

**RELATIONS OF INDICATORS OF WORK CLIMATE AND SATISFACTION TO
TURNOVER INTENTION IN THE CONTEXT OF SOCIAL SUPPORT**

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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.

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SUMMARY

Title: Relations of indicators of work climate and satisfaction to turnover intention in the context of social support

Key words: Job challenge demand, qualitative and quantitative role overload, role conflict, job satisfaction, pay satisfaction, turnover intention, social support from colleagues and supervisor, tertiary institution.

Tertiary institutions in South Africa have experienced radical changes in the past decades, especially due to the change from technikons to universities of technology. These changes created new mental and emotional demands for academic staff and placed them under additional pressure. Problems experienced by tertiary institutions include constantly changing systems, students from underprivileged backgrounds and decreased subsidies from the state. These factors could lead to role overload and role conflict. The objective of this research was to examine the relationships between individual indicators of work climate (job challenge demand, role overload and role conflict, job satisfaction and pay satisfaction and social support) and turnover intention. Further objectives included empirically determining if these indicators of work climate can be used to predict turnover intention and to determine if social support plays a moderating role in the translation of work climate in turnover intention.

A cross-sectional survey design was used. A convenience sample was taken from a South African university of technology. Measuring instruments for all the variables of interest were administered. Descriptive statistics were used to analyse the data. Finally, a structural equation model was developed to explain the relations between the variables.

The results obtained for the scales proved that four of the seven specific measuring instruments are reliable in terms of their specific use for employees in a South African tertiary institution. Job challenge demand, quantitative role overload and role conflict were less reliable. Results showed that when an employee feels that he/she has too much to do in too little time, or if the task is too difficult to complete, he/she will experience lower levels of job satisfaction which in turn may lead to higher levels of turnover intention. Social support from the supervisor and colleagues increase job satisfaction. A moderating effect for social

support between work climate (role characteristics and satisfaction) and turnover intention was demonstrated.

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

OPSOMMING

Titel: Verhoudings van aanduiders van werksklimaat en tevredenheid tot die intensie om te bedank in die konteks van sosiale ondersteuning

Sleutelwoorde: Werk uitdagings aanvraag, kwalitatiewe en kwantitatiewe rol oorlading, rol konflik, werkstevredenheid, betalings tevredenheid, intensie om te bedank, sosiale ondersteuning van kollegas en toesighouers, tertiêre instansie.

Tersiêre instansies in Suid-Afrika het in die afgelope dekades radikale veranderinge ondervind, veral met die omskakelings van teknikons na universiteite van tegnologie. Hierdie veranderinge het nuwe geestelike en emosionele eise vir akademiese personeel gestel en het hulle onder addisionele druk geplaas. Probleme is by tersiêre instansies ondervind, insluitende konstante veranderinge in stelsels, studente van agtergeblewe omstandighede en ontoereikende of krimpende subsidies van die staat. Hierdie faktore kan aanleiding gee tot roloorlading en rolkonflik. Die doelstelling van hierdie navorsing was om die verhouding tussen individuele aanduiders van die werkklimaat (werksuitdagings aanvraag, roloorlading en rolkonflik, werks-en betalingstevredenheid) en intensie om te bedank. Verdere doelwitte sluit in empiriese bepaling van hierdie aanduiders van werksklimaat en hoe dit gebruik kan word by die vooruitskatting van intensie om te bedank en die bepaling of sosiale ondersteuning 'n modererende effek het tussen werksklimaat en intensie om te bedank.

'n Dwarsdeursnee-ontwerp is gebruik. 'n Gemaklikheidssteekproef is geneem van 'n Suid-Afrikaanse universiteit van tegnologie. Meetinstrumente vir al die veranderlikes van belang is geadministreer. Beskrywende statistiek is gebruik om die data te analiseer. Laastens is 'n strukturele vergelykingsmodel ontwerp om die verhoudings tussen die veranderlikes te verduidelik

Die resultate verkry uit die skale het bewys dat vier van die sewe spesifieke meetinstrumente betroubaar is in terme van hulle spesifieke gebruik van werkers in 'n Suid Afrikaanse tertiêre instansie. Werksuitdagingsaanvraag, kwantitatiewe roloorlading en rolkonflik is minder betroubaar. Resultate het gewys dat indien 'n werknemer voel dat hy/sy werk meer is as wat hy/sy in die spesifieke tyd kan vermag (kwantitatiewe roloorlading), of as die taak te moeilik

is om te voltooi, sal hy/sy laer vlakke van werkstevredenheid ervaar, wat kan lei tot hoër intensie om te bedank. Sosiale ondersteuning van kollegas en toesighouers verhoog werktevredenheid.

'n Modererende effek vir sosiale ondersteuning tussen werksklimaat (rol karaktereenskappe en tevredenheid) en die intensie om te bedank is gedemonstreer.

Ter afsluiting word voorstelle vir toekomstige navorsing gemaak.

CHAPTER 1

1. INTRODUCTION

This dissertation reports on the study of the relations of indicators of work climate (job challenge demand, quantitative and qualitative role overload, role conflict) and job satisfaction to turnover intention in the context of social support. In this chapter, an introduction to the research study is given. The problem statement is briefly outlined and the constructs and reasons for the study will be discussed. Research objectives are given and the chapter is concluded by discussing the research method.

