

**THE MODERATING EFFECT OF SOCIAL SUPPORT ON THE RELATION
BETWEEN ROLE OVERLOAD, JOB SATISFACTION AND TURNOVER
INTENTION**

Charl Francois Sieberhagen, HonsBA

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

Supervisor: Dr J Pienaar

Potchefstroom

2006

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- The mini-dissertation is submitted in the form of a 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.

ACKNOWLEDGEMENTS

I would like to express my gratitude to the following:

- My Heavenly Father, for the insight He gave me into this study, and the strength to complete this research.
- Dr Jaco Pienaar, for his continued support, motivation, words of encouragement, guidance and patience.
- Dr Jaco Pienaar, for the statistical analysis of the empirical data.
- Dr A van der Merwe for the language editing.
- The members of the particular mining industry for their time and consideration in completing the measuring instrument.
- My wife, Adel, for her love, patience and continuous support.
- My family, especially my parents, Francois and Trix Sieberhagen, as well as my two sisters, for their patience, love and continuous support.
- SA Truck Bodies, especially Mr Danie Fourie, for his motivation, guidance and continuous support.
- I wish to thank my friends for their support and patience.

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SUMMARY

Title: The moderating effect of social support on the relation between role overload, job satisfaction and turnover intention

Key words: Social support from colleagues and supervisor, qualitative and quantitative role overload, job satisfaction, turnover intention, mining.

Gold mining in South Africa has played a significant role in the economic development of the country over the past 120 years. The continued focus on productivity, recruitment and consolidation in the South African gold mining industry will result in a decline in production. Much of the decline can be attributed to natural attrition as the industry has moved from a mass employer of limited, contract, unskilled labour, to an employer of more permanent, mostly semi-skilled or skilled labour. The objective of this research was to investigate the reliability of measuring instruments of social support, role overload (qualitative and quantitative), job satisfaction and turnover intention for employees in the mining industry. Further objectives included empirically determining whether social support has a moderating effect on the relation between role overload and job satisfaction and turnover intention.

A cross-sectional survey design was used. A random sample was taken from a South African mining company ($N=250$). Gender and age were included as control variables. Individuals on Paterson grading E band to C Upper (managers) were part of the sample. Five measuring instruments were administered. Descriptive statistics and inferential statistics were used to analyse the data.

The results obtained for the five scales proved the measuring instruments to be reliable. The results show that when an employee feels that his/her work is more than he/she can accomplish in the time available (quantitative role overload), the employee will most probably also feel that his/her work requires skills, abilities and knowledge beyond that of their own (qualitative role overload). It is also indicated that social support from the supervisor increases the employee's positive attitude or pleasurable

emotional state towards his/her job or job experience (job satisfaction), as well as heightens the probability of social support from colleagues. Furthermore, the more positive the employee's attitude towards the job, the less the intention to stop working will be (turnover intention). This intention to stop working will also be less when social support from the supervisor is more and/or when the employee experiences less feelings that his/her work is more than he/she can accomplish in the time available.

Turnover intention was predicted by social support from supervisor.

Job satisfaction was predicted by role overload (quantitative) and social support from supervisor.

By way of conclusion, recommendations for future research are made.

OPSOMMING

Titel: Die modererende effek van sosiale ondersteuning op die verband tussen roloorlading, werkstevredenheid en die intensie om te bedank.

Sleutelwoorde: Sosiale ondersteuning van kollegas en toesighouers, kwalitatiewe en kwantitatiewe roloorlading, werkstevredenheid, intensie om te bedank, mynwese.

Die goudmyn bedryf in Suid-Afrika het die afgelope 120 jaar 'n doeltreffende rol in die land se ekonomiese ontwikkeling gespeel. Die volgehoue fokus op produktiwiteit, seleksie en konsolidasie in die Suid-Afrikaanse myn industrie sal aanleiding gee tot 'n toename in produksie. Hierdie toename kan grotendeels toegeskryf word aan natuurlike afname soos die industrie beweeg het van 'n werknemer van beperkte, kontrak-, lae-vaardighedsarbeid, tot 'n werknemer met permanente aanstelling en wat meestal vaardig of bekwaam is. Die doelstelling van hierdie navorsing was om die betroubaarheid van die meetinstrumente van sosiale ondersteuning, roloorlading (kwalitatief en kwantitatief), werkstevredenheid en die intensie om te bedank vir werknemers in die myn industrie te meet. Verdere doelstellings sluit in die empiriese verduideliking van die modererende effek wat sosiale ondersteuning het op die verband tussen roloorlading, werkstevredenheid en die intensie om te bedank. Dit sal die navorsers in staat stel om organisasies advies te gee op hoe sosiale ondersteuning kan help met die voorkoming van roloorlading en die intensie om te bedank, asook die verhoging van die werknemers se werkstevredenheid.

'n Dwarsdeursnee-ontwerp is gebruik. 'n Ewekansige steekproef is geneem van 'n Suid-Afrikaanse mynorganisasie ($N=250$). Geslag en ouderdom was ingesluit as veranderlikes. Individue op Paterson graad E band tot C topvlak (bestuurders) was deel van die steekproef. Vyf meetinstrumente is geadministreer. Beskrywende en inferensiële statistiek is gebruik om die data te analiseer.

Die resultate vir die vyf skale toon aan dat die meetinstrumente betroubaar is.

Die resultate het getoon dat indien 'n werknemer voel dat sy/haar werk meer is as wat hy/sy in die spesifieke tyd kan vermag (kwantitatiewe roloorlading), sal die werknemer hoogs waarskynlik ook ervaar dat sy/haar werk, vaardighede, vermoëns en kennis vereis bo dié waaroor hulle beskik (kwalitatiewe roloorlading). Dit is ook aangetoon dat sosiale ondersteuning van die toesighouers die werknemers se positiewe houding of genotvolle emosionele stand teenoor sy/haar werk of werkservaring verhoog (werkstevredenheid), asook die waarskynlikheid van sosiale ondersteuning van die kollegas. Hoe hoër die werknemers se positiewe houding tot hul werk is, hoe laer sal hul intensie om op te hou werk ook wees (intensie om te bedank). Hierdie intensie om op te hou werk sal ook laer wees as die sosiale ondersteuning van die toesighouer hoër is, en/of wanneer die werknemer minder gevoelens ervaar dat sy/haar werk meer is as wat hy/sy kan vermag in die beskikbare tyd.

Intensie om te bedank is voorspel deur sosiale ondersteuning van die toesighouer.

Werkstevredenheid is voorspel deur roloorlading (kwantitatief) en sosiale ondersteuning van die toesighouer.

Deur middel van 'n gevolgtrekking is aanbevelings vir toekomstige navorsing gemaak.

CHAPTER 1

INTRODUCTION

This mini-dissertation focuses on the moderating effect of social support on the relation between role overload, job satisfaction and turnover intention.

In this chapter the problem statement is discussed, whereupon the research objectives are set out. Following this, the research method is discussed and the division of chapters is given.

1. PROBLEM STATEMENT

Gold mining in South Africa, from its humble beginnings in the first recorded mine in Eesterling in the Northern Province in 1871 to its pre-eminence as the largest gold mining industry in the world, has played a significant role in the economic development of the country over the past 120 years (Anon, 2004). The South African mining industry has been the mainstay of the South African economy for over a century. With the stabilisation in world mining production and central bank sales, the prospect of any major sources of new supply of gold has diminished. The continued focus on productivity, recruitment and consolidation in the South African gold mining industry will result in a decline in production – although replacement tonnage from new mines will slow the rate of decline. The fact that South Africa has become the cheapest major producer of gold on a total cost an ounce basis will be an important factor contributing to the prospects for the industry in the years to come (Anon, 2004).

In the decade of the 1990s, the number of employees in gold mines more than halved, from 429 649 in 1991 to 197 091 in 2001 (Anon, 2004). Much of the decline can be attributed to natural attrition, as the industry has moved from a mass employer of limited, contract, unskilled labour, to an employer of more permanent, mostly semi-skilled to skilled labour. This reflects the industry's commitment to the development of human capital and the provision of career paths with adequate training. While the rate of decline in employee numbers slowed after the large fall

during the 1997/98 gold price crises, the decrease is expected to continue (Anon, 2004). The two most fundamental challenges facing the South African mining industry are the productivity of labour and capital, and their impact on the cost of mining and extracting minerals. The mining industry must furthermore pursue good employment practices, provide proper training, appoint and promote people on the basis of their ability, pay fair wages, deal equitably with employees' elected representatives, do the utmost to provide a safe and healthy working environment and, where applicable, also provide congenial living conditions, and implement effective social responsibility programmes (Anon, 2004). The South African mining context, therefore, presents as one of volatility, in which the study of role overload, job satisfaction and turnover intention may be successfully undertaken.

