or her own way in the world. | 1 | 2 | 3 | 4 | V10 | <input type="text"/> 13 |
| 7 | Hard work is not a key to success. | 1 | 2 | 3 | 4 | V11 | <input type="text"/> 14 |

The following questions are about the same issues, but from a different perspective.

Please respond to the following statements.

Use the scale on the right to reflect your views.

- | |
|-------------------------|
| 1 = I strongly disagree |
| 2 = I disagree |
| 3 = I disagree somewhat |
| 4 = I agree somewhat |
| 5 = I agree |
| 6 = I strongly agree |

Draw an X in the appropriate block

| | | | | | | | | FOR OFFICE USE ONLY | | |
|---|--|---|---|---|---|---|---|---------------------|--------------------------|----|
| 1 | The most important things that happen in life involve work. | 1 | 2 | 3 | 4 | 5 | 6 | V12 | <input type="checkbox"/> | 15 |
| 2 | Work is something people should get involved in most of the time. | 1 | 2 | 3 | 4 | 5 | 6 | V13 | <input type="checkbox"/> | 16 |
| 3 | Work should be only a small part of one's life. | 1 | 2 | 3 | 4 | 5 | 6 | V14 | <input type="checkbox"/> | 17 |
| 4 | Work should be considered central to life. | 1 | 2 | 3 | 4 | 5 | 6 | V15 | <input type="checkbox"/> | 18 |
| 5 | In my view, an individual's personal life goals should be work-oriented. | 1 | 2 | 3 | 4 | 5 | 6 | V16 | <input type="checkbox"/> | 19 |
| 6 | Life is worth living only when people get absorbed in work. | 1 | 2 | 3 | 4 | 5 | 6 | V17 | <input type="checkbox"/> | 20 |

This survey continues with statements about your **LINE OF WORK** or **CAREER FIELD** in which you are currently employed. You may consider line of work/career field as having the same meaning as *occupation, profession, or vocation*.

Please respond to the following statements.

Use the scale on the right to reflect your views.

- | |
|-------------------------|
| 1 = I strongly disagree |
| 2 = I disagree |
| 3 = I am not sure |
| 4 = I agree |
| 5 = I strongly agree |

Draw an X in the appropriate block

| | | | | | | | FOR OFFICE USE ONLY | | |
|---|--|---|---|---|---|---|---------------------|--------------------------|----|
| 1 | My line of work/career field is an important part of who I am. | 1 | 2 | 3 | 4 | 5 | V18 | <input type="checkbox"/> | 21 |
| 2 | This line of work/career field has a great deal of personal meaning to me. | 1 | 2 | 3 | 4 | 5 | V19 | <input type="checkbox"/> | 22 |
| 3 | I do not feel "emotionally attached" to this line of work/career field. | 1 | 2 | 3 | 4 | 5 | V20 | <input type="checkbox"/> | 23 |
| 4 | I strongly identify with my chosen line of work/career field. | 1 | 2 | 3 | 4 | 5 | V21 | <input type="checkbox"/> | 24 |
| 5 | I do not have a strategy for achieving my goals in this line of work/career field. | 1 | 2 | 3 | 4 | 5 | V22 | <input type="checkbox"/> | 25 |

| | | | | | | | | | |
|----|---|---|---|---|---|---|-----|--------------------------|----|
| 6 | I have created a plan for my development in this line of work/career field | 1 | 2 | 3 | 4 | 5 | V23 | <input type="checkbox"/> | 26 |
| 7 | I do not identify specific goals for my development in this line of work/career field. | 1 | 2 | 3 | 4 | 5 | V24 | <input type="checkbox"/> | 27 |
| 8 | I do not often think about my personal development in this line of work/career field. | 1 | 2 | 3 | 4 | 5 | V25 | <input type="checkbox"/> | 28 |
| 9 | The costs associated with my line of work/career field sometimes seem too great. | 1 | 2 | 3 | 4 | 5 | V26 | <input type="checkbox"/> | 29 |
| 10 | Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it. | 1 | 2 | 3 | 4 | 5 | V27 | <input type="checkbox"/> | 30 |
| 11 | Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it. | 1 | 2 | 3 | 4 | 5 | V28 | <input type="checkbox"/> | 31 |
| 12 | The discomfort associated with my line of work/career field sometimes seems too great. | 1 | 2 | 3 | 4 | 5 | V29 | <input type="checkbox"/> | 32 |

Now we can move in a little closer to how you personally feel about your present job. Again we would like you to think about a number of statements that people have made about work, but this time think about your present job, not work in general. Please indicate on the scale how strongly you agree or disagree with each comment. Remember that I'm asking you about your present job.

