

# JOB INSECURITY AND SELF-EFFICACY IN A CHEMICAL INDUSTRY

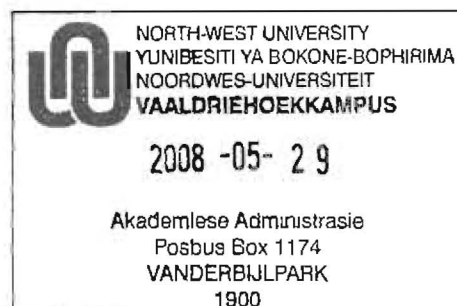
Petru Kriese, (BA) Hons

Mini-dissertation submitted in partial fulfilment of the requirements of the degree Magister  
Artium in Industrial Psychology at the Vaal Triangle Campus of the North-West University

**Supervisor:** Ms. Elrie Botha

Vanderbijlpark

2007



## REMARKS

The reader is reminded of the following:

- The references as well as the editorial style as prescribed by the Publication Manual (5<sup>th</sup> edition) of the American Psychological Association (APA) were followed in this mini-dissertation. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University (Vaal Triangle Campus) to use APA style in all scientific documents as from January 1999.
- The mini-dissertation is submitted in the form of one research article. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables and figures.

## ACKNOWLEDGEMENTS

I wish to express my gratitude towards the following:

- My Creator for allowing me this journey and for every lesson I could learn along the way.
- Ms Elrie Botha, for her expert guidance, motivation and constant support.
- Dr. Wilma Coetzer, for her support and advice regarding the statistical processing.
- Ms. Hendra Pretorius, for her library assistance.
- Ms. Louisemarié Combrink, for professionally editing my work.
- The management and employees of the participating organisation for their willingness, time and effort spent towards completing the questionnaires.
- My husband Rudi, for his love and support and for bearing with me during this time.
- My children, Erich and Jenna, for sometimes unknowingly providing me with the motivation to complete this research.
- Daleen Truter, Elsa Kriese and Rose Mbele, for all your help, and especially for always being there for my children.

The National Research Foundation (NRF) is acknowledged for financial assistance towards this research. Opinions expressed and conclusions arrived at are those of the author and not necessarily to be attribute to the National Research Foundation.

## TABLE OF CONTENTS

	<b>Page</b>
List of Tables	vi
List of Figures	vii
Summary	viii
Opsomming	x

### CHAPTER 1: INTRODUCTION

1.	Problem statement	2
1.1	Overview of the problem	2
1.2	Literature review	5
2.	Research objectives	10
2.1	General objectives	10
2.2	Specific objectives	10
3.	Paradigm perspective of the research	11
3.1	Intellectual climate	11
3.2	Discipline	11
3.3	Meta-theoretical assumptions	12
3.3.1	Literature review	12
3.3.2	Empirical study	13
3.4	Market of intellectual resources	15
3.4.1	Theoretical beliefs	15
3.4.2	Methodological beliefs	18
4.	Research method	19
4.1	Literature review	19
4.2	Research design	19

<b>TABLE OF CONTENTS (<i>continued</i>)</b>		<b>Page</b>
4.3	Participants	20
4.4	Measuring battery	20
4.5	Statistical analysis	22
5.	Chapter division	23
6.	Chapter summary	23
	References	
<b>CHAPTER 2: RESEARCH ARTICLE</b>		29
<b>CHAPTER 3: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS</b>		
3.1	Conclusions	74
3.1.1	Conclusions regarding specific theoretical objectives	74
3.1.2	Conclusions regarding the specific empirical objectives	77
3.2	Limitations of the research	81
3.3	Recommendations	82
3.3.1	Recommendations for the organisation	82
3.3.2	Recommendations for future research	84
	References	

## LIST OF TABLES

### CHAPTER 2

<b>Table</b>	<b>Description</b>	<b>Page</b>
<b>Table 1</b>	Characteristics of the Participants	41
<b>Table 2</b>	Factor Loadings, Communalities ( $h^2$ ), Percentage Variance for Principal Factors Extraction and Direct Oblimin Rotation on JIQ Items	46
<b>Table 3</b>	Factor Loadings, Communalities ( $h^2$ ), Percentage Variance for Principal Factors Extraction and Direct Oblimin Rotation on GHQ Items	47
<b>Table 4</b>	Factor Loadings, Communalities ( $h^2$ ), Percentage Variance for Principal Factors Extraction and Direct Oblimin Rotation on OCB Items	49
<b>Table 5</b>	Descriptive Statistics and Alpha Coefficients of the JIQ, GHQ, OCB and GPSES	50
<b>Table 6</b>	Spearman Correlation Coefficients between the JIQ, GHQ, OCB and GPSES	51
<b>Table 7</b>	Regression analyses estimating the mediating effect of self-efficacy for job insecurity in predicting general health	53
<b>Table 8</b>	Regression analyses estimating the mediating effect of self-efficacy for job insecurity in predicting organisational citizenship behaviour	55
<b>Table 9</b>	MANOVA – Differences in job security, general health, organisational citizenship behaviour and self-efficacy	56
<b>Table 10</b>	Differences in job insecurity, general health, organisational citizenship behaviour and self-efficacy based on education levels	57

## LIST OF FIGURES

### CHAPTER 1

Figure	Description	Page
<b>Figure 1</b>	Hypothesised mediation of self-efficacy between job insecurity and its consequences, namely general health and organisational citizenship behaviour	9
<b>Figure 2</b>	The stress process (based on the Katz and Kahn (1978) model)	16
<b>Figure 3</b>	Schematisation of the relations between the three classes of determinants in triadic reciprocal causation	18

## SUMMARY

**Topic:** Job insecurity and self-efficacy in a chemical industry

**Key terms:** Job insecurity, general health, organisational citizenship behaviour, self-efficacy, mediation

In order to stay competitive in an economic landscape characterised by constant turmoil and change, organisations in the chemical industry are engaging in various adaptive strategies like mergers, acquisitions and diversification. Adaptation strategies may vary but they all have similar results in common, one of which is the exposure of employees to feelings of uncertainty and job insecurity. Identifying factors that enable employees to effectively deal with job insecurity is becoming an increasingly important topic for research.

The primary objectives of this research were to investigate the relationship between job insecurity, general health and organisational citizenship behaviour of employees in a chemical industry, as well as to determine whether self-efficacy mediates the relationship between job insecurity and general health on the one hand and between job insecurity and organisational citizenship behaviour on the other hand.

The research method consists of a literature review and an empirical study. A cross-sectional survey design was used to collect the data. An availability sample ( $N = 205$ ) was taken from employees in a chemical industry. The Job Insecurity Questionnaire (JIQ), General Health Questionnaire (GHQ), Organisational Citizenship Behaviour Scale (OCB), General Perceived Self-Efficacy Scale (GPSES) and a biographical questionnaire were administered. The statistical analysis was carried out with the SPSS program.

Principal component factor analysis confirmed a two factor structure for job insecurity consisting of affective job insecurity and cognitive job insecurity. Factor analysis resulted in three factors for general health, namely psychosomatic symptoms, severe depression and social dysfunction. The two factors of the OCB were confirmed and were labeled altruism and compliance. The unidimensional structure of the GPSES could also be confirmed and was labeled self-efficacy. All scales indicated acceptable reliability with Cronbach alpha coefficients varying from 0,70 to 0,89.

Spearman product-moment correlations indicated a statistically positive correlation (practically significant, medium effect) between cognitive job insecurity and affective job insecurity. Results further indicated that an increase in psychosomatic symptoms will lead to an increase in severe depression and social dysfunction, while an increase in severe depression will be associated with an increase in social dysfunction. It was found that when altruism increased, self-efficacy will also increase.

The hypothesised mediating effect of self-efficacy was only partially demonstrated for the relationship between affective job insecurity and general health, as demonstrated by severe depression. Self-efficacy was further shown to mediate the relationship between cognitive job insecurity and altruism. The relationship between cognitive job insecurity and affective job insecurity as dependent variables and compliance as an independent variable were partially mediated by self-efficacy.

MANOVA analysis indicated that female employees experienced higher levels of cognitive job insecurity than male employees. White employees and employees with a degree exhibited more organisational citizenship behaviour, as demonstrated by compliance. Results further indicated that African employees and employees with a qualification of up to Grade 11 experienced higher levels of severe depression.

Recommendations for future research were made, as well as recommendations to the participating organisation.

## OPSOMMING

**Onderwerp:** Werksonsekerheid en self-effektiwiteit in 'n chemiese industrie.

**Sleuteltermes:** Werksonsekerheid, algemene gesondheid, organisatoriese burgerskapsgedrag, self-effektiwiteit, mediasie.

Ten einde kompetierend te bly binne 'n ekonomiese landskap wat gekenmerk word deur voortdurende skommeling en veranderinge, het organisasies binne die breë chemiese industrie hulself gewend na aanpassingstrategieë soos samesmeltings, verwerwing van verdere besigheidsbelange en diversifikasie. Alhoewel die aanpassingstrategieë mag varieer, het hulle almal dieselfde gevolge – en een van hierdie is dat die werknemer blootgestel word aan gevoelens van onbestendigheid en werksonsekerheid. Van toemene belang vir navorsing is die identifisering van faktore wat werknemers sal help om effektiewe response te ontwikkel ten opsigte van werksonsekerheid.

Die primêre doelstellings van hierdie navorsing was om die verhouding tussen werksonsekerheid, algemene gesondheid en organisatoriese burgerskapsgedrag by werknemers van 'n chemiese industrie te ondersoek, en verder om vas te stel of self-effektiwiteit die verhouding tussen werksonsekerheid en algemene gesondheid aan die een kant, en dié tussen werksonsekerheid en organisatoriese burgerskapsgedrag aan die ander, medieer.

Die navorsingsmetode het bestaan uit 'n literatuuroorsig en 'n empiriese studie. 'n Kruisdeursnee-opname-ontwerp is gebruik vir die insameling van data. 'n beskikbaarheidssteekproef ( $N = 205$ ) is getrek vanuit werknemers in die chemiese industrie. Die Werksonsekerheidsvraelys (*Job Insecurity Questionnaire – JIQ*), die Algemene Gesondheidsvraelys (*General Health Questionnaire – GHQ*), die Organisatoriese Burgerskapsgedragskaal (*Organisational Citizenship Behaviour Scale – OCB*), die Algemene Waargenome Self-effektiwiteitskaal (*General Perceived Self-Efficacy Scale – GPSES*) en 'n biografiese vraelys is gebruik. Die statistiese analise is uitgevoer met behulp van die SPSS-program.

Hoofkomponentfaktoranalise het 'n tweefaktorstruktuur vir werksonsekerheid (bestaande uit affektiewe werksonsekerheid en kognitiewe werksonsekerheid) bevestig. Faktoranalise het drie faktore tot gevolg gehad vir algemene gesondheid, te wete psigosomatiese simptome, erge depressie en sosiale disfunksie. Die twee faktore van die OCB is bevestig en is genoem altruïsme en insiklikheid (*compliance*). Die unidimensionele struktuur van die GPSES kon ook bevestig word en is self-effektiwiteit genoem. Alle skale het gedui op aanvaarbare betroubaarheid met Cronbach alfakoëffisiënte wat tussen 0,70 en 0,89 gevarieer het.

Spearman-produktmomentkorrelasies het gedui op 'n statisties-positiewe korrelasie (prakties betekenisvol, mediumeffek) tussen kognitiewe werksonsekerheid en affektiewe werksonsekerheid. Die resultate het verder gedui daarop dat 'n toename in psigosomatiese simptome sal lei tot 'n toename in erge depressie en sosiale disfunksie, terwyl 'n toename in erge depressie geassosieer sal wees met 'n toename in sosiale disfunksie. Daar is ook gevind dat wanneer altruïsme toegeneem het, self-effektiwiteit ook sal toeneem.

Die hipotetiesgestelde mediërende effek van self-effektiwiteit is slegs gedeeltelik gedemonstreer vir die verhouding tussen werksonsekerheid en algemene gesondheid, soos aangedui vir erge depressie. Verder is bevind dat self-effektiwiteit die verhouding tussen kognitiewe werksonsekerheid en altruïsme gemedieer het. Die verhouding tussen kognitiewe werksonsekerheid en affektiewe werksonsekerheid as afhanklike veranderlikes en insiklikheid as onafhanklike veranderlike is gedeeltelik gemedieer deur self-effektiwiteit.

MANOVA-analise het getoon dat vroulike werknemers hoër vlakke van kognitiewe werksonsekerheid ervaar het as hulle manlike eweknieë. Blanke werknemers en werknemers met 'n graad het meer organisatoriese burgerskapsgedrag getoon, soos deur insiklikheid gedemonstreer. Die resultate het verder getoon dat swart werknemers en werknemers met hoogstens 'n Graad 11-kwalifikasie hoër vlakke van erge depressie beleef het.

Voorstelle vir verdere navorsing is aan die hand gedoen, en daar is ook voorstelle gemaak aan die deelnemende organisasie.

## **CHAPTER 1**

### **INTRODUCTION AND PROBLEM STATEMENT**

# CHAPTER 1

## INTRODUCTION

This mini-dissertation focuses on job insecurity and self-efficacy in a chemical industry. The chapter starts out with a problem statement, providing an overview of previous related research conducted on job insecurity and self-efficacy, and specifically in a chemical industry, linking it with the objectives set for the current research project. A discussion of the research method follows, with details regarding the empirical study, research design, participants, measuring instruments and statistical analysis. It concludes with a chapter summary and an overview of the chapters that comprise this mini-dissertation.

### 1. PROBLEM STATEMENT

#### 1.1 Overview of the problem

Employment relations have undergone dramatic transformations in industrialised economies all over the world during the last decade (Sverke et al., 2004). Not only did European and other industrialised economies have to adjust to the pressures imposed by global competition, but employment relations have subsequently become more uncertain (Sverke, Hellgren, & Näswall, 2002). Organisations have also been forced to reduce their production costs (Sverke et al., 2004). The pressures experienced by many organisations have furthermore resulted in extensive organisational changes in terms of restructuring, lay-offs and "right sizing", and more flexible and temporary terms of employment. These changes have provided many organisations with the functional and numerical flexibility necessary to adapt to the changing world of business (Sverke & Hellgren, 2002). However, these circumstances have proven less beneficial to the individual in the organisation and the negative consequences of these have become more and more apparent. For many employees, these changes have resulted in feelings of insecurity with regard to the nature and future existence of their jobs (Hartley, Jacobson, Klandermans, & Van Vuuren, 1991).

According to Viljoen (2004), South African organisations are not excluded from these changes and are increasingly exposed to the effects of the world economy, advanced

technology and international competition. With South Africa undergoing intense economic as well as political change over the past decade, these changes are bound to continue and - together with a shrinking labour market - feelings of job insecurity are becoming more of a reality in South African organisations (Viljoen, 2004).

Job insecurity refers to employed people being or feeling threatened by unemployment (De Witte, 2005). The study of job insecurity and the impact thereof should be seen as situated between being employed and being unemployed (De Witte, 1999). Research has suggested that job insecurity may have important consequences for both the individual and the organisation (Sverke et al., 2004). Most literature defines these consequences of job insecurity as having a negative impact on the individual and the organisation (Ashford, Lee, & Bobko, 1989; De Witte, 1999; Sverke & Hellgren, 2002). This research will focus on the impact of job insecurity on the general health of individuals. The impact of job insecurity on the organisational citizenship behaviour within the organisation will also be investigated.

Job insecurity is considered to be a work stressor (Barling & Kelloway, 1996), and it is therefore not surprising that it has a negative impact on the health and well-being of employees (De Witte, 2005). Research has confirmed the negative relationship between job insecurity and various indicators of well-being (Büssing, 1999; De Witte, 2005; Hellgren, Sverke, & Isaksson, 1999; Sverke et al., 2002). Hartley et al. (1991) and Van Vuuren (1990) found increased levels of irritation and anxiety, and psychosomatic as well as physical complaints associated with job insecurity. Catalano, Rook and Dooley (1986) as well as Dekker and Schaufeli (1995) found similar results, suggesting that job insecurity leads to reduced psychological well-being, which, in turn, is characterised by symptoms such as anxiety, depression, irritation or strain-related psychosomatic complaints. In South Africa, Orpen (1993) also found that job insecurity was positively related to anxiety and depression.

As indicated, job insecurity has consequences for the individual and the organisation (Sverke et al., 2002). This research will investigate organisational citizenship behaviour as a consequence for the organisation. Organisational citizenship behaviours are behaviours of a discretionary nature that are directed at individuals or at the organisation as a whole (Organ, 1988). These behaviours are not part of the employees' formal role requirements, but nevertheless contribute to overall organisational effectiveness. Considering that some authors regard organisational citizenship behaviour as crucial for the survival of the organisation, any

factor that might harm this behaviour is worth studying in order to minimise its harmful effects. Research by Greenhalgh and Sutton (1991) and King (2000), has shown that job insecurity appears to be associated with a reduction in organisational citizenship behaviour.

In light of the notion that job insecurity is associated with several negative outcomes, it is crucial that research is conducted in order to identify factors that can reduce the negative impact associated with job insecurity (Näswall, Sverke, & Hellgren, 2005). De Witte (2005) notes two reasons pointing towards the necessity of studying the effects of these factors on job insecurity. Firstly, such study expands on existing knowledge regarding job insecurity and, secondly, it provides information regarding the different interventions available to reduce the negative impact of job insecurity.

It has been shown that job insecurity is determined by how individuals evaluate and interpret the conditions under which they work (Sverke et al., 2004). The current research will aim to determine whether self-efficacy, as one aspect of personality, can act as a mediator for the negative consequences associated with job insecurity. Sverke et al. (2004) proposes that high self-efficacy is a necessary condition for positive evaluations of critical events at work and therefore anticipate that people with high self-efficacy will experience lower levels of job insecurity. Self-efficacy is also seen as one of the strongest determinants of the individual's behaviour, including behaviour in stressful situations (Bandura, 1997). Schwarzer (1998) notes that general self-efficacy not only explains human functioning well, but can also be changed by various interventions.

In line with its long-term strategy, the organisation under investigation has undergone considerable changes over the past few years. This strategy includes diversification and globalisation, which have resulted in the acquisition of new businesses and the opening of new factories abroad. The organisation initially only functioned within the agricultural sector, but has expanded its operations to the mining and industrial-chemical sectors. Although the organisation could not be described as one where objective job insecurity seems eminently present, one would suspect that some degree of subjective job insecurity may exist due to the nature of the organisation's long-term strategy. Objective job insecurity refers to job insecurity that occurs as a result of economical considerations, for instance, where high levels of unemployment are prevalent; whereas subjective job insecurity refers to job insecurity experienced by an individual due to his/her interpretation of the situation (Borg & Elizur,

1992). The once relatively small, local company where employee career paths and development opportunities were quite similar and predictable, no longer exists. The acquisition of new businesses locally and the entry into the global arena have resulted in a much wider playing field for all employees. Career paths have become much more diverse and unique for individual employees, and employees might be required to consider expatriation or moving to a business that was not previously part of the organisation's operations. The organisation is increasingly exposed to global market conditions, and due to the large influence of external factors on the organisation's performance, it can be expected that a certain level of insecurity will exist amongst employees.

If self-efficacy is found to mediate the relationship between job insecurity and general health on the one hand, and job insecurity and organisational citizenship behaviour on the other, interventions to raise the level of self efficacy in the organisation under investigation can be developed. Information obtained in this study can also be of value towards the understanding of job insecurity in the industry along with its impact on general health and organisational citizenship behaviour.

## **1.2 Literature review**

The purpose of the literature review is to examine relevant literature in the field of job insecurity. It will further provide an indication as to how this study has developed based on the literature, and how it is related to the research problem. The main constructs of the research will also be theoretically defined from the literature.

Job insecurity is defined as the perceived powerlessness to maintain continuity in a job situation that is threatened (Greenhalgh & Rosenblatt, 1984). It is the anxiety a person has about the future of his or her employment situation (Davy, Kinicki, & Scheck, 1997) and refers to the anticipation of a major and involuntary event related to job loss, and also to the notion that this anticipation is subjectively experienced (Sverke et al., 2002). Job insecurity is also regarded as an insecurity about the future (De Witte, 2005) and insecure employees find it difficult to prepare themselves for the future, since it is unclear to them whether actions should be taken or not. Sverke et al. (2004, p. 41) defines job insecurity as the "fear or worry that arises in connection with the subjectively perceived possibility of loss of a present job, and that this situation is undesired by the individual". A large number of definitions refer to

the involuntary nature of job insecurity (Greenhalgh & Rosenblatt, 1984; Sverke & Hellgren, 2002). These definitions also imply that job insecurity is a subjective perception (De Witte, 2005).