Organisations increasingly expect employees to fix things that they see as wrong, act on the information they have, and react to unusual circumstances by demonstrating proactive behaviours. Erdogan and Bauer (2005) proposed that in the 21st century, jobs would require greater initiative due to global competition, faster innovation, new production concepts, and changes in the nature of jobs. The increasingly autonomous and decentralised nature of many organisations also facilitates the use of proactive behaviours and a flexible role orientation in the workplace (Erdogan & Bauer, 2005).

Role overload might be described as a very common feature of the modern world of work, and represents the volume of demands that comprise an individual's role. Research with the work overload construct has distinguished a qualitative (Sverke, Hellgren & Ohrming, 1999) and quantitative (Beehr, Walsh, & Taber, 1976) dimension. Quantitative overload is defined as more work than a person can accomplish in the time available, irrespective of the difficulty of the work involved. Qualitative overload occurs when the work requires skills, abilities and knowledge beyond that of the individual. A working environment that is characterised by huge reductions in employee numbers (as noted above), and is further under pressure to meet employment equity guidelines (as set out in the Mining Charter, 2004), could easily contribute to employees' experience of role overload.

Social support is defined as resources available from one or more others to assist the focal person in the management of stress experiences and to increase the experience of well-being (McIntosh, 1991). Social support is commonly referred to as a stress-buffering resource, because it is presumed to protect people from the harmful outcomes of stress. The buffering hypothesis holds that the relationship between job stressors and individual strains depends upon the amount of social support (Beehr, King, & King, 1990). Most studies have indicated social support to have strong positive main effects on wellbeing (Viswesvaran, Sanchez, & Fisher, 1999).

A curious lack of empirical research regarding the role of social support on work-related and attitudinal outcomes exists. Less research has also focused on differential effects of different sources of social support. Social support might be viewed in terms of subjective appraisals that focus on the quality of one's relationship (with family, work colleagues, or managers) or on the degree to which important social needs (for example, for affiliation and intimacy) are being met, or to the degree to which one feels cared for and valued (Karasek, 1979).

Job satisfaction of South African employees is a topic that has received considerable attention by researchers and practitioners alike. Job satisfaction can be defined simply as "positive attitudes toward the job" (Vroom, 1964, p. 99) or as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 130). Research on job satisfaction has clearly shown that "more varied, complex and challenging tasks are higher in worker gratification than less skilled routine jobs" and that "the more skilled the vocation, the more its members enjoy their jobs" (Katz & Kahn, 1978, p. 364).

Kreitner and Kinicki (2004) identified five predominant models of job satisfaction. These models focus on different causes, namely fulfilment, discrepancy, value attainment, equity, and dispositional/genetic components. A recent meta-analysis of nine studies and 1 739 employees revealed a significant positive relationship between motivation, turnover intention and job satisfaction. Managers can potentially enhance employees' motivation through various attempts to increase job satisfaction and decrease turnover intention (Kreitner & Kinicki, 2004).

The logic of an expected association between job stress and turnover is the basic withdrawal hypothesis, that is, if it is painful to be at work, then employees will try to avoid the workplace (Beehr, 1995). Turnover is logically a more extreme step than simply staying away from work for a day. One approach to turnover suggests that turnover is a rational decision. That is, turnover occurs because the employee has better alternatives. According to Beehr (1995), reasons why employees quit their jobs can be divided into two categories – repulsion and attraction. Employees can be attracted to better alternatives, and employees can be driven out of the organisation by something unpleasant in the organisation itself (repulsion).

Iwata and Suzuki (1997) have found role overload to have large interaction effects with mental health status, while its interaction with co-worker support was also significantly associated with mental health status. Co-worker social support also reduces role overload (Marcellissen, Winnubust, Buunk, & De Wolff, 1988), while role overload has been positively associated with propensity to leave (turnover) (Iwata & Suzuki, 1997). Hatton and Emerson (1993) found that the receipt of social support from colleagues predicted a reduced propensity to leave. Direct effects for colleague and social support on job satisfaction have also been observed (Schaubroek, Cotton, & Jennings, 1989).

Brough and Frame's (2004) research on predicting police job satisfaction and turnover intentions through social support predicted that supervisor support produced strong associations with job satisfaction and turnover intentions. As expected, collegial social support was associated with both job satisfaction and turnover, but these relationships were weaker when compared to the same associations with supervisor support (Brough & Frame, 2004). No associations were identified between family and social support and either job satisfaction or turnover intentions.

This study will therefore look at the moderating effect that sources of social support at work (colleagues and supervisors) have between the experience of role overload (qualitative and quantitative), and job satisfaction and turnover intention for employees in a South African gold mining company. The following research questions can be formulated based on the research problem described above:

- How reliable and valid are measuring instruments of social support, role overload (qualitative and quantitative), job satisfaction and turnover intention for employees in the mining industry?
- What are the levels of and relationships between social support, role overload (qualitative and quantitative), job satisfaction and turnover intention for employees in the mining industry?
- What are the main and interactive effects of the two sources of social support in the relationship between role overload (qualitative and quantitative), job satisfaction and turnover intention?
- What recommendations regarding training and development in managing the experience of role overload of employees can be made for the organisation?

2. RESEARCH OBJECTIVES

The research objectives can be divided into general and specific objectives.

2.1 General objective

The general aim of this study is to look at the moderating effect of social support on the relation between role overload, job satisfaction and turnover intention.

2.2 Specific objectives

The specific objectives of the research are:

- To determine the reliability and validity of the measuring instruments of social support, role overload (qualitative and quantitative), job satisfaction and turnover intention of employees in the mining industry.

- To determine the levels of and relationship between social support, role overload (qualitative and quantitative), job satisfaction and turnover intention of employees in the mining industry.
- To study the main and interactive effects of the two sources of social support in the relationship between role overload (qualitative and quantitative) and job satisfaction and turnover intention.
- To make recommendations regarding training and development in intervention strategies for the organisation to address employees' experiences of role overload.

3. PARADIGM PERSPECTIVE OF THE PROBLEM

A certain paradigm perspective, that includes the intellectual climate and the market of intellectual resources, directs the research (Mouton & Marais, 1992). Mouton and Marais (1993) refer to paradigms as collections of metatheoretical, theoretical and methodological beliefs, which have been selected from the intellectual climate and the market of intellectual resources of a particular discipline. The concept "paradigmatic research" refers to research which is conducted within the framework of a given research tradition or paradigm.

3.1 Intellectual climate

The intellectual climate refers to the variety of metatheoretical values or beliefs, of which the following will be formulated for the purpose of this study: industrial psychology, social support, job satisfaction, role overload, and turnover intention.

3.2 Discipline

From a disciplinary perspective, this research focuses primarily on industrial psychology, which, according to Bass and Ryterband (1979, p. 5), is rooted in other disciplines, particularly in the behavioural sciences (psychology, anthropology, sociology), economics, and physical science.

Industrial psychology involves the scientific observation (studying, research), evaluation (assessment, measurement, diagnosis), optimal utilisation (selection, placement, management), and influencing (change, training, development, motivation), of normal and (in a lesser sense) abnormal behaviour in interaction with the environment (physical, psychical, social, organisational) as it manifests in the professional and business world (Anon, 2002). Furthermore, the sub-disciplines of industrial psychology which investigate the effect of organisational dynamics on the individual are:

- *Organisational psychology*: Organisational psychology is concerned with the organisation as a system involving individuals and groups, and the structure and dynamics of the organisation. The basic aims are fostering worker adjustment, satisfaction and productivity, as well as organisational efficiency (Bergh & Theron, 2005). Social support and job satisfaction are two variables that are connected to organisational psychology.
- *Psychometrics*: Psychometrics refer to the systematic and scientific way in which psychological measures are developed and the measurement standards (e.g. validity and reliability) that the measures meet (Foxcroft & Roodt, 2001). Psychometrics in this study are addressed by investigating the reliability and validity of all the measuring instruments.
- *Occupational mental health*: Wherever possible, occupational mental health provides real-time, evidenced based solutions to minimise the impact of pressure at work and promote positive mental health (Anon, 2003). For the purpose of this study, social support is conceptualised as a variable that may be manipulated, by means of workplace interventions, to facilitate employees' experience of role overload, where it is negative, to something more positive, or manageable. Thus, social support is related to occupational mental health.

Mouton and Marais (1993) indicate that the variations in the different schools of thought are not unbridgeable, since a substantive degree of overlap exists between different theoretical orientations, models and methodologies. For the purpose of this research, a multi-paradigmatic approach will be adopted.

3.3 Metatheoretical assumptions

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

3.3.1 Literature review

According to Chiang and Maslow (1977), the *humanist paradigm* is a school of thought that emphasises that people are free agents with a free will, and who have a creative and self-motivated drive toward self-fulfilment, which is considered an essential criterion for psychological health.