Please respond to the following statements.

Use the scale on the right to reflect your views.

| |
|--|
| 1 = No, I strongly disagree 2 = No, I disagree quite a lot 3 = No, I disagree just a little 4 = I am not sure about this 5 = Yes, I agree just a little 6 = Yes, I agree quite a lot 7 = Yes, I strongly agree |
|--|

Draw an X in the appropriate block

| | | | | | | | | | | | |
|---|--|---|---|---|---|---|---|---|-----|--------------------------|----|
| 1 | I feel a sense of personal satisfaction when I do this job well. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | V30 | <input type="checkbox"/> | 33 |
| 2 | My opinion of myself goes down when I do this job badly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | V31 | <input type="checkbox"/> | 34 |
| 3 | I take pride in doing my job as well as I can. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | V32 | <input type="checkbox"/> | 35 |
| 4 | I feel unhappy when my work is not up to my usual standard. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | V33 | <input type="checkbox"/> | 36 |

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USE ONLY

| | | | | | | | | |
|---|--|---|---|---|---|---|---|---|
| 5 | I like to look back on the day's work with a sense of a job well done. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|--|---|---|---|---|---|---|---|

V34 37

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6 | I try to think of ways of doing my job effectively. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|

V35 38

The following questions are about the same issues, but from a different perspective.

| |
|---|
| 1 = I strongly disagree 2 = I disagree 3 = I disagree somewhat 4 = I agree somewhat 5 = I agree 6 = I strongly agree |
|---|

Please respond to the following statements.

Use the scale on the right to reflect your views.

Draw an X in the appropriate block

**FOR OFFICE
USE ONLY**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | The most important things that happened to me involve my present job. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|

V36 39

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | To me, my job is only a small part of who I am. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|

V37 40

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | I am very much involved personally in my job. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|

V38 41

| | | | | | | | |
|---|----------------------------------|---|---|---|---|---|---|
| 4 | I live, eat, and breathe my job. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|----------------------------------|---|---|---|---|---|---|

V39 42

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5 | Most of my interests are centred around my job. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|

V40 43

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | I have very strong ties with my present job which would be very difficult to break. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|

V41 44

| | | | | | | | |
|---|--------------------------------------|---|---|---|---|---|---|
| 7 | Usually I feel detached from my job. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|--------------------------------------|---|---|---|---|---|---|

V42 45

| | | | | | | | |
|---|--|---|---|---|---|---|---|
| 8 | Most of my personal life goals are job-oriented. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|--|---|---|---|---|---|---|

V43 46

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9 | I consider my job to be very central to my existence. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|

V44 47

| | | | | | | | |
|----|---|---|---|---|---|---|---|
| 10 | I like to be absorbed in my job most of the time. | 1 | 2 | 3 | 4 | 5 | 6 |
|----|---|---|---|---|---|---|---|

V45 48

The following questions reflect on goals in the workplace.

Please respond to the following statements.

Use the scale on the right to reflect your views.

- | |
|-------------------------|
| 1 = I strongly disagree |
| 2 = I disagree |
| 3 = I disagree somewhat |
| 4 = I agree somewhat |
| 5 = I agree |
| 6 = I strongly agree |

Draw an X in the appropriate block

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | I am willing to select a challenging work assignment that I can learn a lot from. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | I often look for opportunities to develop new skills and knowledge. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3 | I enjoy challenging and difficult tasks at work where I will learn new skills. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4 | For me, development of my work ability is important enough to take risks. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5 | I prefer to work in situations that require a high level of ability and talent. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6 | I would avoid taking on a new task if there were a chance that I would appear rather incompetent to others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | Avoiding a show of low ability is more important to me than learning a new skill. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8 | I am concerned about taking on a task at work if my performance would reveal that I had low ability. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9 | I prefer to avoid situations at work where I might perform poorly. | 1 | 2 | 3 | 4 | 5 | 6 |