However, certain authors define job insecurity as an objective experience (Büssing, 1999; Ferrie, Shipley, Marmot, Stanfield, & Smith, 1998). According to Sverke et al. (2004), these definitions are based on the assumption that job insecurity occurs as a contextual phenomenon independent of the individual's interpretation of the situation. Büssing (1999) has shown that the perception of job insecurity is linked to the objective context in which the employee works, while Rosenblatt and Ruvio (1996) have shown that subjective job insecurity can occur, even in the absence of any objective threat to employment.

Other distinctions found in the literature regarding the conceptualisation of job insecurity include the distinction between the quantitative and qualitative dimensions of job insecurity, as well as the distinction between the cognitive and affective components of job insecurity. According to Hellgren et al. (1999), quantitative job insecurity refers to the fear of losing the job itself, whereas qualitative job insecurity refers to the fear of losing important aspects related to the job. With regard to the cognitive and affective components of job insecurity, Borg and Elizur (1992) made the distinction between the cognitive, perceived likelihood of actually losing one's job, on the one hand, and the affective experience which refers to the fear or worry about job loss, on the other.

For the purpose of this research, job insecurity is defined as the "perceived threat of job loss and the worries related to that threat" (De Witte, 2005, p. 1). De Witte's (2000) Job Insecurity Questionnaire will be used as a measure of job insecurity, as it views job insecurity from a global, two-dimensional perspective, consisting of cognitive and affective components.

Job insecurity is also seen as a work stressor that reflects the fear or worries that an individual experiences regarding the future existence of the present employment, as well as the existence and nature of various work features that are important to the individual (Barling & Kelloway, 1996). For this research the stress model developed by Katz and Kahn (1978) will be utilised. This model describes the stress process as one where the individual creates a subjective conception of the objective reality. These subjective interpretations then trigger

physiological, psychological and behavioural reactions that ultimately result in the development of mental and physical health complaints (Sverke et al., 2004).

For the purpose of this research, psychological well-being or general health has been conceptualised by means of the theory of Goldberg and Hillier (1979). Unrotated principal axis analysis was used in the development of the measure and resulted in four factors focusing on somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. This measure was selected because it provides the researcher with more information than would be the case with a single severity score. Information regarding the psychological as well as the physical health of employees can be investigated.

According to the Constitution of the World Health Organization (2000) general health can be defined as a state of complete physical, social and mental well-being and not merely the absence of disease or infirmity. According to Kamman and Flett (1983), general health can be regarded as the balance of positive and negative feelings in recent experience. Research indicates that high levels of negative feelings increase susceptibility to the experience of psychological strain and other negative outcomes of stress, whereas positive feelings are associated with high generalised self-efficacy, subjective well-being and positive social relationships (Church, 1994).

Job insecurity does not only have consequences for individual employees, but also for the organisations in which they work. The impact of job insecurity on individual employees could erode the effectiveness of the organisation (Greenhalgh & Rosenblatt, 1984). With regard to consequences for the organisation, it was stated earlier that organisational citizenship behaviour will be investigated. Brief and Motowidlo (1986, p. 710) defines organisational citizenship behaviour as, "behaviour that not only goes beyond normal role expectations but might even be crucial for an organisation's survival." Examples of organisational citizenship behaviour would include staying late to finish work when not specifically asked to do so or employees going out of their way to assist a co-worker who is experiencing difficulties (Feather & Rauter, 2004). Smith, Organ and Near (1983) suggested that organisational citizenship behaviour consists of two components. The first type of organisational citizenship behaviour is labelled altruism and refers to helping behaviours that are directed at a specific individual. A second component is labelled generalised compliance and refers to pro-social behaviour directed towards the organisation. This research will

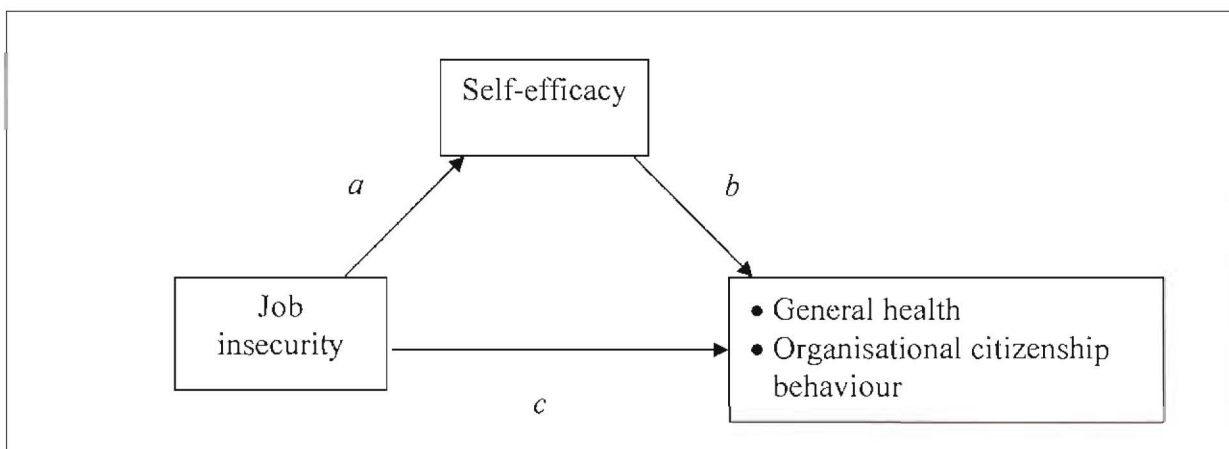
adhere to the definition of organisational citizenship behaviour as proposed by Smith et al. (1983).

When considering the relationship between self-efficacy and performance, perceptions of efficacy serve as a behavioural predictor (Bandura, 1986). Self-efficacy is also one of the strongest determinants of the individual's behaviour, including stressful situations. It regulates performance through cognitive, emotional, motivational and choice processes (Bandura, 1997). At a cognitive level, people with high perceived self-efficacy show greater resilience in managing environmental challenges. In terms of motivation, people with strong self-efficacy beliefs tend to set challenging goals for themselves and see obstacles as something that can be overcome. On an emotional level, efficacy beliefs allow people to interpret potentially threatening demands as manageable challenges by reducing worrying and negative thinking about potential threats. According to Carr (2004), self-efficacy also regulates emotional states by enabling people to solicit social support to act as a buffer against stress, and it is also believed to enhance the functioning of the immune system, which will ultimately lead to better physical health.

Self-efficacy will be investigated as a major component of Bandura's (1986) social cognitive theory. Self-efficacy is defined as the "beliefs in one's capability to organise and execute the course of action required to produce given attainments and it refers to an individual's belief in his or her capability to achieve a favourable result in any given situation" (Bandura, 1997 p. 477). General self-efficacy refers to a broad and stable sense of personal competence to deal effectively with a variety of stressful situations (Schwarzer & Luszczynska, 2007). Furthermore, general self-efficacy not only explains human functioning well, but can also be changed by various interventions (Schwarzer, 1998).

No results focusing on the relationship between job insecurity, individual consequences (such as general health), organisational consequences (such as organisational citizenship behaviour), and the role of self-efficacy in mediating this relationship in a chemical industry in the South-African context could be traced. It is therefore one of the objectives of this research to determine whether such a relationship does exist. Figure 1 illustrates the hypothesised model for mediation for this research, based on the model proposed by Baron and Kenny (1986), where job insecurity represents the independent variable and general health as well as organisational citizenship behaviour represent the dependent variable. The

mediator is represented by self-efficacy. Self-efficacy will be regarded as a mediator when: (a) variations in levels of job insecurity significantly account for variations in self-efficacy, (b) variations in self-efficacy significantly account for variations in general health as well as variations in organisational citizenship behaviour, (c) when Paths *a* and *b* are controlled, a previously significant relation between job insecurity as the independent variable, and general health and organisational citizenship behaviour as the dependent variables is no longer significant.



*Figure 1.* Hypothesised mediation of self-efficacy between job insecurity and its consequences, namely general health and organisational citizenship behaviour.

The following research questions can be formulated based on the above-mentioned description of the research problem:

- How are job insecurity, general health, organisational citizenship behaviour, self-efficacy and the relationship between these constructs conceptualised in the literature?
- How valid and reliable are the measuring instruments of job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry?
- What are the relationships between job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry?
- Does self-efficacy mediate the relationship between job insecurity and its consequences such as general health and organisational citizenship behaviour in a chemical industry?
- Do demographic groups differ in terms of their job insecurity, general health, organisational citizenship behaviour and self-efficacy?

In order to answer the above research questions, the following research objectives are set.

## **2. RESEARCH OBJECTIVES**

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

### **2.1 General objective**

The general objective of this research is to determine the relationship between job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry. A further general objective is to determine whether self-efficacy will mediate the relationship between job insecurity and its consequences such as general health and organisational citizenship behaviour.

### **2.2 Specific objectives**

The specific objectives of this research are:

- To conceptualise job insecurity, general health, organisational citizenship behaviour and self-efficacy from the literature and to determine the relationship between these constructs according to the literature.
- To determine the construct validity and reliability of the measuring instruments of job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry.
- To determine the relationship between job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry.
- To determine whether self-efficacy mediates the relationship between job insecurity and its consequences such as general health and organisational citizenship behaviour in a chemical industry.
- To determine the levels of job insecurity, general health, organisational citizenship behaviour and self-efficacy, based on differentiation between demographic groups.

### **3. PARADIGM PERSPECTIVE OF THE RESEARCH**

A certain paradigm perspective that includes the intellectual climate and the market of intellectual resources (Mouton & Marais, 1996) directs the research.

#### **3.1 Intellectual climate**

The intellectual climate refers to the variety of meta-theoretical values or beliefs which are held by those practising within a discipline at any given stage. These sets of beliefs, values and assumptions are not directly related to the theoretical goals of the practice of scientific research (Mouton & Marias, 1996).

#### **3.2 Discipline**

This research falls within the boundaries of the behavioural sciences and more specifically Industrial Psychology. Bergh and Theron (2004) describe industrial psychology as an applied field of psychology that shares a mutual history with the developmental history of psychology. The term industrial psychology is not used universally. In South Africa it is called industrial psychology, in Britain occupational psychology and in European countries it is called work and organisational psychology (Bergh & Theron, 2004).

According to Bergh and Theron (2004), industrial psychology as a field of study can be divided into a number of sub-disciplines, namely: research methodology, psychological assessment, personnel psychology, organisational psychology, career psychology, ergonomics, consumer psychology, employee relations and employee and organisational well-being. The sub-disciplines of industrial psychology that are focused on this research are personnel psychology, organisational psychology and psychological assessment.

Personnel psychology focuses on individual differences as well as on obtaining the optimum fit between the employee and the organisation. It is concerned with activities such as recruitment, selection, placement and training of employees, as well as a study of factors that influence the utilisation of personnel (Bergh & Theron, 2004). Schwarzer (1998) have indicated that self-efficacy explains human functioning well, and that it is possible to change self-efficacy through various interventions. Self-efficacy could be utilised as a screening tool

during recruitment. For employees already employed by the organisation, programmes designed to increase levels of self-efficacy can be developed.

Organisational psychology is concerned with the structure and dynamics of the organisation, where the organisation is seen as a system that involves individuals and groups. Organisational psychology strives to promote worker adjustment, satisfaction and productivity, as well as the effectiveness of the organisation. Organisational change and transformation are also considered to be important aspects of this sub-discipline of industrial psychology (Bergh & Theron, 2004). Job insecurity does not only hold consequences for individual employees, but also for the organisations in which they work. The impact of job insecurity on individual employees can erode the effectiveness of the organisation (Greenhalgh & Rosenblatt, 1984). This research will aim to determine whether self-efficacy can minimise the negative reactions associated with job insecurity, for the individual as well as for the organisation.

Psychological assessment is a process-orientated activity where one gathers a wide range of information by using assessment measures/tests and information from different sources. This information is then evaluated and integrated to reach a conclusion (Foxcroft & Roodt, 2001). Bergh and Theron (2004) regard psychological assessment as a core discipline in most fields of industrial psychology. Information for this research will be collected through a number of questionnaires. These questionnaires have been proven to be valid and reliable for the international as well as for the South African context.

### **3.3 Meta-theoretical assumptions**

Five paradigms are relevant to this research. Firstly, the literature review is conducted within the humanistic paradigm and systems theory paradigm; and secondly, the empirical study is conducted within the behaviouristic, positivistic and salutogenic paradigms.

#### **3.3.1 Literature review**

The literature review is conducted within the humanistic and systems theory paradigms.

Bergh and Theron (2004) describe the *humanistic paradigm* as a more person-oriented approach, where human personality and self-image are best understood by their subjective existing in, and unique experiences of reality and the striving towards self-actualisation. The individual is seen as active, unique and free and also free of control by unconscious motives and external factors.

The humanistic paradigm assumes that people do not only react to physical realities which are perceived, but also to how they interpret events and phenomena subjectively (Bergh & Theron, 2004). It has been shown that job insecurity can be regarded as an objective experience (Büssing, 1999) as well as a subjective experience (De Witte, 2005). This subjective experience of job insecurity will result in individuals having different intensity levels of job insecurity, even if they are exposed to the same kind of threat (Sverke & Hellgren, 2002). This research will focus on the subjective nature of job insecurity.

Becvar and Becvar (2000) note that linear causality does not exist, according to the *systems theory*. Rather, there is an emphasis on reciprocity, recursion and shared responsibility. The social cognitive theory of Bandura (1986), of which self-efficacy is a large part, also functions on the assumption of triadic reciprocity where behaviour, cognitive and other personal factors together with environmental events all function as interacting determinants of each other. Two components, for example A and B, can exist in the context of a relationship where both can influence each other and both are equally cause and effect of each other's behaviour.

### **3.3.2 Empirical study**

The empirical study is conducted within the behaviouristic-, positivistic- and salutogenic paradigms.

According to Bergh and Theron (2004), the *behaviouristic paradigm* stipulates that personality is characterised by acquired, observable behaviours or responses, expectations and thoughts. These authors further state that these behaviours are learned and rewarded in the various types of environments in which the individual may function. A person's environment and circumstances are the main determinants of what a person becomes.

One of the assumptions of the behaviouristic paradigm is that personality is a learned response and that behaviour in a given situation has been obtained by learning and by means of a person's developmental history as a result of either positive rewards or punishment (Bergh & Theron, 2004). One such aspect of personality is self-efficacy, and the behaviouristic paradigm operates in line with the perspective of Luthans and Youssef (2004) on self-efficacy, namely that it is an aspect of personality that can be developed or learned through various interventions.

In a *positivistic paradigm* it is accepted that there is a definite reality or truth which the researcher can know. This reality is then examined objectively from the outside. The researcher uses experimental research methods to ensure that observations take place under strictly controlled conditions (Guba & Lincoln, 1989).

The empirical part of this research falls within the positivist framework, with its focus on psychological assessment, psychometrics and statistical analysis, in an attempt to solve the research problem.

The *salutogenic paradigm* refers to the health-protecting resources that are available to people. According to Antonovsky (1987), these resources include optimism, experiencing meaningfulness, self-actualisation, self-efficacy, personal hardiness, sense of coherence, self-control and social support, and they facilitate health and resilience, even when the individual is faced with severe stress. The salutogenic paradigm leads one to think in terms of factors promoting movement toward the healthy end of a continuum (Antonovsky, 1987).

According to Antonovsky (1987), this paradigm assumes that stress is always present and neutral in terms of its effects on illness. The effect of the stressor is determined by the individual reaction to the stressor. However, not all people will become ill as a result of stress. For the purpose of this research, job insecurity is considered to be a work stressor (Barling & Kelloway, 1996). The notion of Greenhalgh and Rosenblatt (1984) that individual differences could have an influence on the relationship between the experience of job insecurity and an employee's reaction to it, will also be investigated.

### **3.4 Market of intellectual resources**

The market of intellectual resources refers to the set of beliefs which has a direct bearing on the epistemic status of scientific statements, for example to their status as knowledge-claims (Mouton & Marais, 1996).

#### **3.4.1 Theoretical beliefs**

Theoretical beliefs can be described as those beliefs of which testable statements about social phenomena are made. It can therefore be seen as assertions about the what (descriptive) and why (interpretative) aspects of human behaviour (Mouton & Marais, 1996)

##### **A. Conceptual definitions**

The relevant conceptual definitions are given below:

*Job insecurity* is defined as the "perceived threat of job loss and the worries related to that threat" (De Witte, 2005, p. 1). Job insecurity will be viewed from a global, two-dimensional perspective, consisting of a cognitive and affective component.

Psychological well-being or *general health* will be conceptualised according to the theory of Goldberg and Hillier (1979), where the focus will be on somatic symptoms, anxiety and insomnia, social dysfunction and severe depression.

*Organisational citizenship behaviour* consists of two components. The first type of organisational citizenship behaviour is labelled altruism and refers to helping behaviours that are directed at a specific individual. A second component, labelled generalised compliance, has also emerged and refers to pro-social behaviour directed towards the organisation (Smith, et al., 1983). This behaviour is not part of employees' formal role requirements, but nevertheless contributes to overall organizational effectiveness (Organ, 1988).

*General self-efficacy* refers to a broad and stable sense of personal competence to deal effectively with a variety of stressful situations. General self-efficacy not only explains human functioning well, it can also be changed by various interventions (Schwarzer, 1998).

## B. Models and theories

A model is aimed at simplifying the expression of relationships between components of a process. A model classifies phenomena and also attempts to systematise the relationships among them (Mouton & Marais, 1996).

As noted earlier, job insecurity can be regarded as a classic work stressor (Barling & Kelloway, 1996). Stress can be described by utilising a model and for this research the model developed by Katz and Kahn (1978) will be used.

This model is characterised by the notion that stress is a process and that its origin lies in the interaction between the individual and the environment (Sverke et al., 2004). This interaction is demonstrated in Figure 2.

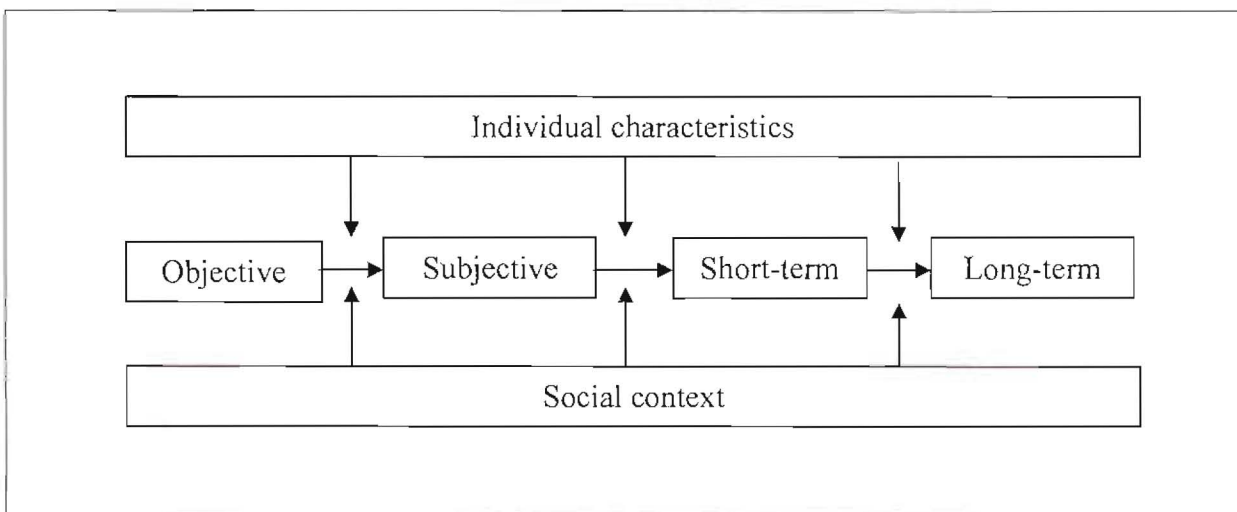


Figure 2. The stress process (based on the Katz and Kahn (1978) model) (Sverke et al., 2004, p. 46).