1.1 PROBLEM STATEMENT

1.1.1 Overview of the problem

South Africa has experienced radical changes in the past decades which had an enormous impact on tertiary institutions and their employees (Rothmann & Jordaan, 2006). Pienaar and Bester (2006) indicate that tertiary institutions go through constant change due to factors such as globalisation, new technology acceleration, the national macro-economy and political turbulences. The focus of work also shifted from manual demands to more mental and emotional demands (Rothmann, Mostert, & Strydom, 2006). These changes create new demands, which place the careers of academic staff and intellectual capital under enormous pressure (Pienaar & Bester, 2006).

The biggest challenge of globalisation is to attract and retain intellectual capital (Sutherland & Jordaan, 2004). Job challenges and demands are related to future career needs arising from career opportunities and are concerned with how much the work tasks encourage new knowledge and continuous learning (Chen, Chang, & Yeh, 2004). Employees will continually seek new job challenges from supervisors to gain professional knowledge, to secure more challenging work, and to earn and enjoy recognition from supervisors and co-workers due to this new knowledge (Chen et al.,

2004). Therefore, job challenges and demands promote superior performance in employees' roles, which in turn is hypothesised, leads to greater rewards and autonomy (Chen et al., 2004). Chen et al. (2004) also found that job challenges and demands increase job satisfaction and decrease turnover intention.

Rothmann and Jordaan (2006) focus on other factors that contribute to problems experienced in tertiary institutions, including distortions of the system, poorly prepared students from underprivileged socio-economic and academic backgrounds, and decreasing subsidies from the state. These factors could easily lead to role overload and role conflict in higher educational institutions, due to the lecturing environment which requires multiple roles from employees (Pienaar & Bester, 2006). Role demands could become stressful when they are excessive (role overload) or when role conflict is experienced (Koustelios, Theodorakis, & Goulimaris, 2004). These two constructs affect both individual and organisational outcomes, including job satisfaction (Koustelios et al., 2004).

Numerous studies conducted in the past few decades have indicated job satisfaction to be of importance to the physical and mental well-being of employees (Oshagbemi, 2000). Job and pay satisfaction are the two most important aspects in overall job satisfaction, although pay satisfaction is an often neglected area when it comes to research (Oshagbemi & Hickson, 2003). Oshagbemi (2000) explains that pay satisfaction occurs when existing pay corresponds or is greater than desired pay. In contrast, pay dissatisfaction happens when existing pay is less than an individual's desired pay.

In many studies, job satisfaction was established as a significant predictor of employee turnover intention (Poon, 2003). Thus, turnover is motivated when employees are not affected by some work environmental aspects (Bigliardi, Petroni, & Dormio, 2005). According to Osca, Urien, Gonzalez-Camino, Matinez-Perez, and Matinez-Perez (2005), employees who receive social support from the organisation value the organisation to a greater extent and tend to achieve the organisation's goals. Therefore, organisational

support creates positive work-related attitudes, which in turn lead to increased job satisfaction and decreased turnover intention.

This study is done in the environment of a tertiary institution of education, and specifically within a university of technology. This institution is forty-one years old and presently one of the largest residential universities of technology with about 17 000 students, including about 1200 foreign students. In 2004, huge restructuring was experienced when this institution changed from a technikon to a university of Technology. These changes took place in order for higher education institutions to keep up with global trends. A university of technology has the same basic responsibilities as a university, but places particular value in academic activities in the search for innovative applications of technology in all fields of human endeavour.

The hypotheses put forward here is that high job challenges and demands, coupled with high levels of role overload and conflict, could easily relate negatively to both job and/or pay dissatisfaction. An important variable in this relationship is social support, which may have a mediating effect for the translation of the mentioned variables into turnover intention. If all of these variables can be addressed within a research project the results could aid in decreasing turnover intention in a tertiary institution and in this way knowledgeable and talented people could be retained.

1.1.2 Literature review

Afolabi (2002) is of the opinion that organisational climate is a relatively permanent quality of an organisation's internal environment and that it distinguishes the organisation from other organisations. Work climate refers to the customs in which organisations establish routine behaviours and the actions that are expected, supported and rewarded. This climate includes the organisations norms, culture, equity, social processes, leadership styles and management practices. If the employees perceive the climate as conducive they will experience higher job satisfaction when working for the

organisation. In this study, organisational climate is indicated by individuals' experiences of job challenge demand, role overload and role conflict.

According to Pienaar and Bester, (2006) tertiary institutions' success, functioning and sustainability depends highly on how the careers of academic staff are successfully managed amidst all the demands and changes they are faced with. Therefore, higher education institutions depend on the intellectual capital and commitment of their employees.

Pienaar and Bester (2006) found that academic staff experience role overload and role conflict. It was shown that female academics experience higher levels of role overload and role conflict than male academics. A reasons for this could be the limited time woman academics have available for their own studies and research, lecturing and the family role they have to play. Elloy and Smith (2003) describe role overload as situations in which the demand exceeds the available resources. Quantitative role overload occurs when too many tasks need to be done in too little time (Beehr, Walsh, & Taber, 1976).