FOR OFFICE USE ONLY

| | | |
|-----|--------------------------|----|
| V46 | <input type="checkbox"/> | 49 |
| V47 | <input type="checkbox"/> | 50 |
| V48 | <input type="checkbox"/> | 51 |
| V49 | <input type="checkbox"/> | 52 |
| V50 | <input type="checkbox"/> | 53 |
| V51 | <input type="checkbox"/> | 54 |
| V52 | <input type="checkbox"/> | 55 |
| V53 | <input type="checkbox"/> | 56 |
| V54 | <input type="checkbox"/> | 57 |

FOR OFFICE USE ONLY

| | | | | | | |
|---|-------------------|-----|----------------------|----------------------|----------------------|-------|
| 1 | Respondent number | V55 | <input type="text"/> | <input type="text"/> | <input type="text"/> | 1 - 3 |
| 2 | Card number | V56 | <input type="text"/> | <input type="text"/> | | 4 - 5 |
| 3 | Repeat number | V57 | <input type="text"/> | | | 6 |
| 4 | Unit | V58 | <input type="text"/> | | | 7 |

The following questions refer to your daily life, also outside your workplace.

Please respond to the following statements.

Use the scale on the right to reflect your views.

Draw an X in the appropriate block

| |
|-------------------------|
| 1 = I strongly disagree |
| 2 = I disagree |
| 3 = I am not sure |
| 4 = I agree |
| 5 = I strongly agree |

| | | | | | | | FOR OFFICE USE ONLY | | |
|----|--|---|---|---|---|---|---------------------|--------------------------|----|
| 1 | Other people seem to have a much better idea of what they want to do with their lives than I do. | 1 | 2 | 3 | 4 | 5 | V59 | <input type="checkbox"/> | 8 |
| 2 | When I look at my life I feel the satisfaction of really having worked to accomplish something. | 1 | 2 | 3 | 4 | 5 | V60 | <input type="checkbox"/> | 9 |
| 3 | I just do not know what I really want to do with my life. | 1 | 2 | 3 | 4 | 5 | V61 | <input type="checkbox"/> | 10 |
| 4 | I do not really value what I am doing. | 1 | 2 | 3 | 4 | 5 | V62 | <input type="checkbox"/> | 11 |
| 5 | I feel that I am living fully. | 1 | 2 | 3 | 4 | 5 | V63 | <input type="checkbox"/> | 12 |
| 6 | I get completely confused when I tried to understand my life | 1 | 2 | 3 | 4 | 5 | V64 | <input type="checkbox"/> | 13 |
| 7 | I have a very clear idea of what I would like to do with my life. | 1 | 2 | 3 | 4 | 5 | V65 | <input type="checkbox"/> | 14 |
| 8 | I feel that I am really going to attain what I want in life. | 1 | 2 | 3 | 4 | 5 | V66 | <input type="checkbox"/> | 15 |
| 9 | I really feel good about my life. | 1 | 2 | 3 | 4 | 5 | V67 | <input type="checkbox"/> | 16 |
| 10 | I really do not believe in anything about my life very deeply. | 1 | 2 | 3 | 4 | 5 | V68 | <input type="checkbox"/> | 17 |
| 11 | I really do not have much of a purpose for living, even for myself. | 1 | 2 | 3 | 4 | 5 | V69 | <input type="checkbox"/> | 18 |
| 12 | I have really come to terms with what is important for me in my life. | 1 | 2 | 3 | 4 | 5 | V70 | <input type="checkbox"/> | 19 |
| 13 | I need to find something that I can really be committed to | 1 | 2 | 3 | 4 | 5 | V71 | <input type="checkbox"/> | 20 |
| 14 | Nothing very outstanding ever seems to happen to me. | 1 | 2 | 3 | 4 | 5 | V72 | <input type="checkbox"/> | 21 |
| 15 | Something seems to stop me from doing what I really want to do. | 1 | 2 | 3 | 4 | 5 | V73 | <input type="checkbox"/> | 22 |