Systems theory (Bell & French, 1999) is one of the most powerful conceptual tools available for understanding the dynamics of organisations and organisational change. Bell and French (1999) define a system as a set of objects together with relationships between the objects and between their attributes. For the purpose of this study, the role overload, job satisfaction, turnover intention and social support, employees' experience, and the relationships between these, form the focus of interest in the organisational system.

3.3.2 Empirical study

The *behaviouristic paradigm* is based on the assumption that behaviour is determined primarily by experiences within the environment and not by instinct or inherited traits (Benjamin, Hopkins & Nation, 1990). According to this school of thought, an individual's achievements are limited only by the restrictions the environment places on him or her. In this regard, behaviourists rely exclusively on scientific and objective manipulation to assess the relationship between environmental events, that is, the stimuli and the organism's responses to them (Benjamin et al., 1990). Behaviourists feel that consciousness cannot be readily studied and therefore should be

ignored (Van Niekerk, 1996). For the purpose of this study, the behaviouristic paradigm is reflected in the environmental trait of social support, and whether it will have an impact on the behaviours of the study population.

The *positivistic paradigm* according to Johnsen (1975, p. 172), assumes that all known events have various properties that stand in different realities to each other and the only “facts” are those properties and relations which can be observed and measured empirically. Thus, positivism constructs a language in which all knowledge can be reduced to a small number of axioms and consequences, in a way to make science objective by eliminating the subjective side (Baker, 1992, p. 10). During this research, role overload, social support, job satisfaction, and turnover intention are the variables that are objectively defined and measured.

The *functionalistic paradigm* (quantitative approach) is primarily regulative and pragmatic in its basic orientation. It is concerned with understanding society (organisation) in a way that generates useful, empirical knowledge (Anon, 2003). Society has a concrete, real existence and a systematic character, which is oriented to producing an ordered and regulated state of affairs. It encourages an approach to social theory that focuses upon understanding the role of human beings in society. Behaviour is always seen as contextually bound in a real world of concrete and tangible social relationships (Anon, 2003). Functionalism emphasises the causes and consequences of human behaviour, the need for objective testing of theories, and the application of practical problems and the improvement of human life (Van Niekerk, 1996). Through making use of the functionalistic paradigm, the effects of role overload on job satisfaction and turnover intention (human behaviour) will be emphasised.

3.4 Market of intellectual resources

The market of intellectual resources refers to the “collection of beliefs which has a direct bearing upon the epistemic status of scientific statements” (Mouton & Marais, 1993, p. 21). Two major types of intellectual resources are: theoretical beliefs, about the nature and structure of domain phenomena, and methodological beliefs, concerning the nature of the research process. With

regard to theoretical beliefs, as explained by Mouton and Marais (1993), for the purpose of this research, hypotheses are presented, as well as theoretical models and theories including a conceptual description concerning social support, job satisfaction, role overload, and turnover intention.

3.4.1 Theoretical beliefs

The theoretical statements for this research include the conceptual definitions and the models and theories of this research.

A. Conceptual definitions

The relevant conceptual definitions are given below:

- *Social support* is conceptualised as the number and quality of friendship or caring relationships which provide either emotional reassurance, needed information, or instrumental aid in dealing with stressful situations (Caplan, Cobb, French, Van Harrison, & Pinneau, 1975).
- *Job satisfaction* can be defined as a predominantly positive attitude toward the work situation (Brayfield & Rothe, 1951).
- *Role overload (Quantitative)* is defined as more work than a person can accomplish in the time available, irrespective of the difficulty of the work involved (Beehr et al., 1976).
- *Role overload (Qualitative)* occurs when the work requires skills, abilities and knowledge beyond that of the individual (Sverke et al., 1999).
- *Turnover intention* is logically a more extreme step than simply staying away from work for a day; it is an intention by the employee to take the decision to stop working (Beehr, 1995).

B. Models and theories

A model is aimed at providing a framework of thinking to ensure a clear understanding of the research problem (French & Bell, 1999). A theory is defined as a form of verbal statement, visual model, or series of hypotheses, which depicts the evolving nature of the phenomenon and describes how certain conditions lead to certain actions or interactions (Leedy & Ormrod, 2001). The Conservation of Resources Theory (COR theory, Hobfoll, 1993) will be discussed. The COR theory outlines a model by which resources operate in individuals and social systems. This theory begins with the assumption that individuals strive to obtain, retain, and protect that which they value. These things people value, or that aid in obtaining that which is valued, are termed resources. According to COR theory, individuals strive to obtain and maintain what they prize or value – in other words, resources (Hobfoll, 1993). As such, high levels of job satisfaction and low turnover intention may be conceptualised as resources that individuals may want to retain, but that is threatened by the experience of high qualitative and quantitative role overload and low levels of support from colleagues and supervisors.

The Job Characteristics Model will be discussed (Hackman & Oldham, 1976). Hackman and Oldham (1976) recognised that everyone does not want a job containing high amounts of the five core job characteristics (skill variety, task identity, task significance, autonomy and feedback from the job). Hackman and Oldham (1976) incorporated this conclusion into their model by identifying three attributes that affect how individual's knowledge and skill, growth need strength (representing the desire to grow and develop as an individual), and context satisfaction. Context satisfactions represent the extent to which employees are satisfied with various aspects of their job, such as satisfaction with remuneration, colleagues and supervision. Because research overwhelmingly demonstrates a moderately strong relationship between job characteristics and satisfaction, organisations can use this model to increase employees' job satisfaction (Hackman & Oldham, 1976).

3.4.2 Methodological beliefs

Methodological beliefs are beliefs about the nature of social science and scientific research. It includes different types of traditions or schools in the philosophy of the social sciences and methodological models, such as quantitative and qualitative models (Mouton & Marais, 1993).

The empirical study is presented within the positivistic and functionalistic frameworks. The root assumption of the functionalistic framework is to encourage an approach to social theory that focuses upon understanding the role of human beings in society. The root assumption of the positivistic framework is an approach in the social sciences (and psychology) that relates knowledge to observable facts or events (Van Niekerk, 1996). This research is therefore quantitatively approached, and the variables studied as observable and measurable.

4. RESEARCH METHOD

The research consists of a literature review and empirical study.

4.1 Literature review

The literature review will focus on social support, role overload, job satisfaction and turnover intention. Sources which are consulted include books, journals, EBSCO Host Research database (PsycINFO database, Academic Search Premier & Business Source Premier), ScienceDirect and Sabinet Online.

4.2 Empirical study

The empirical study consists of the research design, participants, measuring battery, and statistical analysis.

4.2.1 Research design

According to Kerlinger and Lee (2000), the main technical function of the research design is to control variance. The design is the complete strategy of attack on the central research problem. It provides the overall structure for the procedures that the researcher follows, the data that the researcher collects, and the data analyses that the researcher conducts. Research designs are plans and structures used to answer research questions. A survey design will be used to achieve the research objective. The specific design is a cross-sectional design (Shaugnessy & Zechmeister, 1997) and information collected is used to describe the population at that time. This design can be used to assess interrelationships among variables within a population. According to Shaughnessy and Zechmeister (1997), this design is ideally suited to the descriptive and predictive functions associated with correlational research.

4.2.2 Participants

A random sample will be taken from a South African mining company ($N=250$). Gender and age will be included as control variables. Individuals on Paterson grading E band to C Upper (managers) will make part of the sample. All disciplines in the company will be considered. The education level of the sample can vary from Grade 12 to tertiary qualifications. The experience level of the sample will also vary.

4.2.3 Measuring instruments

Role overload (quantitative). This scale consists of three items from Beehr et al. (1976) and measures the feeling of having too much to do in too little time. "I often have too much to do in my job" is a typical item, and the response alternatives range from 1 (disagree) to 5 (agree), with a high score representing a heavier workload. This scale could not be found in previous South African research, and therefore the validation contributes to a body of unique South African

knowledge. In a recent study by Glaser, Tatum, Nebeker, Sorenson and Aiello (1999) the specific variables yielded a Cronbach alpha of 0,82.

Role overload (qualitative). This scale consists of four items developed by Sverke et al., (1999) and captures the sense that the work is too difficult or demanding. “My work contains elements that are too demanding” is a typical item, and the response alternatives range from 1 (disagree) to 5 (agree); with a high score representing more difficult or demanding tasks. This scale could not be found in previous South African research; therefore the validation makes a unique contribution to South African knowledge. In a recent study by Glaser et al., (1999) the variables yielded a Cronbach alpha value of 0,82.

Job satisfaction. Hellgren, Sjoberg and Sverke (1997), based on Brayfield and Rothe (1951) developed this scale, consisting of three items, measuring satisfaction with the job. The response alternatives range from 1 (disagree) to 5 (agree), and a typical item is “I enjoy being at my job”. A high score reflects satisfaction with the job. This scale could not be found in South African research, and therefore the validation contributes to unique South African knowledge. Brough and Frame (2004) indicated that the reliability of this measuring instrument in a similar study was 0,76.