Studies on role conflict and role ambiguity as sources of low job satisfaction are numerous (Koustelios et al., 2004). Elloy et al. (2003) explain that role conflict occurs when an individual is confronted with conflicting demands within a single role or multiple roles. Role conflict occurs when two or more demands from different role senders (supervisors, peers, subordinates) are in conflict. These conflicting demands may come from the same person or more people. In these conflicts, time may be involved like when you are unable to perform one task and also have to perform another task at the same time. Competing legitimate requests where one might negate the other may be involved. For example, when one supervisor asks you to cancel the order, but the other supervisor tells you to ship the order (Caplan, Cobb, French, van Harrison, & Pinneau, 1975). Role conflict is also considered as a stressor and it can occur in a variety of ways. It could be due to conflicting messages, a demand for high quality work in a short time or divided loyalties between co-workers and the organisation (Guimaraes, 1995). Koustelios

et al. (2004) found that increased role conflict together with role ambiguity could act to decrease job satisfaction.

Guimaraes (1995) reported that previous research showed that role conflict is negatively associated with job satisfaction, and organisational commitment, but positively associated with intention to leave. When the work climate is seen as conducive, employees will experience job satisfaction. Thus, job satisfaction is the feelings and thoughts that arrive from actual work experience that lead to organisational commitment (Afolabi, 2002).

Though job satisfaction is a frequently studied variable, few studies have taken place in tertiary education institutions (Oshagbemi & Hichson, 2003). Locke (in Schwepker, 2001) described job satisfaction as the pleasurable emotional state caused by the appraisal of a person's job as achieving or facilitating the achievement of one's job values. Chen (2006) describes job satisfaction as an effective response to specific aspects of the job. According to Pienaar and Bester (2006), job satisfaction has a huge impact on productivity and it is therefore very important for any organisation. Graham and Messner (1998) and Guimaraes (1995) explain job satisfaction as an individual's affective response to appraisal of his/her work roles in his/her present work roles. According to Brayfield and Rothe (1951), job satisfaction can be inferred from the individual's attitude toward his work. Job satisfaction is therefore seen as an attitude eliciting an expression of feeling toward an object.

Schulze (2006) found in his study that job satisfaction had the highest correlation with physical working conditions and support. If academics experience job satisfaction, they will be inspired to create conducive learning environments.

Guimaraes (1995) indicated that job satisfaction is associated with positive attitudes towards the organisation and has a direct effect on turnover intention. Zeffane (1994) indicates that job satisfaction has been found to be negatively related to turnover in various studies. Chiu and Francesco (2002) found in their study that job satisfaction and

affective commitment act as mediating variables in the relationship of dispositional traits and turnover intention.

According to Bigliardi et al. (2005) job satisfaction should be monitored and different levers to increase job satisfaction should be sought. They suggest that co-worker support must be fostered as a method to increase job satisfaction. Another method to enhance job satisfaction is to provide supervisor support to encourage career development (Bigliardi et al., 2005). Schulze (2006) indicated that employees put a high value on job satisfaction. The role of the supervisor can contribute to this. A supervisor could change his supervisory style to increase employee job satisfaction.

According to Oshagbemi (2000), researchers have investigated a few aspects of job satisfaction. Pay satisfaction is one of the distinguishable aspects of general satisfaction, together with satisfaction with work itself, promotion, co-workers and supervisors. Oshagbemi (2000) indicates that in previous research, conflicting opinions on the meaning of pay satisfaction occurred but most research on pay satisfaction is centred around individual and organisational variables. Pay satisfaction occurs when existing pay corresponds, or is greater than desired pay (Oshagbemi, 2000). Schulze (2006) indicated that pay satisfaction was positively correlated with job satisfaction.

Social support may be the consequence of the way an individual copes with stress and may influence a person's choice of coping strategy. Social support increases the effectiveness of problem and emotion focused coping that depend on job demands (Pienaar & Bester, 2006). Shimazu, Shimzu, and Odara (2005) found that coping and supervisor support had independent and direct effects on psychological distress. Active coping and co-worker support had an interactive effect on psychological distress. Thus, there exists a negative relation between active coping and psychological distress. Supervisor support had a weaker impact on the relationship between active coping and psychological distress than co-worker support, with high levels of co-worker support leading to lower levels of psychological distress.

Oscar et al. (2005) indicate that the presence of co-worker and supervisor support have a positive influence on job satisfaction. Supervisor and co-worker support were the most relevant types of support apparently because these involve both objective and subjective group performance. They were also the best predictor of job satisfaction. These researchers suggested that social support to employees should be used as an inexpensive method to improve work performance, job satisfaction and involvement.

Jawahare and Hemmasi (2006) found that a lack of organisational support to employees and their development could have social consequences. Employees who experienced frustration due to inadequate opportunities experienced higher levels of turnover intention. The results of this study indicated that support to employees and their development could enhance their job satisfaction, decrease their turnover intention, and retain the intellectual climate (Jawahare & Hemmasi, 2006).