| | | | | | | | | | |
|----|---|---|---|---|---|---|-----|--------------------------|----|
| 16 | I have some aims and goals that would personally give me a great deal of satisfaction if I could accomplish them. | 1 | 2 | 3 | 4 | 5 | V74 | <input type="checkbox"/> | 23 |
| 17 | I have a system or framework that allows me to truly understand my being alive. | 1 | 2 | 3 | 4 | 5 | V75 | <input type="checkbox"/> | 24 |
| 18 | Other people seem to feel better about their lives than I do. | 1 | 2 | 3 | 4 | 5 | V76 | <input type="checkbox"/> | 25 |
| 19 | I feel like I have found a really significant meaning for leading my life. | 1 | 2 | 3 | 4 | 5 | V77 | <input type="checkbox"/> | 26 |
| 20 | I have a lot of potential that I do not normally use. | 1 | 2 | 3 | 4 | 5 | V78 | <input type="checkbox"/> | 27 |
| 21 | I have a philosophy of life that really gives my living significance. | 1 | 2 | 3 | 4 | 5 | V79 | <input type="checkbox"/> | 28 |
| 22 | I do not seem to be able to accomplish those things that are really important to me. | 1 | 2 | 3 | 4 | 5 | V80 | <input type="checkbox"/> | 29 |
| 23 | I get so excited by what I am doing that I find new stores of energy I did not know that I had. | 1 | 2 | 3 | 4 | 5 | V81 | <input type="checkbox"/> | 30 |
| 24 | I have real passion in my life. | 1 | 2 | 3 | 4 | 5 | V82 | <input type="checkbox"/> | 31 |
| 25 | There honestly is not anything that I totally want to do. | 1 | 2 | 3 | 4 | 5 | V83 | <input type="checkbox"/> | 32 |
| 26 | Living is deeply fulfilling. | 1 | 2 | 3 | 4 | 5 | V84 | <input type="checkbox"/> | 33 |
| 27 | I spent most of my time doing things that really are not very important to me. | 1 | 2 | 3 | 4 | 5 | V85 | <input type="checkbox"/> | 34 |
| 28 | There are things that I devote all my life's energy to. | 1 | 2 | 3 | 4 | 5 | V86 | <input type="checkbox"/> | 35 |

The following questions request biographic and lifestyle information. Responses will be used purely for statistical purposes.

Draw an X in the appropriate block next to the item that most closely represents your personal situation. Mark one item per question only.

Biographic and lifestyle information

1 Age (in years)

2 Gender
 Male
 Female

3 Sasol pay grade level
 Level 2
 Level 3
 Level 4
 Level 5
 Level 6

4 Qualifications (mark highest level attained only)

| | |
|--|--------------------------|
| Secondary school | <input type="checkbox"/> |
| Std 10 or equivalent | <input type="checkbox"/> |
| Post-school certificate / diploma | <input type="checkbox"/> |
| National Diploma/National Higher Diploma | <input type="checkbox"/> |
| Bachelor's degree or equivalent | <input type="checkbox"/> |
| Honours degree or equivalent | <input type="checkbox"/> |
| Masters degree or equivalent | <input type="checkbox"/> |
| Doctoral degree or equivalent | <input type="checkbox"/> |

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V87 36-37

1 V88 38
 2

1 V89 39
 2
 3
 4
 5

V90 40

1
 2
 3
 4
 5
 6
 7
 8

5 Fields of study and employment

| | | | | | | | | | |
|--|-------------|-----------------|---------------------------------|------------|------------------|-----|-----------|----------|-------|
| Mark one item per question only. If unsure indicate the most appropriate item. | Engineering | Human Resources | Economic and Financial Sciences | Management | Natural Sciences | Law | Education | Medicine | Other |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Initial field of study | | | | | | | | | |
| Field of most recent studies | | | | | | | | | |
| Field of first employment | | | | | | | | | |
| Field of current employment | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

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| | | | |
|----------------------|-----|----------------------|----|
| <input type="text"/> | V91 | <input type="text"/> | 41 |
| <input type="text"/> | V92 | <input type="text"/> | 42 |
| <input type="text"/> | V93 | <input type="text"/> | 43 |
| <input type="text"/> | V94 | <input type="text"/> | 44 |