Turnover intention. This scale consists of three items, was developed by Sjoberg and Sverke (2000), and measures the strength of the respondent’s intention to leave the present position. “I feel that I could leave this job” is a typical item, with response alternatives ranging from 1 (disagree) to 5 (agree). A high score thus reflects a strong intention to leave the job. This scale has apparently not been used in previous South African research, and the validation therefore contributes to unique South African knowledge. In a recent study, Brough and Frame (2004) indicated that the reliability of this measuring instrument had a Cronbach alpha value of 0,82.

Social support. This scale consists of 6 items that measures 2 factors based on Caplan et al. (1975), and other social support literature. This scale consists of two factors based on the source of the support – colleague support and supervisor support. A typical item used to gauge co-worker support is “When I encounter problems at work, there is always a colleague to turn to”,

and supervisor support “I always receive help from my manager when difficulties in my work arise”. The response alternatives range from 1 (disagree) to 5 (agree); a high score on either scale reflecting a sense that support is available. This scale could not be found in previous South African research and its validation therefore contributes uniquely to South African knowledge. Since the focus of the present study is on job-related outcomes (job satisfaction and turnover intention), only social support from colleagues and supervisor are of interest to the present analysis. Many studies of social support have relied on the social support scale as developed by Caplan et al. (1975). The estimate of reliabilities for the specific subscales ranged from 0,73 to 0,83.

4.2.4 Statistical analysis

The statistical analysis will be carried out with the help of the SPSS programme (SPSS, 2005). The programme will be used to perform statistical analysis regarding the reliability of the measuring instruments and descriptive statistics. Cronbach alpha coefficients will be used to assess the reliability of the measuring instruments (Clark & Watson, 1995). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) and inferential statistics will be used to analyse the data.

The main and interactive effects of social support will be tested using hierarchical multiple regression analysis. Demographic characteristics will be entered in the first step. Qualitative and quantitative role overload will be entered in the second step. Interaction terms of social support and role overload will be entered in the third step to test for the hypothesised moderating effect of social support on the relation between role overload on the one hand, and job satisfaction and turnover intention on the other. Predictor variables will be centred, in other words the means of these variables will be set to zero while the standard deviations are kept intact. Two hierarchical regression analysis will be performed, one for job satisfaction, and one for turnover intention.

5. CHAPTER DIVISION

Chapters will be divided as follows:

Chapter 1: Research Proposal

Chapter 2: Research article

Chapter 3: Conclusions, limitations and recommendations

6. CHAPTER SUMMARY

In the first part of this chapter, a background to the research problem was formulated and a motivation for the importance and relevance of this research was given. This was followed by details of the research questions, literature and empirical objectives of this research. The foundations for the research design and research method followed the paradigm perspective. The chapter ended with a brief outline of the chapter division for this mini-dissertation. The next chapter is the research article.

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CHAPTER 2

RESEARCH ARTICLE

**THE MODERATING EFFECT OF SOCIAL SUPPORT ON THE RELATION
BETWEEN ROLE OVERLOAD, JOB SATISFACTION AND TURNOVER
INTENTION**

C. F. SIEBERHAGEN

Hons. BA

ABSTRACT

Gold mining in South Africa has played a significant role in the economic development of the country over the past 120 years. However, the continued focus on productivity, recruitment and consolidation in the South African gold mining industry could result in a decline in production. The objectives of this research included empirically determining the effect social support has on the relation between role overload, job satisfaction and turnover intention. A cross-sectional survey design was used. A random sample was taken from a South African mining company ($N=250$). Gender and age were included as control variables. Results indicate that when an employee feels that his/her work is more than he/she can accomplish in the time available (quantitative role overload), the employee will most probably also feel that his/her work requires skills, abilities and knowledge beyond that which they possess. It is also indicated that social support from the supervisor increases the employee's positive attitude or pleasurable emotional state towards his/her job or job experience (job satisfaction), as well as reducing intentions of turnover.

OPSOMMING

Die goudmynbedryf in Suid-Afrika, het die afgelope 120 jaar 'n doeltreffende rol in die land se ekonomiese ontwikkeling gespeel. Die voortdurende fokus op produktiwiteit, seleksie en konsolidasie in die

Suid-Afrikaanse mynindustrie sal egter aanleiding gee tot 'n toename in produksie. Die doelstelling van hierdie studie sluit in die empiriese verduideliking van die modererende effek wat sosiale ondersteuning het op die verband tussen roloerlading, werkstevredenheid en die voorneme om te bedank. 'n Dwarsdeursnee-ontwerp is gebruik. 'n Ewekansige steekproef is geneem van 'n Suid-Afrikaanse mynorganisasie ($N=250$). Geslag en ouderdom is ingesluit as kontrole veranderlikes. Die resultate het getoon dat indien 'n werknemer voel dat sy/haar werk meer is as wat hy/sy in die spesifieke tyd kan vermag (kwantitatiewe roloerlading), sal die werknemer hoogs waarskynlik ook ervaar dat sy/haar werk vaardighede, vermoëns en kennis vereis bo dié waaroor hulle beskik. Dit is ook aangetoon dat sosiale ondersteuning van die toesighouers die werknemers se positiewe houding of genotvolle emosionele stand teenoor sy/haar werk of werkservaring verhoog (werkstevredenheid), en 'n afname teweeg bring in die voorneme om te bedank.

Mining is a highly stressful occupation, male dominated, requires shift work, and involves exposure to distressing operational as well as organisational factors (Thompon, 2005). Physical strength is another requirement – the toughness and strength of miners in the South African mining industry are described by Moodie (1994, p. 98-116): “Mining is for strong men”; “Mining is not for bed-wetters”; “cowards and weaklings will be revealed”, and “they are the bulls of the mines”. Mining in general is an occupation characterised by both fear and pride, leading to warm but rough male camaraderie on and off the job, and personal tension resulting in high turnover intention and frequent work stoppages (Moodie, 1994).

It is important to examine remote and isolated environments (contextual), as well as attitudinal factors pertaining to job outcomes such as job satisfaction and turnover intentions. It is important to understand what characterises a remote community, such as a mining community. Holmes (1981) outlined six features that differentiate remote and isolated communities (e.g. mining communities) from urban areas. These are the difficult physical environment; the high economic and social cost involved in the exploitation of natural resources; unattractive places in which to live; expensive basic services; the fact that the total population is restricted to a level required for the operation of the resources activity and is typically unbalanced and highly mobile; and that this population is often considered to be deprived, because of its isolation.

These six features serve to highlight the social and economic costs of living and working in a remote environment, such as a mining community. Mining is hard labour, under conditions of extreme discomfort – deafening noise, intense heat and humidity, and cramped space – exacerbated by tension stemming from the need to watch constantly for signs of potential hazard (Moodie, 1994). Role overload, job stressors and job dissatisfaction are factors that may occur because of the mining industry’s tough and harsh living and working environment (Moodie, 1994).

It is important to understand the difference between role overload and role ambiguity. Bergh and Theron (2005) describe role ambiguity as an amount of uncertainty in meeting the specific job requirements, while role overload occurs due to the sheer volume of work (Hall, 1995). Two dimensions of role overload, namely a qualitative and quantitative dimension, can be distinguished. Quantitative overload is defined as

more work than a person can accomplish in the time available, irrespective of the difficulty of the work involved (Beehr, Walsh, & Taber, 1976). Qualitative overload occurs when the work requires skills, abilities and knowledge beyond that of the individual (Sverke, Hellgren, & Ohrming, 1999).

Quantitative and qualitative role overload are linked through the interplay of workers' personal capacities and professional abilities on one hand, and the conditions of their work on the other (Hall, 1995). Conditions of role overload are conducive to the experience of role strain. According to Hall (1995), role strain refers to the physical and psychological distress frequently associated with role overload. Coverman (2001) found that by decreasing an employee's workload, his/her job satisfaction could be increased.

The long-standing interest in estimating the size of the gender earnings gap has recently been joined by interest in estimating the gender gap in job satisfaction (Sloane & Williams, 2000). Job satisfaction is defined as the positive emotional response to a job situation resulting from attaining what the employee wants and values from the specific job (Hom & Kinichi, 2001). Sloane and Williams' (2000) focus on job satisfaction is motivated by the recognition that jobs entail complicated bundles of characteristics. These include earnings, fringe benefits, working conditions, the quality of colleagues and supervisors, and the intrinsic benefits from the actual work being done (Sloane & Williams, 2000). While a subjective notion, job satisfaction has been argued to provide a more comprehensive measure of workers' utility derived from the job (Clark & Oswald, 1996). Clark (1997) provides two explanations for the finding that women are more satisfied with their jobs than men. First, job satisfaction is a function of expectations, and if women have less expectations about labour market outcomes, their expectations are more easily fulfilled (Clark, 1997). Second, the bundle of characteristics associated with women's jobs may appeal to them sufficiently to overcome the satisfaction lost from their lower earnings. Sloane and Williams (2000) suggests that the job satisfaction of females increase as the female share of the workplace increase. Sloane and Williams (2000) take this as evidence that women largely "choose" the jobs they dominate, arguing that policy designed to decrease segregation would reduce the job satisfaction of female employees. Clark (1997) argues that his essentially similar evidence fits an

expectation argument in which females in male dominated jobs have higher expectations for satisfaction from work, and so their expectations are not as easily fulfilled. The result, according to Clark (1997), is that women in male dominated jobs, such as the mining industry, are less satisfied than women who are not in male dominated jobs. Based on the results of previous research, social support emerged as an important factor for predicting both psychological well being and job satisfaction (Limbert, 2004).