Zeffane (1994) is of opinion that employees' turnover intention is one of the most widely researched topics in organisational analyses. However, a lack of convergence among proposed models in previous research has led to confusion as to what causes turnover intention. The divergence between these models seems to hinder uniformity and generalisations. These include different factors such as external factors (the labour market); institutional factors (such as working conditions, pay and supervision); employee personal characteristics (intelligence, aptitude, sex, age, interests) and employee's reaction to his/her job (including aspects such as job satisfaction, job involvement and job expectations). Some researchers speculated that individual performance affects turnover. Others indicated that personal styles and work perceptions play a significant role in the relationship between performance and turnover (Zeffane, 1994).

Afolabi (2002) found that perceived organisational climate influence job satisfaction and turnover intention. When employees perceived their organisational climate as favourable, it increased their job satisfaction and decreased turnover intention. Chen (2006) indicates that turnover leads to high costs for the organisation. It was found that among various

aspects, job satisfaction and organisational commitment are good predictors of turnover intention.

The objective of this research is to investigate the relationship between specific work climate indicators (job challenge and demand, role overload, role conflict, and job -and pay satisfaction), turnover intentions and experienced social support (supervisor and co-worker support) for staff in a tertiary education institution. More specifically, a mediating effect for social support on the translation of the climate variables into turnover intention is hypothesised and will be investigated. Below, this hypothesis is presented graphically.

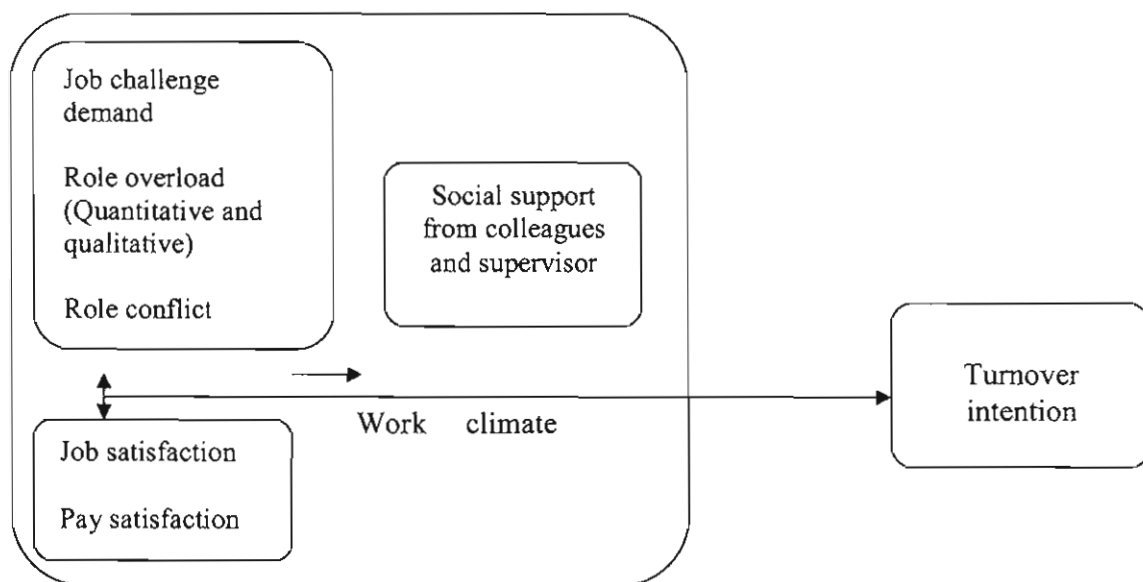


Figure 1: The hypothesised relationships between the variables

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

- How is work climate (job challenges and demands, role overload and conflict, job and pay satisfaction and social support) and turnover intention and the relationship between these constructs, conceptualised in the literature?

- How reliable are measuring instruments of job challenge demands, role overload, role conflict, job satisfaction, pay satisfaction, social support and turnover intention for employees in a tertiary institution?
- What are the relationships between individual indicators of work climate (job challenge demand, role overload and role conflict, job satisfaction and pay satisfaction and social support) and turnover intention?
- Can indicators of work climate be used to predict turnover intention?
- Does social support play a mediating role in the translation of work climate in turnover intentions?

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

1.2 RESEARCH OBJECTIVES

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

1.2.1 General objective

The general objective of this research is to study the relationships between indicators of work climate (job challenge demand, role overload and role conflict, job and pay satisfaction, social support at work) and turnover intention.

1.2.2 Specific objectives

The specific objectives of this research are:

- To conceptualise work climate (job challenge demand, role overload and role conflict, job satisfaction and pay satisfaction and social support) and turnover intention and the relationships between these constructs from literature.
- To determine the reliability of the measuring instruments of job challenge demands, role overload (quantitative and qualitative), role conflict, job satisfaction, pay

satisfaction, social support and turnover intention for employees in a tertiary institution.

- To examine the relationships between individual indicators of work climate (job challenge demand, role overload and role conflict, job satisfaction and pay satisfaction and social support) and turnover intention.
- To determine if work indicators of work climate can be used to predict turnover intention.
- To determine if social support plays a mediating role in the translation of work climate in turnover intention.

1.3 PARADIGM PERSPECTIVE OF THE RESEARCH

A certain paradigm perspective that includes the intellectual climate and the market of intellectual resources directs the research (Lundin, 1996; Mouton & Marais, 1992). The intellectual climate can be defined as “the variety of meta-theoretical values or beliefs which are held by those practicing within a discipline at any given stage” (Mouton & Marais, 1996, p. 20). The market of intellectual resources is defined as “the collection of beliefs which has a direct bearing upon the epistemic status of scientific statements” (Mouton & Marais, 1996, p. 21).

