

**JOB INSECURITY AND JOB SATISFACTION IN
SELECTED ORGANISATIONS IN SOUTH AFRICA**

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Dedicated to

My husband, Pieter

and our three

children

Juanita, Juan, and Ruan

REMARKS

The reader is reminded of the following:

- References and the editorial style as prescribed by the *Publication Manual (5th edition)* of the American Psychological Association (APA) were followed in this thesis. This is in line with the policy of the Programme in Industrial Psychology of the North West University to use APA style in all scientific documents as from January 1999.
- The thesis is submitted in the form of three research articles.

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*As Dependent Variable, and Background Variables,
Extrinsic Job Satisfaction, Intrinsic Job Satisfaction, Affective
Job Insecurity, and Cognitive Job Insecurity as Dependent
Variables*

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SUMMARY

Topic: Job insecurity and job satisfaction in selected organisations in South Africa.

Key terms: Job insecurity, job satisfaction and organisational commitment.

Several factors have contributed to employment relations gradually becoming more uncertain in the last decades. In South Africa, as well as in other industrialised economies all over the world, organisations had to adjust to the pressures imposed by an intensified global competition. The transformation of working life has brought the topic of insecure working conditions to the forefront. Job insecurity are of vital importance in modern working life. A growing number of employees face the risk of losing their jobs as a consequence of organisational restructuring and layoffs. Job insecurity affects the well-being of individuals. In this sense, job insecurity is a significant stressor with consequences for the individual. However, the consequences are not limited to just the individual. The situation is often such that individuals experiencing job insecurity also tend to react to the dissatisfying circumstances in ways that affect the organisation as well. Several studies have found a negative association between job insecurity and job satisfaction. Job insecurity s also associated with lower levels of organisational commitment.

The empirical objectives of this thesis were firstly to validate the Job Insecurity Questionnaire (JIQ) and Minnesota Job Satisfaction Questionnaire (MSQ) for employees in selected organisations in South Africa; secondly to determine its construct equivalence for different cultural groups; thirdly, to determine differences between the job insecurity and job satisfaction levels of various demographic groups, fourthly to assess the relationship between job insecurity, job satisfaction and organisational commitment, and lastly to determine whether job insecurity can predict job satisfaction and organisational commitment.

A cross-sectional survey design with a random sample ($N = 834$) of employees in selected organisations in South Africa was used. The Job Insecurity Questionnaire, the Minnesota Job Satisfaction Questionnaire, the Organisational Commitment Questionnaire, and a

biographical questionnaire were administered. Descriptive statistics were used to describe the measuring instruments in terms of mean, standard deviation, skewness and kurtosis. Cronbach alpha coefficients were used to describe the reliability of the measuring instruments. Construct (structural) equivalence was computed to compare the factor structure for the different culture groups included in this study. Exploratory factor analysis with a Procrustean target rotation was used to determine the construct equivalence of the JIQ and MSQ for the different culture groups. Pearson correlation coefficients were used to determine the relationship between the measuring instruments. Regression analyses were used to determine whether organisational commitment can be predicted by the independent variables namely, affective job insecurity; cognitive job insecurity; extrinsic job satisfaction; intrinsic job satisfaction; age; gender, and qualification.

The results confirmed a two-factor model of job insecurity, consisting of affective and cognitive job insecurity. The scales showed acceptable internal consistencies. Exploratory factor analysis with target rotations confirmed the construct equivalence of scales for white and black participants. Practically significant differences were found between the levels of job insecurity of employees in terms of age groups and qualification levels.

Furthermore, the results confirmed a two-factor model of job satisfaction, consisting of extrinsic job satisfaction and intrinsic job satisfaction. Exploratory factor analysis with target rotations confirmed the construct equivalence of scales for the black and white groups. The results obtained from comparing job satisfaction levels of various demographic groups showed that practically significant differences existed between the job satisfaction of different age and race groups. Results revealed significant relationships between job insecurity and job satisfaction. The multiple regression analysis indicated that 24% of the variance in organisational commitment was explained by affective job insecurity, cognitive job insecurity; extrinsic job satisfaction; intrinsic job satisfaction; age; gender and qualification.

Limitations of the research are discussed, followed by recommendations for the selected organisations and for future research.

OPSOMMING

Onderwerp: Werksonsekerheid en werkstevredenheid in geselekteerde organisasies in Suid-Afrika.

Sleutelterme: Werksonsekerheid, werkstevredenheid en organisasieverbondenheid.

Verskeie faktore het daartoe bygedra dat werksverhoudings al hoe meer onseker in die laaste dekades geraak het. In Suid-Afrika, sowel as in ander geïndustrialiseerde ekonomieë wêreldwyd, moes organisasies aanpassings maak om die druk te hanteer as gevolg van die globale kompetisie. Die transformasie van die lewe van werk het die onderwerp van werksonsekerheid sterk na vore gebring. Werksonsekerheid is van kardinale belang in die moderne werkslewe. 'n Groeiende getal werknemers staar die moontlikheid in die gesig om hulle werk as gevolg van organisatoriese herstrukturering en afdankings te verloor. Werksonsekerheid het 'n invloed op die gesondheid van die individu. In hierdie sin is werksonsekerheid 'n belangrike stressor met gevolge vir die individu. Die situasie is dikwels so dat individue wat werksonsekerheid ervaar, ook ontevrede met die omstandighede by die werk, in só 'n mate dat dat dit die organisasie ook raak. Werksonsekerheid word met laer vlakke van werkstevredenheid en organisasieverbondenheid geassosieer.

Die empiriese doelwitte van hierdie proefskrif was om eerstens die Werksonsekerheidsvraelys (JIQ) en die Minnesota Werkstevredenheidsvraelys (MSQ) vir werknemers in geselekteerde organisasies in Suid-Afrika te valideer; tweedens om die konstrukekwivalensie van die vraelys vir die verskillende kultuurgroepe te bepaal; derdens om die verskille tussen werksonsekerheid en werkstevredenheid vir die verskillende demografiese groepe te bepaal; vierdens om die verhouding tussen werksonsekerheid, werkstevredenheid en organisasieverbondenheid te assessee en laastens om te bepaal of werksonsekerheid, werkstevredenheid en organisasieverbondenheid voorspel.

'n Dwarssnee opname-ontwerp met 'n ewekansige steekproef ($N = 834$) van werknemers in geselekteerde organisasies in Suid-Afrika is gebruik. Die Werksonsekerheidvraelys (JIQ),

die Minnesota Werkstevredenheidsvraelys (MSQ) en 'n biografiese vraelys is afgeneem. Beskrywende statistiek is gebruik om die meetinstrumente in terme van gemiddeldes, standaardafwyking, skeefheid en kurtose te bespreek. Cronbach alfakoeffisiënte is gebruik om die betroubaarheid van die vraelyste te bepaal. Verkennende faktoranalise met teikenrotasies is gebruik om die konstrugeldigheid van die JIQ en MSQ vir die verskillende kultuurgroepe te bepaal. Pearson korrelasies is gebruik om die verhouding tussen die meetinstrumente aan te dui. Regressie-analise is gebruik om te bepaal of organisasieverbondenheid voorspel kan word deur die onafhanklike veranderlikes, naamlik, affektiewe werksonsekerheid; kognitiewe werksonsekerheid; ekstrinsieke werkstevredenheid; intrinsieke werkstevredenheid; ouderdom; geslag, en kwalifikasie.

Die resultate het 'n twee-faktormodel van werksonsekerheid, bestaande uit affektiewe werksonsekerheid en kognitiewe werksonsekerheid bevestig. Die skale het aanvaarbare interne konsekwentheid getoon. Verkennende faktoranalise met teikenrotasies het die konstrukekwivalensie van die twee faktore vir die blanke en swart deelnemers bevestig. Prakties betekenisvolle verskille is ten opsigte van ouderdom en kwalifikasiegroepe gevind.

Voorts, het resultate 'n twee-faktormodel van werkstevredenheid, bestaande uit ekstrinsieke en intrinsieke werkstevredenheid, bevestig. Eksploratiewe faktoranalise met teikenrotasies het die konstrukekwivalensie van die twee faktore vir die swart en blanke kultuurgroepe bevestig. Die resultate verkry van die vergelyking tussen die beleving van werkstevredenheid en verskillende demografiese veranderlikes het prakties betekenisvolle verskille tussen die werkstevredenheid van verskillende ouderdom en rassegroepe aangedui.

Die resultate het 'n betekenisvolle verband tussen werksonsekerheid en werkstevredenheid aangetoon. Die regressie analise het aangetoon dat 24% van die variansie in organisasieverbondenheid is voorspel deur die onafhanklike veranderlikes, naamlik affektiewe werksonsekerheid; kognitiewe werksonsekerheid; ekstrinsieke werkstevredenheid; intrinsieke werkstevredenheid; ouderdom; geslag en kwalifikasie.

Die beperkinge van die studie is bespreek, gevolg deur die aanbevelings vir die geselekteerde organisasies en vir toekomstige navorsing.

CHAPTER 1

INTRODUCTION

This thesis is about job insecurity, job satisfaction and organisational commitment in selected organisations in South Africa.

In this chapter, the problem statement is discussed. The research objectives are set out, including general and specific objectives. The research method is explained and a division of chapters is given.

1.1 PROBLEM STATEMENT

Since the late 1970s, economic recessions, industrial restructuring, technological change, and an intensified global competition have dramatically changed the nature of work (Howard, 1995). According to Sverke and Hellgren (2002), organisations in most industrialised countries have been involved in restructuring, layoffs, and "right sizing" in their attempts to reduce labour costs and improve competitiveness. Millions of workers have been displaced while others have involuntarily become part-time unemployed, hired on temporary employment contracts, or experienced "a fundamental and involuntary change in their sets of beliefs about the employing organisation and their place in it" (Jacobson, 1991, p. 2). For many employees, the changes in working life we have witnessed over the past two decades have caused feelings of insecurity concerning the nature and future existence of their jobs (Hartley, Jacobson, Klandermans, & Van Vuuren, 1991).

At the organisational level, the need to adapt to leaner times and to cut back costs has often meant more flexible use of labour, such as temporary and part-time work (Frese, 1991; Marginson, 1991). For some employees, trends towards more unpredictable and flexible labour markets may have fuelled feelings of insecurity about the nature and continuity of their jobs, and for other employees flexibility may have led to the perception of further opportunities. However, according to Kinnunen and Nätti (1994) the topic of job insecurity has attracted rather limited interest from social scientists in Europe. In South Africa, the same situation applies. On the one hand, this is surprising, when compared to the importance attributed to job security in organisational psychology: Steady work has, over the years, been

one of the most important factors in the evaluation of any job. On the other hand, labour economists have examined the relationship between job security provisions and employment (Lazear, 1990). According to Jacobson and Hartley (1991), a major reason for this neglect is that job insecurity is less amenable to empirical research: Job insecurity is a highly sensitive topic and many organisations are reluctant to become involved in its study. This is quite understandable since research efforts focused on job insecurity that may contribute to anxiety. However, the consequences are that the pervasive organisational phenomenon of low job security has remained under-researched.

The systematic conceptualisation and measurement of job insecurity is only just beginning to emerge. The first theory-based perspective has been provided by Greenhalgh and Rosenblatt (1984). They defined job insecurity as 'perceived powerlessness to maintain desired continuity in a threatened job situation' (p. 440). Thereafter, Ashford, Lee and Bobko (1989) developed a 57-item measure known as the Job Insecurity Scale, which measures job insecurity by assessing (1) the range of work situation features that could be in jeopardy, (2) the valence of each such feature, (3) the subjective probability of losing each feature, and the number of sources of threat. However, most studies (Caplan, Cobb, French, van Harrison & Pinneau, 1980; Johnson, Messe, & Crano, 1984) have measured job insecurity using a single (global) rather than multiple (multidimensional) indicators. In these conceptualisations job insecurity is often considered as the first phase in the process of job loss (Joelson & Wahlquist, 1987), which does not mean that is necessary followed by job loss. Consequently, the question posed by global definitions centres on concern about the future of one's job. According to Jacobson (1991), there are both theoretical and practical considerations in choosing between global and multidimensional measurement strategies.

Job insecurity has been defined in various ways. For example, the construct has been described as an employee's "expectations about the continuity in a job situation" (Davy, Kinicki, & Scheck, 1997, p. 323), "concern about the future permanence of the job" (Van Vuuren, 1990, p. 133), and "perception of a potential threat to continuity in his or her current job" (Heaney, Israel, & House, 1994, p. 1431).

Job insecurity is characterised as a perceptual phenomenon (Greenhalgh & Rosenblatt, 1984; Hartley et al., 1991; Jacobson, 1991). Some writers, according to Sverke, Hellgren and Näswall (2002), especially outside the behavioural sciences, go so far as to define job

insecurity as an objective phenomenon "without references to a worker's perceptions, (but) rather considered as an independently determined probability that workers will have the same job in the foreseeable future" (Pearce, 1998, p. 34). The subjective experience, however, is a cornerstone in most psychological definitions of the construct (De Witte, 1997; Sverke & Hellgren, 2002; van Vuuren, 1990). A focus on the individual's subjective experience implies a difference between perceptions and the objective reality and highlights how interpretations form the subjective reality. However, Büssing (1999) pleads for the inclusion of an *objective* operationalisation. According to this author, the anticipation of unemployment, created by the threat of job loss, is the core element of an objective conceptualisation. Such threat may originate from an imminent bankruptcy or from the temporary nature of the job in question. A temporary job has a limited time span by definition, thus jeopardising employment continuity (e.g. Pearce, 1998). Authors such as Pearce thus suggest that temporary work can be considered an indicator of an objective operationalisation of job insecurity.

Most researchers have adopted a global view and described job insecurity as an overall concern about the continued existence of the job in the future (De Witte, 1999). Although some studies (e.g. Ashford et al., 1989; Borg & Elizur, 1992; Kinnunen, Nätti, & Happonen, 1999; Rosenblatt & Ruvio, 1996) have been based on multidimensional definitions that, in addition, encompass factors such as threats to various job features (e.g. employment conditions, career opportunities) and a powerlessness to counteract such threats, the bulk of research emphasises a concern about the future existence of the job as such (e.g. Barling & MacEwen, 1992; Büssing, 1999; Hartley, et al., 1991; Kuhnert & Vance, 1992; Lim, 1996; Orpen, 1993; Van Vuuren, 1990).

Borg and Elizur (1992) differentiated between cognitive job insecurity (likelihood of job loss) and affective job insecurity (fear of job loss). To understand these distinctions better, four items also used by Caplan, Cobb, French, Harrison and Pinneau (1980) should be considered. These items assess the extent of subjective security with respect to the future of one's position and career, respectively: "How certain are you about the future in the organisation?" One first notes that these items are too general because they assess, without restrictions, insecurity with respect to the future of one's job. What is needed, however, according to Borg and Elizur (1992) is an assessment of the extent of the individual's concern about his/her future.

Johnson, et al. (1984), in contrast, used a set of items that differ substantially from those of Caplan et al. (1980). Two examples are: "The thought of getting fired really scares me" and "I am worried about the possibility of being fired". It is obvious that these items assess primarily emotional aspects of job insecurity.

Theoretically, the distinction between cognitive and emotional job insecurity seems to be necessary. Ashford et al. (1989) also discussed the distinction of emotional and cognitive job insecurity. They propose a sophisticated scale for measuring global job insecurity that uses a product-sum model that computes a global job insecurity by combining 56 individual item scores.

The person-environment fit theory of stress, as well as the affective events theory of stress can be considered when studying the antecedents and consequences of job insecurity. Probst (2002) states that definitions of job insecurity based on the person-environment fit theory of stress emphasises the match between the person and environmental characteristics, and that stress value depends on the perceived imbalance between an individual's perceptions of the demands made by the environment and the individual's perceived ability and motivation to cope with those demands. Based on this definition, Probst (2002) states that job insecurity is perceived by an employee as a change or precursor to change demanding adaptation, which may be difficult to meet. The inability to cope with potential future unemployment or loss features may have significant consequences. Probst (2002) furthermore explains that from an affective events theory perspective, work environment features and events are subject to cognitive appraisal of whether and to what extent such work features will aid or obstruct the attainment of goals. If such an obstruction is identified and there is a perceived imbalance between the environmental demands and the employee's ability to cope with those demands, based on aspects such as dispositions and available resources, causes stress. Strain resulting from such a perceived imbalance may become evident at a physiological, behavioural or psychological level, or even any combination of these. For this reason then, when stress exists, work attitudes and affective reactions are expected to be negative. Physical and mental health outcomes are two additional strains that can result from stress, which are expected to be mediated by work attitudes and affective reactions, but may also occur directly.

Probst (2002) proposed and tested an integrated model, based on the premise that job insecurity occurs as a result of multiple antecedents, which may serve to stimulate a person's

perception that the future of her/his job is in jeopardy. This model is based on the previous theoretical frameworks. In addition to the expected role that organisational change plays as an antecedent to job insecurity, this research also confirmed the role of other antecedents such as grievance filing, absenteeism, years of service (tenure), level of qualification, and job technology change. The hypothesis was that these antecedents are all subject to cognitive appraisal, which involves the assessment of the relevance and importance of these factors to one's well-being. Resulting perceptions of job security are then predicted to generate an emotional or affective response to work events (for example, anger or anxiety), as well as influence job attitudes (for example promotion satisfaction or job security satisfaction). Research results found that perceptions of job insecurity predicted affective reactions to organisational restructuring. The results also indicated that cognitive appraisals regarding one's level of job security strongly predicted satisfaction with job security, but job security perceptions predicted work attitudes to a lesser extent.

From this brief review, it follows that job insecurity reflects the subjectively experienced anticipation of a fundamental and involuntary event. Along this line of reasoning, job insecurity can be considered a stressor (Ashford et al., 1989; Barling & Kelloway, 1996; Fox & Chancey, 1998; Mauno, Leskinen, & Kinnunen, 2001). Consistent with theories of the stress process (Karasek & Theorell, 1990; Siegrist, 2000), job insecurity would then result in various types of strain.

Consequences of job insecurity

Since job insecurity reflects the perceived anxiety about losing one's job, this anxiety may be experienced to have consequences for the individual. Work is a central part of life to many people – it fulfils both financial and social needs. Jobs provide individuals with income, social contacts, possibilities of personal development, as well as daily structure (Jahoda, 1982).

Most existing research on job insecurity has focussed on its negative consequences on individuals as well as on organisations (Ashford et al., 1989; Greenhalgh & Sutton, 1991, Orpen, 1993; Roskies & Louis-Guerin, 1990). Job insecurity is often reported to result in reduced psychological well-being, characterised by such phenomena as anxiety and

depression (Dekker & Schaufeli, 1995). Also strain-related psychosomatic complaints are reported as an outcome of job insecurity.

In addition, attitudinal reactions – intentions to quit, reduced organisational commitment and reduced job satisfaction - are related to job insecurity. Moreover, even negative effects on family interactions have been reported recently (Hughes & Galinsky, 1994). These dynamics also have organisational-level consequences, primarily through their effects on efficiency and innovation.