A growing body of research has demonstrated that social support in the workplace has important implications for many aspects of organisational behaviour (Furnham & Walsh, 1991). Studies show that social support increases job satisfaction and commitment (Furnham & Walsh, 1991), decreases turnover intention (Anderson, 1991), and enhances overall mental health (Buunk & Verhoeven, 1991). The combined evidence suggests that social support significantly affects one's ability to cope with various kinds of life stressors, such as turnover intention (Furnham & Walsh, 1991). Social support at work may be critically important because of its potential for moderating or attenuating the detrimental effects of organisational stressors (Kirmeyer, 1990). Social support is information that leads a person to believe that he or she is cared for, esteemed and valued, and belongs to a network of communication and mutual obligation.

A number of studies have documented the positive impact of social support on human services workers' appraisals of job satisfaction (Jones, 1989). There is almost universal consensus that the perception of emotional support in the workplace is positively associated with job satisfaction and negatively associated with job strain. Along these lines, numerous studies have documented the high correlation of social support to quality of life (Jones, 1989). According to Jones (1989), individuals who perceive a supportive environment are more likely to report greater satisfaction with their jobs and lives than those who do not.

Research on the role of social support in a policing context found that supervisor support was a strong predictor of job satisfaction, and an indirect predictor of turnover intentions (Brough & Frame, 2004). Brough and Frame (2004) found supervisor support to be negatively associated with turnover. Direct associations have also been

identified between social support, job satisfaction, and turnover intentions. Job satisfaction is an especially strong direct predictor of turnover intentions (Brough & Frame, 2004). Two primary groups of variables have been identified as influencing turnover intentions, namely (a) organisational variables, such as job satisfaction and (b) individual demographic variables, including gender.

Further research on social support in the workplace by Thye (2000) focused on the role of supervisor support – despite the obvious importance of the supervisor-employee relationship, little is actually known about the causes of supervisor support. Thompson (2005) found that social support has consistently been shown to relate to increased well being. In a study of 92 miners with partners and children, supervisor support was the only source of work-based support that impacted on miners' experience of emotional exhaustion (Kirk-Brown, 1999).

Supervisor and colleague support involve the interpersonal transfer of instrumental or emotional resources (Mathieu & Zajac, 1990). The term *supervisor* refers to the person who oversees the employees' daily work routine, whereas *colleagues* refers to the persons who hold a position or rank similar to that of the employee in the organisation (Mathieu & Zajac, 1990). Mayes (1986) found supervisor support to be the most important source of work-based support in alleviating strain, but colleagues' support also alleviated strain, albeit at a lower level. It may be the case that if supervisors are able to clarify roles or reduce workload, actual or perceived levels of role overload are reduced (Mayes, 1986). However, because colleagues may not be in a position to directly influence role stresses, such as role overload, shared discussion of role stresses may have no effect on emotional exhaustion, or in high stress conditions, actually lead to a negative contagion effect (Thompson, 2005).

The relationship between turnover intentions and organisational variables is of particular importance, with considerable attention being applied to low job satisfaction and high psychological strain levels (George & Jones, 1996). In terms of individual demographic variables, female employees generally have higher turnover levels than males, while married individuals tend to leave their employment in lower numbers, as compared to other employees (George & Jones, 1996). The association between marital status and gender in turnover decisions has been subject to some

evaluation. Mano-Negrin and Kirschenbaum (2002) identified that the turnover decision-making process is interdependent on the spousal conditions of employment, and involves other family and economic considerations in both married male and female employees. However, these authors also suggested that the turnover decision-making process for both males and females is primarily dependent upon their own work-related factors. Eisenberger, Stinglahamber, Vandenberghe, Sucharski, and Rhoades (2002) report that supervisor support is negatively associated with turnover: in other words, low levels of supervisor support are related to higher turnover intentions.

The study of personnel turnover has attracted attention in the field of human resources management for several decades (Hom & Kinichi, 2001). It is widely believed that a significant amount of turnover adversely influences organisational effectiveness (Hom & Kinichi, 2001). By identifying the determinants of turnover intention, researchers could predict turnover behaviours more precisely, and managers could take measures in advance to prevent turnover intention. Among the determinants of turnover, job satisfaction plays a major role in most theories of turnover intention and operates as the key psychological predictor in most turnover studies (Hom & Kinichi, 2001). The relationship between job satisfaction and turnover intention is one of the most thoroughly investigated topics in the turnover literature, and job satisfaction has long been recognised as an important variable in explaining turnover intention (Hom & Kinichi, 2001). Busch (1998) also pointed out that those individuals who are relatively satisfied with their jobs would stay in them longer, and are likely to be less absent. Trevor (2001) argued that the empirical results of job satisfaction's relation with turnover intention are usually indicated by a negative correlation.

It has been confirmed that social support acts as a buffer for role overload. French (1989) found that social support buffered the effects of perceived role overload and work load dissatisfaction on affective complaints of depression and irritation. Wells (1989) provided evidence that social support reduces the likelihood that work demands will be perceived as overloading. Specifically, the relationship between objective load (as rated by experts) and employees' perceptions of being overloaded, or having too much responsibility, is weaker for employees with more than for those with less social support (Kirmeyer, 1990).

A dual model reviewed by Cohen and Willis (1985) suggested that social support have both a direct (main-effect), and a buffering (moderator) effect on stress. In their view, social support moderates the relation between the environmental stressor (e.g., role overload) and the stress response. Thus, the effects of role overload and job satisfaction will be less taxing as the employee perceives greater social support (Cohen & Wills, 1985).

It is intuitively appealing to consider that social support should reduce occupational stress, such as role overload, enhance the experience of job satisfaction, and act to decrease turnover intentions. Various studies have suggested that social support can have a direct effect on the experience of both occupational sources of stress (stressors) and stress outcomes or strains (Swanson & Power, 2001). Social support received in a work context may be particularly important in reducing occupational stress following organisational change and restructuring. A recent controlled longitudinal study of employees in retailing (Moyle & Parkes, 1999) found that worksite relocation was associated with increased psychological distress from baseline, but that this negative effect was reduced by perceived social support from supervisors, colleagues and family. The objective of this study was therefore to investigate the moderating effect of social support on the relation between role overload, job satisfaction and turnover intention.

METHOD

Research design

According to Kerlinger and Lee (2000), the main technical function of the research design is to control variance. The design is the complete strategy of attack on the central research problem. A survey design was used to achieve the research objective. Information collected was used to describe the population at the time of sampling. This design can be used to assess interrelationships among variables within a population. According to Shaughnessy and Zechmeister (1997), this design is ideally suited to the descriptive and predictive functions associated with correlational research.

Participants

A random sample was taken from a South African mining company. Two hundred and fifty individuals were targeted, of which 206 returned useable questionnaires ($N=250$, Response rate=82,4%). Gender and age was included as control variables. Individuals on Paterson grading E band to C Upper (managers) were part of the sample. All disciplines in the company were considered. Characteristics of the participants are reported in Table 1.

Table 1*Characteristics of the Participants (n=206)*

Item	Category	Percentage*
Gender	Male	91.7
	Female	8.30
Children younger than 12 living with you	No	50.50
	Yes	48.50
Household	Singe (Living alone)	8.70
	Married or living with a partner	75.70
	Living with parents	1.90
	Divorced or separated	5.30
	Remarried	8.30
Educational qualifications	Grade 10 (Standard 8)	18.00
	Grade 11 (Standard 9)	6.80
	Grade 12 (Matrix)	32.00
	Technical College Diploma	15.50
	Technikon Diploma	14.60
	University degree	6.30
Language	Postgraduate (Honours, Masters or Doctorate)	5.30
	Afrikaans	69.40
	English	15.50
	Sepedi	1.00
	Sesotho	2.40
	Setswana	4.40
	IsiSwati	1.00
	IsiXhosa	3.40
	IsiZulu	2.90
	Employment status	Permanent
Substitute position		2.40
Employed by the hour		0.50
Employed for a project		0.50
Trainee		1.00
Employment	Full-time	99.50
	Part-time	0.50
Union member	Yes	83.00
	No	16.00
Work assignments changed during past 12 months	Yes	47.60
	No	52.40
	Voluntary	26.70
	Involuntary	23.30
	For the better	37.40
	For the worse	11.20

* Where percentages do not sum to 100, this is due to missing values

The sample consisted mostly of males (91,7%), which is a representation of the gender spread of the population in the mining company, where males represent 95% of the total population. More than half of the participants (69,4%) were Afrikaans-speaking. Most of the participants (73,7%) have at least completed high school or tertiary studies.