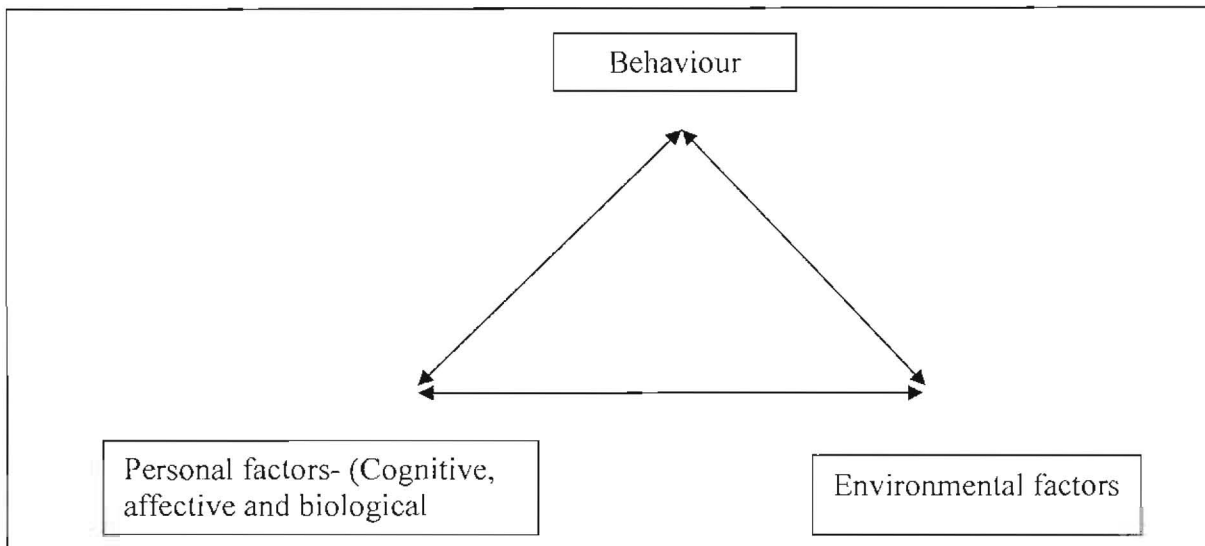
According to Sverke et al. (2004), the model describes the stress process as one in which the individual creates a subjective conception of the objective reality. They further note that this subjective interpretation triggers physiological, psychological and behavioural reactions that ultimately result in the development of mental and physical health problems. The model further describes how individual characteristics and the environment influence the stress process and how, together, these two factors affect how seriously an individual looks at and interprets objective threats to the security of employment.

A theory is defined as a collection of assertions, both verbal and symbolic, which identifies which variables are important for what reasons; specifies how they are interrelated and why, and describes the conditions under which they should be or not be related (Campbell, 1990). For Sutton and Staw (1995), theory is concerned with the connections among phenomena — a story about why acts, events, structure, and thoughts occur. It emphasises the nature of causal relationships and identifies what comes first, as well as the timing of events. It is laced with a set of logically interconnected arguments.

For the purpose of this research, the social cognitive theory developed by Bandura will be utilised as discussed earlier. Self-efficacy is a major component of the social cognitive theory developed by Bandura (1997). According to the social cognitive perspective, people are neither driven by inner forces nor robotically created and controlled by external stimuli. People are seen as self-organising, proactive, self-reflecting and self-regulating rather than reactive organisms that are controlled by environmental forces or driven by hidden inner pulses (Pajares, 2002).

Human functioning can best be explained by utilising a model of triadic reciprocity (see Figure 3), where behaviour, cognitive and other personal factors as well as environmental events all function as interacting determinants of each other. The term reciprocal refers to the mutual action between causal factors. The three determinants influence one another bi-directionally but it does not, however, mean that the three sets of interacting determinants are of equal strength. The influence that these determinants have will vary for different activities and in different situations (Bandura, 1986).

According to Bandura (1986), individuals possess a number of capabilities that define what it means to be human. One such characteristic is the capability of self-reflection. This provides individuals with the opportunity to analyse their experiences and to think about their own thought processes. Self-reflection not only assists people to gain understanding, they are also then capable of evaluating and altering their own thinking (Bandura, 1986).



*Figure 3.* Schematisation of the relations between the three classes of determinants in triadic reciprocal causation (Bandura, 1986, p.24).

Self-efficacy refers to some of the thoughts that affect human functioning and which provide the foundation for human motivation, well-being and personal accomplishments (Pajares, 2002). Bandura (1997) states that people’s motivations, emotions and actions are based more on what they believe, than on what is objectively true. In this regard self-efficacy becomes very important, because people will have little incentive to act or persevere in difficult situations unless they believe that their actions can produce the outcomes that they desire (Pajares, 2002).

### **3.4.2 Methodological beliefs**

Methodological beliefs can be defined as those beliefs that are concerned with the nature of social science and scientific research. These beliefs are more aligned to those beliefs that form part of the intellectual climate because they regularly entail a postulative aspect (Mouton & Marais, 1996).

The empirical study is presented within the behaviouristic, positivistic and salutogenic frameworks. These frameworks have been discussed under 3.3.2.

## **4 RESEARCH METHOD**

The research method consists of a literature review and an empirical study. The results obtained from the research are presented in the form of a research article.

### **4.1 Literature review**

A literature study will be undertaken to gather information on job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry.

The following resources will be utilised in this regard:

- Library catalogues
- EBSCO, PsychINFO and other electronic sources
- Internet resources
- Local and international psychology journals
- RGN Nexus: current and completed research
- Books
- Unpublished theses and dissertations

### **4.2 Research Design**

The aim of the research design is to plan and organise a specific research project to ensure that the final validity of the research findings is maximised (Mouton & Marais, 1996). The research can be classified as descriptive and explorative. According to Terre Blanche and Durrheim (2002), the distinction between these types of research lies in the goal of each type of research. Exploratory studies aim to look for new insights into phenomena and an open, flexible and inductive approach is utilised. It is used to make preliminary investigations into relatively unknown areas of research. Descriptive studies, on the other hand, aim to describe phenomena accurately through narrative-type descriptions, classification or measuring relationships (Terre Blanche & Durrheim, 2002).

A cross-sectional design with a survey as the data collection technique will be used to achieve the research objectives. Cross-sectional designs are used to examine groups of subjects in various stages of development simultaneously, while a survey is a data-collection technique in which questionnaires are used to gather data about an identified population (Burns & Grove, 1993). Information collected is used to describe the population at that point in time. This design can also be used to assess interrelationships among variables within a population. According to Bless and Higson-Smith (2000), this design is best suited to address the descriptive and predictive functions associated with the correlational design, whereby relationships between variables are examined.

### **4.3 Participants**

Participants will consist of employees working in the chemical industry. Both permanent as well as non-permanent employees will participate in this research. A total of 300 questionnaires will be distributed within the three main divisions in the organisation. The three divisions function in the industrial-chemical, agricultural and mining industry respectively. A non-probability or convenience sampling technique will be used, which means that every element in the population has a known non-zero probability of selection (Struwig & Stead, 2001).

### **4.4 Measuring battery**

Four questionnaires will be administered to measure job insecurity, general health, organisational citizenship behaviour and self-efficacy. A biographical questionnaire will be included in order to describe the population.

The *Job Insecurity Questionnaire* (JIQ) (De Witte, 2000) will be used to measure job insecurity. This questionnaire consists of 11 items; five items measure the cognitive dimension (i.e. "I am certain/sure of my job environment") and six items measure the affective dimension (i.e. "I feel uncertain about the future of my job") of job insecurity. The following Cronbach alpha coefficients were obtained for the JIQ: Affective Job Insecurity: 0,85; and Cognitive Job Insecurity: 0,90 (De Witte, 2000). An overall Cronbach alpha of 0,92 was reported by De Witte (2000). In South Africa, Elbert (2002) obtained an alpha coefficient

of 0,84 for the JIQ and Van Zyl (2005) obtained alpha coefficients of 0,84 and 0,89 for the affective job insecurity and cognitive job insecurity scales respectively.

The *General Health Questionnaire* (GHQ) (Goldberg & Hillier, 1979) will be used to measure the levels of health of employees from the selected organisation. The questionnaire focuses on the individual's health, aimed at specific outcomes of stress, and includes questions relating to both physical and psychological health. For the purpose of this study, the 28-item version will be used. Responses will be given on a four-point Likert-type scale. The measure is composed of subscales assessing four components, namely: somatic symptoms (for example: "Been feeling in need of a good tonic"); anxiety and insomnia, (for example: "Lost much sleep over worry"); social dysfunction, (for example: "Felt that you are playing a useful part in things"); and severe depression, (for example: "Found yourself wishing you were dead and away from it all"). A scoring method of (0-0-1-1) will be used. Therefore, a high value on the GHQ is indicative of a high level of psychological distress, whereas a low score implies a low level of psychological distress, indicating a high level of psychological well-being. Goldberg and Hillier (1979) reported internal consistency co-efficiency of 0,69 to 0,90. Goldberg et al. (1997) reported good reliability and validity indices for the GHQ across different cultures. Isaksson and Johansson (2000) obtained a Cronbach alpha coefficient of 0,86. Snoer (2005) obtained a reliability coefficient of 0,94 for the GHQ, which is an indication that this instrument can be used in the South African context.

The *Organisational Citizenship Behaviours Scale* (Smith et al., 1983) will be used to measure organisational citizenship behaviours. The 16 items were converted to a self-report inventory and a five-point Likert scale was used to indicate the extent to which each of the items were characteristic of the respondents. Variations of this scale have been used by various researchers. Schappe (1998) used six items from the original 16 items and obtained a reliability coefficient of 0,69. Kelloway, Loughlin, Barling and Nault (2002) used nine items from the original 16 items and obtained a reliability coefficient of 0,74. All the researchers also used a five-point Likert scale. No results of this measure being used in South Africa could be found.

The *General Perceived Self-Efficacy Scale* (GPSES) (Schwarzer & Jerusalem, 1995) will be used to measure participants' generalised self-efficacy. The GPSES consists of 10 items. According to Schwarzer and Jerusalem (1995), alpha coefficients of the GPSES vary from

0,75 to 0,90 and it is valid in terms of convergent and discriminant validity. The research of Elbert (2002) showed a reliability coefficient of 0,89.

A *biographical questionnaire* will be developed to obtain information concerning the demographical characteristics of the participants. Information gathered will include gender, race, citizenship, age, education, tenure, position and employment status.

#### **4.5 Statistical analysis**

The statistical analysis will be carried out with the help of the SPSS-programme (SPSS, 2007). Descriptive statistics (i.e. means, standard deviations, skewness and kurtosis) will be used to analyse the data. Cronbach alpha coefficients will be used to determine the internal consistency, homogeneity and un-dimensionality of the measuring instruments (Clark & Watson, 1995). Coefficient alpha contains important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale.

Pearson product-moment correlation coefficients will be used to specify the relationships between the variables. In terms of statistical significance, it is decided to set the value at a 95% confidence interval level ( $p \leq 0,05$ ). Effect sizes (Steyn, 1999) will be used to determine the practical significance of the findings. A cut-off point of 0,30 (medium effect, Cohen, 1988) is set for the practical significance of correlation coefficients.

A multiple regression analysis will be conducted to determine the mediating effect of self-efficacy between job insecurity and outcomes such as general health and organisational citizenship behaviour of employees in a chemical industry. The procedures as described by Baron and Kenny (1986) will be followed. Mediation can be illustrated by regressing the mediator on the independent variable and showing it to have an effect, then by showing the dependent variable to have an effect on the independent variable in the second regression, and finally by regressing the dependent variable on both the proposed mediator and independent variable, and finding that the mediator affects the dependent variable (Baron & Kenny, 1986).

Multivariate analysis of variance (MANOVA) will be used to determine the significance of

differences between the levels of job insecurity, general health, organisational citizenship behaviour and self-efficacy of demographic groups. MANOVA tests whether or not mean differences among groups in 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 is created from the set of dependent variables. Wilk's Lambda will be used to test the likelihood of the data, on the assumption of equal population mean vectors for all groups, against the likelihood on 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, one-way analysis of variance (ANOVA) will be used to establish which dependent variables had been affected. Seeing that multiple ANOVAs are used, a Bonferroni-type adjustment is made for inflated Type I error. Tukey tests are done to indicate which groups differed significantly when ANOVAs are performed.

## **5. CHAPTER DIVISION**

Chapter 1: Introduction

Chapter 2: Research Article

Chapter 3: Conclusions, Limitations and Recommendations

## **6. CHAPTER SUMMARY**

Chapter 1 provided a discussion of the problem statement and research objectives. An explanation was provided of the measuring instruments and research method as well as the different paradigms in which the research will be undertaken.

The empirical study will be discussed in Chapter 2, and limitations and recommendations highlighted in Chapter 3.

## REFERENCES

- Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well*. Belmont, CA: Jossey-Bass.
- Ashford, S. J., Lee, C. L., & Bobko, P. (1989). Content, causes and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32, 803-829.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Barling, J., & Kelloway, E. K. (1996). Job insecurity and health: The moderating role of workplace control. *Stress and Medicine*, 12, 253-259.
- Baron, R. A., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Becvar, D., & Becvar, R. J. (2000). *Family therapy: A systemic integration*. Needham Heights, MA: Pearson Education Company.
- Bergh, Z. C., & Theron, A. L. (2004). *Psychology in the work context*. Cape Town: Oxford University Press.
- Bless, C., & Higson-Smith, C. (2000). *Fundamentals of social research methods: An African perspective* (3rd. ed.). Cape Town: Juta Education.
- Borg, I., & Elizur, D. (1992). Job insecurity: Correlates, moderators and measurement. *International Journal of Manpower*, 13(2), 13-26.
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviours. *Academy of Management Review*, 11(4), 710-725.
- Burns, N., & Grove, S. K. (1993). *The practice of nursing research: Conduct, critique and utilization* (2nd ed.). Philadelphia, NJ: W.B. Saunders.
- Büssing, A. (1999). Can control at work and social support moderate psychological consequences of job insecurity? Results from a quasi-experimental study in the steel industry. *European Journal of Work and Organisational Psychology*, 8, 219-242.
- Campbell, J. P. (1990). The role of theory in industrial and organizational psychology. In M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology*, (pp. 1, 39-73). Palo Alto, CA: Consulting Psychologists Press.

- Carr, A. (2004). *Positive psychology: The science of happiness and human strengths*. New York: Brunner – Routledge.
- Catalano, R., Rook, K., & Dooley, D. (1986). Labour markets and help-seeking: A test of the employment security hypothesis. *Journal of Health and Social Behavior*, 27, 277-287.
- Church, T. A. (1994). Relating the Tellegen and five-factor model of personality structure. *Journal of Personality and Social Psychology*, 67, 898-909.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Davy, J. A. J., Kinicki, A. J., & Scheck, C. L. (1997). A test of job insecurity's direct and mediated effects on withdrawal cognitions. *Journal of Organisational Behaviour*, 18, 323-349.
- Dekker, S. W., & Schaufeli, W. B. (1995). The effects of job insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist*, 3, 57-103.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology*, 8(2), 155-177.
- De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk [Work ethic and job insecurity: Assessment and consequences for well-being, satisfaction and performance at work]. In R. Bouwen, K. de Witte., H. de Witte, & T. Taillieu, (Eds.), *Van groep tot gemeenschap* [From group to community] (pp. 325-350). Leuven, Belgium: Garant.
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *South African Journal of Industrial Psychology*, 31(4), 1-6.
- Elbert, J. (2002). *Job insecurity and psychological strengths of service workers in a parastatal*. Unpublished Master's dissertation, Potchefstroom University for Christian Higher Education, Vaal Triangle Campus, Vanderbijlpark.
- Feather, N. T., & Rauter, K. A. (2004). Organizational citizenship behaviours in relation to job status, job insecurity, organizational commitment and identification, job satisfaction and work values. *Journal of Occupational and Organizational Psychology*, 77, 81-94.
- Ferrie, J. E., Shipley, M. J., Marmot, M. G., Stanfield, S. A., & Smith, G. D. (1998). The health effects of major organizational change and job insecurity. *Social Science and*

- Medicine*, 46, 243-254.
- Foxcroft, C., & Roodt, G. (2001). *An introduction to psychological assessment in the South African context*. Cape Town: Oxford University Press.
- Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, 9, 139-145.
- Goldberg, D. P., Gater, R., Satorius, N., Üstün, T. B., Piccinelli, M., Gureje, O., & Rutter, C. (1997). The validity of two versions of the general health questionnaire in the WHO study of mental illness in general health care. *Psychological Medicine*, 27, 191-197.
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management Review*, 9(3), 438-448.
- Greenhalgh, L., & Sutton, R. (1991). Organizational effectiveness and job insecurity. In: J. Hartley, D. Jacobson, B. Klandermans, & T. Van Vuuren (Eds.), *Job insecurity: Coping with jobs at risk* (pp. 151-171). London: Sage Publications.
- Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Newbury Park, CA: Sage Publications.
- Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage Publications.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology*, 8(2), 179-195.
- Isaksson, K., & Johansson, G. (2000). Adaptation to continued work and early retirement following downsizing: Long term effects and gender differences. *Journal of Occupational and Organisational Psychology*, 73, 241-257.
- Kamman, R., & Flett, R. (1983). Affectometer 2: A scale to measure current levels of general happiness. *Australian Journal of Psychology*, 35, 259-265.
- Katz, D., & Kahn, R. (1978). *The social psychology of organizations*. New York: Wiley.
- Kelloway, E. K., Loughlin, C., Barling, J., & Nault, A. (2002). Self-reported counterproductive behaviors and organizational citizenship behaviors: Separate but related constructs. *International Journal of Selection and Assessment*, 10, 143-151.
- King, J. (2000). White-collar reactions to job insecurity and the role of the psychological contract: Implications for human resource management. *Human Resource Management*, 39, 79-92.

- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Mouton, J., & Marais, H. C. (1996). *Basic concepts in the methodology of the social sciences*. Pretoria: HSRC Publishers.
- Näswall, K., Sverke, M., & Hellgren, J. (2005). The moderating effect of work-based and non-work based support on the relation between job insecurity and subsequent strain. *South African Journal of Industrial Psychology*, 31(4), 57-64.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lanham, MA: Lexington Books.
- Orpen, C. (1993). Correlations between job insecurity and psychological well-being among white and black employees in South Africa. *Perceptual and Motor Skills*, 76, 885-886.
- Pajares, F. (2002). *Overview of social cognitive theory and self-efficacy*. Retrieved April 19, 2006, from the World Wide Web: <http://www.emory.edu/EDUCATION/mfp/eff.html>.
- Rosenblatt, Z., & Ruvio, A. (1996). A test of a multidimensional model of job insecurity: The case of Israeli teachers. *Journal of Organisational Behaviour*, 17, 587-605.
- Schappe, S. P. (1998). The influence of job satisfaction, organizational commitment, and fairness perceptions on organizational citizenship behavior. *The Journal of Psychology* 132(3), 277-290.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-Nelson.
- Schwarzer, R. (1998). General perceived self-efficacy in 14 cultures. Retrieved August 20, 2007, from the World Wide Web: <http://userpage.fu-berlin.de/~health/world14.htm>.
- Schwarzer, R., & Luszczynska, A. (2007). Perceived self-efficacy. Retrieved September 3, 2007, from the World Wide Web: <http://dccps.cancer.gov/brp/constructs/self-efficacy/self-efficacy.pdf>.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behaviour: Its nature and antecedents. *Journal of Applied Psychology* 68(4), 653-663.
- Snoer, S. A. (2005). *Job insecurity and general health of employees in a government organisation in the Free State*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- SPSS. (2007). *SPSS 15.0 for Windows*. Chicago, IL: SPSS Incorporated.

- Steyn, H. S. (1999). *Praktiese beduidendheid: Die gebruik van effekgroottes* [Practical significance: The use of effect sizes]. Wetenskaplike bydraes – Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom: Potchefstroom University for Christian Higher Education.
- Struwig, F. W., & Stead, G. B. (2001). *Planning, designing and reporting research*. Cape Town: Pearson Education.
- Sutton, R. I., & Staw, B. M. (1995). What theory is not. *Administrative Science Quarterly*, 40, 371-384.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology: An International Review*, 51(1), 23-42.
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2004). *Job insecurity and union membership. European unions in the wake of flexible production*. Brussels: Peter Lang.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.
- Terre Blanche, M., & Durrheim, K. (2002). *Research in practice: Applied methods for the social sciences*. Cape Town: University of Cape Town Press.
- Van Vuuren, T. (1990). *Met ontslag bedreigd: Werknemers in onzekerheid over hun arbeidsplaats bij veranderingen in de organisatie*. [Threatened with dismissal: Job insecurity amongst workers during organisational change]. Amsterdam: VU Uitgeverij.
- Van Zyl, Y. (2005). *Job insecurity, burnout, work engagement, general health and job satisfaction in selected organisations in the Vaal Triangle*. Unpublished Doctoral thesis, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Viljoen, E. (2004). *Job insecurity, burnout, job engagement and psychological well-being of workers at a government organisation*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- World Health Organization (2000). *Definitions of health*. Official Records of the World Health Organization, 2, 100. Retrieved April 19, 2006, from the World Wide Web: <http://www.who.int/en/>.

## **CHAPTER 2**

### **RESEARCH ARTICLE**

# JOB INSECURITY AND SELF-EFFICACY IN A CHEMICAL INDUSTRY<sup>1</sup>

P. Kriese

## ABSTRACT

The objective of this study was to examine the relationship between job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry. A cross-sectional survey design with an availability sample ( $N = 205$ ) was used. The Job Insecurity Questionnaire (JIQ), General Health Questionnaire (GHQ), Organisational Citizenship Behaviour Scale (OCB), General Perceived Self-Efficacy Scale (GPSES) and a biographical questionnaire were administered. Results demonstrated that organisational citizenship behaviour (as demonstrated by altruism) is statistically-significant, positively correlated (practically-significant, medium effect) with self-efficacy. Self-efficacy was shown to partially mediate the relationship between affective job insecurity and general health (as demonstrated by severe depression). It was further shown that self-efficacy mediates the relationship between cognitive job insecurity and altruism. Finally, self-efficacy was shown to partially mediate the relationship between job insecurity (cognitive job insecurity and affective job insecurity) and compliance.