Consequences for the individual

Intuitively, one would expect feelings of job insecurity to have a strong psychological impact on those affected. Long-term, ominous job insecurity is likely to have severe consequences for an employee's overall life situation in those economic and other highly valued aspects of life will be perceived as threatened (Ashford et al., 1989; Hartley et al., 1991). Indeed, studies have suggested that perceived threats concerning the nature and continued existence of a job may have as detrimental consequences as the job loss itself (Dekker & Schaufeli, 1995; Latack & Dozier, 1986). This is consistent with the central proposition of stress research, that anticipation of a stressful event represents an equally important, or perhaps even greater, source of anxiety than the actual event (Lazarus & Folkman, 1984). Probst (2002) found job insecurity to hold important negative consequences at individual and organisational levels, leading to increased organisational withdrawal, increased reported health conditions, increased psychological distress and lowered organisational commitment. It can be concluded that numerous consequences of job insecurity are mediated by job attitudes and affective reactions.

The effort-reward imbalance model, as discussed by Bakker, Kilmer, Siegrist and Schaufeli (2000), provides a theoretical approach toward explaining the adverse health effects produced by a lack of reciprocity at work. According to this model, a lack of reciprocity between costs and gains defines a state of emotional distress with particular proclivity to autonomic arousal and associated strain reactions. This is especially true if poor reward is experienced in terms of poor stability, forced occupational change, downward mobility, or lack of promotion prospects. From this point of view perceived job insecurity can thus be expected to produce lack of reciprocity leading to emotional distress.

It appears that job insecurity is associated with impaired well-being (Barling & Kelloway, 1996; Hartley et al., 1991; Jick, 1985). Physical health complaints, mental distress, and work-to-leisure carry-over increase proportionately with the level of job insecurity (Ashford et al., 1989; Lim, 1996).

Reactions to job insecurity can also be examined within a coping-with-stress framework. The term "coping with stress" refers to the various ways different individuals deal with stress. Two forms of coping behaviour (Lazarus & Folkman, 1984): problem and emotional directed behaviour have been recognised. The former aims to remove the unpleasant event or to mitigate its influence, and the latter aims to alleviate the distressing feelings caused by the unpleasant event. According to some (Klandermans, et al., 1991; Roskies, Louis-Guerin, & Fournier, 1993), there are certain strategies an employee might use to cope with job insecurity: withdrawing psychologically from work or attempting to restore his or her job security either by individual or by collective action. Employees who withdraw feel psychologically less motivated to go to work, they are less interested in their work, and they are less dedicated to their work than are employees who feel more secure. Employees who experience a high degree of job insecurity are willing to undertake individual action (e.g. seek alternative employment) more often than employees who do not feel threatened.

Consequences for the organisation

The consequences of job insecurity are not limited to just the individual. The situation, rather, often is such that individuals experiencing job insecurity also tend to react to the dissatisfying circumstances in ways that affect the organisation as well (Greenhalgh & Rosenblatt, 1984; Sverke et al., 2002).

One of the most researched outcomes of job insecurity is job satisfaction. This concept has been defined as a positive attitude that is based on the perception of the job as something pleasant that provides the individual with what he or she needs. Job satisfaction provides an employee's degree of contentment with his or her job (Locke, 1976). Since job insecurity arises from the individual evaluating the security of the employment as being less than desirable, we would expect individuals experiencing job insecurity to be dissatisfied with their jobs. Several studies have also found a strong negative relationship between job

insecurity and job satisfaction (Ashford et al., 1989; Lim, 1996; Rannona, 2003; Rosenblatt & Ruvio, 1996).

The framework for studying job insecurity in this study as reflected in Figure 1 is individually orientated, which means that it is mainly focused on individual-level reasons and reactions to job insecurity. The job insecurity measurement indicates to what extent individuals feel various threats, especially the threat of losing one's job. Thus, the concept of insecurity in this study is concentrated on the probability of losing one's job (both cognitive and affective feeling of job insecurity).

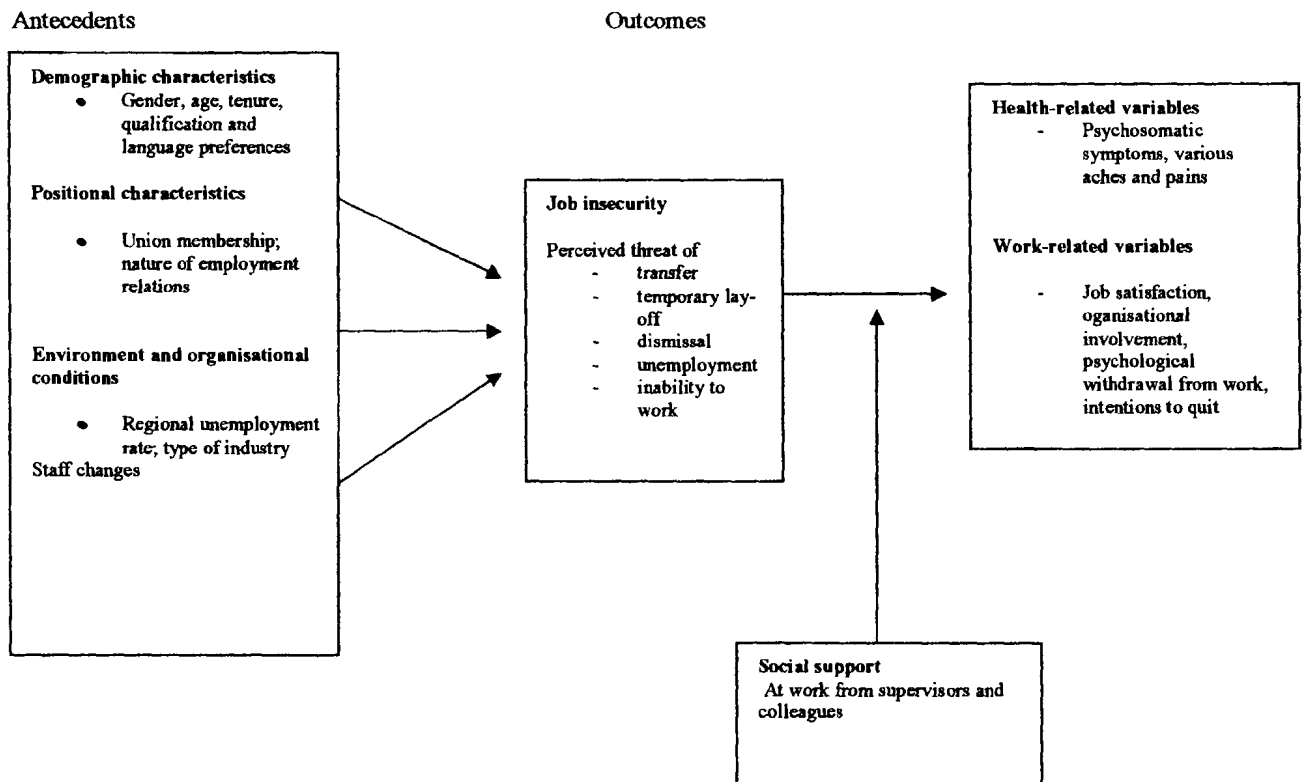


Figure 1. The adapted theoretical model tested in this study

The possible *subjective* antecedents of job insecurity are classified into four groups. The demographic characteristics comprise gender, age, qualification, and race groups. Possible moderating variables included in some of the data are psychological strengths as measured by sense of coherence, self-efficacy and locus of control. For the purpose of this study, job insecurity is viewed as the *independent* variable and job satisfaction as the *dependant*

variable. The possible mediators (also seen as the antecedents), is the demographic variables such as age, qualification, gender and race. The individual reactions comprises of work-related outcomes such as job satisfaction and organisational commitment.

No studies could be found in South Africa that assesses the validation of a measuring instrument for the experience of job insecurity. It is clear from the above-mentioned discussion that the experience of job insecurity is seen as a stressor and can lead to reduce levels of job satisfaction, with the demographic variables as possible mediators. However, no studies including these factors in a causal model of job insecurity of workers in South Africa were found in the literature. Furthermore, studies with regard to the possible moderating effects of the demographic variables are lacking. Therefore, the fourth research problem is that a causal model of job insecurity and job satisfaction in South Africa does not exist. The fifth research problem is that studies in terms of moderating effects of demographic variables are lacking.

Consequently, in the present study, solving the research problems will make the following contributions to industrial psychology as a science:

- Standardised measuring instruments for job insecurity and job satisfaction for workers in South Africa will exist, which have been proven both reliable and valid;
- Construct equivalent measuring instruments of job insecurity and job satisfaction of workers in South Africa will exist;
- Information will exist regarding the effects of demographic variables (such as age, gender, and qualification); job insecurity (affective and cognitive); and job satisfaction (extrinsic and intrinsic) on organisational commitment of workers in selected organisations in South Africa.

1.2 RESEARCH OBJECTIVES

The research objectives are divided into a general objective and specific objectives.

1.2.1 General objective

With reference to the above formulation of the problem, the general objective of this research is to standardise the Job Insecurity Questionnaire (JIQ) and the Minnesota Job Satisfaction Questionnaire (MSQ) and to test a casual model of job insecurity and job satisfaction and organisational commitment of workers at selected organisations in South Africa.

1.2.2 Specific objectives

The specific research objectives are as follows:

- To assess the reliability and validity of the JIQ for workers at selected organisations in South Africa.
- To investigate the construct equivalence of the JIQ for workers at selected organisations in South Africa.
- To assess the reliability and validity of the MSQ for workers at selected organisations in South Africa.
- To investigate the construct equivalence of the MSQ for workers at selected organisations in South Africa.

The research method for each of the three articles which are submitted for the purposes of this thesis, consists of a brief literature overview and an empirical study. In the following paragraph, relevant aspects of the empirical studies conducted in this thesis are discussed.

1.3 RESEARCH METHOD

1.3.1 Research design

A survey design is used to reach the research objectives. The specific design is the cross-sectional design, whereby a sample is drawn from a population at one time (Shaughnessy & Zechmeister, 1997). Information collected is used to describe the population at that time and is appropriate for studying various groups at different stages of development. This design can also be used to assess interrelationships among variables within a population. According to

Shaughnessy and Zechmeister (1997) this design is ideally suited to descriptive and predictive functions associated with correctional research.

1.3.2 Participants

The study population could be defined as random samples of employees at selected organisations in South Africa. The sample consisted of employees at the following organisations: A parastatal (maintenance workers) ($N = 171$); a financial institution ($N = 48$); a packaging organisation ($N = 121$); a mining organisations ($N = 121$); employees belonging to an Airline Association ($N = 91$); employees in a chemical industry ($N = 58$), employees at a steel -manufacturing industry ($N = 171$), employees in a parastal (service workers) ($N = 47$). The total of the sample will be ($N = 834$).

1.3.3 Measuring instruments

Four questionnaires are used in the empirical study, namely the Job Insecurity Questionnaire (*JISQ*), the Minnesota Job Satisfaction Questionnaire (*MSQ*) Short Version, the Organisational Commitment Questionnaire (*OCQ*) as well as a biographical questionnaire.

The *Job Insecurity Questionnaire (JISQ)* (De Witte, 2000) is used as a measure of job insecurity. This 11 item questionnaire relating to job insecurity is used to measure the perceived job insecurity of participants. The 11 items of the JISQ summarise both the cognitive and affective dimensions of job insecurity and are arranged along a 5-point scale, varying from 1 (*strongly agree*) and 5 (*strongly disagree*). An example of a question relating to cognitive job insecurity would be, "I am sure I can keep my job", whereas an example of a question relating to affective job insecurity would be, "I am worried about keeping my job". The items of the JISQ, measuring global job insecurity are reported to have a Cronbach alpha coefficient of 0,92 and both scales (cognitive and affective) were shown to be highly reliable, with the six items measuring cognitive job insecurity, displaying a Cronbach alpha coefficient of 0,90; and the five items of the affective job insecurity having a Cronbach alpha coefficient of 0,85 (De Witte, 2000). According to De Witte (2000), the content of these two scaled do not overlap, but nevertheless have a high underlying correlation ($r = 0,76; p < 0,0001$).

The *Minnesota Satisfaction Questionnaire's (MSQ)* (Weiss, Dawis, England & Lofquist, 1967) indicates how satisfied or dissatisfied respondents are with their jobs by asking respondents to rate themselves on 20 questions, using a five-point scale varying from 1 (*very dissatisfied*) to 5 (*very satisfied*). The revised MSQ form measures intrinsic job satisfaction (seven items) and extrinsic job satisfaction (six items) using questions like: "The chance to be 'somebody' in the community", "The way my supervisor handles his/her workers", and "The praise I get for doing a good job". Hirschfeld (2000) found that a two-factor model (intrinsic and extrinsic job satisfaction) is superior to a one-factor model (total job satisfaction). Alpha coefficients were found to be ranging from 0,87 to 0,95, which supports the internal consistency of the scale (Hirschfeld, 2000; Lam, Baum & Pine, 1998).

The Organisational Commitment Questionnaire (OCQ) (Allen & Meyer, 1990) was used to measure the affective organisational commitment of the participants. Only 7 items of this questionnaire were used. Inter-correlations between populations were found to be consistent above 0,90 (Allen & Meyer, 1990). The internal consistency for this subscale of the questionnaire has been confirmed at the 0.80 level (Suliman & Iles, 2000). In South African studies, Kwela (2001) found the alpha coefficient of 0,87, Dwyer (2001) found Cronbach alpha coefficient of 0,79, Rugg (2001) found alpha coefficient of 0,87.

1.3.4 Statistical analysis

The SPSS program (SPSS, 2003) is used to carry out the statistical analysis. Cronbach alpha coefficients (α) and inter-item correlations coefficients are used to determine the validity and reliability of the measuring instruments and descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) are used to analyse data. Pearson correlations are used to assess the extent to which one variable is related to another and the Spearman correlation coefficient in cases where the distribution of scores is skew. Effect sizes are used to determine the practical significance of relationships between variables.

Multivariate analysis of variance (MANOVA) is used to determine the significance of difference between job insecurity (affective and cognitive) of demographic groups. MANOVA tests whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). In MANOVA a

new dependent that maximizes group differences is created from the set of dependent variables. One-way analysis is then performed on the newly created dependent variable. Wilk's lambda was used to test the significance of the effects. Wilk's lambda is a likelihood ratio statistic of the data under the assumption of equal population mean vectors for all groups against the likelihood under the assumption that the population mean vectors are identical to those of the sample mean vectors for the different groups. When an effect is significant in MANOVA, ANOVA was used to discover which dependent variables were affected. Because multiple ANOVAs were used, a Bonferroni type adjustment was made for inflated Type 1 error. Tukey tests were done to indicate which groups differed significantly when ANOVAs were done.

Effect sizes (Cohen, 1988; Steyn, 1999) are used in addition to statistical significance to determine the significance of relationships. Effect sizes indicate whether obtained results are important (while statistical significance may often show results which are of little practical relevance). The use of only statistical significance testing in a routine manner has been criticised and from editors of some of some periodicals there have been appeals to place more emphasis on effect sizes (Steyn, 1999). The following formula is used to determine the practical significance of differences (d) when ANOVAs are used (Steyn, 1999):

$$d = (\text{Mean}_A - \text{Mean}_B / \text{Root MSE})$$

where

Mean_A = Mean of the first group

Mean_B = Mean of the second group

Root MSE = Root Mean Square Error

T-tests are used to determine differences between the groups in the sample. The following formula is used to determine the practical significance of differences (d) when t-tests are used (Steyn, 1999):

$$d = (\text{Mean}_A - \text{Mean}_B / \text{SD MAX})$$

where

$Mean_A$ = Mean of the first group

$Mean_B$ = Mean of the second group

SD MAX = Maximum standard deviation of the two groups

According to Cohen (1988), $0,10 \leq d \leq 0,50$ = small; $0,50 \leq d \leq 0,80$ = medium and $d > 0,80$ = large effect, is set for the practical significance of differences between group means.

Construct (structural) equivalence is determined to compare the different race groups included in this study. Exploratory factor analysis with a Procrustean target rotation is used to determine the construct equivalence of the JIQ and the MSQ for the different race groups in the sample (Van de Vijver & Leung, 1997). According to Van de Vijver and Leung (1997), the comparison between the similarities of the factor structure of two cultural groups could be underestimated due to the arbitrary spatial allocation of factors during factor analysis. Rather, it is suggested that target rotation be conducted prior to comparing the factor solutions of cultural groups by rotating the factor loading matrices with regards to each other in order to maximise the agreement between the factors. During this process, one group is arbitrarily assigned the target group and the factor loadings of the other group rotated towards the target group to form a common factor including matrix, also know as centroid. Factorial agreement between the two groups is then estimated with Tucker's coefficient of agreement (Tucker's phi). This index is insensitive to multiplications of the factor loadings, but sensitive to a constant added to all loading of a factor. The formula for Tucker's phi is as follows:

$$\rho_{xy} = \frac{\sum x_i y_i}{\sqrt{\sum x_i^2 y_i^2}}$$

Because this index does not have a known sampling distribution, it is impossible to establish confidence intervals. Values higher than 0,95 are deemed to be evident of factorial similarity or equivalence across different racegroups (Van de Vijver & Leung, 1997), whereas values lower than 0,90 (Van de Vijver & Poortinga, 1994) or even 0,85 (Ten Berge, 1986) should be viewed as an indication of sufficient existing differences. Furthermore, bias analysis is necessary because construct equivalence does not presuppose the absence of bias. An

instrument could therefore demonstrate acceptable construct equivalence and still be biased (Van de Vijver & Leung, 1997).

1.4 OVERVIEW OF CHAPTERS

In Chapter 2 the construct validity, internal consistency and conceptual clarity of the JIQ are dealt with, as well as the difference between different demographic variables. In Chapter 3, the job satisfaction of workers in selected organisations is focused on, more specifically in terms of the construct validity and internal consistency, and the difference in the experience of job satisfaction and the different demographic variables. In Chapter 4, the relationship between job insecurity and job satisfaction and organisational commitment are investigated. Chapter 5 presents conclusions, shortcomings and recommendations.

1.5 CHAPTER SUMMARY

This chapter discussed the problem statement and research objectives. The measuring instruments and research method that are used in this research were also explained, followed by a brief discussion on the subsequent chapter outline in this thesis.

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CHAPTER 2
RESEARCH ARTICLE 1

THE PSYCHOMETRIC PROPERTIES OF THE JOB INSECURITY QUESTIONNAIRE IN SOUTH AFRICA

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ABSTRACT

The objectives of this study were to assess the psychometric properties of the Job Insecurity Questionnaire (JIQ) for employees in selected organisations in South Africa, and to investigate differences between the job insecurity levels of various demographic groups. A cross-sectional survey design with a random sample ($N = 834$) was used. The Job Insecurity Questionnaire and a biographical questionnaire were administered. The results confirmed a two-factor model of job insecurity, consisting of affective and cognitive job insecurity. The scales showed acceptable internal consistencies. Exploratory factor analysis with target rotations confirmed the construct equivalence of the scales for white and black participants. Statistically significant differences were found between the levels of job insecurity of employees in terms of age, qualification, gender and race.

OPSOMMING

Die doelstellings van hierdie studie was om die psigometrie eienskappe van die Werksonsekerheidsvraelys (JIQ) vir werknemers in geselekteerde organisasies in Suid-Afrika te bepaal en om verskille tussen die vlakke van werksonsekerheid van demografiese groepe te bepaal. 'n Dwarsdeursnee-opnameontwerp met 'n ewekansige steekproef ($N = 834$) is gebruik. Die Werksonsekerheidsvraelys en 'n biografiese vraelys is afgeneem. Faktoranalise het 'n tweefaktormodel van werksonsekerheid, bestaande uit affektiewe werksonsekerheid en kognitiewe werksonsekerheid, bevestig. Die skale het aanvaarbare interne konsekwentheid getoon. Verkennende faktoranalise met teikenrotasies het die konstrukekwivalensie van die twee faktore vir die wit en swart deelnemers bevestig. Statisties betekenisvolle verskille is gevind ten opsigte van die werksonsekerheid van werknemers in terme van ouderdom, kwalifikasie, geslag en ras.