6 How many years have you been working for Sasol?

V95 45 -46

7 Did you make any substantial career changes in your working life? Yes No

1 V96 47
2

8 Indicate the level of satisfaction with your career progress to date

| | |
|-------------------------|--------------------------|
| Completely satisfied | <input type="checkbox"/> |
| Satisfied | <input type="checkbox"/> |
| Not sure | <input type="checkbox"/> |
| Dissatisfied | <input type="checkbox"/> |
| Completely dissatisfied | <input type="checkbox"/> |

1 V97 48
2
3
4
5

9 Would you continue working if you won the lottery (say R20 million)? Yes No

1 V98 49
2

10 Would you continue with your present job if you won this lottery? Yes No

1 V99 50
2

11 How many hours do you, on average, work per week?

V100 51-52

12 How many hours do you, officially, have to work per week?

V101 53-54

13 Do you regularly work over weekends or holidays? Yes

1 V102 55

| | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|--|--------------------------|----|--------------------------|---------------------------|---|--------------------------|-----------|--------------------------|----------|--------------------------|-----------|--------------------------|------------|--------------------------|--|--------|-------------------------|
| | | No | <input type="checkbox"/> | | <input type="checkbox"/> | 2 | | | | | | | | | | | | | |
| 14 | How many days vacation leave do you typically take per year? | | <input type="text"/> | | | <input type="text"/> V103 | <input type="text"/> <input type="text"/> 56-57 | | | | | | | | | | | | |
| 15 | Do you purposely make time to be alone? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | 1 V104 | <input type="text"/> 58 | | | | | | | | | | | | |
| | | No | <input type="checkbox"/> | | | 2 | | | | | | | | | | | | | |
| 16 | Do you find it difficult to be alone when you are not engaged in activities? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | 1 V105 | <input type="text"/> 59 | | | | | | | | | | | | |
| | | No | <input type="checkbox"/> | | | 2 | | | | | | | | | | | | | |
| 17 | Do you purposely make time for leisure? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | 1 V106 | <input type="text"/> 60 | | | | | | | | | | | | |
| | | No | <input type="checkbox"/> | | | 2 | | | | | | | | | | | | | |
| For office use only | | | | | | | | | | | | | | | | | | | |
| 18 | Do you purposely make time to spend with your family (or friends)? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | 1 V107 | <input type="text"/> 61 | | | | | | | | | | | | |
| | | No | <input type="checkbox"/> | | | 2 | | | | | | | | | | | | | |
| 19 | Do you actively participate in a sport or a hobby? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | 1 V108 | <input type="text"/> 62 | | | | | | | | | | | | |
| | | No | <input type="checkbox"/> | | | 2 | | | | | | | | | | | | | |
| 20 | Are you actively involved in any type of community or welfare work? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | 1 V109 | <input type="text"/> 63 | | | | | | | | | | | | |
| | | No | <input type="checkbox"/> | | | 2 | | | | | | | | | | | | | |
| 21 | Do you contribute financially in a regular fashion to community work, or welfare work? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> | 1 V110 | <input type="text"/> 64 | | | | | | | | | | | | |
| | | No | <input type="checkbox"/> | | | 2 | | | | | | | | | | | | | |
| 22 | Marital Status | <table border="1" style="border-collapse: collapse;"> <tr><td>Never married</td><td><input type="checkbox"/></td></tr> <tr><td>Married</td><td><input type="checkbox"/></td></tr> <tr><td>Widow(er)</td><td><input type="checkbox"/></td></tr> <tr><td>Divorced</td><td><input type="checkbox"/></td></tr> <tr><td>Estranged</td><td><input type="checkbox"/></td></tr> <tr><td>Cohabiting</td><td><input type="checkbox"/></td></tr> </table> | | | Never married | <input type="checkbox"/> | Married | <input type="checkbox"/> | Widow(er) | <input type="checkbox"/> | Divorced | <input type="checkbox"/> | Estranged | <input type="checkbox"/> | Cohabiting | <input type="checkbox"/> | | 1 V111 | <input type="text"/> 65 |
| Never married | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| Married | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| Widow(er) | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| Divorced | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| Estranged | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| Cohabiting | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| | | | | | | 2 | | | | | | | | | | | | | |
| | | | | | | 3 | | | | | | | | | | | | | |
| | | | | | | 4 | | | | | | | | | | | | | |
| | | | | | | 5 | | | | | | | | | | | | | |
| | | | | | | 6 | | | | | | | | | | | | | |