## OPSOMMING

Die doelstelling van hierdie studie was om die verhouding tussen werksonsekerheid, algemene gesondheid, organisatoriese burgerskapsgedrag en self-effektiwiteit in 'n chemiese industrie te bepaal. 'n Kruisdeursnee-opname-ontwerp met 'n beskikbaarheidssteekproef ( $N = 205$ ) is gebruik. Die Werksonsekerheidsvraelys (JIQ), Algemene Gesondheidsvraelys (GHQ), Organisasoriese Burgerskapsgedragskaal (OCB), Algemene Waargenome Self-effektiwiteitskaal (GPSES) en 'n biografiese vraelys is geadministreer. Resultate het op 'n statisties-betekenisvolle, positiewe korrelasie (prakties-beduidend, medium effek) tussen OCB (soos verteenwoordig deur altruïsme) en self-effektiwiteit gedui. Self-effektiwiteit het die verhouding tussen affektiewe werksonsekerheid en algemene gesondheid (soos aangedui deur ernstige depressie) gedeeltelik gemedieer. Daar is verder aangedui dat self-effektiwiteit die verhouding tussen kognitiewe werksonsekerheid en altruïsme medieer. Daar is laastens aangedui dat self-effektiwiteit die verhouding tussen werksonsekerheid (soos aangedui deur affektiewe werksonsekerheid en kognitiewe werksonsekerheid) en insiklikheid (*compliance*) gedeeltelik medieer.

---

<sup>1</sup> The financial contribution of the NRF to this research is acknowledged.

## INTRODUCTION

The past few decades have seen rapid and dramatic changes in nearly all the labour markets of the industrialised Western (Chirumbolo & Hellgren, 2003) and Asian (Probst & Lawler, 2006) markets. These economies have had to deal with economic recessions, industrial restructuring, technological change and stronger global competition (Guest, 2004). Corporate downsizing, mergers and acquisitions, plant closures, workforce reorganisations and more flexible and temporary terms of employment are but some of the strategies employed by organisations to remain competitive. These strategies affect millions of workers each year (Probst & Lawler, 2006; Sverke et al., 2004).

As a result of these changes that have occurred in labour markets, employment relations have likewise undergone dramatic changes (Sverke & Goslinga, 2003). Long-term employment relationships that were based on a mutual dependence between employer and employee have given way to short-term relations that were more flexible (Sparrow, 2000). This functional and numerical flexibility has, in many instances, proven to be beneficial for the organisation (Sverke & Hellgren, 2002). It has, however, proven to be less beneficial for the individual in the organisation; and these negative consequences have become more and more apparent. For many employees, such changes have resulted in feelings of insecurity with regard to the nature and future existence of their jobs (Hartley, Jacobson, Klandermans, & Van Vuuren, 1991).

According to Viljoen (2004), South African organisations are not excluded from these changes and they are increasingly exposed to the effects of the world economy, advanced technology and international competition. As a result of increased international trade and competition, workforces are becoming increasingly diverse and the nature of work is also changing. More and more South African companies are listing on the stock exchange and, like in the rest of the world, these companies are having to deal with changes in society, political changes and constant changes in the world economy (Robbins, Odendaal, & Roodt, 2004).

Given that firms regularly respond to competitive pressures by employing strategies like mergers, acquisitions, reorganising and venturing into new markets, it is not surprising that employees experience job insecurity (Reisel & Banai, 2002).

## **Job insecurity**

A vast number of definitions for job insecurity exist. Greenhalgh and Rosenblatt, (1984, p. 438) define it as the "perceived powerlessness to maintain desired continuity in a threatened job situation". Jacobson and Hartley (1991, p. 7) describe job insecurity as "a discrepancy between the level of security a person experiences and the level she or he might prefer" and Sverke, Hellgren and Näswall (2002, p. 243) refer to it as the "subjectively experienced anticipation of a fundamental and involuntary event". De Witte (2005, p. 1) defines job insecurity as the "perceived threat of job loss and the worries related to that threat".

The aforementioned definitions of job insecurity share many similarities but there are as many differences between them. It therefore becomes necessary to highlight the main distinctions found in the literature with regard to job insecurity.

The concept of job insecurity can be regarded from two distinct perspectives, namely global and multidimensional (Van Wyk, 2007). The global perspective conceptualises job insecurity as the overall concern about the future of a person's job (Hartley et al., 1991). According to the multidimensional perspective, job insecurity does not only refer to the fear of losing the job itself, but also to the fear of losing important aspects of the job (Greenhalgh & Rosenblatt, 1984).

Researchers in the field of job insecurity focus on different aspects of the concept and also use different measures in their research (Sverke et al., 2004). The following themes could be identified in this regard:

- 1) Job insecurity is considered to have an affective and cognitive component, where the feeling or emotional aspect of the fear around losing one's job can be regarded as the affective component. The cognitive component entails the perceived probability or prospect of actually losing one's job (Borg & Elizur, 1992).
- 2) Job insecurity is also perceived as containing an objective component (Büssing, 1999) as well as a subjective component (De Witte & Näswall, 2003). The objective definition assumes that job insecurity occurs as a contextual phenomenon that is independent of the individual's interpretation of the situation (Sverke et al., 2004). Objective job insecurity would be found where high levels of unemployment or

downsizing are prevalent (Näswall & De Witte, 2003). The subjective experience of job insecurity arises from an individual's current situation in the organisation. People in the same objective situation may therefore have different subjective interpretations of the situation (Sverke et al., 2004).

- 3) Job insecurity also has a quantitative and qualitative dimension. Quantitative job insecurity refers to concerns about the future existence of the present job. On the other hand, qualitative job insecurity refers to the perceived threat of losing job features and certain valued aspects of the job, such as a lack of career opportunities and decreasing salary development (Hellgren, Sverke, & Issakson, 1999).
- 4) Job insecurity is seen as a stressor, regardless of whether it is seen from a global or multidimensional perspective (Mauno & Kinnunen, 1999). According to Barling and Kelloway (1996) job insecurity can be regarded as a work stressor that reflects the fear or worry that an individual experiences regarding the future existence of the current job as well as fears pertaining to important work features.

This research will make use of De Witte's (2000) Job Insecurity Questionnaire as a measure of job insecurity. This measure views job insecurity from a global perspective, consisting of a cognitive and affective component.

As mentioned previously, job insecurity can be regarded as a stressor (De Witte, 1999; Probst, 2002). Viewing job insecurity as a stressor has led to the application of stress theories to job insecurity research. The stress model developed by Katz and Kahn (1978) is one such theory and, according to Sverke et al. (2004) it has served as a basis for many subsequent theories. This model describes the stress process as one in which the individual generates a subjective or psychological understanding of the actual reality. These subjective interpretations trigger physiological, psychological and behavioural reactions, which ultimately result in the development of mental and physical health complaints. How an individual looks at, and interprets threats to the security of employment will depend on both individual characteristics, as well as the environment. It is the combination of these individual characteristics and the environment that ultimately affects an individual's stress experiences and stress reactions (Sverke et al., 2004).

Demographic variables such as, age, gender and race, also influence the level of job insecurity experienced by individuals (Sverke et al., 2004). Research has produced some

diverse views regarding the different demographic variables. Hartley et al. (1991) and Mohr (2000) showed that older employees experience higher levels of job insecurity. In South Africa, Sauer (2003) reported similar results. Sverke et al. (2004) proposed a possible explanation for the different levels of job insecurity experienced by older and younger employees. The difference could be attributed to the different ways in which these employees evaluate opportunities in the labour market. Older people generally have fewer employment opportunities and therefore, when the possibility of job loss exists, the perceived threat becomes stronger and these employees experience more job insecurity. However, in subsequent research conducted by Sverke et al. (2004), results indicated that younger employees reported more job insecurity.

With regard to gender, research has also yielded conflicting results. According to Kinnunen, Mauno, Nätti and Happonen (1999), men experienced more job insecurity than women, while Näswall and De Witte (2003) found in a study conducted in Belgium that women experienced more job insecurity. In South Africa, Bosman (2005) and Grant (2005) did not find any difference between gender in terms of the experience of job insecurity. Research conducted in South Africa regarding the impact that race had on job insecurity also produced some contradicting results, where some studies indicated that black employees experienced higher levels of job insecurity (Orpen, 1993; Van Zyl, 2005). However, studies done by Bosman (2005) and Labuschagne (2005) indicated that white employees experienced higher levels of cognitive job insecurity than their black counterparts.

Literature has shown that job insecurity as a stressor (Barling & Kelloway, 1996) carries consequences for both the individual and the organisation (Sverke et al., 2004). How job insecurity is perceived by an individual will have an influence on the employee's well-being as well as the level of job satisfaction experienced by the employee (Sverke et al., 2002). Job insecurity also influences various organisational attitudes and behaviours, which have consequences for the organisation (De Witte, 2005). Lower organisational commitment has been reported (Sverke et al., 2004), increased resistance to change (Greenhalgh & Rosenblatt, 1984), increased turnover (Hellgren et al., 1999) as well as a decrease in organisational citizenship behaviour (King, 2000). In this research, general health as a consequence for the individual was investigated, and in terms of consequences for the organisation, organisational citizenship behaviour was investigated.

## General health

For the purpose of this research, well-being or general health has been conceptualised by the theory of Goldberg and Hillier (1979) focusing on somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. This measure was selected because it provides a researcher with more information than would be provided by a single severity score. Information regarding the psychological as well as the physical health of employees can be investigated. According to Diener (1984), well-being refers to a subjective emotional state. This emotional state includes positive affect (i.e. feelings of happiness), reasonably little negative affect (i.e. feelings of depression and anxiety) and general life satisfaction (described as a person's general satisfaction with life).

Several studies have indicated that job insecurity was associated with a decrease in general well-being (Sverke et al., 2002). Job insecurity has been identified as a predictor of increased medical consultations for psychological distress (Catalano, Rook, & Dooley, 1986; Roskies & Louis-Guerin, 1990). Research conducted by Roskies, Louis-Guerin and Fournier (1993) found that job insecurity was associated with an increase in psychological distress, anxiety and depression. Hartley et al. (1991) also found increased levels of irritation and anxiety as well as psychosomatic and physical complaints to be associated with job insecurity. In South Africa, Orpen (1993) found that job insecurity was positively related to anxiety and depression while Snoer (2005) indicated that increased levels of affective job insecurity were associated with higher levels of anxiety and insomnia, social dysfunction and severe depression. Orpen (1993) found that black and white employees experienced similar levels of anxiety and depression whereas Grant (2005) found that white cultural groups displayed higher levels of somatic symptoms compared to the black cultural group. In a study conducted by Sverke et al. (2004) in four European countries job insecurity was identified as a predictor of mental health complaints. In Belgium and Italy, older people reported more health complaints as compared with younger people. However, in the Netherlands and Sweden, age did not emerge as a predictor of mental health complaints. Sverke et al. (2004) further indicated that gender was a significant predictor of mental health complaints in the Netherlands and Sweden, with women reporting higher levels of mental health complaints than men. Similar results could however not be obtained in Belgium and Italy. It was further shown that job insecurity predicted physical health complaints in Italy and Sweden, with women reporting physical health complaints more frequently than men. In South Africa,

Grant (2005) also found that women demonstrated higher levels of ill health compared to men. This was especially true with regard to social dysfunction and the anxiety and insomnia dimensions.

Job insecurity may affect the well-being of individuals but it has also been shown that when employees experience job insecurity, their reactions to job insecurity may hold consequences for the organisation (Greenhalgh & Rosenblatt, 1984). The current research focuses on organisational citizenship behaviour as a consequence for the organisation.

### **Organisational citizenship behaviour**

For an organisation to function effectively, Katz (1964) described several behavioural patterns. One such behavioural pattern represented behaviours that transcended specified role requirements. It included acts such as cooperating with co-workers, suggesting ways to improve the organisation and speaking favourably about the organisation to others. Brief and Motowidlo (1986, p. 711), called this type of behaviour pro-social behaviour and defined it as behaviour that was "performed by a member of an organisation, directed toward an individual, group, or organization with whom he or she interacts while carrying out his or her organizational role, and performed with the intention of promoting the welfare of the individual, group, or organization toward which it is directed". Brief and Motowidlo (1986) made several important distinctions between the different types of pro-social behaviours. Firstly, pro-social behaviours can be functional or dysfunctional and might be of benefit to, or to the detriment of an individual or organisation. Secondly, pro-social behaviours can be role-prescribed (i.e., behaviour that is formally specified as part of an individual's job), or extra-role pro-social behaviour (i.e., behaviour not formally specified by the job). The third distinction involves the target at which the pro-social behaviour is directed. The behaviour can either be directed towards an individual or it can be directed towards the organisation.

One type of pro-social behaviours that is directed towards the organisation has been defined as organisational citizenship behaviour (Smith, Organ, & Near, 1983). According to Smith et al. (1983), organisational citizenship behaviour consists of two components, namely altruism and generalised compliance. Altruism refers to helping behaviours that are directed at a specific individual (i.e. someone has a problem, needs assistance or requests a service). A second component was labelled generalised compliance and refers to pro-social behaviour

directed towards the organisation. This type of organisational citizenship behaviour was described as being more impersonal and as doing things for the sake of the organisation as opposed to doing something for another individual. In this research, organisational citizenship behaviour is conceptualised according to the definition proposed by Smith et al. (1983).

Considering that some authors regard organisational citizenship behaviour as crucial for the survival of the organisation, any factors that might harm this behaviour is worth studying in order to minimise its harmful effects. Research by Greenhalgh and Sutton (1991) and King (2000) has shown that job insecurity appears to be associated with a reduction in organisational citizenship behaviour.

Research has also shown that job insecurity is associated with several negative outcomes and it thus becomes the duty of research to identify factors that can reduce the negative reactions (Näswall, Sverke, & Hellgren, 2005). De Witte (2005) notes that there are two reasons why it is necessary to identify these factors. Firstly, it expands on existing knowledge regarding job insecurity and secondly it provides information regarding the different interventions available to reduce the negative impact of job insecurity.

Job insecurity is determined by how individuals evaluate and interpret their work conditions. To this end, Sverke et al. (2004) found that certain personality factors, namely locus of control, self-efficacy and affectivity, will influence the way an individual interprets the environment, which in turn would influence the level of job insecurity. For the purpose of this research, the question of how self-efficacy affects the experience of job insecurity will be investigated.

### **Self-efficacy**

Self-efficacy as a construct was introduced by Albert Bandura and is seen as a major component of his social cognitive theory which argues that behaviour is strongly stimulated by self-influence (Bandura, 1977). Bandura (1986, p.391) defines self-efficacy as "people's judgements of their capabilities to organise and execute courses of action required to attain designated types of performances".

Self-efficacy expectations are acquired from four possible sources, namely (i) personal performance accomplishments, which refer to direct experiences of success or failure: (ii) vicarious learning, which involves the observation of others failing or succeeding: (iii) social or verbal persuasion, and (iv) physiological arousal (Bandura, 1986). Authors like Bandura (1986) and Maddux (1995) do not view self-efficacy as a personality trait, but note that it should be defined and measured in the context of relatively specific behaviours in specific situations or contexts. Self-efficacy therefore represents a dynamic, changeable and comprehensive judgment reflecting a variety of personal and performance determinants (Gist, Stevens, & Bavetta, 1991). Although authors such as Bandura (1986) and Maddux (1995) view self-efficacy as domain-specific, they do believe that perceived efficacy in one behavioural-situational domain will generalise to other behaviours and situations, depending on the degree to which behaviours share important features and require similar skills.

However, some researchers have also conceptualised a generalised sense of self-efficacy (Beas & Salanova, 2006). General self-efficacy refers to a broad sense of personal competence to deal effectively with a variety of stressful situations (Schwarzer & Luszczynska, 2007). This research adhered to this definition of general self-efficacy. Furthermore, general self-efficacy does not only explain human functioning well, it is also possible to be changed by various interventions (Schwarzer, 1998). Viewing self-efficacy as a personality factor that can be changed by various interventions lends itself to the view held by Luthans and Youssef (2004) regarding self-efficacy. Luthans and Youssef (2004) also describe self-efficacy as a state that can be developed through workplace interventions and proactive management.

Luszczynska, Scholz and Schwarzer (2005) state that self-efficacy has a regulatory function in different health domains, including positive and negative affect, dealing with pain, and coping with stress. Several studies have found that a strong sense of self-efficacy is related to better health (Maddux, 1995; Schwarzer, 1992). In addition, Bandura (1986) has shown that self-efficacy has an influence on the amount of effort employees put into their jobs and whether employees are able to persist when faced with obstacles that will influence job performance, including organisational citizenship behaviour. It is therefore expected that people with higher levels of self-efficacy will experience better health and demonstrate more organisational citizenship behaviour. Research has also shown that high levels of self-efficacy are associated with lower levels of job insecurity (Bothma, 2005; Elbert, 2002)

Most authors in the field of job insecurity view self-efficacy from a dispositional point of view and therefore see it as a trait, and subsequently regard self-efficacy as a moderator in its relationship between job insecurity and its consequences (De Witte, 2005; Sverke et al., 2004). However, Van Wyk (2007) notes that a great deal of ambiguity exists in the study of job insecurity regarding the classification of variables as moderators or mediators. Baron and Kenny (1986, p. 1174-1176) define a moderator as a "qualitative (i.e. sex, race) or quantitative (i.e. level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable." They also regard a mediator as a variable that "accounts for the relation between the predictor and the criterion. Mediators explain how external physical events take on internal psychological significance" (Baron & Kenny, 1986, p. 1174-1176). The researcher agrees with the description provided by these authors. As indicated, the current study views self-efficacy as a state and subsequently investigates the mediating effect that general self-efficacy has on the relationship between job insecurity and its consequences, namely general health and organisational citizenship behaviour.

The organisation under investigation has undergone considerable changes over the past few years. The long-term strategy includes diversification and globalisation which have resulted in the acquisition of new businesses and the opening of new factories abroad. The organisation initially only functioned within the agricultural sector, but has expanded its operations to the mining and industrial-chemical sectors. Although the organisation could not be described as one where objective job insecurity is present one would suspect that some degree of subjective job insecurity may exist due to the nature of the organisations' long-term strategy. The once relatively small, local company where employee career paths and development opportunities were quite similar and predictable, no longer exists. The acquisition of new businesses locally and the entry into the global arena have resulted in a much wider playing field for all employees. Career paths have become much more diverse and unique for individual employees, and employees might be required to consider expatriation or moving to a business that was not previously part of the organisations' operations. The organisation is increasingly exposed to global market conditions and due, to the large influence of external factors on the organisation's performance, it is expected that a certain level of insecurity will exist amongst employees.

No results focusing on the relationship between job insecurity, individual consequences (such as general health) and organisational consequences (such as organisational citizenship behaviour), and the role of self-efficacy in mediating this relationship in a chemical industry in the South-African context could be obtained. It is therefore the objective of this research to determine whether such a relationship does exist.

Based on the discussion above, the following hypotheses are formulated:

- H<sub>1</sub>: Measuring instruments of job insecurity, general health, organisational citizenship behaviour and self-efficacy are valid and reliable for this research.
- H<sub>2</sub>: There are practically and statistically significant correlations between job insecurity, general health, organisational citizenship behaviour and self-efficacy.
- H<sub>3</sub>: Self-efficacy mediates the effect of job insecurity on general health.
- H<sub>4</sub>: Self-efficacy mediates the effect of job insecurity on organisational citizenship behaviour.
- H<sub>5</sub>: Differences between demographic groups of employees exist regarding levels of job insecurity, general health, organisational citizenship behaviour and self-efficacy.

## **METHOD**

### **Research design**

A cross-sectional design with a survey as the data collection technique was used to achieve the research objectives. Cross-sectional designs are used to examine groups of subjects in various stages of development simultaneously, while a survey is a data-collection technique in which questionnaires are used to gather data about an identified population (Burns & Grove, 1993). Information collected is used to describe the population at that point in time. This design can also be used to assess interrelationships among variables within a population. According to Bless and Higson-Smith (2000) this design is best suited to addressing the descriptive and predictive functions associated with the correlational design, whereby relationships between variables are examined.

## Participants

The participants could be defined as an availability sample of employees working in the chemical industry. A total population of 300 employees was targeted. A response rate of 68,30% was achieved, of which 100% of the 205 responses could be utilised.

Descriptive information of the sample is given in Table 1.