Working life has been subject to dramatic change over the past decades as a result of economic recessions, new information technology, industrial restructuring, and accelerated global competition (Hartley, Jacobson, Klandermans & Van Vuuren, 1991; Hellgren, Sverke & Isakson, 1999; Howard, 1995). At organisational level, the need to adapt to leaner times and to cut back has often meant more flexible use of labour, e.g. shorter tenure, temporary and part-time work (De Witte, 1999; Fevre, 1991).

For some employees, trends towards more unpredictable and flexible labour markets may have fuelled feelings of job insecurity concerning the nature and continuity of their jobs, and for other employees flexibility may have led to the perception of further opportunities. However, Kinnunen and Nätti (1994) mention that job insecurity has attracted rather limited interest from social scientists in Europe. The same applies to South Africa, where little research is available regarding the issue of job insecurity. On the one hand, this is surprising, when compared to the importance attributed to job security in traditional organisational psychology. Steady work has, over the years, been one of the most important factors in the evaluation of any job. On the other hand, according to Kinnunen and Nätti (1994), labour economists have examined the relationship between job security provisions and employment (Bertola, 1990).

According to Jacobson and Hartley (1991), a major reason for this neglect is that job insecurity is less amenable to empirical research. Job insecurity is a highly sensitive topic and many organisations are reluctant to become involved in such studies. This is quite understandable since research efforts focused on job insecurity in itself may contribute to anxiety. However, the consequences are that the pervasive organisational phenomenon of low job security has remained under-researched. As a result thereof, at the beginning of the 1990s, researchers were still deploring the relative lack of research on the causes and consequences of job insecurity (e.g. Hartley et al., 1991).

Probst (2002) mentions that a continuing problem in the field of job insecurity research has been a lack of a comprehensive definition and measurement of job insecurity. Many studies fail to define the construct and/or use one-or two-item indicators to measure job insecurity. Commonly, participants are asked to indicate the likelihood of losing their job in the coming year or if they expect a change in their employment for the worse (Roskies, Louis-Guerin & Fournier, 1993).

Job insecurity

Greenhalgh and Rosenblatt (1984, p. 439) were among the first researchers to provide a rigorous definition of the job insecurity construct, as well as explicate some important organisational outcomes of the phenomenon. They defined job insecurity as "perceived powerlessness to maintain desired continuity in a threatened job situation". Based on this definition, Ashford, Lee and Bobko (1989) developed a 57-item measure known as the Job Insecurity Scale (JIS), which measures job insecurity by assessing the range of work situation features that could be in jeopardy, the valence of each feature, the subjective probability of losing each feature, and the number of sources of threat.

While Ashford et al. (1989) and Rosenblatt and Ruvio (1996) consider job insecurity as a multifaceted concept, Van Vuuren (1990) considers job insecurity as an overall concern for losing one's job. In this article, Van Vuuren's (1990) definition is adopted. First of all, it is a subjective (affective) experience or perception. The subjective experience is the cornerstone in most psychological definitions of the construct (De Witte, 1999; Sverke & Hellgren, 2002). A focus on the individual's subjective experience implies a difference between perceptions and the objective reality, and highlights how interpretations form the subjective reality. The same situation might be perceived differently by different employees. Some will feel insecure when there is no objective reason to, while others may feel secure when their jobs are in fact threatened. Secondly, job insecurity also implies uncertainty (cognitive insecurity) about the future. For the person concerned it is uncertain whether he/she will be able to continue working in the organisation.

From this brief review, it follows that job insecurity reflects the subjectively experienced anticipation of a fundamental and involuntary event. Along this line of reasoning, job insecurity can be considered a classic work stressor (Ashford et al., 1989; Barling & Kelloway, 1996; Fox & Chancey, 1998; Mauno, Leskinen & Kinnunen, 2001). Consistent with theories of the stress process (Karasek & Theorell, 1990; Katz & Kahn, 1978; Lazarus & Folkman, 1984; Siegrist, 2000), job insecurity would then result in various types of strain.

According to Sverke and Hellgren (2002), it was not only during the past two decades that systematic research on job insecurity, as a function of the labour market changes, began to emerge (Hartley et al., 1991). Earlier on, job security was included in broad inventories of

work climate used for the prediction of employee attitudes. It was often measured as a unidimensional phenomenon, reflecting a general concern over future employment. As noted by several authors (e.g. Ashford et al., 1989; Hartley et al., 1991), job insecurity has often been measured in an ad hoc manner, often with single items, scales with unknown psychometric properties, or measures devoid of theoretical basis.

According to Sverke and Hellgren (2002), a distinction can be drawn between global and multidimensional operationalisations. The global measures concern threats of imminent job loss. These unidimensional measures typically focus on either the perceived probability (e.g. Mohr, 2000; Van Vuuren, 1990) or fear of job loss (e.g. Johnson, Messe & Crano, 1984). Sverke and Hellgren (2002) mention in this regard that some studies rely on single-item measures while others use multiple indicators.

While most definitions of the construct share the view that job insecurity is a subjectively experienced stressor, it appears that the definition of the construct is broad enough to encompass different aspects of such uncertainty perceptions. Aspects other than threats of imminent job loss – such as loss of valued job features, demotions, and career insecurity – may also be central.

A number of researchers (e.g. Ashford et al., 1989; Greenhalgh & Rosenblatt, 1984) have argued that definition and measurement of job insecurity would benefit from encompassing concerns about deteriorated employment conditions and career opportunities in addition to threats of imminent job loss. Borg and Elizur (1992) differentiate between cognitive job insecurity (likelihood of job loss) and affective job insecurity (fear of job loss). For the purposes of this study, the differentiation between cognitive job insecurity and affective job insecurity of Borg and Elizur (1992) is supported.

Given that job insecurity reflects a worry about losing the present job, this subjective experience is likely to have a strong psychological impact. The underlying logic of reasoning can be illustrated by using Jahoda's (1982) latent deprivation model. For many individuals, work is a central factor for the satisfaction of economic and social needs. Among other things, work provides a source of income, enables social contacts, influences the structuring of time, and contributes to personal development. The perceived threat of employment involves the frustration of these needs and the potential loss of important financial and social

resources (De Witte, 1999). Indeed, research suggests that the consequences of job insecurity could be as detrimental as the job loss itself (Dekker & Schaufeli, 1995; Latack & Dozier, 1986). This is consistent with the central proposition of stress research that anticipation of a stressful event represents an equally important, or perhaps even greater, source of anxiety than the actual event (Lazarus & Folkman, 1984).

A growing number of studies have been devoted to the analysis of the psychological well-being of workers, covering phenomena such as stress (see Lazarus & Folkman, 1984) and burnout (e.g. Schaufeli, Maslach & Marek, 1993). In South African research the same tendency is observed (see Storm, 2002). It is known that job insecurity leads to reduced well-being and negative emotions toward the perceived source of stress. It may be that job insecurity is especially burdensome for the reason that it involves prolonged uncertainty (Hartley et al., 1991; Joelson & Wahlquist, 1987; Van Vuuren, 1990). The uncertainty inherent in job insecurity will make it more difficult for the individual to use effective and appropriate coping strategies (Ashford, 1988; Lazarus & Folkman, 1984). In dealing with job loss, the individual can use various coping strategies, such as mourning and preparation for the new situation (Sverke, Hellgren & Näswall, 2002). However, when the individual is not sure about the occurrence of the loss, the usual coping strategies cannot be used, and the individual is left only with uncertainty.

Perceptions of job insecurity may have detrimental consequences for employee attitudes (Ashford et al., 1989; Davy, Kinicki & Scheck, 1997; Sverke & Hellgren, 2001) and well-being (Barling & Kelloway, 1996; De Witte, 1999; Mohr, 2000), as well as for organisational viability (Greenhalgh & Rosenblatt, 1984; Kets de Vries & Balazs, 1997). However, it is reasonable to assume that a radical change in working conditions – from having been secure to being volatile and insecure – will have an influence not only on employees' health status, but also on their attitudes and behaviours in relation to the organisation, and will in the long run also have consequences for the vitality of the organisation itself. As Greenhalgh and Rosenblatt (1984, p. 438) phrase it, "Workers react to job insecurity, and their reactions have consequences for organisational effectiveness".

For the purposes of this study, the global measures of job insecurity, as constructed by De Witte (1997), were used. Although studies on job insecurity were conducted in Europe, Sweden, and Finland, a lack of research in this area within the South African context

necessitates the current research. According to the International Survey Research (ISR) South Africa scores badly on the ISR rankings – 51% of surveyed employees say they are worried about being laid off, compared to the (also high) global figure of 32% (Sunday Times, 13 October 2002, Business News). Stuart Meyer, Project Director at ISR South Africa, and Crispin Marriott, ISR's Director of Global Client Relations, argue that "the success of organisations in securing the commitment of their employees is critical if they are to compete in the global marketplace". They also state that job insecurity is exacerbated by "legislation requiring radical transformation for political reasons, combined with the opening of local markets to world competition".

De Witte (2000) developed the JIQ based on Borg's (1992) conceptualisation of job insecurity as a two-dimensional construct, comprising an affective and a cognitive component. Cognitive job insecurity relates to the perceived likelihood of job loss, whereas affective job insecurity relates to fear of job loss. The 11 items of the JII summarise both the cognitive and affective dimensions of job insecurity. The items of the JII, measuring global job insecurity, are reported to have a Cronbach alpha coefficient of 0,92 (De Witte, 2000). Regarding the two-factor model of job insecurity, both scales were shown to be highly reliable, with the six items measuring cognitive job insecurity displaying a Cronbach alpha coefficient of 0,90, and the five items of the affective job insecurity displaying an alpha coefficient of 0,85. De Witte (2000) notes that the item content of these two scales does not overlap, yet have a high underlying correlation ($r = 0,76$). This indicates that both aspects strongly refer to one another, and are not "accurately" differentiated in the perceptions of the respondents.

Despite the prevalence and significance of job insecurity in our society, limited South African research regarding the validity and reliability of the JII has been conducted. For this reason this study is considered important. Furthermore, it is important to determine differences between the job insecurity levels of demographic groups, given that findings in this regard differ between various studies conducted previously, with some researchers finding age, qualifications, tenure and culture to be related to variations in levels of job insecurity, whilst other studies did not replicate these findings.

South Africa is a multicultural society. According to Van de Vijver and Leung (1997), measurement equivalence and bias should be computed for measuring instruments in any

multicultural setting where individuals from different cultural groups are compared in terms of a specific construct. This is particularly relevant where no norms exist for different cultural groups, which is often the case in cross-cultural research. In line with the recommendations of Poortinga (1989) and Van de Vijver and Leung (1997), measurement equivalence should be tested for a multicultural context where differences in scores could be attributed to cultural influences in terms of item meaning and understanding, rather than differences resulting from the measuring constructs. If cultural influences are not accounted for, invalid conclusions regarding the constructs in this study, specifically job insecurity, could be made – with serious implications for culturally diverse settings such as South Africa.

Job insecurity is described as a subjective experience, where individuals perceive a threat to their employment or current working situation. This perception of threat may arise during turbulent times, when there are clear signals from the organisation of upcoming changes. However, individual employees may perceive their situation as threatened – i.e. experience job insecurity – even if there is no apparent objective threat. This raises the question of why some individuals are more prone to worry about job loss, and the researchers have put forward hypotheses on the antecedents of job insecurity. For the purposes of this research, factors such as race, gender, age, and qualification were used (Greenhalgh & Rosenblatt, 1984; Kinnunen, Mauno, Nätti & Happonen, 2000; Näswall & De Witte, 2003).

A subjective perception such as job insecurity is likely to be interpreted in different ways by different people (Sverke et al., 2004). That is, employees in the same objective work situation will experience different levels of job insecurity, depending on their interpretation of the situation (Jacobson, 1991). When a threat is considered serious, the level of job insecurity is likely to be higher. Employees who feel that losing their job would be very serious would probably experience higher levels of job insecurity than employees who consider themselves able to handle job loss (Jacobson, 1991).

Perceptions of vulnerability may help to explain this connection (Lazarus & Folkman, 1984). It appears that the intensity of the job insecurity experience can be explained by the degree of vulnerability felt by individuals. The degree of vulnerability may, in turn, vary with different attributes and individual differences. The experience of vulnerability also depends on the extent to which individuals feel that they have the resources necessary to handle threats and challenges. The extent to which individuals feel they possess these necessary resources for

handling the consequences of a realised threat differs from person to person. Various groups may not necessarily have the same perceptions of what resources are available to them (Frese, 1985), which would result in different levels of job insecurity.

From a review of the literature, it is evident that the relationship between age, gender and job insecurity has been studied. Mohr (2000) found a strong positive relationship between age and job insecurity, which is taken as evidence that older employees experience higher job insecurity than younger employees. Age may influence an employee to appraise the alternatives in the labour market differently. Younger persons usually have more alternatives, and companies value youth and competence, whereas older employees tend to experience more job insecurity than their younger colleagues. Age may influence an employee to appraise the alternatives in the labour market differently (Sverke et al., 2004).

The level of education completed influences the number of choices that workers have in the labour market. Van Vuuren, Klandermans, Jacobson and Hartley (1991) mention that individuals with higher levels of education tend to experience lower levels of job insecurity. It has been suggested that since white-collar workers and professionals usually have higher qualification levels, they will be less vulnerable to job loss than employees with lower levels of qualifications (Schaufeli, 1992). However, Reynolds (2000) indicates in his research that exposure to downsizing is more common among white-collar workers and is associated with a great increase in job insecurity.

As far as gender is concerned, previous research studies have identified some differences. Näswall, Sverke and Hellgren (2001) indicate that men exhibit a stronger relation between the experience of job insecurity and its negative outcomes than women. This is supported by previous research, such as that by Rosenblatt, Talmud and Ruvio (1999).

Regarding race and job insecurity, Orpen (1993) showed that higher levels of job insecurity exist amongst black employees in South Africa. However, higher levels of job insecurity could currently be expected in whites because of the implementation of the Employment Equity Act No. 55 of 1998 (Republic of South Africa, 1998).

Aims and hypotheses

The first objective of this study was to determine the construct equivalence, factorial validity and internal consistency of the Job Insecurity Questionnaire (JIQ) for workers in selected organisations in South Africa. The second objective was to determine whether the levels of job insecurity differ in terms of demographic variables such as age, qualification, gender and race.

The hypotheses of this study are as follows:

H₁: Job insecurity, as measured by the JIQ is a two-dimensional construct (affective job insecurity and cognitive job insecurity) with acceptable levels of internal consistency for each of its subscales.

H₂: The JIQ is a construct equivalent measuring instrument for whites and blacks in selected organisations in South Africa.

H₃: Older employees experience higher levels of job insecurity than younger employees.

H₄: Employees with higher levels of qualification experience less job insecurity than employees with lower levels of qualification.

H₅: Males experience higher levels of job insecurity than females.

H₆: White employees experience higher levels of job insecurity than black employees.

METHOD

Research design

A cross-sectional survey design was used.

Participants

The study population could be defined as random samples of employees in selected organisations in South Africa ($N = 834$). The participants included: maintenance workers in a parastatal ($N = 171$); service workers in a parastatal ($N = 47$); workers in different departments in a financial institution ($N = 48$); workers in different departments in a packaging organisation ($N = 119$); workers in different departments in a mining organisations

($N = 121$); employees (mainly pilots) belonging to an Airline Association ($n = 92$); employees in different departments in a steel manufacturing industry ($n = 178$) and employees in different departments in a chemical industry ($N = 58$). Descriptive information of the sample is given in Table 1.

Table 1
Characteristics of the Participants

Item	Category	Frequency	Percentage
Age	24 years and younger	140	7,7
	25-35 years	356	38,8
	36-45 years	206	34,5
	46-55 years	118	15,8
	56 years and older	25	3,0
	Missing	14	1,7
Gender ($N=815$)	Male	570	68,3
	Female	235	29,4
	Missing	19	2,3
Race ($N=483$)	Black	199	23,9
	White	284	34,1
	Missing	351	42,0
Qualification($N=622$)	Less than grade 12	49	5,9
	Grade 12	80	9,6
	Diploma	153	18,3
	Degree	289	34,7
	Postgraduate qualification	51	6,1
	Missing	212	25,4

As indicated in Table 1, the majority of employees (73,3%) were between the ages of 25 and 45. More males (68,3%) than females (29,4%) participated in the research. The majority of employees (63,1%) had tertiary qualifications, with only 5,9% lower than grade 12.

Instruments

The Job Insecurity Questionnaire (JIQ) (De Witte, 1997) was used in this study and biographical information regarding, age, qualification, gender, and race was gathered.

The Job Insecurity Questionnaire (JIQ De Witte, 1997) was used to measure job insecurity. The JIQ contains 11 items, which measure the cognitive and affective dimensions of job insecurity. The items are rated on a five-point scale, varying from 1 (*strongly agree*) to 5 (*strongly disagree*). The items of the JIQ, measuring global job insecurity, are reported to have a Cronbach alpha coefficient of 0,92 and both scales (cognitive and affective) were shown to be highly reliable, with the six items measuring cognitive job insecurity (e.g. "I think that I will be able continue working here") displaying a Cronbach alpha coefficient of 0,90, and the five items of the affective job insecurity (e.g. "I feel uncertain about the future of my job") displaying a Cronbach alpha coefficient of 0,85 (De Witte, 2000). According to De Witte (2000), the content of these two scales do not overlap, but nevertheless have a high underlying correlation ($r = 0,76$).

Statistical analysis

The analysis was carried out with the SPSS Program (SPSS, 2003). In the first step, means standard deviations, skewness and kurtosis were determined to describe the data. The reliability and validity of the JIQ were also determined by means of Cronbach alpha coefficients, as well as exploratory factor analysis.

Construct (structural) equivalence was computed to compare the factor structure for the different culture groups included in this study. Exploratory factor analysis with a Procrustean target rotation was used to determine the construct equivalence of the JIQ for the different culture groups (Van de Vijver & Leung, 1997). According to Van de Vijver and Leung (1997), the comparison between the similarities of the factor structure of two cultural groups could be underestimated due to the arbitrary spatial allocation of factors during factor analysis. It is therefore suggested that target rotation be conducted prior to comparing the factor solutions of cultural groups by rotating the factor loading matrices with regard to each other in order to maximise the agreement between the factors. During this process, one group is arbitrarily assigned the target group, and the factor loadings of the other group are rotated towards the target group to form a common factor matrix, also known as centroid. Factorial agreement between the two groups is then estimated with Tucker's coefficient of agreement (Tucker's phi). This coefficient is insensitive to multiplications of the factor loadings, but sensitive to a constant added to all loadings of a factor. Because this index does not have a

known sampling distribution, it is impossible to establish confidence intervals. Values higher than 0,95 are deemed to be evident of factorial similarity or equivalence across different cultural groups (Van de Vijver & Leung, 1997), whereas values lower than 0,90 (Van de Vijver & Poortinga, 1994) or even 0,85 (Ten Berge, 1986) should be viewed as an indication of sufficient existing differences.