1.3.1 Intellectual climate

“The intellectual climate refers to sets of beliefs, values and assumptions, which because their origin can usually be traced to non-scientific contexts, and are not directly related to the theoretical goals of the practice of scientific research (Mouton & Mouton, 1996, p. 21).” These sets of beliefs usually display the qualities of postulates or assumptions. These beliefs are usually not testable, or not meant to be tested. Postulates or commitments underlying testable statements are constituted by these beliefs.

1.3.2 Discipline

This research falls within the boundaries of the behavioural sciences and more specifically industrial psychology. Industrial psychology is defined by Raubenheimer (1985, p. 44, in Muchinsky, Kriek, & Schreuder, 2003) as “the scientific study of people within their work environment which implies the scientific observation (investigation, research), evaluation (assessment, measurement, problem-identification), optimal utilisation (selection, placement, management) and influencing (changing, training, developing, motivating) of normal and, to a lesser degree, deviant behaviour in interaction with the environment (physical, psychological, social and organisational) as manifested in the world of work”. “Industrial psychology is a legitimate field of scientific inquiry with the cause of advancing knowledge about people at work as well as to apply the knowledge to solve problems in the work situation (Muchinsky et al., 2003, p. 2).”

Psychology is defined as the scientific study of thinking and behaviour (Muchinsky et al., 2003). Psychology consists of two main parts which are psychologists specialising in basic areas (such as experimental, social, developmental) and applied psychologists who are trained in clinical, counselling and industrial psychology.

Some of the sub-disciplines in industrial psychology are ergonomics (which is concerned with the understanding of human performance when using machinery), vocational and career counselling (concerned with people’s problems at work and choosing career paths), organisation development (with a focus to improve or change organisations), consumer behaviour (concerned with the way consumers make decisions to spend their resources), employment relations (behavioural dynamics and conflict in employment relationships) and cross-cultural industrial psychology (similarities and differences in individual psychological and social functioning in different cultures) (Muchinsky et al., 2003).

The sub-disciplines of industrial psychology that are focused on in this research are organisational psychology and personnel psychology. Organisational psychology can be

defined as the study of the effect of the organisation on the attitudes and behaviour of people working within the organisation. Organisations are social collectives and therefore concerned with social and group influences (Muchinsky et al., 2003). Personnel psychology is defined as an applied discipline that focuses on individual differences in terms of behaviour and occupational performance as well as the measures and methods to predict this performance (Muchinsky et al., 2003).

These two sub-disciplines are relevant to this study because the organisation exerts certain influences on the individual. The organisation has a certain work climate that influences the individual to experience the impact of job challenges and demands, role overload and role conflict. This could lead to job (dis)satisfaction and pay (dis)satisfaction which fall within the sub-discipline of personnel psychology. When the work climate (organisational psychology) is not satisfying for the individual it could lead to turnover intentions, which is an individual-level issue and therefore falls within the sub-discipline of personnel psychology. Social support falls within the sub-discipline of organisational psychology because it has to do with the pressures and influences from other individuals and groups (Muchinsky et al., 2003).

1.3.3 Meta-theoretical assumptions

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

1.3.3.1 Literature review

According to Meyer, Moore and Viljoen (2003), the humanist paradigm is a school of thought that emphasises the individuals' active participation in determining their own behaviour, their inherent inclination towards actualising their potential and their creative ability. The following basic assumptions are relevant in this regard:

- The individual plays a big role in his own conditions to grow and realise his potential.
- The psychologically healthy person should be the criterion in examining human functioning.
- Each individual should be studied as an integrated, unique, organised whole.
- People are influenced by their self-perceptions and the personal meanings attached to their experiences.
- Conscious choices, responses to internal needs, and current circumstances shape human behaviour.
- Individuals are not just products of their environments.
- An individual's behaviour is primarily determined by his perception of the world around him.
- Individuals are internally directed and motivated to fulfil their human potential.

This paradigm is relevant to this study because individuals should take responsibility for their own health and well-being. The root assumption of the humanistic framework is based on the individuals' active participation in determining their own behaviour, their inherent inclination towards actualising their potential and their creative ability. When the individual experiences feelings of an unsatisfying climate, which is characterised by low job challenge demand, role overload, role conflict as well as low levels of job and pay satisfaction, he/she may be internally motivated to take action. This could then lead to turnover intention. However, the whole process also takes place within the context of the social support an individual experiences from their colleagues and supervisor, and the presence of such support may moderate the translation of role overload, conflict and job challenge demand and job and pay satisfaction into turnover intention.

The humanistic paradigm originated in America during the late fifties of the twentieth century in reaction to psycho-analysis and even more so to behaviourism. It is often referred to as "third force psychology" (Meyer et al., 2003, p. 330). Abraham Maslow is considered the founder of this movement. All theories classified as humanistic are divergent, although all share certain basic assumptions about human nature that correspond with the principles of person-oriented theories.