Table 1

### *Characteristics of the Participants*

Item	Category	Frequency	Percentage
Gender	Male	131	63,90
	Female	74	36,10
Race	African	70	34,15
	White	120	58,54
	Indian	6	2,93
	Coloured	6	2,93
	Other	1	0,49
	Missing values	2	0,98
	Citizenship	South African	199
	Other	2	0,98
	Missing values	4	1,95
Age	24 years and younger	16	7,80
	25 – 35 years	92	44,88
	36 – 45 years	51	24,88
	46 – 55 years	29	14,15
	56 years and older	16	7,80
	Missing values	1	0,49
Highest Qualification	Up to grade 11	29	14,15
	Grade 12	66	32,20
	Diploma	54	26,34
	Degree	25	12,20
	Degree +	31	15,12

Table 1 continued

*Characteristics of the Participants*

Item	Category	Frequency	Percentage
Tenure	Less than 1 year	46	22,44
	2 – 5 years	56	27,32
	6 – 10 years	51	24,88
	11 – 20 years	32	15,61
	More than 20 years	20	9,76
Job category	Management	45	21,95
	Specialist	25	12,20
	Non-management	135	65,85
Employment status	Permanent	179	87,32
	Non-Permanent	26	12,68

The participants consisted mainly of white (58,54%) employees. Participants further consisted of mostly male (63,90%) employees. The predominant section of the participants fell within the age range between 25 and 35 (44,88%). The majority of the participants held a grade 12 (32,60%) qualification, and 65,85% of the participants worked in non-management positions.

### Measuring battery

The following measurement instruments were used in the empirical study:

Four questionnaires were administered to measure job insecurity, general health, organisational citizenship behaviour and self-efficacy. A biographical questionnaire was included in order to describe the population.

The *Job Insecurity Questionnaire* (JIQ) (De Witte, 2000) was used to measure job insecurity. This questionnaire consists of 11 items; five items measure the cognitive dimension (i.e. "I am certain/sure of my job environment") and six items measure the affective dimension (i.e. "I feel uncertain about the future of my job") of job insecurity. The following Cronbach alpha coefficients were obtained for the JIQ: Affective Job Insecurity: 0,85; and Cognitive Job Insecurity: 0,90 (De Witte, 2000). An overall Cronbach alpha of 0,92 was reported by De

Witte (2000). In South Africa, Elbert (2002) obtained an alpha coefficient of 0,84 for the JIQ and Van Zyl (2005) obtained alpha coefficients of 0,84 and 0,89 for the affective job insecurity and cognitive job insecurity scales respectively.

The *General Health Questionnaire* (GHQ) (Goldberg & Hillier, 1979) was used to measure the levels of health of employees from the selected organisation. The questionnaire focuses on the individual's health, aimed at specific outcomes of stress, and includes questions relating to both physical and psychological health. For the purpose of this study, the 28-item version was used. Responses were given on a four-point Likert-type scale. The measure is composed of subscales assessing four components, namely: somatic symptoms (for example: "Been feeling in need of a good tonic"); anxiety and insomnia, (for example: "Lost much sleep over worry"); social dysfunction, (for example: "Felt that you are playing a useful part in things"); and severe depression, (for example: "Found yourself wishing you were dead and away from it all"). A scoring method of (0-0-1-1) was used. Therefore, a high value on the GHQ is indicative of a high level of psychological distress, whereas a low score implies a low level of psychological distress. Goldberg and Hillier (1979) reported internal consistency co-efficiency of 0,69 to 0,90. Goldberg et al. (1997) reported good reliability and validity indices for the GHQ across different cultures. In South Africa, Isaksson and Johansson (2000) obtained a Cronbach alpha coefficient of 0,86. Snoer (2005) obtained a reliability coefficient of 0,94 for the GHQ, which is an indication that this instrument can be used in the South African context.

The *Organisational Citizenship Behaviour Scale* (OCB) (Smith et al., 1983) was used to measure organisational citizenship behaviours. The 16 items were converted to a self-report inventory and a five-point Likert scale was used to indicate the extent to which each of the items were characteristic of the respondents. Variations of this scale have been used by various researchers. Schappe (1998) used six items from the original 16 items and obtained a reliability coefficient of 0,69. Kelloway, Loughlin, Barling and Nault (2002) used nine items from the original 16 items and obtained a reliability coefficient of 0,74. All the researchers also used a five-point Likert scale. No results of this measure being used in South Africa could be found.

The *General Perceived Self-Efficacy Scale* (GPSES) (Schwarzer & Jerusalem, 1995) was used to measure participants' generalised self-efficacy. The GPSES consists of 10 items. According to Schwarzer and Jerusalem (1995), alpha coefficients of the GPSES vary from 0,75 to 0,90 and it is valid in terms of convergent and discriminant validity. The research of Elbert (2002) showed a reliability coefficient of 0,89.

A *biographical questionnaire* was developed to gather information concerning the demographical characteristics of the participants. Information gathered included gender, race, citizenship, age, education, tenure, position and employment status.

### **Statistical analysis**

The statistical analysis was carried out with the SPSS programme (SPSS, 2007). Descriptive statistics (i.e. means, standard deviations, skewness and kurtosis) were used to analyse the data. Cronbach alpha coefficients were used to determine the internal consistency, homogeneity and unidimensionality of the measuring instruments (Clark & Watson, 1995). Coefficient alpha contains important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale.

Spearman correlation coefficients were used because a part of the data was not normally distributed. In terms of statistical significance, it was decided to set the value at a 95% confidence interval level ( $p \leq 0,05$ ). Effect sizes (Steyn, 1999) were used to determine the practical significance of the findings. A cut-off point of 0,30 (Cohen, 1988) was set for the practical significance of correlation coefficients.

Multiple regression analyses were conducted to determine the mediating effect of self-efficacy between job insecurity and outcomes such as general health and organisational citizenship behaviour of employees in the chemical industry. The procedures as described by Baron and Kenny (1986) were followed. Mediation was illustrated by regressing the mediator on the independent variable and showing it to have an effect, then by showing the dependent variable to have an effect on the independent variable in the second regression, and finally by regressing the dependent variable on both the proposed mediator and independent variable, and finding that the mediator affects the dependent variable (Baron & Kenny, 1986).

Multivariate analysis of variance (MANOVA) was used to determine the significance of differences between the levels of job insecurity, general health, organisational citizenship behaviour and self-efficacy of demographic groups. MANOVA tests whether or not mean differences among groups in 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. Wilk's Lambda was used to test the likelihood of the data, on the assumption of equal population mean vectors for all groups, against the likelihood on 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, one-way analysis of variance (ANOVA) was used to discover which dependent variables had been affected. Seeing that multiple ANOVAs were used, a Bonferroni-type adjustment was made for inflated Type I error. Tukey tests were done to indicate which groups differed significantly when ANOVAs were performed.

## RESULTS

A principal component factor analysis was performed on the 11 items of the JIQ on the total sample of employees working in the chemical industry. Analysis of the eigenvalues (larger than 1) and the scree plot indicated that two factors could be extracted, explaining 55,32% of the total variance. Next, a simple principle axis factoring analysis was followed using a direct oblimin rotation to perform further factor analysis. Item 2 ("There is only a small chance that I will become unemployed") was, however, left out in further analysis as it had a poor loading. The problematic nature of Item 2 is supported by findings of Viljoen (2004).

The results of the factor analysis on the JIQ are indicated in Table 2. The loading of variables on factors, as well as communalities and percentage of variance, is indicated. Variables are ordered and grouped by size of loading to facilitate interpretation. Labels for each factor are suggested in a footnote.

Table 2

*Factor Loadings, Communalities ( $h^2$ ), Percentage Variance for Principal Factors Extraction and Direct Oblimin Rotation on JIQ Items*

Item	F <sub>1</sub>	F <sub>2</sub>	$h^2$
10 There is a possibility that I might lose my job in the near future	0,81	0,19	0,66
8 I fear that I might lose my job	0,81	0,15	0,73
11 I think that I might be dismissed in the near future	0,80	-0,10	0,61
9 I fear that I might get fired	0,73	-0,03	0,52
6 I feel uncertain about the future of my job	0,72	-0,02	0,52
7 I worry about the continuation of my career	0,67	-0,01	0,44
5 It makes me anxious that I might become unemployed	0,66	0,07	0,46
4 I am very sure that I will be able to keep my job	0,22	0,80	0,77
1 I think that I will be able to continue working here	-0,21	0,80	0,59
3 I am certain/ sure of my job environment	0,16	0,78	0,70
<b>Percentage Variance Explained</b>	<b>43,55</b>	<b>16,41</b>	

Factor labels: F<sub>1</sub> Affective Job Insecurity F<sub>1</sub> Cognitive Job Insecurity

Table 2 indicates that the principal analysis with an oblimin rotation resulted in two factors. Items loading on the first factor were related to Affective Job Insecurity (i.e., "I fear that I might lose my job"; and "I feel uncertain about the future of my job"). The second factor addresses Cognitive Job Insecurity (i.e., "I think that I will be able to continue working here"; and "I am certain/sure of my job environment"). 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") loaded onto the affective scale where De Witte (2000) reported these items to be part of the cognitive scale. In her study among a sample of employees at a government organisation in South Africa, Viljoen (2004) also reported that Item 10 and Item 11 loaded onto the affective scale.

In a second order factor analysis performed on the JIQ, one factor was extracted, explaining a total variance of 66,11%. This factor was labelled Job Insecurity.

A simple principal component factor analysis was performed on the 28 items of the GHQ on the total sample of employees working in the chemical industry. Analysis of the eigenvalues (larger than 1) and the scree plot indicated that three factors could be extracted, explaining

44,91% of the total variance. Next, a simple principle axis factoring analysis was followed using a direct oblimin rotation to perform further factor analysis.

The results of the factor analysis on the GHQ are indicated in Table 3. The loading of variables on factors, as well as communalities and percentage of variance, is indicated. Variables are ordered and grouped by size of loading to facilitate interpretation. Labels for each factor are suggested in a footnote.

Table 3

*Factor Loadings, Communalities ( $h^2$ ), Percentage Variance for Principal Factors Extraction and Direct Oblimin Rotation on GHQ Items*

Item	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	$h^2$
B3 Felt constantly under strain?	<b>0,81</b>	0,05	-0,08	0,64
B7 Been feeling nervous and strung-up all the time?	<b>0,71</b>	0,03	-0,00	0,52
B4 Been getting edgy and bad-tempered?	<b>0,71</b>	0,11	-0,13	0,50
A4 Felt that you are ill?	<b>0,68</b>	-0,18	0,17	0,52
A6 Been getting a feeling of tightness or pressure in your head?	<b>0,67</b>	0,17	-0,13	0,48
A3 Been feeling run down and out of sorts?	<b>0,65</b>	0,04	-0,02	0,43
B6 Found everything getting on top of you?	<b>0,60</b>	-0,09	0,12	0,39
A5 Been getting any pains in your head?	<b>0,60</b>	0,02	0,03	0,38
B2 Had difficulty in staying asleep once you are off?	<b>0,59</b>	0,22	-0,15	0,42
A1 Been feeling perfectly well and in good health?	<b>0,58</b>	-0,21	0,24	0,44
B1 Lost much sleep over worry?	<b>0,56</b>	0,26	-0,01	0,46
B5 Been getting scared or panicky for no good reason?	<b>0,55</b>	-0,01	0,05	0,32
A7 Been having hot or cold spells?	<b>0,52</b>	-0,08	0,03	0,26
A2 Been feeling in need of a good tonic?	<b>0,49</b>	-0,00	0,20	0,34
D6 Found yourself wishing you were dead and away from it all?	0,03	<b>0,79</b>	0,02	0,64
D2 Felt that life is entirely hopeless?	0,07	<b>0,75</b>	-0,01	0,59
D3 Felt that life isn't worth living?	-0,12	<b>0,68</b>	0,11	0,47
D5 Found at times you couldn't do anything because your nerves were too bad?	0,14	<b>0,61</b>	-0,17	0,40
D7 Found that the idea of taking your own life kept coming into your mind?	-0,04	<b>0,60</b>	0,21	0,45
D4 Thought of the possibility that you might make away with yourself?	0,00	<b>0,57</b>	0,24	0,44
D1 Been thinking of yourself as a worthless person?	0,19	<b>0,53</b>	0,18	0,47

Table 3 continued

*Factor Loadings, Communalities (h<sup>2</sup>), Percentage Variance for Principal Factors Extraction and Direct Oblimin Rotation on GHQ Items*

Item	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	h <sup>2</sup>
C5 Felt that you are playing a useful part in things?	-0,04	0,19	<b>0,71</b>	0,58
C4 Been satisfied with the way you've carried out your task?	0,21	-0,08	<b>0,67</b>	0,56
C6 Felt capable of making decisions about things?	-0,09	0,17	<b>0,63</b>	0,41
C1 Been managing to keep yourself busy and occupied?	-0,05	0,03	<b>0,50</b>	0,24
C3 Felt on the whole you were doing things well?	0,23	0,04	<b>0,50</b>	0,39
C7 Been able to enjoy your normal day-to-day activities?	0,23	0,13	<b>0,46</b>	0,39
C2 Been taking longer over the things you do?	0,32	0,05	<b>0,38</b>	0,36
<b>Percentage Variance Explained</b>	<b>28,50</b>	<b>9,61</b>	<b>6,44</b>	

Factor labels: F<sub>1</sub> Psychosomatic Symptoms F<sub>2</sub> Severe Depression F<sub>3</sub> Social Dysfunction

Table 3 indicates that the principal analysis with an oblimin rotation resulted in three factors. Items loading on the first factor were related to somatic symptoms and anxiety (i.e., "Been feeling in need of a good tonic", "Felt that you are ill", "Felt constantly under strain", and "Been getting scared or panicky for no good reason"). This factor was labelled Psychosomatic Symptoms. Items loading on the second factor were related to depression (i.e. "Felt that life is entirely hopeless", and "Felt that live is not worth living"). This factor was labelled Severe Depression. Items loading on the third factor were related to social dysfunction (i.e. "Been taking longer over the things you do", and "Felt capable of making decisions about things"). This factor was labelled Social Dysfunction.

In a second order factor analysis performed on the GHQ, one factor was extracted, explaining a total variance of 64,00%. This factor was labelled Health.

A principal component factor analysis was performed on the 16 items of the OCB on the total sample of employees working in the chemical industry. Analysis of the eigenvalues (larger than 1) and the scree plot indicated that two factors could be extracted, explaining 33,22% of the total variance. Next a simple principle axis factoring analysis was followed using a direct oblimin rotation to perform further factor analysis.

The results of the factor analysis on the OCB are indicated in Table 4. The loading of variables on factors, as well as communalities and percentage of variance, is indicated. Variables are ordered and grouped by size of loading to facilitate interpretation. Labels for each factor are suggested in a footnote.

Table 4

*Factor Loadings, Communalities ( $h^2$ ), Percentage Variance for Principal Factors Extraction and Direct Oblimin Rotation on OCB Items*

Item	F <sub>1</sub>	F <sub>2</sub>	H <sup>2</sup>
7 I help others who have heavy work loads.	<b>0,64</b>	-0,04	0,40
5 I orient new people even though it is not required.	<b>0,61</b>	0,07	0,39
12 I assist my supervisor with his or her work.	<b>0,59</b>	-0,22	0,36
1 I help others who have been absent.	<b>0,57</b>	0,03	0,33
13 I make innovative suggestions to improve the department.	<b>0,53</b>	-0,24	0,30
15 I attend functions that are not required but help company image.	<b>0,50</b>	-0,33	0,31
14 I do not take extra breaks.	<b>0,47</b>	0,16	0,27
16 I do not spend time in idle conversation.	<b>0,47</b>	0,06	0,23
3 I volunteer for things that are not required.	<b>0,41</b>	0,39	0,36
2 I am punctual.	<b>0,34</b>	0,30	0,27
10 I spend a great deal of time on personal conversations.	-0,04	<b>0,79</b>	0,61
8 I coast (relax, take it slow) towards the end of the day.	-0,06	<b>0,76</b>	0,57
4 I take undeserved breaks.	-0,14	<b>0,64</b>	0,41
6 My attendance at work is above the norm.	0,25	<b>0,43</b>	0,28
<b>Percentage Variance Explained</b>	<b>19,58</b>	<b>13,63</b>	

Factor labels: F<sub>1</sub> Altruism F<sub>2</sub> Compliance

Table 4 indicates that the principal analysis with an oblimin rotation resulted in two factors. Two items (Item 9, "I give advance notice if I am unable to come to work"; and Item 11, "I do not take unnecessary time off work") did not load on any factors and were therefore left out in the analysis. Three items, Item 2 ("I am punctual"), Item 14 ("I do not take extra breaks") and Item 16 ("I do not spend time in idle conversation"), that according to Smith et al. (1983) are supposed to load on Compliance, loaded in this study on Altruism. As this is the first time that the total instrument was used in South African studies, it was decided to leave these three items as part of the Altruism factor. Items loading on the first factor were

related to Altruism (i.e., "I help others who have been absent", "I orient new people even though it is not required", and "I help others who have heavy work loads"). Items loading on the second factor were related to Compliance (i.e. "My attendance at work is above the norm", and "I take undeserved breaks").

In a second order factor analysis performed on the OCB, one factor was extracted, explaining a total variance of 58,85%. This factor was labelled Organisational Citizenship Behaviour.

A simple principal component factor analysis was performed on the 10 items of the GPSES on the total sample of employees working in the chemical industry. Analysis of the eigenvalues (larger than 1) and the scree plot indicated that one factor could be extracted, explaining 43,40% of the total variance. Next, a simple principle axis factoring analysis was followed using a direct oblimin rotation to perform further factor analysis. This factor was labelled Self-Efficacy.

The descriptive statistics and alpha coefficients of the two factors of the JIQ, three factors of the GHQ, two factors of the OCB, and one factor of the GPSES are indicated in Table 5.

Table 5

*Descriptive Statistics and Alpha Coefficients of the JIQ, GHQ, OCB and GPSES*

Item	Mean	SD	Skewness	Kurtosis	$\alpha$
<b>JIQ</b>					
Cognitive Job Insecurity	15,78	5,46	0,41	-0,13	0,74
Affective Job Insecurity	6,18	2,27	0,86	0,94	0,86
Job Insecurity Total	21,94	6,56	0,42	-0,07	0,84
<b>GHQ</b>					
Psychosomatic Symptoms	2,44	3,37	1,45*	1,20*	0,89
Severe Depression	0,52	1,25	2,95*	8,84*	0,81
Social Dysfunction	0,93	1,49	1,67*	2,00*	0,75
General Health Total	3,89	5,05	1,59*	2,31*	0,90
<b>OCB</b>					
Altruism	37,33	5,06	-0,19	0,90	0,70
Compliance	14,75	3,05	-0,40	-0,21	0,70
Organisational Citizenship Total	60,60	6,92	0,14	0,02	0,69

Table 5 continued

*Descriptive Statistics and Alpha Coefficients of the JIQ, GHQ, OCB and GPSES*

Item	Mean	SD	Skewness	Kurtosis	$\alpha$
<b>GPSES</b>					
Self-Efficacy	33,91	4,37	-0,60	0,19	0,85

\* High skewness and kurtosis

Table 5 indicates that acceptable Cronbach alpha coefficients for all scales, varying from 0,70 to 0,89 were obtained. These alpha coefficients compare reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large portion of the variance is explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994). It is evident from Table 5 that most of the scales of the measuring instruments have relatively normal distributions, with low skewness and kurtosis, except for the three factors of GHQ which were positively skewed with high kurtosis.

The Spearman product-moment correlation coefficients between cognitive and affective job insecurity, psychosomatic symptoms, severe depression, social dysfunction, altruism, compliance and self-efficacy are given in Table 6.

Table 6

*Spearman Correlation Coefficients between the JIQ, GHQ, OCB and GPSES*

Item	1	2	3	4	5	6	7
1. Cognitive Job Insecurity (JIQ)	.	.	.	.	.	.	.
2. Affective Job Insecurity (JIQ)	0,33* <sup>+</sup>	.	.	.	.	.	.
3. Psychosomatic Symptoms (GHQ)	0,26*	0,26*	.	.	.	.	.
4. Severe Depression (GHQ)	0,03	0,21*	0,42* <sup>++</sup>	.	.	.	.
5. Social Dysfunction (GHQ)	0,24*	0,23*	0,47* <sup>++</sup>	0,50* <sup>+</sup>	.	.	.
6. Altruism (OCB)	-0,19*	0,07	-0,06	-0,09	-0,08	.	.
7. Compliance (OCB)	0,09	-0,18*	-0,14*	-0,23*	-0,06	0,22*	.
8. Self-Efficacy (GPSES)	-0,25*	-0,18*	-0,19	-0,19*	-0,19*	0,31* <sup>+</sup>	0,21*

\*  $p \leq 0,05$  – statistically significant

+  $r > 0,30$  – practically significant (medium effect)

++  $r > 0,50$  – practically significant (large effect)

Table 6 shows that cognitive job insecurity has a statistically significant positive correlation (practically significant, medium effect) with affective job insecurity. Psychosomatic symptoms is statistically significant, positively correlated (practically significant, medium effect) with severe depression and social dysfunction. Severe depression shows a statistically significant, positive correlation (practically significant, medium effect) with social dysfunction. Altruism is statistically significant, positively correlated (practically significant, medium effect) with self-efficacy. Results further indicate that cognitive job insecurity has a statistically significant positive correlation with psychosomatic symptoms and social dysfunction, and a statistically significant negative correlation with altruism and self-efficacy. Affective job insecurity has a statistically significant positive correlation with psychosomatic symptoms, severe depression and social dysfunction. Affective job insecurity further has a statistically significant negative correlation with compliance and self-efficacy. Psychosomatic symptoms show statistically significant negative correlations with compliance. Severe depression has statistically significant negative correlations with compliance and self-efficacy. Based on the above results, hypothesis 2 is only partially accepted.