Multivariate analysis of variance (MANOVA) was used to determine the significance of differences between job insecurity of different groups (e.g. groups based on age and qualification). MANOVA tests whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). In MANOVA a new dependent variable that maximises group differences was created from the set of dependent variables. One-way analysis of variance was then performed on the newly created dependent variable. Wilk's Lambda was used to test the significance of the effects. Wilk's Lambda is a likelihood ratio statistic of the data under the assumption of equal population mean vectors for all groups against the likelihood under the assumption that the population mean vectors are identical to those of the sample mean vectors for the different groups. When an effect was significant in MANOVA, ANOVA was used to discover which dependent variables were affected. Because multiple ANOVAS were used, a Bonferroni-type adjustment was made for inflated Type 1 error.

RESULTS

Construct Equivalence of the JIQ

For the purposes of this research, it was decided to focus on *race* instead of *language* group, seeing as the samples of language groups were relatively small.

A simple principal components analysis was conducted on the 11 items of the JIQ on the total sample of workers in selected organisations in South Africa. Analysis of eigenvalues (larger than 1) and the scree plot indicated that two factors could be extracted. Next, a principal factor analysis with a direct oblimin rotation was used in carrying out factor analysis per race group. The pattern matrices for black participants and white participants are reported in Table 2.

Table 2

Pattern Matrix of the JIQ

Item	Black		Item	White	
	1	2		1	2
JIQ1	-0,01	0,80	JIQ1	0,06	0,80
JIQ2	-0,01	0,62	JIQ2	-0,08	0,81
JIQ3	0,15	0,73	JIQ3	0,01	0,84
JIQ4	-0,07	0,85	JIQ4	0,06	0,87
JIQ5	0,73	0,11	JIQ5	0,68	-0,01
JIQ6	0,80	0,01	JIQ6	0,76	-0,06
JIQ7	0,76	-0,12	JIQ7	0,92	-0,06
JIQ8	0,86	0,03	JIQ8	0,93	-0,04
JIQ9	0,80	-0,08	JIQ9	0,88	0,02
JIQ10	0,80	-0,01	JIQ10	0,79	0,08
JIQ11	0,71	0,16	JIQ11	0,71	0,17

The pattern matrices of the two-factor solutions for black participants and white participants were then used as input for an exploratory factor analysis with target rotations. The two-factor structure was compared across groups by rotating one solution to the other. After target rotation, the following Tucker's phi coefficients were obtained: a) Factor 1 = 0,99; Factor 2 = 0,98. These Tucker's phi coefficients compared favourably with the guideline of 0,90. Therefore, Hypothesis 1 is accepted. The pattern matrix for the total sample is reported in Table 3.

Table 3

Pattern Matrix of the JIQ for the Total Sample

	Component	
	1	2
I fear that I might lose my job	0,87	0,05
I worry about the continuation of my career	0,85	-0,04
I feel uncertain about the future of my job	0,83	-0,08
I fear that I might get fired	0,80	0,11
It makes me anxious that I might become unemployed	0,78	-0,11
There is a possibility that I might lose my job in the near future	0,74	0,16
I think I might be dismissed in the near future	0,62	0,30
I am very sure that I will be able to keep my job	0,02	0,87
I think that I will be able to continue working here	0,01	0,85
There is only a small chance that I will become unemployed	-0,06	0,77
I am certain of my job environment	0,12	0,76

Based on the results in Table 3, two items were complex and problematic. Both loaded on the affective subscale, whereas they are intended to load on the cognitive subscale. These two items are: a) Item 10 – "There is a possibility that I might lose my job in the near future"; b) Item 11 – "I think I might be dismissed in the near future". A closer analysis of the two items showed that it had to do with the cognitive experience of job insecurity. These two items were therefore removed from the analyses. The two factors correlated significantly ($r = 0,52$).

The descriptive statistics and alpha coefficients of the two factors of the JIQ are given in Table 4.

Table 4

Descriptive Statistics and Alpha Coefficients of the JIQ

Item	Mean	SD	Skewness	Kurtosis	α
Cognitive job insecurity	11,14	4,29	0,15	-0,02	0,84
Affective job insecurity	15,13	5,56	-0,10	-0,91	0,89

From Table 4 it is evident that the scores on the scales are normally distributed with both scales being somewhat negatively skewed and positively peaked. The internal consistencies

of the two scales of the JIQ are acceptable, according to the guidelines of 0,70 as set by Nunnally and Bernstein (1994). It is also consistent with the findings of coefficient of 0,92 and both scales (cognitive and affective) were shown to be highly reliable, with the six items measuring cognitive job insecurity displaying a Cronbach alpha coefficient of 0,90, and the five items of the affective job insecurity displaying a Cronbach alpha coefficient of 0,85 (De Witte, 2000). These findings provide support for Hypothesis 2.

Differences between Groups

Next, MANOVA followed to determine the relationship between job insecurity and various groups, including age, qualification, gender and race. The results of these comparisons are reported in Table 5.

Table 5
Manova of Job Insecurity of Age and Qualification Groups

Variable	Value	<i>F</i>	<i>df</i>	Error <i>df</i>	<i>p</i>	Partial eta squared
Age	0,90	10,58	8	1628	0,000*	0,05
Qualification	0,87	10,99	8	1232	0,000*	0,07
Gender	0,96	17,81	2	812	0,000*	0,04
Race	0,91	8,88	6	1114	0,000*	0,05

• Statistically significant difference: $p < 0,01$

Table 5 shows that there was a significant effect of age on the combined dependent variable Job Insecurity ($F_{(8, 1628)} = 10,58, p < 0,01$; Wilk's Lambda = 0,90; partial eta squared = 0,05). However, this effect was small (5% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni-adjusted alpha level of 0,005, showed that the groups differed in terms of the level of Affective Job Insecurity ($F_{(4, 815)} = 7,68, p < 0,01$, partial $\eta^2 = 0,04$) and Cognitive Job Insecurity ($F_{(4, 815)} = 19,97, p < 0,01$, partial $\eta^2 = 0,09$). The oldest age group (older than 55 years) showed higher levels of Affective Job Insecurity than the other age groups. The oldest age group (older than 55 years) showed higher Cognitive Job Insecurity than the other groups. Hypothesis 3, stating that older employees experience higher levels of job insecurity, is supported.

Furthermore, Table 5 shows that there was a significant effect of qualification on the combined dependent variable Job Insecurity ($F_{(8, 1232)} = 10,99, p < 0,01$; Wilk's Lambda = 0,87; partial eta squared = 0,07). However, this effect was moderate (7% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni-adjusted alpha level of 0,005, showed that the groups differed in terms of the level of Affective Job Insecurity ($F_{(4, 617)} = 8,20, p < 0,01$, partial $\eta^2 = 0,05$) and Cognitive Job Insecurity $F_{(4, 617)} = 17,78, p < 0,01$, partial $\eta^2 = 0,10$). Individuals with a grade 12, a diploma or a degree showed higher levels of Affective and Cognitive Job Insecurity than individuals with a qualification lower than grade 12 and those with postgraduate qualifications. Therefore, hypothesis 4 is also partially supported.

Table 5 shows that there was a significant effect of gender on the combined dependent variable Job Insecurity ($F_{(2, 812)} = 17,81, p < 0,01$; Wilk's Lambda = 0,96; partial eta squared = 0,04). This effect was small (4% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni-adjusted alpha level of 0,005, showed that the groups differed in terms of the level of Affective Job Insecurity ($F_{(1, 813)} = 30,92, p < 0,01$, partial $\eta^2 = 0,04$) and Cognitive Job Insecurity $F_{(1, 813)} = 22,91, p < 0,01$, partial $\eta^2 = 0,03$). Males showed higher levels of Affective and Cognitive Job Insecurity than females. Hypothesis 5 is therefore accepted.

Lastly, Table 5 shows that there was a significant effect of race on the combined dependent variable Job Insecurity ($F_{(2, 480)} = 5,05, p < 0,01$; Wilk's Lambda = 0,91; partial eta squared = 0,05). This effect was small (5% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni-adjusted alpha level of 0,005, showed that the groups differed in terms of the level Cognitive Job Insecurity $F_{(3, 558)} = 17,36, p < 0,01$, partial $\eta^2 = 0,09$). Whites and Coloureds showed higher levels of Cognitive Job Insecurity than blacks and Indians. Hypothesis 6 is therefore accepted.

DISCUSSION

The aims of this study were firstly to assess the psychometric properties of the JIQ for workers in selected organisations in South Africa, and to investigate whether employees in different groups experienced different levels of job insecurity. Prior to testing for the

construct validity and internal consistency of the JIQ, construct equivalence was tested for the questionnaire to determine possible sources of inappropriate comparisons across culture groups in this multicultural sample of workers in selected organisations in South Africa.

Based on conceptual and empirical grounds, items 10 and 11 were deleted from the original JIQ, subsequently resulting in a 9-item scale. This is in line with the findings of De Witte (1997), which indicated that item 11 loaded on both cognitive and affective job insecurity scales. The two-factor structure of the JIQ was confirmed after removal of item 10 and 11. A two-factor structure is consistent with literature findings across various samples, groups and countries (Borg & Elizur, 1992; De Witte, 1997; Van Vuuren, 1990). Also, reliability analysis confirmed sufficient internal consistency of the subscales. The observed correlations between the subscales were found to be comparable with the values reported by De Witte (1999). The elimination of item 10 ("There is a possibility that I might lose my job in the near future"), and item 11("I think I might be dismissed in the near future") can be justified on both conceptual and theoretical grounds, resulting in a 9-item JIQ scale. However, it is a concern that the final two-factor structure is made up of one positive factor (cognitive job insecurity) and one negative factor (affective job insecurity). Future studies should include both positively and negatively worded items to measure each dimension.

As far as age is concerned, the results indicated that statistically significant and practically significant differences existed between the cognitive and affective job insecurity of different age groups. The oldest age group (older than 55 years) showed higher levels of Cognitive and Affective Job Insecurity than the other age groups. These employees probably perceive that they will be the first ones to lose their jobs – because their skills may be redundant and/or because they know that they may be sent on early retirement.

Qualifications explained 7% of the variance in job insecurity. The results showed that qualifications had a small effect on affective job insecurity and a moderate effect on cognitive job insecurity. Individuals with a grade 12, a diploma or a degree showed higher levels of Affective and Cognitive Job Insecurity than individuals with a qualification lower than grade 12 and those with postgraduate qualifications.

Gender had a small, but statistically significant effect on employees' level of job insecurity. Males showed higher levels of Affective and Cognitive Job Insecurity than females. These

results were in contrast to research done by Sverke et al. (2004), where women consistently reported higher levels of job insecurity than men. This result was contrary to the initial hypothesis that males experience higher levels of job insecurity than females. De Witte (1991) also demonstrated that women experience a higher level of job insecurity when they are responsible for supporting a family.

There was a significant effect of race on the level of job insecurity experienced by employees. The results showed that 9% of the variance in cognitive job insecurity was explained by race. Whites and Coloureds showed higher levels of cognitive job insecurity than blacks and Indians. Regarding the relationship between job insecurity and race, white and Coloured employees experienced statistically significantly higher levels of job insecurity than black employees. This is contradictory to the findings of Orpen (1993) that higher levels of job insecurity exist amongst black employees in South Africa. One possible explanation for the higher level of job insecurity of whites is that the implementation of the Employment Equity Act No. 55 of 1998 (Republic of South Africa, 1998) has created new job opportunities for blacks, while whites (specifically white males, and even Coloureds) face fewer employment opportunities.

In conclusion, this study could serve as a standard regarding perceived levels of job insecurity of workers in selected organisations in South Africa. The two-factor structure of the job insecurity construct was largely confirmed, as well as the internal consistency of the cognitive job insecurity and affective job insecurity scales of the JIQ. Based on the results of this study, it would seem that the JIQ could be regarded as a suitable instrument for measuring job insecurity in selected organisations in South Africa. The JIQ therefore paves the way for future measurement of job insecurity of workers in selected organisations in South Africa.

This study had several limitations. First, self-report measures were exclusively relied upon. The use of a cross-sectional study design also represents a limitation. Longitudinal data would allow for a better understanding of the true nature of job insecurity.

RECOMMENDATIONS

Several research issues flow from this study. These require attention in order to increase both our understanding of job insecurity and the usefulness of this concept. Clearly, further construct validity research is needed to establish more fully the factorial validity of the Job Insecurity Questionnaire (JIQ).

The second issue relates specific to dimensions of the scale, namely cognitive job insecurity and affective job insecurity. This issue can also be clarified in future research that compares samples from different occupations. The findings of this study also suggest the need for possible improvement to item content. This implies that the wording of certain items may need to be modified in order to make them more appropriate for the specific content. Another concern is the two items that were dropped from the questionnaire. It will also have to be established whether the translation is part of the problem.

Four suggestions for further research derive from the present findings. Research is needed to determine the reliability and validity of the JIQ in other samples in South Africa. Research is also needed in other occupations to establish norms for job insecurity levels. Larger sample sizes might provide increased confidence that study findings would be consistent across other (similar) groups. Finally, longitudinal research is recommended to establish the levels of job insecurity over a period of time.

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CHAPTER 3
RESEARCH ARTICLE 2

THE VALIDATION OF THE MINNESOTA JOB SATISFACTION QUESTIONNAIRE IN SELECTED ORGANISATIONS IN SOUTH AFRICA

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ABSTRACT

The objectives of this study were to assess the construct equivalence of the Minnesota Job Satisfaction Questionnaire (MSQ), and to investigate the manifestation of job satisfaction in selected organisations in South Africa. A cross-sectional survey design with a random sample ($N = 474$) was used. The MSQ and a biographical questionnaire were administered. The results confirmed a two-factor model of job satisfaction, consisting of extrinsic job satisfaction and intrinsic job satisfaction. Exploratory factor analysis with target rotations confirmed the construct equivalence of scales for the black and white groups. The results obtained from comparing job satisfaction levels of various demographic groups showed that practically significant differences existed between the job satisfaction of different age and race groups.

OPSOMMING

Die doelstellings van hierdie studie was om die konstrukekwivalensie van die Minnesota Werkstevredenheidvraelys (MSQ) te bepaal en die manifestering van werkstevredenheid by werknemers in geselekteerde organisasies in Suid-Afrika te ondersoek. 'n Dwarsdeursnee-opnameontwerp met 'n steekproef van ($N = 474$) is gebruik. Die MSQ en 'n biografiese vraelys is afgeneem. Die resultate het 'n tweefaktormodel van werkstevredenheid, bestaande uit ekstrasieke en intrinsieke werkstevredenheid, bevestig. Eksploratiewe faktoranalise met teikenrotasies het die konstrukekwivalensie van die twee faktore vir die swart en wit kultuurgroepe bevestig. Die resultate verkry van die vergelyking tussen die beleving van werkstevredenheid en verskillende demografiese veranderlikes het prakties betekenisvolle verskille tussen die werkstevredenheid van verskillende ouderdom en rassegroepe aangedui.

Job satisfaction is an important research focus area in organisations. Much of the research in this area is based on the explicit assumption that job satisfaction is a potential determinant of absenteeism, turnover, in-role job performance and extra-role behaviours, and also that the primary antecedents of job attitudes are within management's ability to influence (Oshagbemi, 2003). The topic of job satisfaction is also important for individuals. It is relevant to the physical and mental well-being of employees. Work is an important aspect of people's lives and most people spend a large portion of their time at work. Yousef (2000) mentions that the reason for this relates to the significant associations of job satisfaction with several variables. For instance, it has a positive association with life satisfaction (Judge, Boudreau & Bretz, 1994) and organisational commitment (Fletcher & Williams, 1996).

Sarker, Crossman and Chinmeteeptuck (2003) mention that a sizeable amount of work in the job satisfaction literature has been devoted to developing conceptual and operational definitions of the job satisfaction construct, including overall or general job satisfaction and satisfaction with facets such as the work itself, co-workers, supervision, remuneration, working conditions, and opportunities for promotion. In general, therefore, job satisfaction refers to an individual's positive emotional reactions to a particular job. It is an affective reaction to a job that results from a person's comparison of actual outcomes with those that are desired, anticipated or deserved (Oshagbemi, 1999). According to Robbins (2003, p. 72), job satisfaction refers "to an individual's general attitude toward his or her job". A person with a high level of job satisfaction has a positive attitude about the job, while a person who is dissatisfied with his or her job has a negative attitude about the job.

Since job satisfaction involves employees' affective or emotional response, it has major consequences for their lives. Locke (1976, p. 1311) describes the most common consequences of job satisfaction in terms of its effects on physical health, longevity and mental health, and its impact on interaction between employees and the feelings of employees toward their jobs and social lives. Coster (1992) also supports the fact that work can have an important effect on the total quality of life of the employee,

The first objective of this study was to determine the psychometric properties of the Minnesota Job Satisfaction (MSQ) for workers in selected organisations in South Africa. The second objective was to determine whether the levels of job satisfaction differ in terms of demographic variables such as age, gender, race and qualification.

Job satisfaction

Job satisfaction can be described as an affective or emotional reaction to the job, resulting from the incumbent's comparison of actual outcomes with the required outcomes (Cranny, Smith & Stone, 1992; Hirschfeld, 2000; Locke, 1976). Schneider and Snyder (1975), on the other hand, define job satisfaction as a personal evaluation of conditions present in the job, or outcomes that arise from having a job. Weiss, Dawis, England and Lofquist (1967) explain this comparison further by stating that employees seek to achieve and maintain correspondence with their environment. This can be described in terms of the individual fulfilling the requirements of the environment, and the environment fulfilling the requirements of the individual (Cook, Hepworth, Wall & Warr, 1981). This means that employees will experience job satisfaction if they feel that their individual capacities, experience and values can be organised in their work environment and that the work environment offers them opportunities and rewards (Dawis, 1992; Roberts & Roseanne, 1998).

Job satisfaction thus has to do with an individual's perceptions and evaluation of his job, and this perception is influenced by the person's unique circumstances, such as needs, values and expectations. People will therefore evaluate their jobs on the basis of factors which they regard as being important to them (Sempane, Rieger & Roodt, 2002). Employees who are satisfied with their jobs are likely to be better ambassadors for the organisation, and show more organisational commitment (Agho, Price & Mueller, 1992).

According to Rothmann and Agathagelou (2000), job satisfaction is a complex variable and is influenced by situational factors of the job environment, as well as dispositional characteristics of an individual. This definition also applies to the issues that determine job satisfaction that are mirrored in the private sector. Locke (1976) found that in order for researchers to understand job attitudes, they need to understand job dimensions, which are complex and interrelated in nature. He mentions the common aspects of job satisfaction, such as "work, pay, promotions, recognition, benefits, working conditions, supervision, co-workers, company and management" (Locke, 1976, p. 1302). Later research has shown that these different aspects can be arranged according to two dimensions: an intrinsic versus an extrinsic one (Hirschfeld, 2000; Spector, 1997). Extrinsic satisfaction refers to satisfaction with aspects that have little to do with the job tasks or content of the work itself, such as pay,

working conditions and co-workers. Intrinsic satisfaction refers to the job tasks themselves (e.g. variety and autonomy).

When people were asked what they wanted most from their jobs, the typical answers were: mutual respect among co-workers, recognition for work well done, opportunities to develop skills, and that the work should be interesting. People are satisfied with their jobs when they enjoy their work, have a realistic opportunity to advance in the company, like the people they deal with, like and respect their supervisors, and believe that their pay is fair (Kleiman, 1997). For the purpose of this research, job satisfaction is defined as a positive or an affective function of the perceived relationship between what one wants from one's job and what one perceives as being offered.