The humanistic paradigm emphasizes the study of the whole person and human behaviour is perceived through the perspective of the person doing the behaviour. People are more than just the sum of their parts and therefore should be viewed holistically. Humanistic psychologists believe that a person's behaviour is linked to his feelings, emotions and self-image (Penny, Perlow, & Ruscitto, 1996). Penny et al. (1996) also states that the humanistic paradigm centres on the holistic development of an individual. The highest level of self-understanding and development is identified as self-actualisation, self-fulfilment and self-realisation.

People are social by nature and their interpersonal interactions are a part of their development. The way a person reacts to a situation is influenced by previous events. Future responses will be influenced by past and present experiences. A person seeks certain things for himself such as value or meaning in his life.

1.3.3.2 Empirical study

The functionalistic and positivistic paradigms are relevant to the empirical study. The functionalistic paradigm emphasizes the entire psychological relationship between the organism and its environment and it is concerned with the totality of relationships between body and mind. The functionalistic paradigm is a psychology of the fundamental utilities of consciousness (Lundin, 1996, p. 126). This paradigm is applicable to this research due to the researcher's objective stance towards the observed behaviour and the objective scientific methods and techniques used.

The positivistic paradigm emphasizes a theoretical and general scientific position that is concerned with the operation in data and language, and focuses on any method that produces positive knowledge. Thus, knowledge is only present when constructs are visible. Theoretical constructs are accepted but must be operationally defined (Lundin, 1996, p. 8). In this study, theories are operationally defined and positive knowledge is

collected through scientific data collection methods indicating reliable knowledge about the relevant constructs.

1.3.4 Market of intellectual resources

The market of intellectual resources refers to the collection of resources or beliefs that is directed to the epistemic status of scientific statements. Two main categories exist, namely theoretical beliefs and methodological beliefs (Mouton, 1998).

1.3.4.1 Theoretical beliefs

Theoretical beliefs can be described as beliefs where testable statements about social phenomena are made. It is regarded as assertions about the descriptive (what) and the interpretative (why) aspects of human behaviour. All statements which form part of hypotheses, typologies, interpretations, research findings, models and theories are included (Mouton et al., 1996:21; Mouton, 1998).

A. Conceptual definitions

The relevant conceptual definitions are given below:

Afolabi (2002) is of opinion that organisational climate is a relatively enduring quality of an organisation's internal environment and it distinguishes the organisation from other organisations. Work climate refers to the ways in which organisations establish routine behaviours and the actions that are expected, supported and rewarded.

According to James and Sells (in Hellgren, Sjöberg, & Sverke, 1997) job challenge demand is defined as the degree to which the job is perceived to provide opportunities for making use of skills and abilities. The work task encourages learning of new knowledge, and the nature of the work requires continuous learning.

Quantitative role overload is described as a job stressor which reflects the experience and feeling of having too much work to do in too little time (Beehr et al., 1976). Qualitative role overload is defined as the sense that the work is too difficult or too demanding in order for the individual to complete (Sverke, Hellgren, & Öhrming, 1999).

Role conflict is defined “in terms of the dimensions of congruency-incongruency or compatibility-incompatibility in the requirements of the role, where congruency or compatibility is judged relative to a set of standards or conditions which impinge upon role performance” (Rizzo, House & Lirtzman, 1970, p. 155).

According to Locke (in Hellgren et al., 1997) job satisfaction is a positive emotional state reflecting affective reactions to the perceived content and characteristics of specific facets of the job satisfaction.

Pay satisfaction is defined by Judge and Welbourne (1994) as the degree of a person’s satisfaction with his current salary.

Social support is defined by Caplan et al. (1975, p. 45) as “the extent to which people around the employees provide support by being good listeners or by being people he can rely on when help is needed”.

Hellgren et al. (1997) describe turnover intention as the propensity to withdraw from the job and the employee’s intentions to leave the present position.

B. Models and theories

A model is defined as a copy, replica or analogy that differs from the real thing in some way. The aim of models is not to include all features of the system being modelled, but only those necessary for research purposes (De Vos, Strydom, Fouche, & Delpont, 2005).

A theory is defined by Kerlinger (in De Vos et al., 2005, p. 36) as “a set of interrelated concepts, definitions, and propositions that present a systematic view of phenomena by specifying relations between variables, with the purpose of examining and predicting the phenomena”.

According to Moore (in Meyer, Moore, & Viljoen, 2003) Carl Rogers’ personality theory is based on three central assumptions. These are that the individual has constructive potential; the nature of the individual is goal-directed and that the individual is capable of changing. Rogers focused on the importance of people’s subjective experience of themselves (the self concept) and its influence on personality. The person is seen as the central figure in the actualisation of his/her own potential, where the environment plays a facilitating or inhibiting role. Potential is actualised or realised in an atmosphere in which the person is unconditionally accepted for what he/she is and feels free to develop without external restrictions.

Rogers’ theory is relevant to this study because of his statement that a fully functioning person can experience moments of happiness, enjoyment and satisfaction. Fully functioning people can choose exactly what they want. When a person experiences role overload and role conflict, the person will realise that it has a negative impact on his/her self-actualisation and it will lead to low job satisfaction. The person will either leave the situation (turnover) or accept it.