Next, the mediating effect of self-efficacy between job insecurity and general health was investigated. According to Baron and Kenny (1986), this mediating effect can be illustrated by first regressing job insecurity (cognitive and affective job insecurity) on self-efficacy, secondly by showing job insecurity (cognitive and affective job insecurity) to have an effect in predicting general health (psychosomatic symptoms, severe depression and social dysfunction), and thirdly by showing that general health is affected by both self-efficacy and job insecurity. Results of these regression analyses are given in Table 7.

Table 7 indicates that cognitive job insecurity, is a statistically significant predictor of self-efficacy (Model 1). Model 2 shows that job insecurity is a statistically significant predictor of psychosomatic symptoms. Model 3 shows that when self-efficacy is added to the model, the significant predictive value of job insecurity on psychosomatic symptoms does not disappear. This is an indication that self-efficacy does not mediate the impact of job insecurity on psychosomatic symptoms.

It is also evident from Table 7 that affective job insecurity is a significant predictor of severe depression (Model 4). Model 5 shows that both self-efficacy and affective job insecurity are

statistically significant predictors of severe depression. It can be seen that self-efficacy acts as a partial mediator of affective job insecurity on severe depression.

Table 7

*Regression Analyses Estimating the Mediating Effect of Self-Efficacy for Job Insecurity in Predicting General Health*

Model		Unstandardised Coefficients		Standardized Coefficients	<i>T</i>	<i>p</i>	<i>F</i>
		<b>B</b>	Std Error	Beta			
<b>Dependent Variable: Self-Efficacy</b>							
1	(Constant)	37,64	1,07		35,21	0,00*	6,85
	Cognitive Job Insecurity	-0,36	0,14	-0,19	-2,59	0,01*	
	Affective Job Insecurity	-0,10	0,06	-0,12	-1,68	0,10	
<b>Dependent Variable: Psychosomatic symptoms</b>							
2	(Constant)	-1,58	0,80		-1,99	0,05	14,09
	Cognitive Job Insecurity	0,36	0,10	0,24	3,49	0,00*	
	Affective Job Insecurity	0,12	0,04	0,19	2,67	0,01*	
3	(Constant)	-0,53	2,13		-0,25	0,80	9,45
	Cognitive Job Insecurity	0,35	0,11	0,24	3,33	0,00*	
	Affective Job Insecurity	0,11	0,04	0,18	2,59	0,01*	
	Self-Efficacy	-0,03	0,05	-0,04	-0,53	0,60	
<b>Dependent Variable: Severe Depression</b>							
4	(Constant)	-0,10	0,31		-0,32	0,75	3,47
	Cognitive Job Insecurity	-0,01	0,04	-0,02	-0,25	0,81	
	Affective Job Insecurity	0,04	0,02	0,19	2,56	0,01*	
5	(Constant)	1,95	0,82		2,38	0,02*	4,81
	Cognitive Job Insecurity	-0,03	0,04	-0,05	-0,73	0,47	
	Affective Job Insecurity	0,04	0,02	0,16	2,27	0,02*	
	Self-Efficacy	-0,05	0,02	-0,19	-2,70	0,01*	
<b>Dependent Variable: Social Dysfunction</b>							
6	(Constant)	-0,66	0,36		-1,85	0,07	10,73
	Cognitive Job Insecurity	0,13	0,05	0,19	2,69	0,01*	
	Affective Job Insecurity	0,05	0,02	0,19	2,71	0,01*	
7	(Constant)	0,94	0,95		0,99	0,32	8,33
	Cognitive Job Insecurity	0,11	0,05	0,17	2,34	0,02*	
	Affective Job Insecurity	0,05	0,02	0,18	2,49	0,01*	
	Self-Efficacy	-0,04	0,02	-0,13	-1,82	0,07	

\*  $p < 0,05$

Table 7 also shows that job insecurity is a significant predictor of social dysfunction (Model 6). Model 7 shows that when self-efficacy is added to the model, the significant predictive value of job insecurity on social dysfunction does not disappear. This is an indication that self-efficacy does not mediate the impact of job insecurity on social dysfunction.

Hypothesis 3 is therefore only partially accepted, based on the above results. Self-efficacy only partially mediates the relationship between affective job insecurity and severe depression.

Next, the mediating effect of self-efficacy between job insecurity and organisational citizenship behaviour was investigated. According to Baron and Kenny (1986), this mediating effect can be illustrated by first regressing job insecurity (cognitive and affective job insecurity) on self-efficacy, secondly by showing job insecurity (cognitive and affective job insecurity) to have an effect in predicting organisational citizenship behaviour (altruism and compliance), and thirdly by showing that organisation citizenship behaviour is affected by both self-efficacy and job insecurity. Results of these regression analyses are given in Table 8.

Table 8 indicates that cognitive job insecurity is a statistically significant predictor of self-efficacy (Model 1). Model 2 shows that cognitive job insecurity is a statistically significant predictor of altruism. Model 3 shows that when self-efficacy is added to the model, significant prediction of cognitive job insecurity on altruism disappears. Self-efficacy is the only significant predictor of altruism. This is an indication that self-efficacy mediates the impact of cognitive job insecurity on altruism. Affective job insecurity displayed no significant prediction.

Table 8 also shows that job insecurity (cognitive and affective job insecurity) is a statistically significant predictor of compliance (Model 4). Model 5 shows that both self-efficacy and job insecurity (cognitive and affective job insecurity) are statistically significant predictors of compliance. It can be seen that self-efficacy acts as a partial mediator of job insecurity (cognitive and affective job insecurity) on compliance.

Hypothesis 4 is therefore only partially accepted, based on the above results. Self-efficacy fully mediates the relationship between cognitive job insecurity and altruism. Furthermore, self-efficacy partially mediates the relationship between job insecurity (cognitive and affective job insecurity) and compliance.

Table 8

*Regression Analyses Estimating the Mediating Effect of Self-Efficacy for Job Insecurity in Predicting Organisational Citizenship Behaviour*

Model		Unstandardised		Standardized	<i>t</i>	<i>p</i>	<i>F</i>
		Coefficients		Coefficients			
		<b>B</b>	<b>Std Error</b>	<b>Beta</b>			
<b>Dependent Variable: Self-Efficacy</b>							
1	(Constant)	37,64	1,07		35,21	0,00*	6,85
	Cognitive Job Insecurity	-0,36	0,14	-0,19	-2,59	0,01*	
	Affective Job Insecurity	-0,10	0,06	-0,12	-1,68	0,10	
<b>Dependent Variable: Altruism</b>							
2	(Constant)	39,60	1,26		31,39	0,00*	2,89
	Cognitive Job Insecurity	-0,37	0,16	-0,17	-2,29	0,02*	
	Affective Job Insecurity	0,00	0,07	0,00	0,03	0,97	
3	(Constant)	29,72	3,30		9,02	0,00*	5,51
	Cognitive Job Insecurity	-0,28	0,16	-0,13	-1,72	0,09	
	Affective Job Insecurity	0,03	0,07	0,03	0,41	0,68	
	Self-Efficacy	0,26	0,08	0,23	3,24	0,00*	
<b>Dependent Variable: Compliance</b>							
4	(Constant)	15,44	0,75		20,56	0,00*	5,11
	Cognitive Job Insecurity	0,20	0,10	0,15	2,03	0,04*	
	Affective Job Insecurity	-0,12	0,04	-0,22	-2,99	0,00*	
5	(Constant)	9,93	1,97		5,05	0,00*	6,58
	Cognitive Job Insecurity	0,25	0,10	0,19	2,57	0,01*	
	Affective Job Insecurity	-0,11	0,04	-0,19	-2,68	0,01*	
	Self-Efficacy	0,15	0,05	0,21	3,02	0,00*	

\*  $p < 0,05$

MANOVA analysis was conducted to determine differences between demographic groups (such as gender, racial groups, age, education levels, and job category) in the experience of job insecurity, general health, organisational citizenship behaviour and self-efficacy. Results were first analysed for statistical significance using Wilk's Lambda statistics. ANOVA was

used to determine specific differences whenever statistical differences were found. The results of the MANOVA analysis are given in Table 9.

Table 9

*MANOVA – Differences in Job Insecurity, General Health, Organisational Citizenship Behaviour and Self-Efficacy*

Variable	Value	F	Df	p	Partial Eta squared
Gender	0,86	3,91	8,00	0,00*	0,14
Racial Groups	0,76	7,59	8,00	0,00*	0,24
Age	0,82	1,22	32,00	0,19	0,05
Education levels	0,71	2,17	32,00	0,00*	0,08
Job category	0,88	1,61	16,00	0,06	0,06

\*  $p < 0,05$

In analysis of Wilk's Lambda values, statistically significant differences ( $p < 0,05$ ) regarding cognitive and affective job insecurity, altruism, compliance, psychosomatic symptoms, severe depression, social dysfunction, and self-efficacy could be found between gender and racial groups. Female employees experience higher levels of cognitive job insecurity than male employees. White employees experience higher levels of cognitive job insecurity and compliance than African (i.e. African, Indian and Coloured) employees. Also, African employees (i.e. African, Indian and Coloured) experience higher levels of severe depression than white employees.

However, no statistically significant differences ( $p < 0,05$ ) were found for age groups and job category. Statistically significant differences ( $p < 0,05$ ) regarding cognitive and affective job insecurity, altruism, compliance, psychosomatic symptoms, severe depression, social dysfunction, and self-efficacy could also be found between education levels. The relationship between cognitive and affective job insecurity, altruism, compliance, psychosomatic symptoms, severe depression, social dysfunction, and self-efficacy and education levels was further analysed using ANOVA. The Games-Howell procedure was used to determine whether there were any statistical differences between the groups.

The results of the ANOVA based on education levels are given in Table 10.

Table 10

*Differences in Job Insecurity, General Health, Organisational Citizenship Behaviour and Self-Efficacy based on Education Levels*

Item	Up to Grade 11	Grade 12	Diploma	Degree	Postgraduate Degree	<i>p</i>	Partial Eta Squared
Cognitive job insecurity	5,17 <sup>b</sup>	5,86	6,50	6,52	6,94 <sup>a</sup>	0,02*	0,06
Affective job insecurity	16,34	16,84	15,39	15,44	13,97	0,16	0,03
Psychosomatic symptoms	2,03	2,02	2,28	3,28	3,35	0,25	0,03
Severe depression	1,07 <sup>a</sup>	0,56	0,15 <sup>b</sup>	0,56	0,52	0,03*	0,05
Social dysfunction	0,90	0,88	0,76	1,44	0,98	0,45	0,02
Altruism	37,45	37,13	37,71	36,64	37,56	0,92	0,01
Compliance	12,72 <sup>b</sup>	14,41	15,48	15,56 <sup>a</sup>	15,45	0,00*	0,10
Self-efficacy	32,45	33,52	34,39	34,08	35,13	0,14	0,03

\* Statistically significant difference:  $p < 0,05$

a Group differs statistically significantly from type (in row) where b is indicated

Table 10 shows that there are statistically significant differences between levels of cognitive job insecurity, severe depression and compliance based on education levels. It seems that employees with a postgraduate degree experience statistically significant higher levels of cognitive job insecurity than employees with up to a grade 11. It also seems that employees with a degree experience statistically significantly higher levels of compliance than employees with up to a grade 11. It was furthermore shown that employees with an education level of up to grade 11 experience statistically significant more severe depression than employees with a diploma. Based on these results, hypothesis 5 is only partially accepted.

## DISCUSSION

The aim of this study was to determine the relationship between job insecurity, general health, organisational citizenship behaviour and self-efficacy. More specifically, the possible mediating effect that self-efficacy might have on the relationship between job insecurity and general health on the one hand, and between job insecurity and organisational citizenship behaviour on the other, was investigated.

The factor structures of the JIQ, GHQ, OCB and GPSES were determined with principal component factor analysis to determine the total factors of each instrument and these were followed by principle axis factoring. A direct oblimin rotation was used when there was more than one factor and when the factors were found to be correlated.

Analysis of the eigenvalues (larger than 1) and the scree plot indicated that two factors could be extracted in the JIQ, explaining 55,32% of the total variance. These factors were labelled Affective Job Insecurity and Cognitive Job Insecurity. Item 2 ("There is only a small chance that I will become unemployed") of the JIQ proved problematic in the sense that it did not load onto either factor and was subsequently left out from further analysis. This is not consistent with the research of De Witte (2000), which found that Item 2 loaded onto the cognitive component. However, in several South African studies, Item 2 also proved problematic, in so far as it did not load onto either component (Grant, 2005; Labuschagne, 2005; Viljoen, 2004). According to Viljoen (2004), the item can be interpreted as either positive or negative by placing the emphasis on either 'small chance' or on 'unemployed'.

Results of a principal component factor analysis indicated that three factors were extracted in the GHQ, explaining 44,91% of the total variance. These factors were labelled Psychosomatic Symptoms, Severe Depression and Social Dysfunction. In the current study, the A scale (Somatic Symptoms) and B scale (Anxiety and Depression) presented a high degree of inter-correlation and resulted in a single factor called Psychosomatic Symptoms. These results differ from the measure developed by Goldberg and Hillier (1979) which reported four factors. In constructing the scaled version of the GHQ, Goldberg and Hillier (1979) reported the presence of a general factor that accounted for 32% of the total variance in the unrotated data and noted that it was therefore inevitable that the various scales would not be pure measures of the four factors. In a study conducted by Werneke, Goldberg, Yalcin and Üstün (2000) to compare the factor structure of the GHQ between 15 cities around the world, it was found that the C (Social Dysfunction) and D (Depression) scales were generally more stable than the A (Somatic Symptoms) and B (Anxiety) scales. These authors proposed that a possible explanation for the inter-correlation between the A (Somatic Symptoms) and B (Anxiety) scales was that it reflected the correlation between anxious symptoms and somatic symptoms, which are generally known to be associated with one another. This could be a possible explanation for the correlation found between the A and B scales in this study. In South Africa, in a study done by Grant (2005), structural equation modelling resulted in

the four factors described by Goldberg and Hillier (1979), but only after Items A6 ("Been getting a feeling of tightness or pressure in your head"), A7 ("Been having hot or cold spells"), B1 ("Lost much sleep over worry"), C7 ("Been able to enjoy your normal day-to-day activities"), D1 ("Been thinking of yourself as a worthless person"), D2 ("Felt that life is entirely hopeless"), D4 ("Thought of the possibility that you might make away with yourself") and D5 ("Found at times you couldn't do anything because your nerves were too bad") had been removed.

Two factors were extracted in the OCB explaining 33,22% of the total variance. These factors were labelled Altruism and Compliance. No results could be obtained from international or South African studies that utilised all sixteen items proposed by Smith et al. (1983). However, in research conducted by Barbuto Jr., Brown, Wheeler and Wilhite (2003) and Schappe (1998) a variation of the OCB scale developed by Smith et al. (1983) was used. Both these studies used a six-item version of the original OCB scale. Schappe (1998) obtained a reliability coefficient of 0,69 for the total scale, whereas Barbuto Jr. et al. (2003) obtained a reliability coefficient of 0,89 for the Altruism scale and 0,79 for the General Compliance scale.

In a principal component factor analysis one factor was extracted in the GPSES explaining 43,40% of the total variance. This factor was labelled Self-Efficacy. The unidimensional nature of the GPSES was also confirmed by Schwarzer and Jerusalem (1995).

The reliability of the measuring instruments was examined by determining the Cronbach alpha coefficients. Cronbach alpha coefficients varying from 0,70 to 0,89 were obtained. These alpha coefficients compare reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large portion of the variance is explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994). This is an indication that the measuring instruments were valid and reliable for the current research. Most of the scales of the measuring instruments have relatively normal distributions, with low skewness and kurtosis, except for the three factors of GHQ which were positively skewed with high kurtosis. In South African studies, research by Cooks (2007) and Grant (2005) also resulted in positively skewed distributions with high kurtosis. A possible explanation for this occurrence is that people were reluctant to reveal the real state of their health and tried to

depict their health as being better than it really was. Goldberg (1972) indicated that it was almost impossible to eliminate the occurrence of social desirability from the GHQ.

Spearman product-moment correlations were conducted to determine the relationship between cognitive job insecurity, affective job insecurity, psychosomatic symptoms, severe depression, social dysfunction, altruism, compliance and self-efficacy. Results indicated that when cognitive job insecurity increased, affective job insecurity will also increase. In addition to the fact that this research proved the JIQ to be a reliable measuring instrument for the current research, the correlation between the cognitive job insecurity scale and the affective job insecurity scale provides support for the conceptualisation of job insecurity as having a cognitive and affective component as proposed by Borg and Elizur (1992). Results also indicated that when psychosomatic symptoms increased it will lead to an increase in severe depression and social dysfunction. Further results indicated that when severe depression increased it will lead to an increase in social dysfunction. These high intercorrelations between the subscales of the GHQ imply that the subscales are not independent of each other. Similar results have been reported by Nagyova et al. (2000). It was also shown that when altruism increased, self-efficacy also increase. No previous research could be found to confirm this relationship between altruism and self-efficacy, but Bandura (1986) has shown that self-efficacy has an influence on the amount of effort employees put into their jobs and whether employees are able to persist, when faced with obstacles that will influence job performance including organisational citizenship behaviour. It is therefore expected that people with higher levels of self-efficacy will demonstrate more organisational citizenship behaviour in the form of altruism.

The investigation of the mediating effect of self-efficacy between job insecurity and general health indicated that job insecurity (both cognitive and affective job insecurity) holds predictive value with regard to self-efficacy. Similar results were reported by Bothma (2005) and Elbert (2002). Furthermore, results indicated that cognitive job insecurity is a statistically significant predictor of psychosomatic symptoms and social dysfunction. Affective job insecurity was found to be a statistically significant predictor of psychosomatic symptoms, severe depression and social dysfunction. Snoer (2005) also indicated that affective job insecurity holds predictive value with regard to social dysfunction and severe depression. In studies conducted by Näswall et al. (2005), results also indicated that people experiencing high levels of job insecurity experienced more mental health complaints. However, it could

only be established that self-efficacy acts as a partial mediator of affective job insecurity on severe depression. It can therefore be expected that the negative effect that affective job insecurity has on severe depression will be minimised by self-efficacy, but the effect will not disappear altogether.

In addition, the mediating effect of self-efficacy between job insecurity and organisational citizenship behaviour was investigated. Results indicated that specifically cognitive job insecurity is a statistically significant predictor of altruism. When self-efficacy is added into the equation, the predictive value of job insecurity on altruism disappears. This implies that the experience of high levels of self-efficacy will mediate the relationship between cognitive job insecurity and altruism. Practically, this means that although an increase in the experience of cognitive job insecurity may result in lower levels of altruism - in terms of the helping behaviours directed at individuals - the experience of self-efficacy will minimise this impact. The organisation is therefore likely to benefit from the implementation of interventions to develop and enhance the self-efficacy levels of employees. Results further indicated that self-efficacy acts as a partial mediator of job insecurity (cognitive and affective job insecurity) on compliance. No previous research could be found to support these findings. Most research regarding job insecurity and self-efficacy regard self-efficacy from a dispositional point of view and therefore explored the moderating effect of self-efficacy on the relationship between job insecurity as a dependent variable and various independent variables.

The investigation into the relationship between the levels of job insecurity, general health, organisational citizenship behaviour and self-efficacy experienced between various demographic divisions such as gender, race, age, educational level, and job category revealed statistically significant differences. Statistically significant differences could be found between gender and racial groups. Female employees experience higher levels of cognitive job insecurity than their male counterparts. Results from previous research studies regarding the relationship between gender and job insecurity have shown that there appears to be an interaction effect between age and gender (Sverke et al., 2004). De Witte (1999) notes that the influence of age is related to gender to the extent that men and women have different expectations placed on them at different ages. Men appear to experience more job insecurity between the ages of 30 and 50 years whereas women appear to experience more job insecurity from the age of 50 years and older. White employees experience higher levels of cognitive job insecurity and compliance than African (i.e. African, Indian and Coloured)

employees. Research by Elbert (2002) and Viljoen (2004) also indicated that white employees experience higher levels of cognitive job insecurity. These higher levels of cognitive job insecurity experienced by white employees can be explained against the backdrop of the current political situation in South Africa. Organisations are bound by the Employment Equity Act, Act 55 (1998) to provide equal opportunities to all their employees, and as a result of affirmative action, previously disadvantaged employees (i.e. African, Indian and Coloured) are sometimes appointed and promoted ahead of their white counterparts.