One of the arguments often brought against theories of job satisfaction is that they take little account of differences between people (Oshagbemi, 2003). What is wanted by one group of individuals in terms of a job is often different from what is wanted by another group. Personal correlates of job satisfaction have become a recent focus of at least some researchers' interest (Hickson & Oshagbemi, 1999). Investigators have examined such individual correlates of job satisfaction as physical, mental and dispositional differences. What seems to be lacking, according to Oshagbemi (2003), is a comprehensive approach to examine, in a single study, personal correlates of job satisfaction, specifically looking at the influence of gender, age, and length of service. Such multivariate study contributes to the objective of such a study. The second objective is to provide empirical evidence to ascertain which of the demographic groups, such as age, gender, qualification, and race, if any, are correlates of job satisfaction within selected organisations.

The search for an understanding of the causes of job satisfaction is an ongoing area of interest for social scientists and managers; the premise being that satisfied workers will be more productive and remain with the organisation longer, whereas dissatisfied workers will be less productive and more inclined to quit (Sarker, Crossman & Chinmeteepituck, 2003). Recent research has investigated differences in job satisfaction levels according to age (Ang, Goh & Koh, 1993; Hickson & Oshagbemi, 1999; Luthans & Thomas, 1989; Oshagbemi, 1998) or tenure (Oshagbemi, 2000). Gardner and Oswald (2002) indicate in their research that job satisfaction declines with level of job satisfaction and that the lowest level of job satisfaction

is experienced by employees with a degree as qualification. Oswald (2002) further indicates that job satisfaction lower among blacks than whites.

Measurement of job satisfaction

Job satisfaction has been conceptualised and operationalised as both a global construct and a multifaceted construct (Hirschfeld, 2000). There are two types of job satisfaction measures: single-question and multiple-item measures. Single-question measures typically ask a question such as, "On the whole, would you say you are satisfied or dissatisfied with your job?" (Quinn, Staines & McCullough, 1974). Job satisfaction has been operationalised as both a global construct and a multifaceted construct.

One presumed advantage of multidimensional measures of job satisfaction is that the components may relate differently to other variables of interest in a manner that advances the science and practice of Industrial/Organisational psychology (Hirschfeld, 2000). Spector (1997) identifies the 20-item short form of the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, England & Lofquist, 1967) as a popular measure that is frequently used in job satisfaction research. One advantageous feature of the MSQ short form is that it can be used to measure two distinct components: intrinsic job satisfaction and extrinsic job satisfaction. Intrinsic job satisfaction refers to how people feel about the nature of the job tasks, whereas extrinsic job satisfaction refers to how people feel about aspects of the work situation that are external to the job tasks or work (Spector, 1997). Evidence exists supporting some degree of discriminant validity between these two components of job satisfaction in their relationships with other relevant variables (Hirschfeld, 2000). Results of Moorman's (1993) study suggest that intrinsic job satisfaction has an affective basis, whereas extrinsic job satisfaction does not. Intrinsic job satisfaction seems to be influenced to a greater degree by genetic factors than extrinsic job satisfaction (Bouchard, 1997).

Although empirical evidence (involving the MSQ short-form subscales) exists, it is consistent with the theoretical distinction between extrinsic and intrinsic job satisfaction (e.g. Arvey, McCail, Bouchard, Taubman & Cavanaugh, 1994), many researchers have suggested that assigning MSQ short-form items to extrinsic and intrinsic subscales, as specified by the MSQ manual (Weiss et al., 1967), results in lower construct validity (e.g. Arvey, Dewhirst &

Brown, 1978; Spector, 1997).

Schriesheim, Powers, Scandura, Gardinez, and Lakou (1993) conducted a content adequacy assessment of the MSQ short-form intrinsic and extrinsic subscales. These subscales were initially constructed through an empirical approach that relied on factor analytic results (Weiss et al., 1967). Based on their analysis, Schriesheim et al. (1993) concluded that the content adequacy of the original MSQ short-form subscales was questionable.

South Africa is a multicultural society. According to Van de Vijver and Leung (1997), measurement equivalence should be computed for measuring instruments in any multicultural setting where individuals from different cultural groups are compared in terms of a specific construct. This is particularly relevant where no norms exist for different cultural groups, which is often the case in cross-cultural research. In line with the recommendations of Poortinga (1989), and Van de Vijver and Leung (1997), measurement equivalence and bias should be tested for a multicultural context where differences in scores could be attributed to cultural influences in terms of item meaning and understanding, rather than to differences resulting from the measuring constructs by the measuring instruments. If cultural influences are not accounted for, invalid conclusions regarding the constructs under study could be made – with serious implications for cultural diverse settings such as South Africa. Where measurement equivalence is concerned with measurement and the comparability of scores, bias is concerned with factors that influence the validity of cross-cultural comparisons.

The hypotheses of this study are as follows:

H1: Job satisfaction, as measured by the MSQ is a two-dimensional construct with acceptable levels of construct equivalence and internal consistency for each of its subscales.

H2: Age groups differ significantly regarding their levels of job satisfaction.

H3: Males and females differ significantly regarding their levels of job satisfaction.

H4: Race groups differ significantly regarding their levels of job satisfaction.

H5: Employees with different qualifications differ significantly regarding their levels of job satisfaction.

METHOD

Research design

A cross-sectional survey design was used. Cross-sectional designs are appropriate where groups of subjects at various stages of development are studied simultaneously, whereas the survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993).

Participants

A convenient sample of employees at selected organisations in South Africa was used. The sample consisted of employees in the following organisations: a parastatal (maintenance workers) ($n = 178$), a packaging organisation ($n = 118$), a mining organisation ($n = 120$), and employees in chemical industry ($n = 58$). Descriptive information of the sample is shown in Table 1.

As indicated in Table 1, the highest age distribution is in the age group 36-45 years. This is an indication that the employees are more or less in the middle of their working life. More males (85%) than females (15%) participated in the research. The majority of employees (48,9%) have tertiary qualifications, with only 10,1% lower than grade 12. In terms of race distribution, 33,5% employees were from the black group and 26,8% from the white group.

Table 1

Characteristics of the Participants

Item	Category	Frequency	Percentage
Age (<i>N</i> = 474)	24 years and younger	29	6,1
	25-35 years	115	24,3
	36-45 years	205	43,2
	46-55 years	100	21,1
	56 years and older	25	5,3
Gender (<i>N</i> = 474)	Male	403	85
	Female	71	15
Race (<i>N</i> = 474)	Black	159	33,5
	White	127	26,8
	Missing	188	39,7
Qualification(<i>N</i> = 474)	Less than grade 12	48	10,1
	Grade 12	72	15,2
	Diploma	76	16,0
	Degree	156	32,9
	Postgraduate	3	0,6
	Missing	119	25,1

Statistical analysis

The analysis was carried out with the SPSS program, 12.0 (SPSS, 2003). In the first step, means standard deviations, skewness and kurtosis were determined to describe the data. The reliability and validity of the MSQ were also determined by means of Cronbach's alpha coefficients as well as confirmatory factor analysis.

It was decided to test for construct equivalence prior to commencing with the confirmatory factor analysis stage. Construct (structural) equivalence was computed to compare the factor structure for the different race groups included in this study. Exploratory factor analysis with a Procrustean target rotation was used to determine the construct equivalence of the MSQ for the different race groups (Van de Vijver & Leung, 1997). According to Van de Vijver and Leung (1997), the comparison between the similarities of the factor structure of two cultural groups could be underestimated due to the arbitrary spatial allocation of factors during factor

analysis. It is thus suggested that target rotation be conducted prior to comparing the factor solutions of cultural groups by rotating the factor loading matrices with regards to each other in order to organise the agreement between the factors. During this process, one group is arbitrarily assigned the target group and the factor loadings of the other group rotated towards the target group to form a common factor including matrix, also known as centroid. Factorial agreement between the two groups is then estimated with Tucker's coefficient of agreement (Tucker's ϕ). Because this index is insensitive to multiplications of factor loadings, but sensitive to a constant added to factor loadings, sufficient agreement between the factor solutions of the respective cultural groups would be a reflection of the extent to which a perfect multiplicative agreement is achieved between the factor loadings of the respective factor solutions of both groups in the centroid.

Because this index does not have a known sampling distribution, it is impossible to establish confidence intervals. Values higher than 0,95 are deemed to be evident of factorial similarity or equivalence across different cultural groups (Van de Vijver & Leung, 1997), whereas values lower than 0,90 (Van de Vijver & Poortinga, 1994), or even 0,85 (Ten Berge, 1986), should be viewed as an indication of sufficient existing differences. This index is deemed sufficient to evaluate global factorial agreement, but if construct equivalence is not acceptable, bias analysis should be conducted to detect possible inappropriate items in the questionnaire.

Multivariate analysis of variance (MANOVA) was used to determine the significance of difference between job satisfaction (extrinsic and intrinsic) of demographic groups. MANOVA tests whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). In MANOVA, a new dependent that maximises group differences is created from the set of dependent variables.

One-way analysis was then performed on the newly created dependent variable. Wilk's lambda was used to test the significance of the effects. Wilk's lambda is a likelihood ratio statistic of the data under the assumption of equal population mean vectors for all groups, against the likelihood under the assumption that the population mean vectors are identical to those of the sample mean vectors for the different groups. When an effect as significant in MANOVA, ANOVA was used to discover which dependent variables were affected.

Because multiple ANOVAs were used, a Bonferroni type adjustment was made for inflated Type 1 error. Tukey tests were done to indicate which groups differed significantly when ANOVAs were done.

Effect sizes (Cohen, 1988; Steyn, 1999) were used in addition to statistical significance to determine the significance of relationships. Effect sizes indicate whether obtained results are important (while statistical significance may often show results which are of little practical relevance). The use of only statistical significance testing in a routine manner has been criticised and appeals have been made by editors of some periodicals that more emphasis be placed on effect sizes (Steyn, 1999). The following formula was used to determine the practical significance of differences (d) when ANOVAs were used (Steyn, 1999):

$$d = \text{Mean A} - \text{Mean B} / \text{Root MSE}$$

where

Mean A = Mean of the first group

Mean B = Mean of the second group

Root MSE = Root Mean Square Error

A cut-off point of 0,50 (medium effect) (Cohen, 1988) was set for the practical significance of differences between means.

RESULTS

A simple principal components analysis was conducted on the 20 items of the MSQ on the total sample of workers at selected organisations in South Africa. Analysis of eigenvalues (larger than 1) and the scree plot indicated that two factors could be extracted. Next, principal component analysis with direct oblimin rotation was used to perform factor analysis by race. The pattern matrices for blacks and whites are reported in Table 2.

Table 2

Pattern Matrix of the MSQ

Item	Blacks		Item	Whites	
	Factor 1 (extrinsic)	Factor 2 (intrinsic)		Factor 1 (extrinsic)	Factor 2 (intrinsic)
MSQ1	-0,02	0,50	MSQ1	0,01	0,70
MSQ2	-0,27	0,71	MSQ2	0,24	0,86
MSQ3	-0,04	0,81	MSQ3	0,11	0,76
MSQ4	0,65	0,56	MSQ4	-0,15	0,59
MSQ5	0,68	0,01	MSQ5	0,67	0,25
MSQ6	0,58	0,00	MSQ6	0,55	0,36
MSQ7	0,09	0,32	MSQ7	-0,04	0,45
MSQ8	0,33	0,47	MSQ8	0,44	-0,11
MSQ9	0,20	0,52	MSQ9	-0,14	0,54
MSQ10	0,17	0,61	MSQ10	-0,23	0,47
MSQ11	0,21	0,68	MSQ11	-0,38	0,48
MSQ12	0,66	0,20	MSQ12	-0,60	0,23
MSQ13	0,68	-0,15	MSQ13	0,65	0,10
MSQ14	0,67	0,08	MSQ14	0,59	0,13
MSQ15	0,73	0,09	MSQ15	-0,12	0,72
MSQ16	0,73	0,08	MSQ16	-0,02	0,76
MSQ17	0,75	0,00	MSQ17	0,47	-0,88
MSQ18	0,59	-0,07	MSQ18	-0,24	-0,72
MSQ19	0,65	0,03	MSQ19	0,14	-0,69
MSQ20	0,49	0,32	MSQ20	0,43	-0,44

The pattern matrices of the two-factor solutions for black and whites were used as input for an exploratory factor analysis with target rotations. The two-factor structure was compared across groups by rotating one solution to the other. After target rotation, the following Tucker's phi coefficients were obtained: a) Factor 1 = 0,91; Factor 2 = 0,86. Although the Tucker's phi coefficient for Factor 1 compared well with the guideline of 0,90, it is clear that Factor 2 showed an unacceptable low equivalence for the two race groups.

The specific items that proved to be problematic were item 15, reading, "The freedom to use my own judgement", and item 16, reading, "The chance to try my own methods of doing the job". It was decided to remove these two items, because they load differently for the two races. Item 20, reading, "The feeling of accomplishment I get from the job", is, according to

Hirschfeld (2000), an intrinsic item, and in this study it loads on the extrinsic subscale, and was therefore removed. The results are indicated in Table 3.

Table 3

Pattern Matrix for the Adapted MSQ

Item	Blacks		Item	Whites	
	Factor 1 (extrinsic)	Factor 2 (intrinsic)		Factor 1 (extrinsic)	Factor 2 (intrinsic)
MSQ1	0,00	0,48	MSQ1	0,29	0,62
MSQ2	-0,29	0,70	MSQ2	0,46	0,56
MSQ3	-0,06	0,82	MSQ3	0,36	0,59
MSQ4	0,04	0,57	MSQ4	0,19	0,67
MSQ5	0,70	0,02	MSQ5	0,79	-0,23
MSQ6	0,61	0,00	MSQ6	0,79	-0,09
MSQ7	0,13	0,30	MSQ7	0,33	0,47
MSQ8	0,36	0,46	MSQ8	0,28	0,51
MSQ9	0,18	0,54	MSQ9	0,13	0,60
MSQ10	0,12	0,64	MSQ10	-0,00	0,61
MSQ11	0,19	0,69	MSQ11	-0,08	0,74
MSQ12	0,65	0,23	MSQ12	0,71	-0,25
MSQ13	0,69	-0,14	MSQ13	0,64	-0,31
MSQ14	0,65	0,11	MSQ14	0,60	-0,32
MSQ17	0,75	0,03	MSQ17	0,75	0,03
MSQ18	0,60	-0,05	MSQ18	0,38	-0,54
MSQ19	0,64	0,05	MSQ19	0,70	-0,32

After target rotation, the following Tucker's phi coefficients were obtained: a) Factor 1 = 0,95; Factor 2 = 0,95. This Tucker's phi coefficients compared favourably with the guideline of 0,90. This provides support for Hypothesis 2 that the MSQ is a construct equivalent measuring instrument for the different races in selected organisations in South Africa.

The descriptive statistics, alpha coefficients, skewness and kurtosis of the two factors of the MSQ are given in Table 4.

Table 4

Descriptive Statistics and Alpha Coefficients of the MSQ

Item	Mean	SD	Skewness	Kurtosis	α
Extrinsic job satisfaction	26,54	7,28	-0,30	-0,53	0,82
Intrinsic job satisfaction	43,35	8,81	-0,45	-0,22	0,79
Total job satisfaction	53,78	10,81	-0,37	-0,11	0,86

The information in Table 4 indicates that the scores on the subscales of the MSQ are normally distributed. The MSQ and the two subscales (extrinsic and intrinsic) job satisfaction presented with adequate levels of internal consistency, falling well above the 0,70 level suggested by Nunnally and Bernstein (1994). This provides support for Hypothesis 1 that the MSQ has a two-factor structure with acceptable levels of internal consistency for each of its subscales.

Next, MANOVA and ANOVA analyses followed to determine the relationship between job satisfaction and various demographic characteristics, such as different age, qualification, gender and race. Demographic characteristics were first analysed for statistical significance using Wilk's Lambda statistics. The results of these comparisons are reflected in Table 5.

Table 5

MANOVA of Job Satisfaction of Age and Qualification Groups

	Value	F	Df	DENDF	p
Age	0,90	6,32	8	914	0,00*
Qualification	0,92	3,46	8	676	0,00*

* Statistically significant difference: $p < 0,01$

In an analysis of Wilk's Lambda values, statistically significant differences ($p < 0,01$) were found between the job satisfaction levels of age and qualification groups respectively. The relationship between extrinsic and intrinsic job satisfaction of age and qualification groups was further analysed to determine the practical significance of differences using ANOVA,

followed by Tukey HSD tests. The differences between the job satisfaction levels of different age groups are reflected in Table 6.

Table 6

ANOVA of differences between Extrinsic and Intrinsic Job Satisfaction and Age

Item	Younger than 24	25-35 years	36-45 years	46-55 years	Older than 55 years	<i>p</i>	Root MSE
Extrinsic Job Satisfaction	38,45	36,06	34,99 ^a	36,97	39,28 ^b	0,00*	8,44
Intrinsic Job Satisfaction	32,28 ^a	36,04 ^a	36,40 ^b	38,15 ^{a, b}	42,20 ^{b, c}	0,00*	7,70

* Statistically significant ($p \leq 0.01$)

^a Practically significant differences from age groups (in row) where b (medium effect), $d \geq 0,50$ or c (large effect, $d \geq 0,80$) are indicated

Practically significant differences (medium effect) were found between extrinsic job satisfaction and the age group 36 to 45. Younger employees experience lower job satisfaction than employees older than 55 years. In terms of intrinsic job satisfaction, practically significant (medium effect) and statistically significant differences were found between employees in the age group 36-45 years and employees younger than 24 years. With regard to the employees in the age group 25-35 years, practically significant (medium effect) and statistically significant differences exist with employees in the age group 46-55 years, and a large difference with employees older than 55 years. This is an indication that, in terms of intrinsic job satisfaction, older employees experience higher levels of job satisfaction.

The differences between the job satisfaction of individuals with different qualifications are reported in Table 7.

Table 7

ANOVA of differences between Extrinsic and Intrinsic Job Satisfaction and Qualification

Item	Less than grade 12	Grade 12	Diploma	Degree	Postgraduate	<i>p</i>	Root MSE
Extrinsic Job Satisfaction	36,69 ^a	32,53 ^a	34,52 ^a	36,57 ^a	44,00 ^c	0,003*	8,44
Intrinsic Job Satisfaction	37,07	35,26	38,66	37,99	38,33	0,001*	7,70

* Statistically significant ($p \leq 0,01$)

^a Practically significant differences from qualification (in row) where b (medium effect, $d \geq 0,50$ or c (large effect, $d \geq 0,80$) are indicated

Table 7 shows that there are statistically significant differences between the extrinsic and intrinsic job satisfaction of employees with different qualifications. Employees with a postgraduate qualification experience practically significant (large effect) higher levels of extrinsic job satisfaction than employees with lower qualifications. No practically significant differences between intrinsic job satisfaction and different qualification levels were found. Hypothesis 5 is therefore only partially accepted.

T-tests were used to determine differences between the demographic groups of gender and race and the results are reported in Table 8.

There were no statistically differences between the levels of job satisfaction of males and females. Hypothesis 3 is therefore rejected. As indicated in Table 8, there are practically significant differences of medium effect in terms of race in the experience of job satisfaction. White employees experience higher levels of intrinsic job satisfaction. Hypothesis 4 is therefore partially accepted for intrinsic job satisfaction.