Another scientist in the humanistic paradigm whose theory is relevant to this study is George Kelly (1905-1967). According to Meyer et al. (2003), the main assumptions of this theory were that it focused on human functioning and not on human nature. Kelly

believed that people function like scientists. They ask questions, formulate hypotheses, test them, draw conclusions and amend the hypotheses in order to predict future events more accurately.

This theory is relevant to this study because people ask questions like: “Is my pay high enough?” or “Am I satisfied with my pay?”. They formulate hypotheses like: “When the work climate is acceptable I will experience higher satisfaction,” and “when social support is high and supervisors attend to my needs my job satisfaction will be high”.

The third scientist whose theory is relevant to this study is Victor Frankl (1905-1998). According to Shantall (in Meyer et al., 2003), Frankl’s theory highlighted that humans have the freedom to be able to exercise responsibility. Individuals are constantly faced with choices and they have the freedom to choose. Self-transcendence is a human capacity and it circles around the idea that we have the freedom to rise above conditions in being able to think and to do something about it. We can change our environment, just as we can change ourselves.

This theory can be used to explain that when individuals experience low job satisfaction and low pay satisfaction it could lead to high turnover intention. When employees are not satisfied with their work environment they have the choice to leave the work situation or to stay in the situation, but this choice requires responsibility.

1.3.4.2 Methodological beliefs

“Methodological beliefs can be defined as all the methods, techniques and approaches that are utilised in the research process (Mouton, 1998, p. 57).” Methodological beliefs are concerned with the nature of social science and scientific research (Mouton et al., 1996). It includes various types of traditions in the social science philosophy and the most important methodological models (quantitative and qualitative models).

The empirical study is presented within the functionalistic and positivistic frameworks/paradigms. “The root assumption of the functionalistic framework is that functionalistic psychology is the study of mental operations as opposed to elements (Lundin, 1996, p. 125).” “The root assumption of the positivistic framework is that knowledge is only relevant when it can be observed” (Lundin, 1996, p. 8).

1.4 RESEARCH METHOD

This research, pertaining to the specific objectives, consists of two phases, namely a literature review and an empirical study.

1.4.1 Phase 1: Literature review

In phase 1 a complete review regarding job challenge demand, quantitative and qualitative role overload, role conflict, job satisfaction, pay satisfaction, turnover intention and social support is done. The sources that will be consulted include:

- Internet
- Emerald
- EBSCO Host
- Science direct
- Repertory of South African and International journals
- Books

1.4.2 Phase 2: Empirical study

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

1.4.2.1 Research Design

The aim of the research design is to enable the researcher to anticipate what the appropriate research decisions should be so as to maximise the validity of the eventual results (Mouton, 1998). According to Mouton and Marais (1996, p. 193) “a research design is a plan of how the researcher decides to execute the formulated research problem”.

According to Mouton (1998), descriptive or factual knowledge includes data, facts, empirical generalisations, narratives and stories and it provides truthful descriptions of phenomena in the world. Explorative research is described as the exploration of a relatively new and unknown research area. Explorative studies aim to achieve new insight into the phenomenon; to take an initial investigation before a more structured study of the phenomenon; to explain the central concepts and constructs; to determine priorities for future research and to develop new hypotheses about an existing phenomenon (Mouton & Marais, 1996).

Both descriptive and explorative research is relevant to this research. Reasons for this is that facts, data and empirical generalisations which give truthful descriptions of the phenomena are used and new insight is gained into the phenomena. Central concepts and constructs are explained, priorities for future research are determined and new hypotheses about an existing phenomenon are developed.

The specific design that will be used is a cross-sectional research design. This design is used to investigate units of a given phenomenon at a specific point in time (Mouton & Marias, 1996). A cross-sectional survey design will be the most suited to study the problem of turnover intention in a cost-effective manner, because data can only be collected once. When supervisors are aware of the way in which social support can reduce turnover intention, they could be coached to increase their social support. This could lead to increased satisfaction and decreased turnover intention.

1.4.2.2 Participants

This study will be done using staff members of a tertiary education institution. Two hundred and eight questionnaires will be distributed to the staff members of a university of technology during the data collection phase. The entire organisations' staff will be included ($n=208$). Staff members who wish to participate should complete the questionnaire and return it to the researchers. This should result in a convenience sample of participants.

This type of sample will be the most appropriate because a cross-sectional research design is used and the total sample of elements are selected and measured. In this study, the elements measuring job challenge demand, role conflict and overload, job and pay satisfaction and turnover intention will be measured and used.

1.4.2.3 Measuring Battery

These constructs will be measured with the following instruments, developed by the following authors.

The first construct is *Job challenge demand* and it is measured by an instrument developed by Hellgren et al. (1997). The scale consists of three items which capture the sense that new learning and knowledge is encouraged and the nature of work requires continuous training. An example item is "I am learning new things all the time in my job". The scale consists of response alternatives ranging from 1 (disagree) to 5 (agree). A high score indicates a more challenging job. Reliability, as indicated by Chronbach's Coefficient alpha, was 0,81 (Hellgren et al., 1997).