| | | | | | | | | | |
|------------------|--|---------------------------------------|--|----|------|--|--|----|-------|
| 23 | How would you classify the dominant nature of your social heritage, culture or upbringing? | Sotho (Northern, Western, Southern) | | 1 | V112 | <table border="1"> <tr> <td></td> <td></td> </tr> </table> | | | 66-67 |
| | | | | | | | | | |
| | | Nguni (Zoeloe, Xhosa, Swazi, Ndebele) | | 2 | | | | | |
| | | Other African | | 3 | | | | | |
| | | Afrikaner | | 4 | | | | | |
| | | English | | 5 | | | | | |
| | | Jewish | | 6 | | | | | |
| | | Indian | | 7 | | | | | |
| | | Malayan | | 8 | | | | | |
| | | Arabic | | 9 | | | | | |
| | | Mediterranean | | 10 | | | | | |
| | | Western European | | 11 | | | | | |
| | | Eastern European | | 12 | | | | | |
| | | North American | | 13 | | | | | |
| | | Latin American | | 14 | | | | | |
| | | Other Asian | | 15 | | | | | |
| Other | | 16 | | | | | | | |
| 24 | Religious orientation | Christian | | 1 | V113 | <table border="1"> <tr> <td></td> </tr> </table> | | 68 | |
| | | | | | | | | | |
| | | Jewish | | 2 | | | | | |
| | | Islamic or Muslim | | 3 | | | | | |
| | | African traditional | | 4 | | | | | |
| | | Hindu | | 5 | | | | | |
| | | Buddhist | | 6 | | | | | |
| | | Sikh | | 7 | | | | | |
| | | Other | | 8 | | | | | |
| Agnostic/Atheist | | 9 | | | | | | | |
| 25 | If Christian, please indicate: | Protestant | | 1 | V114 | <table border="1"> <tr> <td></td> </tr> </table> | | 69 | |
| | | | | | | | | | |
| Catholic | | 2 | | | | | | | |
| 26 | Strength of religious conviction | Very strong | | 1 | V115 | <table border="1"> <tr> <td></td> </tr> </table> | | 70 | |
| | | | | | | | | | |
| | | Strong | | 2 | | | | | |
| | | Moderate | | 3 | | | | | |
| | | Weak | | 4 | | | | | |
| | | Very weak | | 5 | | | | | |
| Not applicable | | 6 | | | | | | | |

27 Ethnical grouping
(for statistical purposes only)

| |
|----------|
| White |
| Coloured |
| Indian |
| Black |
| Other |

| |
|--|
| |
| |
| |
| |
| |

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| | | | |
|---|------|--|----|
| 1 | V116 | | 71 |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

Should you be interested in receiving feedback with regard to the information that you provided, please complete the last page of the questionnaire and return it to us. A comparison of your responses with those of the remainder of the sample will then be sent to you in due course. However, a comparison will not be possible if this slip is sent separate of the questionnaire. Please take note that attaching this slip to your questionnaire will lead to a loss of anonymity. However, we still guarantee confidentiality.

Feedback slip: Study of Work

Please provide feedback with regards to the information provided to the following address:

You can, if you wish, attach this slip to your questionnaire. However, this will lead to a loss of anonymity. However, we still guarantee confidentiality. If you prefer to keep the slip separate from the questionnaire you can mail it to:

Prof. A B Boshoff

Study of work

p/a Central Records

SASOL Ltd.

ROSEBANK

APPENDIX B: INTRODUCTION LETTER

Dear Sir/Madam

RESEARCH ON WORK MOTIVATION AND COMMITMENT

(A research programme by the University of Pretoria)

You will agree that the success of organisations is largely dependent on the motivation and commitment of their employees. Many theories exist on motivation and commitment, however, they fail to provide an answer to the question: "Why are people motivated/committed at all?" More knowledge about why people are internally motivated and committed is imperative for organisations to optimise the effort and contribution of their employees. This is especially true for the more senior employees who set the tone and direction in any organisation. Such insights will not only contribute towards more successful motivational programmes, but also contribute towards creating managers who are intrinsically fulfilled and inspired.

The focus of this study is the sources of motivation and commitment of the more senior employees. As you fulfil a senior position in your company we shall appreciate it if you could provide us with information to carry out this study.