With regard to the result that white employees experience higher levels of compliance, research by Jones and Schaubroeck (2004) yielded similar results. A possible explanation given by these authors for the lower levels of compliance experienced by non-white employees could be attributed to feelings of being “undervalued” in the workplace with regard to their task performance as well as lack of association with the culture of the organisation, where culture refers to a system of shared meaning held by employees in the organisation that distinguishes the organisation from other organisations. This could also be a possible explanation for the findings in the current research since the organisation under investigation is still managed to a large extent by white males and as noted by Robbins (2003), the culture of an organisation is determined by its founders and top management. Results have further shown that African (i.e. African, Indian and Coloured) employees experience higher levels of severe depression than white employees. These findings are in line with results by Wissing and Van Eeden (2002) who found that African employees scored lower on several indices of psychological well-being, including depression. A possible explanation given by these authors, which could also apply to the current research, is related to differences between white and African employees in terms of socio-cultural background, idiosyncratic factors and life circumstances. The socio-political history of African people (i.e. African, Indian and Coloured) and the discrimination and oppression they had to face could account for their lower scores in terms of psychological well-being.

Statistical significant differences could also be found between education levels. Results show that there are statistically significant differences between levels of cognitive job insecurity, levels of severe depression and levels of compliance based on education levels. Contrary to most international literature on job insecurity, results indicated that employees with a postgraduate degree experience higher levels (statistically significant) of cognitive job insecurity than employees with up to a grade 11. Most research indicated that lower levels of

education were associated with higher levels of job insecurity. Employees with lower levels of education are believed to have fewer options in the labour market and to also lack the skills that can assure their employability in organisations (Näswall & De Witte, 2003; Sverke et al., 2004) In South African studies, Bothma (2005) did not find any differences in terms of levels of job insecurity based on education levels. It is possible that the findings in this research be attributed to circumstances that are specific to the organisation under investigation. It also seems that employees with a degree experience statistically significantly higher levels of compliance than employees with up to a grade 11. Smith et al. (1983) note that people with higher qualifications might exhibit more organisational citizenship behaviour because formal education may lead to a greater awareness of common fate among members in a society, or simply because people with higher education may be more competent to render constructive help. Finally, results in this research indicated that employees with an education level of up to grade 11 experience statistically significant more severe depression than employees with a diploma. No statistically significant differences were found for age groups and job categories.

Based on the results, hypothesis one and four were accepted, and hypothesis two, three and five were partially accepted.

## **LIMITATIONS AND RECOMMENDATIONS**

The size of the sample in this research can be considered one of its most severe limitations. It limited the generalisability of the findings and can be a possible explanation for the absence of practically significant relationships between various constructs which have proven to have practically significant relationships in various other studies. It is recommended that the study population be extended to include more employees in the chemical industry.

The sample was furthermore not ideally represented and was rather unbalanced in terms of race, with 120 white participants, 70 black participants and collectively only 13 Indian, Coloured and “other” participants. Stratified random sampling could ensure better representations of the different groups.

All data referred to in this study was obtained by self-report measures. According to Schaufeli, Enzmann and Girault (1993), the exclusive use of self-report measures increases

the likelihood that at least part of the shared variance between measures can be attributed to method variance.

As noted, the literature revealed that most of the research conducted up to now explored the moderating effect of self-efficacy between job insecurity and various outcomes. No results could be obtained regarding the possible mediating effect of self-efficacy between job insecurity and its outcomes. Further research is therefore recommended to verify and expand on results obtained in this study.

In the current study, the GHQ presented three factors, namely psychosomatic symptoms, social dysfunction and severe depression, compared to the original questionnaire developed by Goldberg and Hillier (1979) which presented four subscales, namely somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. The age of this measure may, however, prove problematic. In a study by Werneke et al. (2000) it was found that the factor structure of the GHQ changed in the Manchester area, where the original measure was developed in 1979, compared to the structure found in the 2000 study. The measure still proved valid and reliable, but changes did occur. It is therefore recommended that newer measures of general health as well as general health measures specifically developed for the South African context be employed in future studies.

Results in the current research indicate that self-efficacy can partially mediate the relationship between job insecurity and severe depression. It was further shown that self-efficacy can fully mediate the relationship between job insecurity and altruism, and partially mediate the relationship between job insecurity and compliance. It is therefore recommended that the organisation in this research implement interventions to raise the levels of self-efficacy in the organisation.

It was further shown that women appear to experience more cognitive job insecurity and that African (i.e. African, Indian and Coloured) employees experienced more severe depression. It is recommended that the organisation in this research take cognizance of these findings. According to the World Health Organisation (2007) demographics in the work area are changing. Internationally and in South Africa more women are entering the labour market, and as a result of employment equity policies and affirmative action in South Africa, more African employees will be expected to enter the labour market. It is recommended that the

organisation implement interventions specifically aimed at addressing the needs of these groups.

## REFERENCES

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, *84*(2), 191-215.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barbuto Jr., J. E., Brown, L. L., Wheeler, D. W., & Willhite, M. S. (2003). Motivation, altruism, and generalized compliance: A field study of organizational citizenship behaviours. *Psychological Reports*, *92*, 498-502.
- Barling, J., & Kelloway, E. K. (1996). Job insecurity and health: The moderating role of workplace control. *Stress and Medicine*, *12*, 253-259.
- Baron, R. E., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173-1182.
- Beas, M. I., & Salanova, M. (2006). Self-efficacy beliefs, computer training and psychological well-being among information and communication technology workers. *Computers in Human Behavior*, *22*, 1043-1058.
- Bless, C., & Higson-Smith, C. (2000). *Fundamentals of social research methods: An African perspective* (3rd. ed.). Cape Town: Juta Education.
- Borg, I., & Elizur, D. (1992). Job insecurity: Correlates, moderators and measurement. *International Journal of Manpower*, *13*(2), 13-26.
- Bosman, J. (2005). *Job insecurity and wellness of employees in a government organisation*. Unpublished Doctoral thesis, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Bothma, A. S. (2005). *Job insecurity, psychological well-being and relationship with future literacy*. Unpublished Doctoral thesis, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *Academy of Management Review*, *11*(4), 710-725.
- Burns, N., & Grove, S. K. (1993). *The practice of nursing research: Conduct, critique and utilization* (2nd ed.). Philadelphia, NJ: W.B. Saunders.
- Büssing, A. (1999). Can control at work and social support moderate psychological consequences of job insecurity? Results from a quasi-experimental study in the steel industry. *European Journal of Work and Organizational Psychology*, *8*(2), 219-242.

- Catalano, R., Rook, K., & Dooley, D. (1986). Labour markets and help-seeking: A test of the employment security hypothesis. *Journal of Health and Social Behavior*, 27(3), 277-287.
- Chirumbolo, A., & Hellgren, J. (2003). Individual and organizational consequences of job insecurity: A European study. *Economic and Industrial Democracy*, 24(2), 217-240.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Cooks, M. A. J. (2007). *Job insecurity, affective organisational commitment and general health: The role of work locus of control*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology*, 8(2), 155-177.
- De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk [Work ethic and job insecurity: Assessment and consequences for well-being, satisfaction and performance at work]. In R. Bouwen, K. de Witte., H. de Witte, & T. Taillieu (Eds.), *Van groep tot gemeenschap* [From group to community] (pp. 325-350). Leuven, Belgium: Garant.
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *South African Journal of Industrial Psychology*, 31(4), 1-6.
- De Witte, H., & Näswall, K. (2003). 'Objective' vs 'subjective' job insecurity: Consequences of temporary work for job satisfaction and organizational commitment in four European countries. *Economic and Industrial Democracy*, 24(2), 149-188.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542-575.
- Elbert, J. (2002). *Job insecurity and psychological strengths of service workers in a parastatal*. Unpublished Master's dissertation, Potchefstroom University for Christian Higher Education, Vaal Triangle Campus, Vanderbijlpark.
- Gist, M. E., Stevens, C. K., & Bavetta, A. G. (1991). Effects of self-efficacy and post-training intervention on the acquisition and maintenance of complex interpersonal skills. *Personnel Psychology*, 44, 837-861.
- Goldberg, D. P. (1972). *The detection of psychiatric illness by questionnaire*. London: Oxford University Press.

- Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, 9, 139-145.
- Goldberg, D. P., Gater, R., Satorius, N., Üstün, T. B., Piccinelli, M., Gureje, O., & Rutter, C. (1997). The validity of two versions of the general health questionnaire in the WHO study of mental illness in general health care. *Psychological Medicine*, 27, 191-197.
- Grant, D. (2005). *The mediating effect of situational sense of coherence on the relationship between job insecurity and general health: A comparative study*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management Review*, 9(3), 438-448.
- Greenhalgh, L., & Sutton, R. (1991). Organizational effectiveness and job insecurity. In: J. Hartley, D. Jacobson, B. Klandermans, & T. Van Vuuren (Eds.), *Job insecurity: Coping with jobs at risk* (pp. 151-171). London: Sage Publications.
- Guest, D. E. (2004). The psychology of the employment relationship: An analysis based on the psychological contract. *Applied Psychology: An International Review*, 53, 541-555.
- Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage Publications.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology*, 8(2), 179-195.
- Isaksson, K., & Johansson, G. (2000). Adaptation to continued work and early retirement following downsizing: Long term effects and gender differences. *Journal of Occupational and Organisational Psychology*, 73, 241-257.
- Jacobson, D., & Hartley, J. (1991). Mapping the context. In Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. *Job insecurity: Coping with jobs at risk*. London: Sage Publications.
- Jones, J. R., & Schaubroeck, J. (2004). Mediators of the relationship between race and organizational citizenship behavior. *Journal of Managerial Issues*, 16(4), 505-527.
- Katz, D. (1964). The motivational basis of organizational behaviour. *Behavioral Science*, 9, 131-146.
- Katz, D., & Kahn, R. (1978). *The social psychology of organizations*. New York: Wiley.
- Kelloway, E. K., Loughlin, C., Barling, J., & Nault, A. (2002). Self-reported counterproductive behaviors and organizational citizenship behaviors: Separate but related constructs. *International Journal of Selection and Assessment*, 10, 143-151.

- King, J. E. (2000). White-collar reactions to job insecurity and the role of the psychological contract: Implications for human resource management. *Human Resource Management*, 39(1), 79-91.
- Kinnunen, U., Mauno, S., Nätti, J., & Happonen, M. (1999). Perceived job insecurity: A longitudinal study among Finnish employees. *European Journal of Work and Organizational Psychology*, 8(2), 243-260.
- Labuschagne, M. (2005). *Job insecurity, job satisfaction and work locus of control of employees in a government organisation*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: Multicultural validation studies. *The Journal of Psychology*, 139(5), 439-457.
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Maddux, J. E. (1995). *Self-efficacy, adaptation, and adjustment*. New York: Plenum.
- Mauno, S., & Kinnunen, U. (1999). Job insecurity and well-being: A longitudinal study among male and female employees in Finland. *Community, Work and Family*, 2(2), 147-171.
- Mohr, G. (2000). The changing significance of different stressors after the announcement of bankruptcy: A longitudinal investigation with special emphasis on job insecurity. *Journal of Organizational Behaviour*, 21, 337-359.
- Nagyova, I., Krol, B., Szilasiova, A., Stewart, R. E., Van Dijk, J. P., & Van Den Heuvel, W. J. A. (2000). General health questionnaire-28: Psychometric evaluation of the Slovak version. *Studia Psychologica* 42(4), 351-361.
- Näswall, K., & De Witte, H. (2003). Who feels insecure in Europe? Predicting job insecurity from background variables. *Economic and Industrial Democracy* 24(2), 189-214.
- Näswall, K., Sverke, M., & Hellgren, J. (2005). The moderating effect of work-based and non-work based support on the relation between job insecurity and subsequent strain. *South African Journal of Industrial Psychology*, 31(4), 57-64.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Orpen, C. (1993). Correlations between job insecurity and psychological well-being among white and black employees in South Africa. *Perceptual and Motor Skills*, 76, 885-886.

- Probst, T. M. (2002). The impact of job insecurity on employee work attitude, job adaptation, and, organizational withdrawal behaviours. In J. M. Brett, & F. Drasgow (Eds.), *The psychology of work: Theoretically based empirical research* (pp. 141-168). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Probst, T. M., & Lawler, J. (2006). Cultural values as moderators of employee relations to job insecurity: The role of individualism and collectivism. *Applied Psychology: An International Review*, *55*(2), 234-254.
- Reisel, W. D., & Banai, M. (2002). Comparison of a multidimensional and a global measure of job insecurity: Predicting job attitudes and work behaviours. *Psychological Reports*, *90*, 913-922.
- Robbins, S. P. (2003) *Organizational behavior: Concepts, controversies, and applications (6th ed.)*. Englewood Cliffs, NJ: Prentice-Hall.
- Robbins, S. P., Odendaal, A., & Roodt, G. (2004). *Organisational behaviour: Global and South African perspectives*. Cape Town: Pearson Education South Africa.
- Roskies, E., & Louis-Guerin, C. (1990). Job insecurity in managers: Antecedents and consequences. *Journal of Organizational Behavior*, *11*, 345-359.
- Roskies, E., Louis-Guerin, C., & Fournier, C. (1993). Coping with job insecurity: How does personality make a difference? *Journal of Organizational Behavior*, *14*, 617-630.
- Sauer, D. F. (2003). *Psychological empowerment, leadership empowerment behaviour and job insecurity in a steel-manufacturing environment*. Unpublished Master's dissertation, Potchefstroom University for Christian Higher Education, Vaal Triangle Campus, Vanderbijlpark.
- Schappe, S. P. (1998). The influence of job satisfaction, organizational commitment, and fairness perceptions on organizational citizenship behaviour. *The Journal of Psychology*, *132*(3), 277-290.
- Schaufeli, W. B., Enzmann, D., & Girault, N. (1993). Measurement of burnout: A review. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 199-215). Washington, DC: Taylor and Francis.
- Schwarzer, R. (1992). *Self-efficacy: Thought control of action*. Washington, DC: Hemisphere.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp.35-37). Windsor, UK: NFER-Nelson.

- Schwarzer, R. (1998). General perceived self-efficacy in 14 cultures. Retrieved August 20, 2007, from the World Wide Web: <http://userpage.fu-berlin.de/~health/world14.htm>.
- Schwarzer, R., & Luszczynska, A. (2007). Perceived self-efficacy. Retrieved September 3, 2007, from the World Wide Web: <http://dccps.cancer.gov/brp/constructs/self-efficacy/self-efficacy.pdf>.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behaviour: Its nature and antecedents. *Journal of Applied Psychology* 68(4), 653-663.
- Snoer, S. A. (2005). Job insecurity and general health of employees in a government organisation in the Free State. *Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark*.
- Sparrow, P. R. (2000). The new employment contract: Psychological implications of future work. In R. J. Burke and C. L. Cooper (Eds.). *The Organization in Crisis: Downsizing, Restructuring, and Privatization*. Oxford: Blackwell.
- SPSS. (2007). *SPSS 15.0 for Windows*. Chicago, IL: SPSS Incorporated.
- Steyn, H. S. (1999). *Praktiese beduidendheid: Die gebruik van effekgroottes* [Practical significance: The use of effect sizes]. Wetenskaplike bydraes – Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom: Potchefstroom University for Christian Higher Education.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology: An International Review*, 51(1), 23-42.
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264.
- Sverke, M., & Goslinga, S. (2003). The consequences of job insecurity for employers and unions: Exit, voice and loyalty. *Economic and Industrial Democracy*, 24(2), 241-270.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2004). *Job insecurity and union membership. European unions in the wake of flexible production*. Brussels: Peter Lang.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.
- Van Wyk, M. (2007). *Setting a research agenda for job insecurity in South African organisations*. Unpublished Master's dissertation, North-West University, Potchefstroom.

- Van Zyl, Y. (2005). *Job insecurity, burnout, work engagement, general health and job satisfaction in selected organisations in the Vaal Triangle*. Unpublished Doctoral thesis, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Viljoen, E. (2004). *Job insecurity, burnout, job engagement and psychological well-being of workers at a government organisation*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Werneke, U., Goldberg, D. P., Yalcin, I., & Üstün, B. T. (2000). The stability of the factor structure of the general health questionnaire. *Psychological Medicine, 30*, 823-829.
- Wissing, M. P., & Van Eeden C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology, 32*(1), 32-44.
- World Health Organization. (2007). Global strategy on occupational health for all: The way to health at work. Retrieved August 25, 2007, from the World Wide Web: [http://www.who.int/occupational\\_health/publications/globstrategy/en/index4.html](http://www.who.int/occupational_health/publications/globstrategy/en/index4.html).

## **CHAPTER 3**

### **CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

## CHAPTER 3

### CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

Chapter 3 presents the conclusions that have been reached, based on the findings of the empirical study. In addition, the limitations of the research are discussed. Furthermore, recommendations for the industry are made and research opportunities that emanate from this research are presented.

#### 3.1 CONCLUSIONS

##### 3.1.1 Conclusions regarding the specific theoretical objectives

In line with the first specific objective, job insecurity, general health, organisational citizenship behaviour and self-efficacy, as well as the relationship between these constructs, were conceptualised from literature.

**Job insecurity** was conceptualised as the apparent threat of job loss as well as the fears related to that threat (De Witte, 2005). Job insecurity can be viewed from two perspectives, namely a global perspective and a multidimensional perspective. The global perspective conceptualises job insecurity as the overall concern about the future of a person's job (Hartley, Jacobson, Klandermans, & Van Vuuren, 1991). The multidimensional perspective on job insecurity, on the other hand, defines job insecurity not only as the fear of losing the job itself, but also to the fear of losing valued aspects regarding the job (Greenhalgh & Rosenblatt, 1984). Literature distinguished between different aspects regarding job insecurity:

- Job insecurity consists of a cognitive and affective component (Borg & Elizur, 1992).
- Job insecurity can be viewed from an objective viewpoint (Büssing, 1999) or a subjective viewpoint (Sverke et al., 2004).
- Job insecurity has a quantitative and qualitative dimension (Hellgren, Sverke, & Issakson, 1999).
- Job insecurity is seen as a stressor (Probst, 2002).

**General health**, or alternatively termed well-being, was conceptualised according to the theory of Goldberg and Hillier (1979) as consisting of four dimensions, namely, (i) somatic symptoms, (ii) anxiety and insomnia, (iii) social dysfunction, and (iv) severe depression. Information regarding the psychological as well as the physical health of employees can be investigated. According to Brodsky (1988), well-being has four specific characteristics:

- It is subjective and emotional.
- It is a state, and therefore changes on a continuous basis.
- It is the product of an individual's goals and personal strivings.
- It entails more than the absence of negative affect (affect meaning emotions or feelings) and personal conflicts.

**Organisational citizenship behaviour** was described as behaviours of a discretionary nature which do not form part of an employee's formal role requirements, but nevertheless contribute to overall organisational effectiveness (Organ, 1988). In addition, Brief and Motowidlo (1986) identified organisational citizenship behaviour as one of three types of pro-social behaviours, and according to Smith, Organ and Near (1983) organisational citizenship behaviour consists of two components, namely altruism and generalised compliance. Altruism is seen as helping behaviours that are directed towards a specific individual, for example if someone has a problem or requests a service. Generalised compliance, on the other hand, refers to those pro-social behaviours that are directed towards the organisation, for example making suggestions to improve the effectiveness of the organisation.

**Self-efficacy** was investigated as a major part of Bandura's (1986) social cognitive theory. Bandura (1986, p. 391) defined self-efficacy as "people's judgements of their capabilities to organise and execute courses of action required to attain designated types of performances". Self-efficacy represents a dynamic, changeable and comprehensive judgment, reflecting a variety of personal and performance determinants (Gist, Stevens, & Bavetta, 1991). This research adhered to the conceptualisation of a generalised sense of self-efficacy that can, according to Schwarzer and Luszczynska (2007), be defined as a broad sense of personal capabilities to deal with a variety of stressful situations. General self-efficacy does not only

explain human functioning well, it can also be changed by various interventions (Schwarzer, 1998).

The relationship between of job insecurity, general health, organisational citizenship behaviour and self-efficacy has been described extensively in literature. Job insecurity is described as a stressor (Probst, 2002) that holds negative consequences for the individual and the organisation (Näswall, Sverke, & Hellgren, 2005).