Table 8

Differences between Job Satisfaction and the Demographic Variables of Gender and Race

Item	Race				<i>t</i>	<i>p</i>	<i>d</i>
	Blacks		Whites				
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Extrinsic Job Satisfaction	33,16	9,20	35,67	9,20	-2,40	0,016	0,27
Intrinsic Job Satisfaction	35,20	7,66	40,27	6,39	-6,06	0,000*	0,66

Item	Gender				<i>t</i>	<i>p</i>	<i>d</i>
	Males		Females				
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Extrinsic Job Satisfaction	35,99		36,61	8,65	0,46	0,64	0,24
Intrinsic Job Satisfaction	35,47		35,47	7,80	-0,63	0,52	0,26

DISCUSSION

The aim of this study was twofold. Firstly, it was intended to test the psychometric properties of the MSQ. Reliability analysis revealed that the two subscales were sufficiently internally consistent. Secondly, to investigate the relationship of the subscales with demographic variables such as age, qualification, gender and race for employees at selected organisations in South Africa.

The results obtained using confirmatory factor analyses supported a two-dimensional factor structure, this has been consistently found across various samples (Hirschfeld, 2000; Schriesheim et al., 1993). Based on conceptual grounds, the following items were removed: item 15, reading, "The freedom to use my own judgement". A possible explanation is that, in the black culture, people tend not to rely on their own judgement – they actually perceive it as unethical; item 16, reading "The chance to try my own methods of doing the job". A possible explanation for this is that employees perceive this differently in the work situation. Not all people are comfortable with trying own methods; item 20, reading "The feeling of

accomplishment I get from the job". A possible explanation is that employees differ in terms of their motivation for specific work.

This results in a 17-item scale – eight items measuring extrinsic job satisfaction, and nine items measuring intrinsic job satisfaction. The validation of these subscales is needed in further studies. The results of this study confirm the construct equivalence of the MSQ for black and white employees at selected organisations in South Africa. This means that the mean scores of these groups could be compared in other analyses.

The second objective of the study was to investigate the relationship between job satisfaction (extrinsic and intrinsic) and various demographic characteristics. The results indicate that differences exist between the levels of extrinsic and intrinsic job satisfaction and age, indicating that employees in the age group older than 55 experience higher levels of extrinsic and intrinsic job satisfaction. The majority of studies on the relationship of age and job satisfaction have found some association between job satisfaction and age. Some authors (Clark, Oswald & Warr, 1996) suggest that job satisfaction is U-shaped in age, with higher levels of morale among young workers, but that this declines after the novelty of employment wears off and boredom with the job sets in. Satisfaction rises again later in life as workers become accustomed to their role. This specific U-shape is confirmed in this study as far as extrinsic job satisfaction is concerned.

Practically significant differences were found between levels of job satisfaction and qualification, indicating that employees with higher levels of qualification experience higher levels of job satisfaction. A possible explanation for this is that employees with higher levels of qualification are usually in more senior positions where they can experience a level of accomplishment and feel that their hard work is recognised.

In recent years, South Africa has experienced a political transition to a democratic society based on freedom and equality, as embodied in the Constitution. Historically, women have experienced many different levels of gender oppression and inequality in South African society. In a study conducted by L.G Higgs, P. Higgs, and Wolhuter (2004) in the academic profession, no differences were found between males and females in terms of their experience of job satisfaction. This study also confirms those results. In other words, male employees do not experience practically significant higher levels of extrinsic and intrinsic job satisfaction

than female employees. A reason for this could be that both male and female work under the same circumstances, and there is no discrimination in terms of salary or benefits.

The results of this study indicate that there is a difference of medium effect between black and white employees in their experience of intrinsic job satisfaction. Black employees experience lower levels of intrinsic job satisfaction. A possible explanation for this could be that black employees need more feedback and acknowledgement than their white colleagues do. However, this is only an assumption and needs further research so as to establish the reasons for this finding.

A limitation of this study was that it relied exclusively on self-report measures. The sampling procedure was another limitation, and future studies could benefit from using a stratified random-sampling design.

RECOMMENDATIONS

Despite this study's limitations, the results indicated that the MSQ is a reliable instrument to assess the extrinsic and intrinsic job satisfaction of employees at selected organisations in South Africa. It is therefore recommended that the MSQ with the two subscales of extrinsic and intrinsic job satisfaction be used to assess the levels of job satisfaction of employees.

Regarding the demographic variables, it is indicated that younger employees experience lower levels of intrinsic and extrinsic job satisfaction. It is therefore recommended that specific programs can be included in the organisation to enhance the experience of job satisfaction. Regular feedback can possibly also enhance job satisfaction.

The finding that there is a difference in terms of race in the experience of job satisfaction needs further investigation and a recommendation could be that open communication regarding expectations could clarify this.

Six suggestions for future research are derived from the present findings. Although this study found the MSQ to be reliable, and confirmed the two-factor structure, additional research is needed to determine the reliability and validity in other samples in South Africa. Also, research is needed in other occupations to establish norms for job satisfaction other than those used in the present study. Future studies should use large samples and adequate statistical

techniques (e.g. structural equation modelling). Large sample sizes provide increased confidence that study findings would be consistent across other sample groups. Longitudinal studies are also recommended.

Lastly, further studies should also investigate the relationship between extrinsic and intrinsic job satisfaction and particular job characteristics and work-related outcomes such as organisational commitment, organisational citizenship, turnover and absenteeism.

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CHAPTER 4
RESEARCH ARTICLE 3

JOB INSECURITY, JOB SATISFACTION AND ORGANISATIONAL COMMITMENT OF EMPLOYEES IN SELECTED ORGANISATIONS IN SOUTH AFRICA

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ABSTRACT

The objectives of this study were to assess the relationship between job insecurity, job satisfaction and organisational commitment in selected organisations in South Africa. A cross-sectional survey design was used. The sample included employees in selected organisations in South Africa ($N = 474$). The Job Insecurity Questionnaire, the Minnesota Job Satisfaction Questionnaire, the Organisational Commitment Questionnaire and a biographical questionnaire were administered. The results revealed significant relationships between intrinsic job satisfaction and organisational commitment. Job satisfaction was found not to mediate the relationship between job insecurity and positive commitment. Affective and cognitive job insecurity, extrinsic and intrinsic job satisfaction, age, gender and qualification explained 24% of the variance in organisational commitment.

OPSOMMING

Die doelstelling van hierdie studie was om die verband tussen werksonsekerheid, werkstevredenheid en organisasieverbondenheid in geselekteerde organisasies in Suid-Afrika te bepaal. 'n Dwarsnec opname-ontwerp is gebruik. Die steekproef het bestaan uit werknemers in geselekteerde organisasies in Suid-Afrika ($N = 474$). Die Werks-onsekerheidsvraelys, Minnesota-werkstevredenheidsvraelys, Organisasie-verbondenheidsvraelys en 'n biografiese vraelys is afgeneem. Die resultate het getoon dat daar 'n betekenisvolle verband tussen instrinsieke werkstevredenheid en organisasieverbondenheid bestaan. Affektiewe en kognitiewe werksonsekerheid, instrinsieke en ekstrinsieke werkstevredenheid, ouderdom, geslag en kwalifikasie het 24% van die variansie in organisasieverbondenheid verklaar.

Over the last few decades, the labour market has undergone rapid and dramatic changes in nearly all industrialised Western countries. Since the end of the early 1980s, economic recessions, restructuring, rapid technological growth and increased competition on the international markets have dramatically changed the nature of work (Howard, 1995). The current international competition and globalisation have more concrete and relevant organisational consequences than before, for instance, privatisation, mergers, restructuring of organisations, flexible organisation of work, outsourcing, and downsizing. In fact, in an attempt to reduce costs and increase competition and efficiency, organisations in most industrialised countries are currently involved in a phase of continuous restructuring that is increasingly geared towards greater organisational flexibility (Purchell & Purchell, 1998).

These profound changes have prompted a situation of secure employment to change into one that is ever more precarious. For many workers, the flexible working life means an increased feeling of insecurity and uncertainty concerning the nature and existence of the actual job, with important psychological implications (Hartley, Jacobson, Klandermans, & Van Vuuren, 1991). This situation implies that it is necessary to define and assess the social, emotional, and behavioural impact of feelings of insecurity for the individual worker as well as the organisation.

Generally, studies refer to the feeling of job insecurity as one of personal inefficiency and incapacity to maintain continuity in a situation where the actual role or job position is threatened (Greenhalgh & Rosenblatt, 1984), often from an undesired change that places the continuity and security of the actual employment at risk (Hartley et al., 1991). Some researchers even suggest that the threat of job loss may be more detrimental to the individual than the realisation of these threats (Dekker & Schaufeli, 1995; Latack & Dozier, 1986). Such a view concurs that the anticipation of a stressful event may be an equal, if not greater source of stress than the actual event itself (Lazarus & Folkman, 1984). Job insecurity has both cognitive and affective components. On the one hand, it reflects changes that occur within a company and the society in general; on the other hand, it refers to an affective experience based on the individual perception of uncertainty. This means that, when exposed to the same objective situation, the feeling of job insecurity vary from one individual to the next (Greenhalgh & Rosenblatt, 1984; Hartley et al., 1991).

Since job insecurity reflects the perceived anxiety about losing one's job, this anxiety may be expected to have consequences for the individual. Work is a central part of life for many people and far more waking hours are spent at work than at home, while it also fulfils both financial and social needs. Jobs provide individuals with income, social contacts, possibilities of personal development, as well as daily and weekly structure (Jahoda, 1982). If the individual is at risk of not being able to fulfil these needs, in that he or she perceives the employment to be threatened, he/she is liable to experience a sense of frustration. Losing one's job would entail the loss of financial as well as social resources, resulting in a situation where the individual no longer feels needed (De Witte, 1999; Levi, 1999).

Job insecurity is regarded as a stressor. A stressor is considered to arise when an individual experiences signals in the environment that indicate the presence of a threat. The perceived risk of losing one's job can be such a threat, which the individual interprets as something negative and thus tries to counteract (Sverke et al., 2004). An examination and evaluation is done of the resources and viable strategies available for the counteracting of this threat. Individuals might feel that they do not have access to the necessary resources, or that they are not able to utilise these resources in a way that would eliminate the threat to employment. If that is the outcome of the evaluation, the individual will experience stress which, in this case, presents itself in the form of job insecurity (Greenhalgh & Rosenblatt, 1984).

Job insecurity implies a great deal of uncertainty. Uncertainty about whether a threat will be realised (in this case, whether one becomes unemployed), constitutes a great source of stress for many people (Lazarus & Folkman, 1984). Being in a state of uncertainty about the future may evoke anxiety and contribute to poor well-being (Ganster & Fusilier, 1989; Spector, 1986). In accordance with this, many researchers argue that stressors are especially harmful when they are combined with a low sense of control (Bishop, 1994; Elsass & Veiga, 1997; Karasek & Theorell, 1990; Lundberg & Frankenhaeuser, 1978; Peterson & Stunkad, 1989; Thompson, 1981). It has also been suggested that having the ability to exert control over the work or the situation helps the individual in coping with stressful events (Frankenhaeuser & Johansson, 1986). It is also important to note that it is not the situation, but rather the subjective feeling of having control that is important (Bishop, 1994; Thompson, 1981). However, job insecurity can affect not only the worker's well-being, but also his or her work-related attitudes. Numerous studies showed that job insecurity can

result in decreased job satisfaction and lower organisational commitment (Ashford, Lee, & Bobko, 1989; Davy, Kinicki, & Scheck, 1997; Rosenblatt & Ruvio, 1996).

Job satisfaction

Job satisfaction is a widely researched topic (Li-Ping Tang & Talpade, 1999). Yousef (2000) ascribes this to the fact that job satisfaction has significant associations with several variables. For instance, it has a positive association with life satisfaction (Judge, Boudreau & Bretz, 1994), organisational commitment (Fletcher & Williams, 1996) and job performance (Babin & Boles, 1996).

According to Hirschfeld (2000), job satisfaction represents the extent to which people like their jobs, or the extent to which one feels negative or positive about intrinsic or extrinsic aspects of one's job. Job satisfaction can be described as an affective or emotional reaction to the job, resulting from the incumbent's comparison of actual outcomes with the required outcomes (Cranny, Smith, & Stone, 1992; Locke, 1976; Hirschfeld, 2000). Schneider and Snyder (1975), on the other hand, define job satisfaction as a personal evaluation of conditions present in the job, or outcomes that arise as a result of having a job.

Weiss, Dawis, England, and Lofquist (1967) explain this comparison further by stating that employees seek to achieve and maintain correspondence with their environment. Correspondence with the environment can be described in terms of the individual fulfilling the requirements of the environment, and the environment fulfilling the requirements of the individual (Cook, Hepworth, Wall, & Warr, 1981). This means that employees will experience job satisfaction if they feel that their individual capacities, experience and values can be utilised in their work environment and that the work environment offers them opportunities and rewards (Dawis, 1992; Roberts & Roseanne, 1998). Job satisfaction thus has to do with an individual's perceptions and evaluation of his job, and this perception is influenced by the person's unique circumstances such as needs, values and expectations. People will therefore evaluate their jobs on the basis of factors which they regard as being important to them (Sempane, Rieger, & Roodt, 2002). Employees who are satisfied with their jobs are likely to be better ambassadors for the organisation and show more organisational commitment (Agho, Price, & Mueller, 1992).

Locke (1976) found that in order for researchers to understand job attitudes, they need to understand job dimensions which are complex and interrelated in nature. He mentions the common aspects of job satisfaction such as "work, pay, promotions, recognition, benefits, working conditions, supervision, co-workers, company and management" (Locke, 1976, p. 1302). Later research has shown that these different aspects can be arranged according to two dimensions: an intrinsic versus an extrinsic one (Hirschfeld, 2000; Spector, 1997; Weiss et al., 1967). Extrinsic satisfaction refers to satisfaction with aspects that have little to do with the job tasks or content of the work itself, such as pay, working conditions and co-workers. Intrinsic satisfaction refers to the job tasks themselves (e.g. variety, skill utilisation, autonomy).

Since job satisfaction involves employees' affective or emotional feelings, it has major effects on their lives. Locke (1976, p. 1311) describes the most common consequences of job satisfaction in terms of its effects on the physical health, longevity, mental health, and the impact it has on interaction between employees and the feelings of employees towards their jobs and social lives. Coster (1992) also supports the fact that work can have an important effect on the total quality of life of the employee, behaviour like absenteeism, complaints and grievances, frequent labour unrest and termination of employment (Locke, 1976; Visser, Breed, & Van Breda, 1997).

According to Grant (1984), a high level of satisfaction reduces the frequency of a number of costly employee behaviours. When employee satisfaction increases, absenteeism, tardiness, employee griping, grievance filing, alcohol abuse, uncooperativeness, employee stress and union strikes all tend to decrease.

Meyer (2000) identifies a lack of job satisfaction on the part of employees in most South African companies, which in turn results in a low level of commitment to performance and achievement of organisational goals. Stanley (2001) argues that a high level of job satisfaction can bring out the creative spark that resides in all employees, decrease rates of absenteeism, reduce turnover and increase productivity. According to Woods and Weasman (2002), job satisfaction may reduce attrition rates. Lopopolo (2002) concludes that job satisfaction and commitment have been shown to influence an employee's work and related organisational outcomes such as motivation, job performance and turnover. Yousef (2000) has found that satisfaction with certain facets of the job directly or indirectly (via different

dimensions of organisational commitment) influences different dimensions of attitudes towards organisational change. For example, satisfaction with remuneration will increase continuance commitment (low perceived alternatives).

Organisational commitment

Commitment, which is also considered to be a dependent variable in this study, has occupied a central place in organisational research and has been defined as the relative strength of an individual's identification with and involvement in a particular organisation (DeCotiis & Summers, 1987; Michaels, 1994; Mowday, Porter, & Steers, 1979; Russ & McNeilly, 1993). Bagraim (2003) views this identification as a psychological bond between employees and their employing organisation. Kampfer, Boshoff, and Venter (1994) point out that an abundance of research has been conducted on the relationship between commitment and various hypothesised consequences of commitment.

Over the past decade, the dimensionality of the commitment construct has enjoyed careful examination (Bagraim, 2003, Boshoff & Mels, 1995; Kampfer, et al., 1994; 1995; Lok & Crawford, 2001, Pretorius, 1993) and it is now widely accepted that organisational commitment is a multi-dimensional construct (Meyer & Allen, 1997). Allen and Meyer (1990) proposed three components of organisational commitment, namely affective, continuous and normative commitment. As defined by these authors, the affective component of organisational commitment refers to the employee's emotional attachment to, identification with and involvement in the organisation. The continuance component refers to the commitment based on the costs that the employee associates with leaving the organisation. The normative component refers to the employee's feeling of obligation to remain with the organisation. Evidence supporting the distinct nature of these three components has been presented by a number of authors (Dunham, Grube, & Castaneda, 1994).

Although organisational commitment has been conceptualised as a multi-dimensional construct, it is also the measures based on the attitudinal approach which have most frequently been validated and used (Morrison, 1994, O'Reilly & Chatman, 1986; Price & Muller, 1981; Somers, 1993;) as well as revised in previous studies (Meyer, Allen, & Smith, 1993; Allen & Meyer, 1996). Research however shows that one of the three dimensions is more relevant than the two others (Allen & Meyer, 1996). First of all, the measurement of

affective organisational commitment is more reliable than the measurement of the other components. Even more important is the finding that affective organisational commitment is the most important explanatory variable of the three components: the affective dimension consistently explains more variance in outcome variables than the two other components (Allen & Meyer, 1996). As a consequence, many researchers restrict the measurement of organisational commitment to affective commitment, casting the two other components aside.

In this study the focus is on the consequences of job insecurity. According to Sverke et al. (2004), the effects of job insecurity can be studied on three potential areas of outcomes, namely consequences for the individual, the organisation and the labour union (see Figure 1). In this study the relationship between job insecurity and the organisational consequences (job satisfaction and organisational commitment) is addressed. An investigation is done to assess how job insecurity relates to the two categories of outcomes and in which category job insecurity seems to have the most serious impact.

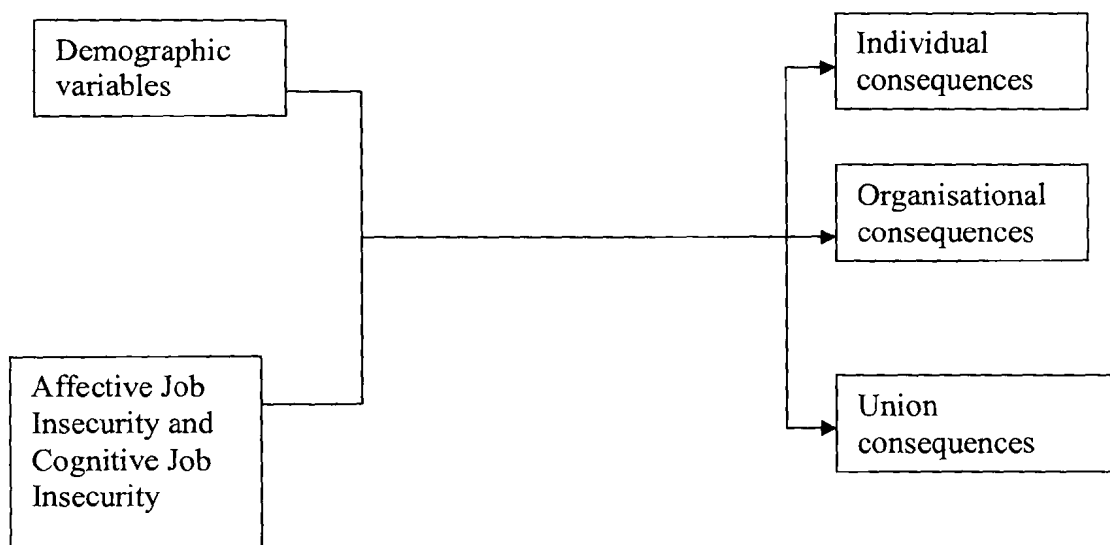


Figure 1. Adapted empirical models of the relation between job insecurity and three different outcomes (Sverke et al., 2004, p. 93).