Most participants (95,6%) are permanently employed, and nearly all the participants (99,5%) are employed full-time. The majority of participants were union members (83,0%). Almost half of the participants (47,6%) indicated that their work assignments changed during the past 12 months.

A large amount of participants (75,7%) are married or live with a partner. Nearly half of the participants (48,5%) have children younger than 12 living with them. The average amount of years participants have been working for the organisation is 14,03 years ($SD = 9,00$ years).

Measuring instruments

Five measuring instruments were used in this research. Quantitative role overload was measured by the scales developed by Beehr et al. (1976), qualitative role overload was measured with four items developed by Sverke et al. (1999), and job satisfaction was measured with scales by Hellgren, Sjöberg and Sverke (1997), based on Brayfield and Rothe (1951). Turnover intention was measured by a scale developed by Sjöberg and Sverke (2000), while social support was measured by the scales developed by Caplan et al. (1975).

Role overload (quantitative). This scale consists of three items from Beehr et al. (1976), and measures the feeling of having too much to do in too little time. The response alternatives range from 1 (disagree) to 5 (agree); a high score represents a heavier workload. "I often have too much to do in my job" is a typical item. In a recent study by Glaser et al., (1999) the specific variables yielded a Cronbach alpha of 0,82.

Role overload (qualitative). This scale consists of four items developed by Sverke et al. (1999) and captures the sense that the work is too difficult or demanding. The response alternatives range from 1 (disagree) to 5 (agree); a high score represents more difficult or demanding tasks. “My work contains elements that are too demanding” is a typical item. In a recent study by Glaser et al. (1999) the variables yielded a Cronbach alpha value of 0,82.

Job satisfaction. Hellgren et al., (1997), based on Brayfield and Rothe (1951) developed this scale, consisting of three items, measuring satisfaction with the job. The response alternatives range from 1 (disagree) to 5 (agree); a high score reflects satisfaction with the job. A typical item is “I enjoy being at my job”.

Turnover intention. This scale, consisting of three items, was developed by Sjöberg and Sverke (2000), and measures the strength of the respondent’s intentions to leave the present position. The response alternatives range from 1 (disagree) to 5 (agree); a high score reflects a strong intention to leave the job. “I feel that I could leave this job” is a typical item.

Social support. This scale consists of 6 items that measures 2 factors (based on Caplan et al., 1975 and other social support literature). This scale consists of two factors based on the source of the support – colleague or supervisor support. The response alternatives range from 1 (disagree) to 5 (agree); a high score on either scale reflects a sense that support is available. A typical item used to gauge colleague support is “When I encounter problems at work, there is always a co-worker to turn to”, and supervisor support “I always receive help from my manager when difficulties in my work arise”. The estimate of reliabilities for the specific subscales ranged from 0,73 to 0,83.

Statistical analysis

The statistical analysis was carried out with the help of the SPSS programme (SPSS, 2005). The programme was used to perform statistical analysis regarding the reliability and validity of the measuring instruments, and descriptive statistics.

Cronbach alpha coefficients were used to assess the reliability and validity of the measuring instruments (Clark & Watson, 1995). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) and inferential statistics were used to analyse the data. Results are regarded as significant if the p -values are smaller than 0,05, since this is the cut-off for most behavioural science research (Christensen & Stoup, 1991, p. 231). If the final p -values are statistically significant ($\leq 0,05$) the practical significance (d -values) for the results will be calculated. According to Cohen (1977, p. 20-27) the following cut-offs are relevant for practical significance of correlations:

- $d \geq 0.30$ – practically significant (Medium effect)
- $d \geq 0.50$ – practically significant (Large effect)

The main and interactive effects of social support was tested using hierarchical multiple regression analysis. Demographic characteristics were entered in the first step. Qualitative and quantitative role overload and social support was entered in the second step. Interaction terms of social support and role overload were entered in the third step to test for the hypothesized moderating effect of social support on the relation between role overload on the one hand, and job satisfaction and turnover intention on the other. Predictor variables were centered, in other words, the means of these variables were set to zero while the standard deviations were kept intact. Two hierarchical regression analyses were performed: one for job satisfaction, and one for turnover intention.

RESULTS

Descriptive statistics for the different variables are given in Table 2 below.

Table 2

Descriptive Statistics and Alpha Coefficients of the Measuring Instruments

	Mean	SD	Skewness	Kurtosis	α
Role Overload – Qualitative	8.59	1.95	-0.56	-0.17	0.77
Role Overload – Quantitative	9.87	2.69	-0.30	-0.03	0.59
Social Support from Supervisor	7.76	2.82	-0.38	-0.84	0.91
Social Support from Colleagues	8.24	2.47	-0.41	-0.53	0.80
Job Satisfaction	8.73	2.53	-0.69	-0.27	0.80
Turnover Intention	5.78	3.23	1.17*	3.25*	0.74

* High skewness and/or kurtosis

It is evident from Table 2 that most of the scales of the measuring instruments have relatively normal distributions, with low skewness and kurtosis. Turnover Intention however, was somewhat positively skewed and showed high kurtosis. Quantitative role overload shows the highest mean whilst turnover intentions show the lowest mean. Table 2 shows that acceptable Cronbach alpha coefficients varying from 0,59 to 0,91 were obtained for all the scales, which indicate that all the scales are reliable. However, the Cronbach alpha coefficient of 0,59 is somewhat low, but according to Field (2005), such value may be expected if a diversity of constructs are being measured.

Table 3 shows the correlations between role overload (quantitative and qualitative), job satisfaction, social support (supervisor and colleagues) and turnover intention. Pearson product-moment correlation coefficients were used to specify the relationship between all the variables. However, for turnover intention that showed high skewness and kurtosis, Spearman correlations were computed.

Table 3

Correlation Coefficients between Role Overload (Quantitative and Qualitative), Job Satisfaction, Turnover Intention and Social Support (Supervisor and Colleagues)

Item	Role overload - Qualitative	Social support from Supervisor	Social support from Colleagues	Job satisfaction	Role overload - Quantitative
Social support from Supervisor	-0.06*	-	-	-	-
Social support from Colleagues	-0.03*	0.42 ⁺	-	-	-
Job satisfaction	-0.07	0.50 ⁺⁺	0.26	-	-
Role overload - Quantitative	0.75 ⁺⁺	-0.20	-0.10	-0.21	-
Turnover intention	0.27	-0.42 ⁺	-0.24	-0.65 ⁺⁺	0.34 ⁺

* $p \leq 0.05$ – statistically significant

⁺ $d > 0.30$ – practically significant (Medium effect)

⁺⁺ $d > 0.50$ – practically significant (Large effect)

Role overload (Qualitative) correlates statistically significantly and negatively with Social support from supervisor and Social support from colleagues, but did not reach practical significance. The correlation between role overload (Qualitative) and role overload (Quantitative) is however practically significant (large effect). Social support from supervisor correlates practically significant (medium effect) with both Social support from colleagues and Turnover intention. The correlation between Social support from supervisor and Job satisfaction is also practically significant (large effect). Job satisfaction correlates practically significantly and negatively (large effect) with turnover intention, while the correlation between Role overload (Quantitative) and Turnover intention is practically significant (medium effect).

The results of the multiple regression analysis with turnover intention as dependent variable are given in Table 4. Biographical variables of age and gender were entered in the first step, role overload and social support (supervisors and colleagues) in the second, and the interaction terms in the third.