The relationship between job insecurity and health is well documented. Research has confirmed the negative relationship between job insecurity and various indicators of well-being (Büssing, 1999; De Witte, 2005; Hellgren et al., 1999; Sverke, Hellgren, & Näswall, 2002). Hartley et al. (1991) and Van Vuuren (1990) found increased levels of irritation and anxiety, and psychosomatic as well as physical complaints associated with job insecurity. Catalano, Rook and Dooley (1986) as well as Dekker and Schaufeli (1995) found similar results, suggesting that job insecurity leads to reduced psychological well-being, which in turn is characterised by symptoms such as anxiety, depression, irritation or strain-related psychosomatic complaints. In South Africa, Orpen (1993) found job insecurity to be related to anxiety and depression and Snoer (2005) also indicated that affective job insecurity was negatively correlated to general health.

Review of the literature revealed that job insecurity appears to be associated with a reduction in organisational citizenship behaviour. In studies conducted by Greenhalgh and Sutton (1991) and King (2000) it was demonstrated that employees who experienced higher levels of job insecurity exhibited less organisational citizenship behaviour.

It was further established that self-efficacy has a regulatory function in different health domains, including positive and negative affect, dealing with pain, and coping with stress (Luszczynska, Scholz, & Schwarzer, 2005). Several studies have found that a strong sense of self-efficacy is related to better health (Maddux, 1995; Schwarzer, 1992). In addition, Bandura (1986) has shown that self-efficacy has an influence on the amount of effort employees put into their jobs, and whether employees are able to persist when faced with obstacles that will influence job performance - including organisational citizenship behaviour. It is therefore expected that people with higher levels of self-efficacy will experience better health and demonstrate more organisational citizenship behaviour. Research

has also shown that high levels of self-efficacy are associated with lower levels of job insecurity (Bothma, 2005; Elbert, 2002).

### **3.1.2 Conclusions regarding the specific empirical objectives**

The second objective of this study was to determine the construct validity and reliability of the measuring instruments of job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry.

The factor structures of the Job Insecurity Questionnaire (JIQ), General Health Questionnaire (GHQ), Organisational Citizenship Behaviour Scale (OCB) and the General Perceived Self-Efficacy Scale (GPSES) were established with principal component factor analysis to determine the total factors of each instrument, and these were followed by with principle axis factoring. A direct oblimer rotation was used when there were more than one factor and when the factors were found to be correlated.

Analysis of the eigenvalues (larger than 1) and the scree plot indicated that two factors could be extracted in the JIQ, explaining 55,32% of the total variance. These factors were labelled Affective Job Insecurity and Cognitive Job Insecurity. Item 2 ("There is only a small chance that I will become unemployed") of the JIQ proved problematic in the sense that it did not load onto either factor and was subsequently left out from further analysis. Three factors were extracted in the GHQ, explaining 44,91% of the total variance. These factors were labelled Psychosomatic Symptoms, Severe Depression and Social Dysfunction. The results in this research differed from the measure developed by Goldberg and Hillier (1979) which reported four factors, namely (i) somatic symptoms, (ii) anxiety and insomnia, (iii) social dysfunction and (iv) severe depression. In a study conducted by Werneke, Goldberg, Yalcin and Üstün (2000), a high correlation between the A (Somatic Symptoms) and B (Anxiety and Insomnia) scales was also reported. Two factors were extracted in the OCB, explaining 33,22% of the total variance. These factors were labelled Altruism and Compliance. No results could be obtained from international or South African studies that utilised all sixteen items proposed by Smith et al. (1983). However in studies where a variation of the OCB was used, acceptable reliability coefficients were obtained and it was therefore decided to use the instrument for this research. In a principal component factor analysis one factor was extracted

in the GPSES, explaining 43,40% of the total variance. This factor was labelled Self-Efficacy.

The reliability of the measuring instruments was examined by determining the Cronbach alpha coefficients. Cronbach alpha coefficients varying from 0,70 to 0,89 were obtained. All the scales of the measuring instruments had relatively normal distributions, with low skewness and kurtosis, except for the three factors of GHQ which were positively skewed with high kurtosis. This was attributed to the occurrence of social desirability. All measuring instruments were therefore deemed valid and reliable for the current research.

The third objective was to determine the relationship between job insecurity, general health, organisational citizenship behaviour and self-efficacy in a chemical industry. Altruism was found to be statistically significant, positively correlated (practically significant, medium effect) with self-efficacy. No previous research could be found to confirm this relationship between altruism and self-efficacy, but Bandura (1986) has shown that self-efficacy has an influence on the amount of effort employees put into their jobs, and whether employees are able to persist when faced with obstacles that will influence job performance - including organisational citizenship behaviour. It is therefore expected that people with higher levels of self-efficacy will demonstrate more organisational citizenship behaviour, including altruism.

Only statistically significant (not practically significant) positive correlations were found between job insecurity (cognitive and affective job insecurity) and psychosomatic symptoms as well as social dysfunction, and between affective job insecurity and severe depression. This proved to be in contrast with several international studies which indicated a strong positive relationship between job insecurity and various health complaints (Sverke et al., 2002; Sverke et al., 2004). In South African studies, Snoer (2005) and Viljoen (2004) reported practically significant, positive correlations of medium effect between affective job insecurity and social dysfunction.

The fourth objective was to determine the mediating effect of self-efficacy between job insecurity and general health. Results indicated that job insecurity (both cognitive and affective) holds predictive value with regard to self-efficacy. Similar results were reported by Bothma (2005) and Elbert (2002). It was further indicated that cognitive job insecurity is a statistically significant predictor of psychosomatic symptoms and social dysfunction.

Affective job insecurity was found to be a statistically significant predictor of psychosomatic symptoms, severe depression and social dysfunction. Snoer (2005) also indicated that affective job insecurity holds predictive value with regard to social dysfunction and severe depression. In studies by Näswall et al. (2005), results also indicated that people experiencing high levels of job insecurity experienced more mental health complaints. However, it could only be established that self-efficacy acts as a partial mediator of affective job insecurity on severe depression. It can therefore be expected that the negative effect that affective job insecurity has on severe depression will be minimised by self-efficacy, but the effect will not disappear in total.

The fifth objective was to determine the mediating effect of self-efficacy between job insecurity and organisational citizenship behaviour. Results indicated that job insecurity, and specifically cognitive job insecurity, is a statistically significant predictor of altruism. When self-efficacy is added into the equation, the predictive value of job insecurity on altruism disappears. This implies that the experience of high levels of self-efficacy will mediate the relationship between cognitive job insecurity and altruism. Practically this means that although an increase in the experience of cognitive job insecurity may result in lower levels of altruism, in terms of the helping behaviours directed at individuals, the experience of self-efficacy would minimise this impact. The organisation is therefore likely to benefit from the implementation of interventions to develop and enhance the self-efficacy levels of employees. Results further indicated that self-efficacy acts as a partial mediator of job insecurity (cognitive and affective job insecurity) on compliance. No previous research could be found to support these findings. Most research regarding job insecurity and self-efficacy regarded self-efficacy from a dispositional point of view and therefore explored the moderating effect of self-efficacy on the relationship between job insecurity as a dependent variable with various independent variables.

The final objective was to determine the levels of job insecurity, general health, organisational citizenship behaviour and self-efficacy, based on differentiation between demographic groups. Demographic aspects such as gender, race, age, educational level, and job category were investigated. Statistically significant differences could be found between gender and racial groups. Female employees experienced higher levels of cognitive job insecurity than male employees. Results from previous research studies regarding the relationship between gender and job insecurity have shown that there appears to be an

interaction between age and gender (Sverke et al., 2004). De Witte (1999) noted that the influence of age is related to gender to the extent that men and women have different expectations placed on them at different ages. Men appear to experience more job insecurity between the ages of 30 and 50 years, whereas women appear to experience more job insecurity from the age of 50 years and above. White employees experienced higher levels of cognitive job insecurity and compliance than African (i.e. African, Indian and Coloured) employees. Research by Elbert (2002) and Viljoen (2004) also indicated that white employees experienced higher levels of cognitive job insecurity. With regard to the result that white employees experienced higher levels of compliance, research by Jones and Schaubroeck (2004) yielded similar results. A possible explanation given by these authors for the lower levels of compliance experienced by non-white employees could be attributed to feelings of being “undervalued” in the workplace with regard to their task performance, as well as lack of association with the culture of the organisation, where culture refers to a system of shared meaning held by employees in the organisation that distinguishes the organisation from other organisations. This could also be a possible explanation for the findings in the current research, since the organisation under investigation is still managed to a large extent by white males and - as noted by Robbins (2003) - the culture of an organisation is determined by its founders and top management. Results have further shown that African (i.e. African, Indian and Coloured) employees experienced higher levels of severe depression than white employees. These findings are in line with results by Wissing and Van Eeden (2002) who found that African employees scored lower on several indices of psychological well-being, including depression. A possible explanation given by these authors, which could also apply to the current research, is related to differences between white and African employees in terms of socio-cultural background, idiosyncratic factors and life circumstances. The socio-political history of African people (i.e. African, Indian and Coloured) and the discrimination and oppression they had to deal with in the past could account for their lower scores in terms of psychological well-being.

Statistical significant difference could also be found between education levels. Results showed that there were statistically significant differences between levels of cognitive job insecurity, levels of severe depression and levels of compliance based on education levels. Contrary to most international literature on job insecurity, the results indicated that employees with a postgraduate degree experienced higher levels (statistically significant) of cognitive job insecurity than employees with up to a grade 11. Most previous research

indicated lower levels of education to be associated with higher levels of job insecurity. Employees with lower levels of education are believed to have fewer options in the labour market and also lack the skills that can assure their employability in organisations (Näswall & De Witte, 2003; Sverke et al., 2004). In South African studies, Bothma (2005) did not find any differences in terms of levels of job insecurity based on education levels. It is suggested that the occurrence of higher levels of job insecurity amongst employees with higher qualifications in the organisation under investigation be attributed to organisation specific circumstances. Further research to determine possible causes is therefore recommended. In the current research it also seemed that employees with a degree experienced statistically significantly higher levels of compliance than employees with up to a grade 11. Smith et al. (1983) noted that people with higher qualifications might exhibit more organisational citizenship behaviour, because formal education may lead to a greater awareness of common fate among members in a society, or simply because people with higher education may be more competent to render constructive help. Finally, the results of this research indicated that employees with an education level of up to grade 11 experienced statistically significant more severe depression than employees with a diploma. No statistically significant differences were found for age groups and job categories.

### **3.2 LIMITATIONS OF THE RESEARCH**

The following limitations of the research should be taken into account:

- The size of the sample in this research can be considered one of the most significant limitations. It limited the generalisability of the findings and can be a possible explanation for the absence of practically significant relationships between various constructs which proved to have practically significant relationships in various other studies. It is recommended that the study population be extended to include more employees in the chemical industry.
- The sample was furthermore not ideally represented and was rather unbalanced in terms of race, with 120 white participants, 70 black participants and collectively only 13 Indian, Coloured and “other” participants. Stratified random sampling could ensure better representations of the different groups.

- All data referred to in this study was obtained by self-report measures. According to Schaufeli, Enzmann and Girault (1993), the exclusive use of self-report measures increases the likelihood that at least part of the shared variance between measures can be attributed to method variance.
- The cross-sectional nature of this research limits the causal interpretation of the above mentioned findings. To deal with the limitation of a cross-sectional design, prospective longitudinal and quasi-experimental research designs are needed to further validate the hypothesised causal relationships within this study.

### **3.3 RECOMMENDATIONS**

Recommendations pertaining to the specific organisation used in this study, as well as recommendations for future research, are presented in this section.

#### **3.3.1 Recommendations for the organisation**

To remain competitive, the organisation used in this research has adopted a long-term strategy that includes diversification and globalisation, which has resulted in the acquisition of new businesses and the opening of new factories abroad. The acquisition of new businesses locally and the entry into the global arena have resulted in a much wider playing field for all employees, but have also resulted in uncertainty among employees regarding career paths and possibilities for promotion. King (2000) notes that many companies do not benefit from cost-saving initiatives like mergers, acquisitions, restructuring and downsizing and that the job insecurity created by these initiatives may lessen or eliminate any predicted gains from restructuring. King (2000) therefore recommends that organisations properly consider the reactions of employees and the expected increase in job insecurity before undertaking any cost-saving initiatives.

Results of the current research indicated that self-efficacy can partially mediate the relationship between job insecurity and severe depression. It was further shown that self-efficacy can fully mediate the relationship between job insecurity and altruism, and partially

mediate the relationship between job insecurity and compliance. It is therefore recommended that the organisation in this research implement interventions to raise the levels of self-efficacy in the organisation. Luthans and Youssef (2004) propose the following methods to develop self-efficacy:

- *Mastery experiences*: Also termed personal performance accomplishments (Bandura, 1986), these mastery experiences are seen as the most effective way to develop employees' self-efficacy and entail allowing employees to experience success in performing their jobs. For effective self-efficacy development it is important that employees have challenging but achievable, concrete and specific goals. Specific techniques proposed by Luthans and Youssef (2004) to develop self-efficacy include experiential exercises, on-the-job training and coaching. By enhancing employees' self-efficacy one can expect that the experience of job insecurity might be minimised.
- *Modelling*: This process entails shadowing a successful mentor or watching a relevant model effectively handling a realistic situation. Managers can largely contribute to this process by acting as mentors to employees. Employees are exposed to effective ways of dealing with a variety of situations. Observing another person deal effectively with a situation increases one's own belief in the ability to deal effectively with similar situations.
- *Physiological and emotional arousal*: This technique may prove especially beneficial to previously disadvantaged groups as these groups may have been excluded from the workplace. Bandura (1986) has shown that the higher a person's anxiety becomes, the lower the person's self-efficacy expectations will become. If the organisation can minimise the anxiety experienced by employees who enter the workplace for the first time, their self-efficacy will increase which, in turn, is expected to lead to lower levels of job insecurity.

It was further shown that women appeared to experience more cognitive job insecurity and that African (i.e. African, Indian and Coloured) employees experienced higher levels of severe depression. It is recommended that the organisation in this research take cognizance of these findings. According to the World Health Organisation (2007), demographics in the work area are changing. Internationally and in South Africa more women are entering the labour market, and as a result of employment equity policies in South Africa more African

employees are expected to enter the labour market. It is recommended that the organisation implement interventions specifically aimed at addressing the needs of these groups.

### **3.3.2 Recommendations for future research**

Most research on job insecurity is cross-sectional, and information regarding the long-term effects of job insecurity is lacking. It is therefore recommended that longitudinal research be undertaken to determine the long-term effects of job insecurity as well as how job insecurity causally relates to other factors (antecedents, mediators, moderators and outcomes).

In the current study, the GHQ questionnaire presented three factors, namely psychosomatic symptoms, social dysfunction and severe depression, compared to the original questionnaire developed by Goldberg and Hillier (1979) which presented four subscales, namely somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. The age of this measure may, however, prove problematic. In a study by Werneke et al. (2000), it was found that the factor structure of the GHQ has changed in the Manchester area, where the original measure was developed in 1979, compared to the structure found in the 2000 study. The measure still proved valid and reliable, but changes did occur. It is therefore recommended that newer measures of general health as well as general health measures specifically developed for the South African context be employed in future studies.

Most research conducted up to now explored the moderating effect of self-efficacy between job insecurity and various outcomes. No results could be obtained regarding the possible mediating effect of self-efficacy between job insecurity and its outcomes. Results obtained in this research yielded findings that warrant further investigation. It is therefore recommended that further research be conducted to verify and expand on results obtained in this study.

## REFERENCES

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Borg, I., & Elizur, D. (1992). Job insecurity: Correlates, moderators and measurement. *International Journal of Manpower*, 13(2), 13-26.
- Bothma, A. S. (2005). *Job insecurity, psychological well-being and relationship with future literacy*. Unpublished Doctoral thesis, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviours. *Academy of Management Review*, 11, 710-725.
- Brodsky, S. L. (1988). *The psychology of adjustment and well-being*. New York: Holt, Rinehart and Winston.
- Büssing, A. (1999). Can control at work and social support moderate psychological consequences of job insecurity? Results from a quasi-experimental study in the steel industry. *European Journal of Work and Organisational Psychology*, 8, 219-242.
- Catalano, R., Rook, K., & Dooley, D. (1986). Labour markets and help-seeking: A test of the employment security hypothesis. *Journal of Health and Social Behavior*, 27(3), 277-287.
- Dekker, S. W., & Schaufeli, W. B. (1995). The effects of job insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist*, 3, 57-103.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology*, 8(2), 155-177.
- De Witte, H. (2005). Job insecurity: Review of the international literature on definitions, prevalence, antecedents and consequences. *South African Journal of Industrial Psychology*, 31(4), 1-6.
- Elbert, J. (2002). *Job insecurity and psychological strengths of service workers in a parastatal*. Unpublished Master's dissertation, Potchefstroom University for Christian Higher Education, Vaal Triangle Campus, Vanderbijlpark.
- Gist, M. E., Stevens, C. K., & Bavetta, A. G. (1991). Effects of self-efficacy and post-training intervention on the acquisition and maintenance of complex interpersonal skills. *Personnel Psychology* 44, 837-861.
- Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, 9, 139-145.

- Greenhalgh, L., & Rosenblatt, Z., (1984). Job insecurity: Toward conceptual clarity. *Academy of Management Review*, 9(3), 438-448.
- Greenhalgh, L., & Sutton, R. (1991). Organizational effectiveness and job insecurity. In: J. Hartley, D. Jacobson, B. Klandermans, & T. Van Vuuren (Eds.), *Job insecurity: Coping with jobs at risk* (pp. 151-171). London: Sage Publications.
- Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage Publications.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology*, 8(2), 179-195.
- Jones, J. R., & Schaubroeck, J. (2004). Mediators of the relationship between race and organizational citizenship behavior. *Journal of Managerial Issues*, 16(4), 505-527
- King, J. (2000). White-collar reactions to job insecurity and the role of the psychological contract: Implications for human resource management. *Human Resource Management*, 39, 79-92.
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: Multicultural validation studies. *The Journal of Psychology*, 139(5), 439-457.
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143-160.
- Maddux, J. E. (1995). *Self-efficacy, adaptation, and adjustment*. New York: Plenum.
- Näswall, K., & De Witte, H. (2003). Who feels insecure in Europe? Predicting job insecurity from background variables. *Economic and Industrial Democracy* 24(2), 189-214.
- Näswall, K., Sverke, M., & Hellgren, J. (2005). The moderating effect of work-based and non-work based support on the relation between job insecurity and subsequent strain. *South African Journal of Industrial Psychology*, 31(4), 57-64.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lanham, MA: Lexington Books.
- Orpen, C. (1993). Correlations between job insecurity and psychological well-being among white and black employees in South Africa. *Perceptual and Motor Skills*, 76, 885-886.
- Probst, T. M. (2002). The impact of job insecurity on employee work attitude, job adaptation, and, organizational withdrawal behaviours. In J. M. Brett, & F. Drasgow (Eds.), *The psychology of work: Theoretically based empirical research* (pp. 141-168). Hillsdale, NJ: Lawrence Erlbaum Associates.

- Robbins, S. P. (2003). *Organizational behavior: Concepts, controversies, and applications* (6th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Schaufeli, W. B., Enzmann, D., & Girault, N. (1993). Measurement of burnout: A review. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 199-215). Washington, DC: Taylor and Francis.
- Schwarzer, R. (1992). *Self-efficacy: Thought control of action*. Washington, DC: Hemisphere.
- Schwarzer, R. (1998). General perceived self-efficacy in 14 cultures. Retrieved August 20, 2007, from the World Wide Web: <http://userpage.fu-berlin.de/~health/world14.htm>.
- Schwarzer, R., & Luszczynska, A. (2007). Perceived self-efficacy. Retrieved September 3, 2007, from the World Wide Web: <http://dccps.cancer.gov/brp/constructs/self-efficacy/self-efficacy.pdf>.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behaviour: Its nature and antecedents. *Journal of Applied Psychology* 68(4), 653-663.
- Snoer, S. A. (2005). *Job insecurity and general health of employees in a government organisation in the Free State*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242-264.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2004). *Job insecurity and union membership. European unions in the wake of flexible production*. Brussels: Peter Lang.
- Van Vuuren, T. (1990). *Met ontslag bedreigd: Werknemers in onzekerheid over hun arbeidsplaats bij veranderingen in de organisatie*. [Threatened with retrenchment. Employee insecurity regarding changes in the workplace]. Amsterdam: VU Uitgeverij.
- Viljoen, E. (2004). *Job insecurity, burnout, job engagement and psychological well-being of workers at a government organisation*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, Vanderbijlpark.
- Werneke, U., Goldberg, D. P., Yalcin, I., & Üstün, B. T. (2000). The stability of the factor structure of the General health questionnaire. *Psychological Medicine*, 30, 823-829.
- Wissing, M. P., & Van Eeden C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology*, 32(1), 32-44.

World Health Organization. (2007). Global strategy on occupational health for all: The way to health at work. Retrieved August 25, 2007, from the World Wide Web: [http://www.who.int/occupational\\_health/publications/globstrategy/en/index4.html](http://www.who.int/occupational_health/publications/globstrategy/en/index4.html).