In terms of the relationship between the demographic variables and job insecurity, Buitendach and Rothmann (2004a) found practically significant differences between the job insecurity of different age groups. Employees in the age group 36 to 45 experienced the highest levels of job insecurity. Individuals in this age category have to make important career decisions. If there are lay-offs or downsizing, it would be difficult for employees in

this age group to find alternative employment. This finding is confirmed by the research of Mohr (2000). Employees older than 55 years experience the lowest levels of job insecurity, probably because they are near retirement, which means that they will not be affected much by job loss.

The level of qualification completed affects the number of choices that workers have in the labour market. It seems reasonable to expect that people with only the lower levels of qualification (less than Grade 12), in many cases lack the skills and knowledge needed in order to make alternative choices. Buitendach and Rothmann (2004a) found that employees with only a Grade 12 qualification experienced significant higher levels of job insecurity than employees with better qualifications. This finding is confirmed by research done by Rajan (1997) and Sverke et al. (2004). Interesting however, is that the highest level of job insecurity is reported by those employees with post-graduate qualifications. Employees with post-graduate qualifications are sometimes confronted by the fact that they are over-qualified for a position. The employee, based on his/her qualifications, expects a higher salary than what the employer is prepared to pay. Another possibility is that employees with higher qualifications are also those employees that are mostly affected by employment equity. Because of their higher qualifications, it is easier to find other employment that will enable them to keep up the current standard of living.

Buitendach and Rothmann (2004a) found that females (in comparison with males) experience higher levels of job insecurity. These results are confirmed by research done by Sverke et al. (2004), where women consistently reported higher levels of job insecurity than men. This result was contrary to the initial hypothesis that males experience higher levels of job insecurity than females. One possible explanation for this finding may be found in earlier research studies, where women are reported to experience a higher level of job insecurity when they are responsible for supporting a family (De Witte, 1999). Charles and James (2003) mentioned in this regard that no differences were found in their research in terms of gender in the experience of job insecurity.

Regarding the relationship between job insecurity and race, Buitendach and Rothmann (2004a) found that white employees experienced statistically significant higher levels of job insecurity than black employees. This is contradictory to the findings of Orpen (1993) that higher levels of job insecurity exist amongst black employees in South Africa. One possible

explanation for the higher level of job insecurity of whites is that the implementation of the Employment Equity Act 55 of 1998 (Republic of South Africa, 1998) created new job opportunities for blacks, while whites (and specifically white males) face less employment opportunities. However, the differences between job insecurity of blacks and whites were not practically significant.

Results indicated that job insecurity will result in some sort of strain, as to other stressors (Jex & Beehr, 1991; Lazarus & Folkman, 1984), and this strain has often been hypothesised to reduce well-being. Job insecurity may be taxing the individual since it involves prolonged exposure to uncertainty (Jacobson, 1991a; Joelson & Wahlquist, 1987). Because of this uncertainty, it is more difficult for individuals to use effective coping strategies (Lazarus & Folkman, 1984), since they are unable to foresee what might happen.

Because job insecurity is a stressor, it can be expected to have long-term consequences on well-being and health just like other factors that trigger stress. A stressor arises from the individual's perception of the lack of resources required to counteract a threat. This results in tension, which gives rise to stress reactions that may include psychosomatic symptoms or lower psychological well-being. In accordance with this, research has shown that perceived job insecurity can be linked to lower general well-being (Barling & Kelloway, 1996; De Witte, 1999; Van Vuuren, 1990). It has also been found that both physical and mental health problems appear to increase with the degree of job insecurity (Ashford, et al., 1989; Isaksson, Hellgren, & Petterson, 2000; Lim, 1996). Sverke & Hellgren (2002) showed that job insecurity has a strong negative relationship with psychological well-being and somewhat weaker negative relation to physical health. Studies of the relation between job insecurity and self-reported health indicated that job insecurity could be linked to objective measures of health, such as cardiovascular diseases and blood pressure (Ferrie, Shipely, Marmot, Stansfield & Smith, 1998).

One of the most researched outcomes of job insecurity is job satisfaction. This concept has been defined as a positive attitude that is based on the perception that provides the individual with what he or she needs. Job satisfaction represents an employee's degree of contentment with his or her job (Locke, 1976). Since job insecurity arises from the individual evaluating the security of the employment as being desirable, it could be expected that individuals who experience job insecurity will also be dissatisfied with their jobs (Sverke et al., 2004). Several

studies have found a strong negative relationship between job insecurity and job satisfaction (Ashford et al., 1989; Holm & Hovland, 1999; Lim, 1996; Rosenblatt & Ruvio, 1996), indicating that employees who perceive their employment as uncertain also feel more dissatisfied with their work tasks (Sverke et al., 2002).

Organisational commitment is a central topic of interest in the area of organisational research (Griffin & Bateman, 1986; Mathieu & Zajac, 1990; Meyer & Allen, 1997; Morrow, 1983). The idea that employees who are committed to the organisation identify with and share the values and goals of the organisation, is fundamental in this regard, as these concepts reflect a desire to be loyal to the organisation (Allen & Meyer, 1990; Mowday et al., 1979). An organisation needs its employees to be committed in order to properly achieve the desired goals. Previous research has related the experience of job insecurity to lower levels of commitment to the organisation (Armstrong-Stassen, Borg, 1993; & Elizur, 1992; McFarlane, Shore, & Tetrick, 1991). This can be put into the context of the psychological contract (Davy et al., 1997; Rousseau, 1989). The employee may perceive job insecurity as a breach of the psychological contract, especially if he or she entered the employment relationship under the implicit understanding that a job well done would guarantee continued employment. Job insecurity would then be a signal that the organisation is not keeping its end of the deal (Sverke et al., 2004). As a consequence, the employee may then be lowering his or her level of commitment, or may also be getting the feeling that the employer can not longer be trusted. Lowered commitment results in an organisation's employees no longer feeling they want to exert themselves for the benefit of the organisation.

Job satisfaction and organisational commitment are not unrelated. The empirical results reported by DeCotiis and Summers (1987); and Mowday et al. (1982) even showed that job satisfaction exerted a fairly strong positive influence on organisational commitment. Organisational commitment is affected by job insecurity in that insecure employees experience less pride in working, show a lack of trust and have stronger intentions to leave (De Witte, 1997). Job insecurity is also associated with the tendency to oppose changes in the company (Greenhalgh & Rosenblatt, 1984).

The aim of this study was to investigate the relationship between job insecurity, job satisfaction and organisational commitment of employees in selected organisations in South Africa, and also to examine whether job insecurity and job satisfaction can be used to predict

organisational commitment. Previous research (Hellgren, Sverke & Isaksson, 1999; Sverke & Hellgren, 2002; Yousef, 1997) found that the perceived level of job insecurity predicts job satisfaction and organisational commitment. In analysing these relationships, some caution is warranted, however. The three core variables of this research (job insecurity, job satisfaction and organisational commitment) are all related to background characteristics such as age, gender and occupational position (see Meyer & Allen, 1997; Näswall & De Witte, 2003; Spector, 1997). This means that the relationships with background characteristics should be kept under control when examining the relationships between our core concepts.

Based on the literature review, the following hypotheses are formulated:

H1: Job insecurity is associated with low intrinsic and extrinsic job satisfaction.

H2: Job insecurity is associated with low positive commitment.

H3: Job insecurity and job satisfaction predict organisational commitment.

METHOD

Research design

A cross-sectional survey design was used to describe the information on the population collected at that time. This design (Shaughnessy & Zechmeister, 1997) can also be used to evaluate interrelationships among variables within a population and is ideal to describe and predict functions associated with correlative research.

Participants

The study population could be defined as random samples of employees in selected organisations in Gauteng ($N = 474$). The sample consisted of employees in the following organisations: A parastatal organisation (maintenance workers) ($n = 178$), a packaging organisation ($n = 118$), a mining organisation ($n = 120$) and employees in the chemical industry ($n = 58$). Descriptive information of the sample is given in Table 1.

Table 1

Characteristics of the participants

Item	Category	Frequency	Percentage
Age (N = 474)	24 years and younger	29	6,1
	25-35 years	115	24,3
	36-45 years	205	43,2
	46-55 years	100	21,1
	56 years and older	25	5,3
Gender (N = 474)	Male	403	85
	Female	71	15
Race (N = 474)	Black	159	33,5
	White	127	26,8
	Missing	188	39,7
Qualification (N = 474)	Lower than grade 12	48	10,1
	Grade 12	72	15,2
	Diploma	76	16,0
	Graduate	156	32,9
	Post graduate	3	0,6
	Missing	119	25,1

As indicated in Table 1, the majority of employees (67,5%) are between the ages of 25-45 years. More males (85%) than females (15%) participated in the research. The majority of employees (49,5%) hold tertiary qualifications, with only 10,1% who have qualifications lower than grade 12. In terms of race distribution, 33,5% employees were from the black race group and 26,8% from the white race group. A limitation in this study is that 39,7% of the respondents did not answer the questions.

Instruments

The Job Insecurity Inventory (JIQ) (De Witte, 2000) was used to measure the levels of perceived job insecurity. The JIQ consists of 11 items, measuring cognitive (e.g. "Chances are I will soon lose my job") and affective (e.g. "I fear I will lose my job") aspects of job insecurity. The items are arranged along a Likert-type scale varying from 1 (*strongly agree*) to 5 (*strongly disagree*). In South Africa, research done in selected organisations by

Buitendach and Rothmann (2004a, in press) indicated alpha coefficients of 0,89 for affective job insecurity and 0,84 for cognitive job insecurity. De Witte (2000) reported an alpha coefficient of 0,92 for the total scale.

The *Minnesota Satisfaction Questionnaire (MSQ)* (Weiss, et al., 1967) indicates the degree to which respondents are satisfied or dissatisfied with their jobs by asking respondents to rate themselves on 20 questions by using a five-point scale varying from 1 (*very dissatisfied*) to 5 (*very satisfied*). The revised MSQ form measures intrinsic job satisfaction and extrinsic job satisfaction, using questions like: "The chance to be 'somebody' in the community" (intrinsic), "The chance to do something that makes use of my abilities" (intrinsic), "The way my supervisor handles his/her workers" (extrinsic), and "The working conditions" (extrinsic). Hirschfeld (2000) found that a two-factor model (intrinsic and extrinsic job satisfaction) is superior to a one-factor model (total job satisfaction). Alpha coefficients were found to be ranging from 0,87 to 0,95, which support the internal consistency of the scale (Hirschfeld, 2000; Liam, Baum, & Pine, 1998). In South Africa, research done by Buitendach and Rothmann (2004b) confirmed a two-factor structure for job satisfaction, namely extrinsic and intrinsic job satisfaction with alpha coefficients of 0,82 and 0,79.

To measure organisational commitment, it was decided to use seven items that measure commitment from the *Organisational Commitment Questionnaire (OCQ)* (Allen, & Meyer, 1990). Response to this scale was given on a seven-point scale (1 = *strongly disagree* and 7 = *strongly agree*). The internal consistency for this questionnaire has been confirmed at the 0,80 level (Suliman & Iles, 2000). In South African studies, Kwela (2001) found the alpha coefficient (α) of 0,87; Dwyer (2001) found Cronbach alpha coefficient (α) of 0,79 and Rugg (2001) found an alpha coefficient of 0,87. Typical questions that were asked, include "I would like to spend the rest of my career in this organisation", and "I really feel as if this organisation's problems are my own".

In order to control for background characteristics, questions were asked on gender (1 = male, 2 = female), age and qualification ranging from 1 for lower than grade 12, and 5 for a post-graduate qualification.

Statistical analysis

The statistical analysis was carried out with the SPSS program (SPSS, 2003). Cronbach alpha coefficients (α) were used to assess the internal consistency of the measuring instruments (Clark & Watson, 1995). The alpha coefficient conveys important information regarding the proportion of error variance contained in a scale. According to Clark and Watson (1995), the average inter-item correlation coefficient (which is a straightforward measure of internal consistency) is a useful index to supplement information supplied by coefficient alpha. However, unidimensionality of a scale cannot be ensured by focusing on the mean inter-item correlation; it is also necessary to examine the range and distribution of these correlations.

Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) were used to analyse the data. The level of statistical significance was set at $p \leq 0,05$. Steyn (2002) criticises the sole uses of statistical significance testing and recommends that effect sizes be established to determine the importance of a statistically significant relationship. While the use of effect sizes is encouraged by the American Psychological Association (APA) in their Publication Manual (APA, 2002), most of these measures are seldom found in published reports (Kirk, 1996; Steyn, 2002). Therefore, effect sizes were computed to assess the practical significance of relationships in this study. Effect sizes were used to decide on the significance of the findings.

Pearson product-momentum correlation coefficients were used to specify the relationship between the variables. A cut-off point of 0,30 (medium effect, Cohen, 1988) was set for the practical significance of the correlation coefficients.

Multiple regression analyses were conducted to determine the percentage of variance in the dependent variables predicted by the independent variables. The effect size (which indicates practical significance) in the case of multiple regression is given by the following formula (Steyn, 1999):

$$f^2 = R^2 / 1 - R^2$$

A cut-off point of 0,10 (medium effect) (Steyn, 1999) was set for practical significance.

RESULTS

The descriptive statistics, alpha coefficients, skewness and kurtosis of the JIQ, MSQ and the Positive Commitment Questionnaire (PCQ) are given in Table 2.

Table 2

Descriptive Statistics, Alpha Coefficients, Skewness and Kurtosis of the JIQ, MSQ and OCQ

Item	Mean	SD	Skewness	Kurtosis	Alpha coefficients
Cognitive job insecurity	11,13	4,29	0,14	-0,01	0,82
Affective job insecurity	15,13	5,55	-0,10	-0,90	0,90
Extrinsic job satisfaction	26,54	7,27	-0,47	-0,42	0,86
Intrinsic job satisfaction	43,34	8,80	-0,54	-0,42	0,80
Organisational commitment	24,80	5,21	-0,24	-0,28	0,72

Table 2 shows that the scores on the scales of the JIQ, MSQ, and PCQ are normally distributed. The internal consistency of the two scales of the JIQ is acceptable, according to the guidelines of 0,70 as set by Nunnally and Bernstein (1994) - it is consistent with the findings of coefficient of 0,92 and both scales (cognitive and affective) were shown to be highly reliable, with the four items measuring cognitive job insecurity displaying a Cronbach alpha coefficient of 0,90; and the five items of the affective job insecurity having a Cronbach alpha coefficient of 0,85 (De Witte, 2000). Furthermore, Table 2 shows that the scores on the subscales of the MSQ are normally distributed. The MSQ and the two subscales (extrinsic and intrinsic) job satisfaction presented with adequate levels of internal consistency, falling well above the 0,70 level as suggested by Nunnally and Bernstein (1994). In terms of Organisational Commitment, acceptable levels of internal consistency were reached, with the alpha coefficient of 0,72.

The product-moment correlation coefficients between the JSI, MSQ and PCQ are reported in Table 3.

Table 3

Product-moment Correlation Coefficient between JIQ, MSQ and PCQ

Item	1	2	3	4
1. Affective Job Insecurity	-		-	
2. Cognitive Job Insecurity	0,48*+	-		
3. Extrinsic Job Satisfaction	-0,11+	-0,29+	-	
4. Intrinsic Job Satisfaction	0,14+	-0,14+	0,56***+	-
5. Organisational Commitment	0,14+	0,03	0,28+	0,42*+

* Correlation is practically significant $r > 0,30$ (medium effect)

** Correlation is practically significant $r > 0,50$ (large effect)

+ Correlation is statistically significant $p \leq 0,05$

As indicated in Table 3, there are statistically significant as well as practically significant correlations of medium effect between cognitive and affective job insecurity. A statistically significant correlation exists between cognitive job insecurity and extrinsic job satisfaction. No practically significant relationships were found between job insecurity (affective and cognitive) and the other variables. Hypothesis 1, namely that a high score for job insecurity is associated with lower scores for job satisfaction (extrinsic and intrinsic) is accepted, because the relationship is statistically significant, although not practically significant.

Table 3 also shows no practically significant relationship between organisational commitment and job insecurity (affective and cognitive). However, a statistically significant relationship ($p < 0,05$) was found between affective job insecurity and organisational commitment. Hypothesis 2, namely that a higher score for job insecurity is associated with lower levels of organisational commitment, is rejected. There is a statistically significant as well as a practically significant relationship of large effect ($r = 0,56$) between intrinsic job satisfaction and extrinsic job satisfaction. Intrinsic job satisfaction is both practically significantly ($r = 0,42$) related to organisational commitment (medium effect).

In order to test hypothesis 3, stating that job insecurity and job satisfaction can be used to predict organisational commitment, multiple regression analyses were performed and are indicated in Table 4.

Table 4

Results of the Regression Analysis with Organisational Commitment as Dependent Variable; and Background Variables, Extrinsic Job Satisfaction, Intrinsic Job Satisfaction, Affective Job Insecurity, and Cognitive Job Insecurity as Independent Variables

ANALYSIS OF VARIANCE					
$R = 0,49$	Source of variance	df	Sums of Squares	Mean Squares	p
$R^2 = 0,24$	Regression	347	2548,28	364,03	0,000*
	Residual	7	7675,71	22,12	
	$F = 7,34$ $f^2 = 0,31+*$				
VARIABLES IN THE EQUATION					
Independent Variables	B	SE	Beta	F	p
Constant Variable	11,26	1,42		8,02	0,000*
Affective Job Insecurity	0,09	0,05	0,10	1,89	0,059
Cognitive Job Insecurity	0,07	0,06	0,06	1,17	0,241
Extrinsic Job Satisfaction	0,11	0,04	0,05	2,67	0,007*
Intrinsic Job Satisfaction	0,21	0,05	0,05	4,32	0,000*
Age	0,77	0,31	0,13	2,45	0,014*
Qualification	-0,67	0,25	-0,13	-2,66	0,008*
Gender	-2,18	1,02	-0,10	-2,14	0,033*

+ Practically significantly $f^2 \geq 0,30$ (medium effect)

++ Practically significantly $f^2 \geq 0,35$ (large effect)

* Statistically significantly $p < 0,01$

As indicated in Table 4, 24% of the total variance in positive commitment is explained by the independent variables. Hypothesis 3, stating that job satisfaction predicts organisational commitment, can be accepted.

DISCUSSION

The aims of this study were firstly to investigate the relationship between job insecurity, job satisfaction and commitment in selected organisations in South Africa, and secondly to assess whether job satisfaction moderates the relationship between job insecurity and organisational commitment.

Based on the questionnaire of Allen and Meyer (1990) commitment was measured by items such as: "I would be very happy to spend the rest of my career in this organisation". The internal consistency of the two subscales (affective and cognitive) of the JIQ and the two subscales (extrinsic and intrinsic) of the MSQ, as well as the Organisational Commitment Questionnaire proved to be acceptable according to the guidelines of 0,70 as set by Nunnally and Bernstein (1994).