You are a member of a carefully chosen sample to participate in this research project, which has been endorsed by Sasol's top management. Please be so kind as to participate in this important research project. Your responses will be handled in the strictest confidence and it will be impossible to trace your response back to you. Responses will be used for research purposes only.

Your participation is vitally important to us as we rely on your willingness to assist us in our efforts to learn more about the sources of motivation and commitment of senior staff. We will sincerely appreciate it if you will give us about 35 minutes of your valuable time by completing the attached questionnaire. Please return the completed questionnaire to us, through the internal mail system, in the addressed envelope included with this letter.

It is highly appreciated that you are willing to take part in this research project by spending your valuable time in completing the attached questionnaire.

AB BOSHOFF
PROFESSOR

DR R VAN WYK

JJ DE KLERK
RESEARCHER

APPENDIX C. FIRST REMINDER

13 March, 2001

Dear participant

We recently sent a letter and a questionnaire to you on motivation and work commitment. In the letter we explained that you had been included in a randomly selected sample of senior employees who are to take part in a large research project on the sources of motivation and work commitment. We hope that the letter and questionnaire have reached you by now.

This letter is a further request to you to complete the questionnaire and to return it to us at your earliest convenience in the addressed envelope provided.

If you did not receive our previous letter and questionnaire or have any questions about the study, please contact us at one of the following addresses or telephone numbers.

By mail:

Prof AB Boshoff

Study of work

p/a Central Records

SASOL Ltd.

ROSEBANK

By E-mail:

aboshoff@orion.up.ac.za

By Fax:

012-3625194

By telephone:

083-2590096:

We are entirely in your hands as far as success of this project is concerned. Please assist us by completing the questionnaire.

Yours truly,

A B BOSHOFF

PROFESSOR

DR R VAN WYK

J J DE KLERK

RESEARCHER

APPENDIX D. SECOND REMINDER

20 March 2001

Dear participant

We recently sent a letter and a questionnaire on the sources of work motivation and commitment to you. In the letter we explained that you had been randomly selected to be a member of a sample of senior employees who are to take part in a research project on motivation and commitment that has been endorsed by Sasol's top management. We are therefore eager to obtain your responses to the questionnaire.

Up to now the response rate has been too low for scientific purposes. Unfortunately, to ensure confidentiality, we have no method of establishing who have returned their questionnaires. If you did return the questionnaire we thank you and ask you to please ignore this letter.

If up to now you have not had the time to complete the questionnaire we are asking you to do so, if at all possible. We are eager to obtain a representative sample as we feel that the information gathered will be valuable to both organisations and individuals. We are in your hands in our effort to provide useful information to everyone involved in the project.

If you no longer have a questionnaire, we include the questionnaire again, with the introductory letter explaining the purpose of the research, and an addressed envelope to use for returning the questionnaire to us.

We are really in your hands and will appreciate your help most sincerely.

Yours truly,

A B BOSHOFF
PROFESSOR

DR R VAN WYK

J J DE KLERK
RESEARCHER

APPENDIX E. FINAL REMINDER

30 March, 2001

Please ignore this letter if you have already completed the questionnaire on work motivation and commitment.

Dear participant

We recently sent a letter and a questionnaire to you on motivation and work commitment, followed by a second copy of the questionnaire, due to a low response rate, for the benefit of those who misplaced their copy. However, the response rate is still too low for scientific purposes. If up to now you have not had the time to complete the questionnaire we are requesting you one more time to do so, if at all possible.

In the previous letters we explained that you had been included in a randomly selected sample of senior employees who are to take part in a large research project on motivation and work commitment that has been endorsed by Sasol's top management. We are eager to obtain a representative sample as we feel that the information gathered will be valuable to both organisations and individuals.

If you need a copy of the questionnaire please contact us at one of the following addresses or telephone numbers.

By E-mail:

aboshoff@orion.up.ac.za

By Fax:

012-3625194

By telephone:

083-2590096

We are entirely in your hands as far as success of this project is concerned. Please assist us by completing the questionnaire.

Yours truly,

A B BOSHOFF
PROFESSOR

DR R VAN WYK

MIAS DE KLERK
RESEARCHER

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| | |
|--|-----|
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