Table 4
Multiple Regression Analyses with Turnover Intention as Dependent Variable

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	F	R	<i>R</i> ²	ΔR^2
	B	SE	Beta						
1 (Constant)	11.65	1.71		6.82	0.00	8.10	0.28	0.08	0.07
Age	-0.10	0.03	-0.24	-3.41	0.00*				
Gender	-1.32	0.79	-0.12	-1.67	0.10				
2 (Constant)	10.97	1.89		5.80	0.00	12.80	0.52	0.27	0.25
Age	-0.10	0.03	-0.23	-3.64	0.00*				
Gender	-0.69	0.72	-0.06	-0.95	0.34				
Role Overload - Quantitative	0.15	0.12	0.12	1.26	0.21				
Role Overload - Qualitative	0.18	0.16	0.11	1.16	0.25				
Social Support from Supervisor	-0.37	0.08	-0.32	-4.61	0.00*				
Social Support from Colleagues	-0.10	0.09	-0.08	-1.13	0.26				
3 (Constant)	10.32	1.89		5.47	0.00	2.44	0.55	0.31	0.27
Age	-0.09	0.03	-0.21	-3.46	0.00*				
Gender	-0.45	0.72	-0.04	-0.62	0.54				
Role Overload - Quantitative	0.12	0.12	0.10	1.00	0.32				
Role Overload - Qualitative	0.22	0.16	0.13	1.40	0.17				
Social Support from Supervisor	-0.37	0.08	-0.32	-4.57	0.00*				
Social Support from Colleagues	-0.12	0.09	-0.09	-1.29	0.20				
Social Support from Supervisor x Role Overload - Qualitative	0.12	0.06	0.22	2.15	0.03*				
Social Support from Colleagues x Role Overload - Qualitative	-0.10	0.06	-0.16	-1.63	0.11				
Social Support from Supervisor x Role Overload - Quantitative	-0.08	0.04	-0.21	-2.03	0.04*				
Social Support from Colleagues x Role Overload - Quantitative	0.01	0.05	0.01	0.14	0.89				

**p*<0.05

Table 4 shows that 8% of the variance in turnover intention could be explained by the age of participants (Step 1). When role overload and social support variables were entered in Step 2, 27% of the variance in turnover intention could be explained. Social support from supervisor was statistically significantly related to turnover intention. Age made a statistically significant contribution to the variance explained throughout the analyses. In the final step, Social support from supervisor remained statistically significant. Social support from supervisor interacting with both qualitative and quantitative role overload was statistically significantly related to turnover intention.

The results of the multiple regression analysis with job satisfaction as dependent variable are given in Table 5. Biographical variables of age and gender were entered in the first step, role overload and social support (supervisors and colleagues) in the second, and the interaction terms in the third.

Table 5

Multiple Regression Analyses with Job Satisfaction as Dependent Variable

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
	B	SE	Beta						
1 (Constant)	366	1.35		2.72	0.01	7.37	0.27	0.07	0.06
Age	0.03	0.02	0.09	1.24	0.22				
Gender	2.14	0.62	0.24	3.44	0.00*				
2 (Constant)	2.20	1.46		1.51	0.13	14.17	0.55	0.31	0.29
Age	0.03	0.02	0.10	1.59	0.11				
Gender	1.48	0.55	0.17	2.69	0.01*				
Role Overload - Quantitative	-0.19	0.09	-0.20	-2.16	0.03*				
Role Overload - Qualitative	0.14	0.12	0.11	1.16	0.25				
Social Support from Supervisor	0.37	0.06	0.42	6.09	0.00*				
Social Support from Colleagues	0.05	0.07	0.05	0.77	0.44				
3 (Constant)	2.01	1.48		1.36	0.18	9.09	0.57	0.33	0.29
Age	0.03	0.02	0.09	1.51	0.13				
Gender	1.55	0.56	0.17	2.78	0.01*				
Role Overload - Quantitative	-0.17	0.09	-0.18	-1.90	0.06*				
Role Overload - Qualitative	0.12	0.12	0.09	1.02	0.31				
Social Support from Supervisor	0.38	0.06	0.43	6.14	0.00*				
Social Support from Colleagues	0.06	0.07	0.06	0.84	0.40				
Social Support from Supervisor x Role Overload - Qualitative	-0.04	0.04	-0.09	-0.87	0.39				
Social Support from Colleagues x Role Overload - Qualitative	-0.08	0.05	-0.16	-1.57	0.12				
Social Support from Supervisor x Role Overload - Quantitative	0.03	0.03	0.08	0.80	0.42				
Social Support from Colleagues x Role Overload - Quantitative	0.05	0.04	0.14	1.45	0.15				

**p*<0.05

Table 5 shows that gender predicted 7% of the variance in job satisfaction (Step 1). When role overload and social support variables were entered in Step 2, 31% of the variance in job satisfaction could be explained. Role overload (quantitative) and social support from supervisor were statistically significantly related to job satisfaction. Gender made a statistically significant contribution to the variance explained

throughout the analysis. Role overload (quantitative) and social support from supervisor remained significant after adding the interaction terms. However, none of the interaction terms were statistically significant.

DISCUSSION

The aim of the current study was to investigate the moderating effect of social support on the relation between role overload, job satisfaction and turnover intention. The results show that all the measuring instruments used in this study are reliable in terms of their use. Most of these measures have been taken over from the international literature, and their validation in the South African context presents a unique contribution.

Results indicate that when an employee feels that his/her work is more than he/she can accomplish in the time available (quantitative role overload), the employee will most probably also feel that his/her work requires skills, abilities and knowledge beyond that which he or she possess (qualitative role overload). According to Huber (1985), quantitative and qualitative overload are intimately related to goal setting. Individuals striving to achieve goals of high volumes of work are exposed to a high quantitative workload. By contrast, individuals assigned goals that focus on increased work complexity are operating under high qualitative workloads (Huber, 1985).

It is also indicated that social support from the supervisor increases the employee's positive attitude or pleasurable emotional state towards his/her job or job experience (job satisfaction), as well as heightens the probability of social support from colleagues. According to Limbert (2004), military personnel who have the highest perceptions of social support will obtain the highest scores on psychological well-being and job satisfaction. One ostensibly useful mechanism to increase job satisfaction, and for achieving desired attitudes and behaviours in employees, is a front-line supervisor with strong leadership and motivation skills (Baldwin, 1999). Support from within the work environment will impact employees' well being and reduce work related negative outcomes such as stress, mental health, and job dissatisfaction (Moyle, 1998). This research confirms those of previous researchers

(Ganster, Fusilier, & Mayes, 1986; Moyle, 1998) in pointing out supervisor support as more important than support from colleagues in dealing with role overload as a source of work stress. Ray and Miller (1994), in a study assessing the impact of intra-organisational support on burnout, found different sources of work-based support functioned in different ways to reduce burnout, with supervisor, but not colleague support, reducing burnout.

Furthermore, the higher the employee's positive attitude towards the job, the lower the intention to stop working for the organisation will be (turnover intention). Job satisfaction is probably the most frequently investigated predictor of turnover intention (Hom & Kinicki, 2001), and previous research has shown that job satisfaction is a predictor of turnover intention (Van Dick et al., 2004). The size of the correlation also indicates that these two variables are strongly related. The correlation between job satisfaction and turnover intention was the second largest, being succeeded only by the correlation between qualitative and quantitative role overload. The strong correlation between the latter two dimensions is logical, since it measures two aspects of a single construct. Turnover intention and job satisfaction are, however, strongly negatively correlated, indicating the opposition between the two constructs.

Turnover intention will also be lower when social support from the supervisor is higher and/or when the employee experiences less feelings that his/her work is more than he/she can accomplish in the time available. Eisenberger et al. (2002) report that supervisor support is negatively associated with turnover: that is, low levels of supervisor support are related to higher turnover intentions. Research by Eisenberger et al. (2002) on police officers found that supervisor support produced strong associations with job satisfaction and turnover intentions. In this research, colleagues' social support was directionally correctly associated with both job satisfaction (positively) and turnover intention (negatively), but these relationships were much weaker when compared to the same associations for supervisor support, and did not even reach statistical significance. The influence of supervisor support in the prediction of turnover intention and job satisfaction confirms the importance of this source of support, as has been described in other occupations.

Kirmeyer and Dougherty (1988) found in a study on the moderating effects of supervisor support confirmation for a pure buffering effect, in that a significant interaction between role overload and supervisor support was found. Kirmeyer and Dougherty (1988) suggested that supervisor support might benefit subordinates working in a potentially overloading environment in two ways. First, it could ameliorate the effects of role overload on emotional distress manifested as feelings of frustration, irritation, and tension. Second, supervisor support could encourage problem-focused coping by increasing the willingness of subordinates to take coping actions to reduce role overload (Kirmeyer & Dougherty, 1988).

In this study, 27% of turnover intention could be explained by the age of participants, the social support they received from their supervisor, and the moderating effect social support from the supervisor had on both qualitative and quantitative role overload. Recent research by Isaksson and Johansson (2003) found that age was clearly the predominating factor and that older employees were generally more inclined to leave the company (turnover intention) than younger colleagues. As noted above, supervisor support is negatively associated with turnover intention (Eisenberger et al., 2002), and this research confirms the value of supervisor support in predicting whether an employee will stay with, or leave, the organisation. The indication is that when supervisory support is unavailable, employees are more likely to consider leaving the organisation. The intention to leave the organisation due to role overload is also tempered if social support from the supervisor is available.

Role overload (quantitative), gender and social support from supervisor were statistically significantly related to job satisfaction. Research by Kirmeyer and Dougherty (1988) showed that a significant interaction between role overload and supervisor support was found in the absence of a main effect for social support. However, the moderating effect of social support in terms of job satisfaction was not supported, since none of the interaction terms held any statistically significant predictive value. In a recent study by Brough and Frame (2004) supervisor support produced strong associations with job satisfaction and turnover intentions. Current findings reinforce those of Brough and Frame (2004), particularly in relation to the direct prediction of job satisfaction.