Affective job insecurity and cognitive job insecurity are significantly correlated. This result is confirmed by Borg and Elizur (1992) as well as De Witte (2000). This is an indication that the two subscales are strongly correlated. Some attention should be paid to this aspect in future research. Because of the relatively high correlation between the subscales, there is the possibility that only one factor can be used to measure job insecurity, referring then to a global measure of job insecurity. However, it should be noted that these two subscales correlated differently with other variables. No practically significant correlations were found between job insecurity (affective and cognitive) and extrinsic and intrinsic job satisfaction. Job insecurity has consistently been found to associate with lower levels of work attitudes such as job satisfaction. This result is in contrast with other research which showed that employees who felt insecure about their future employment were more dissatisfied with their jobs compared to those who perceive their future job situation as more secure. Similar results have been obtained in a number of studies (e.g. Ameen, Jackson, Pasewark, & Strawser, 1995; Ashford et al., 1989; Davy et al., 1997; Hartley et al., 1991; Probst & Brubaker, 2001; Rosenblatt & Ruvio, 1996). The reason for these correlations needs to be assessed in future research. A reason for this could be that the participants did not understand the questionnaires and that the individual items must be redesigned to fit the typical South African organisation.

Job insecurity (affective and cognitive) did not show any practically significant relationship with organisational commitment. This is contradictory to the results of studies by Lord and Hartley (1998); Pasewark and Strawser (1996) and Wasti (2003), who indicated that higher levels of job insecurity will result in lower levels of commitment to the organisation. Results indicated that extrinsic and intrinsic job satisfaction is also correlated. A practically significant relationship of large effect ($r = 0,56$) was found between the two constructs. A similar result was found by Hirschfeld, (2000).

The results of this research, as confirmed by Ameen, Jackson, Pasewark and Strawser (1995) and Sverke et al. (2004), indicated that job satisfaction and organisational commitment are not unrelated. A practically significant relation was found between intrinsic job satisfaction and commitment. This is an indication that higher levels of intrinsic job satisfaction will result in higher levels of commitment to the organisation. Similar results were found in studies by Koh and Boo (2004).

This study had several limitations. In the first instance, self-report measures were exclusively relied upon. This causes a particular problem in validation studies that make exclusive use of self-report measures. because (Schaufeli, Maslach & Marek, 1993). The use of a cross-sectional study design also represents a limitation, i.e. the ability to test causal assumptions regarding job insecurity. Longitudinal data would allow for forming a better understanding of the true nature of job insecurity. Further analysis of the data in future studies can probably be undertaken with success. Structural equation modelling seems to be a potentially useful contributor to the understanding of the relationships between variables. This is especially true if causality is being investigated. The results of the present study can be seen as making some (although small) contribution to the understanding of causation of job insecurity. This may help to make the use of structural equation modelling feasible in future studies.

RECOMMENDATIONS

Job insecurity will continue to be a factor in the modern workplace, even in times of prosperity. Employers therefore need to be aware of the individual as well as organisational consequences of job insecurity.

The central purpose of this study was to assess the relationship between job insecurity, job satisfaction and positive commitment, and to establish whether job insecurity can predict job satisfaction and positive commitment. Data was gathered regarding the biographical backgrounds of respondents, as well as their levels of job insecurity, job satisfaction and organisational commitment. A relationship was found between job insecurity and extrinsic job satisfaction, and between job insecurity and affective organisational commitment.

It is anticipated that this study will contribute to future research and management insight regarding the job insecurity, job satisfaction and organisational commitment experienced by employees. The results of this study indicate that further research is warranted. Further research needs to make use of larger samples and more different outcome variables in order to fully assess the impact of job insecurity. Further refinement of some of the scales might also be necessary. It is furthermore recommended that future research use confirmatory factor analysis to assess the goodness-of-fit differences between oblique and orthogonal factor models.

Management researchers will perhaps now feel challenged to commence research concerning the antecedents of job insecurity and to develop a causal model of job insecurity.

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CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter conclusions are drawn regarding the specific objectives of this study. The limitations of this research are discussed, followed by recommendations to the organisations and future research.

5.1 CONCLUSIONS

The first objective of this study was to investigate the psychometric qualities of the JIQ for workers in selected organisations in South Africa, and also to determine construct equivalence for the different culture groups in the sample with regards to the job insecurity construct, and lastly to determine whether individuals differ in terms of demographic variables in their experience of job insecurity.

Prior to testing for the construct validity and internal consistency of the JIQ, construct equivalence was tested for the questionnaire to determine possible sources of inappropriate comparisons across culture groups in this multicultural sample of workers at selected organisations in South Africa. Based on conceptual and empirical grounds, items 10 and 11 were deleted from the original JIQ, subsequently resulting in a nine-item scale. This is in line with the findings of De Witte (1997), which indicated that item 11 loads on both cognitive and affective job insecurity. The two-factor structure of the JIQ was confirmed after removal of item 10 and 11. A two-factor structure is consistent with literature findings across various samples, groups and countries (Borg & Elizur, 1992; De Witte, 1997; Van Vuuren, 1990). Reliability analysis also confirmed sufficient internal consistency of the subscales. The observed correlations between the subscales were found to be comparable with the values reported by De Witte (1999). The elimination of item 10 ("There is a possibility that I might lose my job in the near future"), and item 11("I think that I might be dismissed in the near future") can be justified on both conceptual and theoretical grounds, resulting in a nine-item JIQ scale. An alternative explanation for this could be that only one factor was found and there is a possibility that it was not necessary to remove those two items. In future research this could be investigated.

The second objective was to determine whether the scales of the JIQ show construct equivalence for different race groups at selected organisations in South Africa. The results of this study confirm the construct equivalence of the JIQ for black and white employees. Therefore, it seems acceptable to use the JIQ to compare job insecurity levels for different race groups.

The third objective was twofold: firstly to test the psychometric properties of the MSQ. Reliability analysis revealed that the two subscales were sufficiently internally consistent. Secondly, to investigate the relationship of the subscales with demographic variables such as age, qualification, gender and race for employees at selected organisations in South Africa.

The results obtained using confirmatory factor analyses supported a two-dimensional factor structure, which has been consistently found across various samples (Hirschfeld, 2000; Schriesheim, 1993). Based on conceptual grounds, the following three items were removed: (a) Item 15, reading "The freedom to use my own judgment". A possible explanation is that in the black culture, people do not tend to rely on their own judgment; they actually perceive it as unethical; (b) Item 16, reading "The change to try my own methods of doing the job". A possible explanation for this is that employees perceive this differently in the work situation. Not every one is comfortable to try his/her own methods; (c) Item 20, reading "The feeling of accomplishment I get from the job". A possible explanation is that employees differ in terms of their motivation for a specific task.

This results in a 17-item scale, eight items measuring extrinsic job satisfaction and nine items measuring intrinsic job satisfaction. The validation of these subscales is needed in further studies. The results of this study confirm the construct equivalence of the MSQ for black and white employees at selected organisations in South Africa. This means that the mean scores of these groups could be compared in other analyses.

The results of this study further indicated that differences exist between the levels of extrinsic and intrinsic job satisfaction and age, indicating that employees in the age group older than 55 experience higher levels of extrinsic and intrinsic job satisfaction. The majority of studies on the relationship between age and job satisfaction have found some association between job satisfaction and age. Some authors (Clark, Oswald, & Warr, 1996) suggest that job satisfaction is U-shaped in age, with higher levels of morale among young workers but that

this declines after the novelty of employment wears off and boredom with the job sets in. Satisfaction rises again later in life as workers become accustomed to their role. This specific U-shape is confirmed in this study.

The fourth objective was to determine whether the scales of the MSQ show construct equivalence for different race groups at selected organisations in South Africa. The results of this study confirm the construct equivalence of the MSQ for black and white employees. Therefore, it seems acceptable to use the MSQ to compare job insecurity levels for different race groups. However, there is still a need to assess whether this questionnaire is valid for all occupation groups.

A major problem with the JIQ is the lack of norms. As a result, the present sample of employees in selected organisations is used as a normative sample. The sample was arbitrarily divided into three equal-sized groups, assuming that the top, intermediate and bottom thirds of the sample would experience "low", "average" and "high" levels of job insecurity. Numerical cut-off points were determined for job insecurity levels of employees in selected organisations. Results indicated that participants in this research experience high levels of job insecurity.

The fifth objective was to determine whether demographic groups in selected organisations in South Africa differ regarding their levels of cognitive and affective job insecurity. Results indicated the following:

- There were practically significant differences (of large effect) between the age group 46-55 and the age group 25-35. It can be accepted that older employees up to the age of 55 experience higher levels of job insecurity, whereas employees older than 55 years experience the lowest level of cognitive and affective job insecurity of all the age groups.
- In terms of qualifications, the results indicated that high levels of job insecurity were reported by those with only a grade 12 qualification. The results indicated that employees with higher qualifications experience less job insecurity, while employees on a post-degree qualification level differ statistically and practically significantly from younger employees. Those employees with a postgraduate qualification experienced the highest

levels of job insecurity. This could be ascribed to the fact that employees with such high qualifications expect higher salaries, while some employers may feel that the employees are overqualified.

- No practically significant differences were found between gender in the experience of cognitive and affective job insecurity.
- The same results were found for differences between black and white employees, indicating that there are no practically significant differences between races regarding the experience of job insecurity.

The next objective was to determine whether there are practically significant differences between extrinsic and intrinsic job satisfaction and demographic groups such as age, qualification, gender, and race. Results indicated the following:

- The results indicated that differences exist between the levels of extrinsic and intrinsic job satisfaction and age, indicating that employees in the age group older than 55 experience higher levels of extrinsic and intrinsic job satisfaction. The majority of studies on the relationship between age and job satisfaction have found some association between job satisfaction and age. Some authors (Herzberg, Mausner, & Snyderman, 1957; Clark, Oswald, & Warr, 1996) suggest that job satisfaction is U-shaped in age, with higher levels of morale among young workers but that this declines after the novelty of employment wears off and boredom with the job sets in. Satisfaction rises again later in life as workers become accustomed to their role. This specific U-shape is confirmed in this study.
- No practically significant differences were found between levels of job satisfaction and qualification.
- The results in this study also confirmed that no significant differences were found between the level of extrinsic and intrinsic job satisfaction and gender. In other words, male employees do not experience practically significant higher levels of extrinsic and intrinsic job satisfaction compared to female employees.

- The results indicated that there is a practically significant difference of medium effect between black and white employees in their experience of job satisfaction. Employees of the black race group experience lower levels of extrinsic and intrinsic job satisfaction.

The relationship between job insecurity, job satisfaction and organisational commitment was analysed by means of Pearson product-moment correlations. The results indicated that there is a statistically significant as well as practically significantly correlation of medium effect (0,48) between cognitive and affective job insecurity. It can be concluded that the two subscales are internally correlated.

Although a statistically significant relationship was found between affective job insecurity and the other constructs such as extrinsic job satisfaction and intrinsic job satisfaction, no practically significant relationships were found. This is an indication that higher levels of job insecurity will result in lower levels of job satisfaction. A practically significant relationship of medium effect ($r = .42$) was found between intrinsic job satisfaction and organisational commitment. This is an indication that employees, who feel that their contribution is valid for the organisation and receives feedback, will show a positive commitment to the organisation.

The final objective was to determine whether job security (cognitive and affective), job satisfaction (extrinsic and intrinsic), and demographic variables (age, qualification, gender) predict organisational commitment. In order to do so, multiple regression analysis was performed. Results indicated that 24% of the total variance in positive commitment is explained by the independent variables (cognitive job insecurity, affective job insecurity, extrinsic job satisfaction, intrinsic job satisfaction, age, gender, and qualification).

5.2 LIMITATIONS OF THIS RESEARCH

The first limitation of this study is that the design is cross-sectional. As a result, no causal inferences could be drawn, despite the use of multiple regression techniques. Therefore, the causal relationship between variables was interpreted rather than established, and more complex forms of non-recursive linkages could not be examined. However, several longitudinal studies and meta-analysis have shown that job insecurity had mainly causal relationships with organisational outcomes such as job satisfaction and organisational

commitment (Ameen, Jackson, Pasewark, & Strawser, 1995; Feather & Rauter, 2004; Mesner & Stebe, 2004; Sverke, Hellgren, Näswall, Chirumbolo, De Witte & Goslinga, 2004).

To deal with the limitations of the use of a cross-sectional design, prospective longitudinal studies and quasi-experimental research designs are needed to further validate the hypothesised causal relationships between antecedents and possible consequences of job insecurity, job satisfaction and organisational commitment.

A second limitation is the fact that the results were obtained solely by self-report questionnaires. This may lead to a problem commonly referred to as “method-variance” or “nuisance”. However, a review by Spector (1987) found little evidence of common method variance among self-report measures of the kinds of constructs studied here. Furthermore, several authors have argued that this phenomenon is not a major threat if interactions are found (Dollard & Windfield, 1998; Wall, Jackson, Mullarkey, & Parker, 1996). Another aspect to consider is that few alternative methodologies are suggested to deal with the use of self-report measures. Nonetheless, further research, including more objective measures of job characteristics and/or outcomes, is still needed. Dolan (1995) suggested that a logical way to capture the complex interactions between the numerous variables associated with job insecurity and job satisfaction is through a conceptually multivariate approach, represented by a mosaic of individual traits and job/environmental factors.

Another limitation of this study was that the employees at the selected organisations did not trust the confidentiality statement as set out in the covering letter accompanying the questionnaires. This could have an influence on the results.

5.3 RECOMMENDATIONS

Next, recommendations to the organisations as well as for future research are made.

5.3.1 Recommendations to the organisations

The effective implementation of individual, managerial and organisational practises to deal with the reality of job insecurity depends on the manager’s understanding of the job insecurity phenomenon. Managers and employees should become aware of the causes,

antecedents and consequences of job insecurity, both for the individual as well as for the organisation. Theoretically, job insecurity is defined as a type of a stressor, involving an uncertainty about the future that is often experienced over an extended period of time. In order to understand the process involved in the job insecurity phenomenon, and how it may evolve and result in various consequences, managers need to understand the different theoretical stress frameworks.

Given the pervasive nature of job insecurity, managers should design and implement planned interventions. These interventions should be designed for the long term and deal with the root cause rather than merely the symptoms (Lee & Ashford, 1996). Organisational development interventions in general, as well as interventions to influence culture and values, should be implemented to contribute to healthier and more secure workplaces.

One of the aims of this study was an attempt to contribute to a better understanding of those factors that could be seen as being at the root of the job insecurity experience. Given the results in the study, it can be concluded that demographic variables such as age, qualification, gender and race, may have some impact on the job insecurity experience, (e.g. Ferrie, Shipely, Marmot, Stansfield, & Smith, 1995). In terms of the development of an intervention strategy, the demographic variables as indicated in this study should be kept in mind.

Another important area of consideration for the organisation and for building a better understanding of the uncertain employment relations that characterise the modern working life, has to do with the consequences of job insecurity.

In the first place, the theories used to define and explain job insecurity all point out the negative consequences that the experience of employment uncertainty is likely to have on the individual. Job insecurity is seen as a stressor. Stress arises when individuals encounter a situation that they evaluate as threatening, and where they feel they cannot effectively counteract the threat (Lazarus & Folkman, 1984). The feeling that the threat to one's job cannot be neutralised, brings about a sense of lack of control. In this sense, management can implement training programmes, thereby enabling employees to feel that they can control their feelings regarding the work environment. Job insecurity also entails a sense of powerlessness (Greenhalgh & Rosenblatt, 1984), which comes along with the individual not being able to neutralise the threat. These experiences give rise to strain in the individual,

which is manifested in health complaints and decreased well-being (Hellgren & Sverke, 2003).

These negative consequences for the individual may also be explained by the theory of effort-reward imbalance (Siegrist, 2000). This theory postulates that the employee exerts a certain effort, and aims to receive rewards that are equivalent to this effort. When there is an imbalance in that the effort exceeds the perceived rewards, the individual experiences emotional distress, which is associated with mental and physical strain. Management therefore needs to be aware of these strains and work towards creating a healthier environment. Management must keep in mind that when employees cannot control their work status, which is the implication of job insecurity, even if they have put a lot of effort into their jobs, the perception of an imbalance will occur (Siegrist, 1996).

The employee is not the only party affected by job insecurity. As indicated by this study, the employee's reactions to job insecurity affect the organisation as well. Employees who are suffering from stress, and who are experiencing stress symptoms such as lowered well-being and mental health complaints, are probably not functioning to their full potential at the workplace. Being aware of this situation is of utmost importance to management, so that they can ensure a physically as well as psychologically healthy workforce. Job insecurity was associated with lower levels of job satisfaction. These results are consistent with much of previous research (Ashford, Lee, & Bobko, 1989; Heaney, Israel, & House, 1994).

Furthermore, loyalty to the organisation also suffers when job insecurity is prevalent. This is another aspect that management should take care of. As expected, organisational commitment was lower where job insecurity levels were higher.

5.3.2 Recommendations for future research

Despite the limitations of this study, the present findings may have some important implications for future research and practice. Future research in South Africa needs to focus on the relative prevalence of job insecurity in various occupations. No existing research could be found in South Africa as to give an indication whether there are any differences in the levels of job insecurity experienced by blue or white collar workers. Differences between occupational groups regarding job insecurity may help identify occupations that are most at

risk of job insecurity. Furthermore, by conducting research on job insecurity and its consequences (both individually and organisationally) in various other occupational groups, norms for professions, occupational groups and organisations could be developed and comparisons between these groups could be made. It is also necessary to identify target groups for intervention research from these studies.

One of the problems in assessing the job insecurity, job satisfaction and organisational commitment levels of employees is the lack of cut-off points. Because of the lack of South African norms for the JIQ and the MSQ, it is difficult to identify job insecurity and job satisfaction at an early stage. Therefore, research needs to be conducted in other occupational groups that can serve as normative samples and as reference for relative job insecurity and job satisfaction of individuals in other occupations.

Research is needed to standardise measuring instruments which could be used for measuring job insecurity, job satisfaction and organisational commitment. Studies are also required to determine the psychometric properties of the above-mentioned measuring instruments. Because of the inherent problems associated with measurement in multicultural contexts, analyses should not only focus on internal consistency, test-retest reliability and construct validity, but also testing on construct equivalence and item bias. Large samples which are taken randomly from the relevant strata should be used to enable researchers to use advance statistics such as exploratory factor analyses with target rotations, analyses of variance to detect item bias, confirmatory factor analyses and structural equation modelling. More research is needed regarding the conceptualisation and measurement of job insecurity and job satisfaction. Various problems are experienced with the current items of job insecurity and job satisfaction such as difficult item wording and positive response sets.

Research is also needed regarding the causes, effects and underlying processes of job insecurity and job satisfaction. For example, the Job Demand–Control Model (Karasek & Theorell, 1990) could be used to predict that job insecurity is related to strain.

With regard to intervention research in South Africa, the following aspects need to be considered in future research:

- The effects of individual and organisational interventions should be investigated.

- Appropriate designs and acceptable sample sizes should be used when conducting research.
- Practical significance should be computed in addition to statistical significance.
- Methods for defining and determining the clinical significance of treatment effects should be employed (Jacobson, Roberts, Berns & McGlinchey, 1999).
- Intervention mapping (Bartholomew, Parcel & Kok, 1998) should be used in planning, implementing and researching the effects of interventions.

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