RECOMMENDATIONS

With regard to the turnover intention of employees, it was found that social support from the supervisor served to directly reduce turnover intention, as well as interact with the experience of role overload to reduce turnover intention. In terms of job satisfaction, it was found that social support from the supervisor and the amount of work employees have to do contribute to the experience of job satisfaction. The organisation should guard against overloading their employees in terms of assigning more work to employees than they can complete in the specific time given. In addition, social support from the supervisor seems to be the most robust predictor of turnover intention and job satisfaction, and developing programmes to enhance supervisor support of employees could bear fruit in terms of enhancing the experience of job satisfaction and reducing employee turnover.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to provide an analysis and discussion of the literature and empirical results of the study. Conclusions are made with regard to the research objectives, which were identified for this study. The chapter answers the research questions put forth in the first chapter. The limitations of the current study will be pointed out. Finally, recommendations for the organisation and future research are made.

3.1 CONCLUSIONS

3.1.1 Conclusions from the literature

The following conclusions can be made in respect of the constructs of social support, role overload (qualitative and quantitative), job satisfaction and turnover intention.

Social support is conceptualised in the literature as resources available from others to assist the specific person in the management of stress experiences and to increase the experience of well-being. Most studies have indicated social support to have strong positive main effects on well-being. Alternatively, social support might be viewed in terms of subjective appraisals that focus on the quality of one's relationship (with family, work colleagues or managers), or on the degree to which important social needs (for example, for affiliation and intimacy) are being met, or to the degree to which one feels cared for and valued (Karasek, 1979). Social support includes the information that leads a person to believe that he or she is cared for, valued and is belonging to a network of communication and mutual obligation. The critical importance of social support at work lies in its potential for moderating or reducing the impact of the detrimental effects of organisational stressors on individual-level outcomes.

Role overload is conceptualised in the literature as a very common feature of the modern world of work. It represents the volume of demands that comprise an individual's role in the organisation and can be divided into a qualitative and quantitative dimension. Quantitative overload is described as more work than a person can accomplish in the time available, irrespective of the difficulty of the work involved (Beehr, Walsh & Taber, 1976). Qualitative overload occurs when the work requires skills, abilities and knowledge beyond that of the individual (Sverke, Hellgren & Ohrming, 1999). Quantitative and qualitative role overload are linked through the interplay of the employees' personal capacities and professional abilities on the one hand, and the conditions of their work on the other. The disadvantage of role overload is that it may result in a lower quality of performance (although increased productivity may exist), greater job dissatisfaction and feelings of personal failure that could increase turnover intentions.

Job satisfaction exists when the appraisal of one's job or job experience results in a pleasurable or positive emotional state. Job satisfaction can also be defined simply as a positive attitude that an employee has towards his/her job. Research on job satisfaction has shown clearly that more varied, complex and challenging tasks provide higher levels of worker gratification than less skilled, routine jobs. Research proved that the more skilled the vocation, the more its members enjoy their jobs (Katz & Kahn, 1978).

Turnover intention can be viewed as more than simply staying away from work for a day. It is conceptualized in literature as an intention by the employee to stop working somewhere in the future. One approach to turnover suggests that turnover is a rational decision, in that the employee has found better alternatives. The reasons why employees quit their jobs can be divided into two categories, namely repulsion and attraction (Beehr, 1995). Employees can be attracted to better alternatives, and that is a likely set of reasons for turnover (attraction). However, employees can also be driven out of the organisation by something unpleasant in the organisation itself (repulsion). Limited opportunities for career advancement may also increase an employee's turnover intention.

3.1.2 Conclusions from the empirical study

Conclusions are made in the following section in respect of the specific research objectives set in Chapter 1, and the empirical findings obtained in the present study.

- *To determine the reliability and validity of the measuring instruments of social support, role overload (qualitative and quantitative), job satisfaction and turnover intention for employees in the mining industry.*

The Cronbach alpha values obtained for the five measuring instruments (social support, role overload, job satisfaction and turnover intention) are all higher than 0,70, except for quantitative role overload. It can therefore be concluded that four of the five specific measuring instruments are all reliable in terms of their specific use for employees in a South African mining organisation. However, regarding the dimension of Quantitative Role Overload, some refinement might be necessary in order to improve the alpha value of this scale. It may be necessary to include additional items in this scale, or reword existing items to increase the inter-item correlation within this factor.

- *To determine the levels of, and relationship between, social support, role overload (qualitative and quantitative), job satisfaction and turnover intention of employees in the mining industry.*

The results indicate that when an employee feels that his/her work is more than he/she can accomplish in the time available (quantitative role overload), the employee will most probably also feel that his/her work requires skills, abilities and knowledge beyond that which they currently possess (qualitative role overload). It is also indicated that social support from the supervisor increases the employee's positive attitude or pleasurable emotional state towards his/her job or job experience (job satisfaction), as well as heightens the probability of social support from colleagues. Furthermore, the higher the employee's positive attitude towards the job, the lower the intention to stop working will be (turnover intention). This intention to stop working will also be lower when social support from the supervisor is higher and/or when the employee

experiences less feelings that his/her work is more than he/she can accomplish in the time available.

- *To study the main and interactive effects of the two sources of social support in the relationship between role overload (qualitative and quantitative), job satisfaction and turnover intention.*

The two sources of social support that were used in this study is social support from the supervisor and social support from colleagues. The results of this study indicate that social support from colleagues did not have a significant relationship with role overload (qualitative or quantitative), job satisfaction or turnover intention, and also held no predictive power with regard to job satisfaction or turnover intention. Social support from the supervisor, however, had a significant positive relationship with social support from colleagues and job satisfaction, while it also showed negative relationships to both dimensions of role overload and turnover intention. Social support from the supervisor also consistently predicted job satisfaction and turnover intention. It is thus clear that social support from the supervisor should act to increase feelings of job satisfaction and decrease turnover intention. This finding supports previous research (Brough & Frame, 2004) in pointing out that support from the supervisor may be more important than support from colleagues in managing the negative influence of job stress.

- *To make recommendations regarding training and development in stress-related intervention strategies for the organisation.*

The results imply that the organisation should see real benefits from improving employee-supervisor relationships. A key means for improving these relationships would appear to be in the skills of the supervisory personnel. The suggestion is that the developing of production supervisors' relationship and management skills may result in significantly improved employee satisfaction, attitudes and performance. Upper level management can improve the relationship skills of their supervisory teams by encouraging supervisor training and development in such areas as

relationship management, communication, reducing turnover intentions by proactive management, and improving overall job satisfaction.

The current findings are based on the employees' *perceptions* of supervisor support, and it is these perceptions that appear to have a significant impact on work attitudes and performance. In the light of this, supervisor training interventions should also include a focus on managing employee perceptions, since they have the potential to improve actual satisfaction, attitudes and overall performance (Gagnon & Michael, 2004).

3.2 LIMITATIONS

The following limitations must be considered to place these results in proper context. First, the data is cross-sectional and represents employee opinions and attitudes at one point of time. To help remedy the problems with cross-sectional data, a longitudinal evaluation of employee attitudes and opinions, coupled with an experimental design, may provide a better examination of perceived social support, especially from supervisors, on employee outcomes such as job satisfaction and turnover intention. The findings are also limited based on the nature of the sample (that is, only one organisation and the small number of women). As with all survey research, numerous sources of error and potential bias exist. Issues such as social desirability (employees inflating positive responses and diminishing negative responses) may also be present.

3.3 RECOMMENDATIONS

3.3.1 Recommendations for the Organisation

The organisation can guard against overloading their employees by assigning them more work than they can complete in the time allowed for it, as this can lead to increased turnover intention. This may also result in the employee experiencing increased feelings of not having the skills, abilities and knowledge required to perform the job. By facilitating adequate social support from the supervisors to the

employees, the organisation can help them be more satisfied in their present work environment. Adequate social support from the supervisors will also help to reduce turnover intention and could likely increase social support from colleagues.

3.3.2 Recommendations for future research

Future research should continue to examine additional ways in which social support plays a moderating role in the relation between role overload, job satisfaction and turnover intention. Also, further research on social support from supervisor on employees' role overload (quantitative and qualitative), as well as the impact age have on employee's turnover intention, should be considered. Furthermore, the impact of gender on job satisfaction should also be examined in future. Although gender was a significant predictor in the current sample, the under-representation of females made further investigation risky, if not meaningless. The nature of the sample is a very important consideration for future research. The use of different mining organisations, as well as the equal participation from men and women, should be considered. For the purpose of future studies, a longitudinal evaluation of employee attitudes and opinions coupled with an experimental design would provide a better examination of perceived social support on employee outcomes. An experimental design may also clarify the real effectiveness of improving relations between employees and supervisors, and the effect that enhanced social support from supervisors may have on employee outcomes such as job satisfaction and turnover intention.

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