The second construct is *role overload (quantitative)*. The scale consists of three items developed by Beehr et al. (1976) and measures the feeling of having too much to do in too little time. Response alternatives range from 1 (disagree) to 5 (agree) where a high score indicates a heavier workload. "I often have too much to do in my job" is a typical

item. Glaser, Tatum, Nebeker, Sorenson and Aiello (1999) found a Cronbach alpha of 0,82 in their study.

Role overload (qualitative) was measured by four items which was taken from the instrument developed by Sverke et al. (1999) and measure the sense that the work is too difficult or demanding. The response alternatives ranged from 1 (disagree) to 5 (agree). A high score represents more difficult or demanding tasks. An example of an item used in this questionnaire is: "My work contains elements that are too demanding". In a recent study by Glaser et al. (1999) the variables yielded a Cronbach alpha value of 0,82.

The instrument used to measure *role conflict* was a scale which was modified and adapted from the scale developed by Rizzo et al. (1970). This original questionnaire consisted of 30 items, 15 dealing with role ambiguity (even numbers) and 15 with role conflict (odd numbers). An item example is "I work under incompatible policies and guidelines". The adapted instrument consists of four items capturing a conflict between, employees' perception of how the work should be done and how supervisors or others tell them to do it. The responses range from 1 (disagree), to 5 (agree) where a high score indicates more role conflict.

Job satisfaction was measured by a three item scale which was developed by Hellgren et al. (1997). This scale is based on Brayfield and Rothe (1951). The response range is from 1 (disagree) to 5 (agree), where a high score reflects satisfaction with the job. An item example is "I am satisfied with my job". This instrument measures overall job satisfaction (Coefficient alpha was 0,86).

Pay satisfaction is measured by a scale which consists of five items constructed by Judge and Welbourne (1994). This scale measures the degree of satisfaction with the current salary. Response alternatives range from 1 (disagree) to 5 (agree). A high score reflects satisfaction with the level of pay.

Turnover intention was measured by a scale consisting of three items which was developed by Sjöberg and Sverke (2000). This scale measures the strength of the respondent's intentions to leave the present work situation. The response alternatives range from 1 (disagree) to 5 (agree). A high score indicates a strong intention to leave the work situation. The items were taken from different propensity-to-leave scales. Examples of items are "I am actively looking for other jobs", "I feel that I could leave this job", "If I was completely free to choose I would leave this job". The scale was modified so that all questions were transformed into statements. Estimated cronbach alpha was 0,83.

Social support was measured by 6 items, which are based on Caplan et al. (1975). These factors are based on the source of the support (co-worker support and supervisor support). The response alternatives range from 1 (disagree) to 5 (agree). A high score on the scales reflects the sense that support is available. Items focus on the extent to which people surrounding the employee provide support, who are good listeners and provide help. Examples of items are: "I usually receive help from my colleague(s) when something needs to be done quickly." "I can receive support from those who are close to me when it comes to problems at work". The estimate of reliabilities for the specific subscales ranged from 0,73 to 0,83.

1.4.2.4 Statistical Analysis

The SPSS program (SPSS, 2007) will be used to carry out the statistical analysis. Cronbach alpha coefficients (α) will be used in order to determine the reliability of the measuring instruments, while descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) will be used to analyse the data. The Pearson product moment correlation coefficient, and the Spearman correlation coefficient, in cases where the distribution of scores are skew, will be determined to indicate the extent to which one variable is related to another. Effect sizes will be used in order to determine the practical significance of relationships between variables. The level of statistical significance is set at $p = 0,05$.

Structural equation modelling (SEM) methods as implemented by AMOS (AMOS, 2007) will be used to test the structural model, using the maximum likelihood method. SEM is a statistical methodology that takes a confirmatory (i.e. hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). Numerous aspects of SEM set it apart from the older generation of multivariate procedures (Byrne, 2001). In the first place, it takes a confirmatory in stead of an exploratory approach to data analysis. It also demands that the pattern of inter-variable relations is specified a priori. SEM lends itself well to the analysis of data for inferential purposes. Secondly, although traditional multivariate procedures are unable of either assessing or correcting for measurement error, SEM provides precise estimates of these error variance parameters. Thirdly, SEM procedures can incorporate both unobserved (latent) and observed variables.

Hypothesised relationships are tested empirically for goodness of fit with the sample data. The χ^2 -statistic and several other goodness-of-fit indices summarise the degree of correspondence between the implied and observed covariance matrices. Jöreskog and Sörbom (1993) suggest that the χ^2 -value may be considered more appropriately as a badness-of-fit rather than a goodness-of-fit measure in the sense that a small χ^2 -value is indicative of good fit. However, because the χ^2 -statistic equals $(N - 1)F_{\min}$, this value tends to be substantial when the model does not hold and the sample size is large (Byrne, 2001). A large χ^2 relative to the degrees of freedom indicates a need to modify the model to fit the data better. Researchers have addressed the χ^2 limitations by developing goodness-of-fit indexes that take a more pragmatic approach to the evaluation process. One of the first fit statistics to address this problem was the χ^2 /degrees of freedom ratio (Wheaton, Muthén, Alwin, & Summers, 1977). These criteria commonly referred to as "subjective" or "practical" indexes of fit, are typically used as adjuncts to the χ^2 statistic.

The Goodness of Fit Index (GFI) indicates the relative amount of the variances/covariances in the sample predicted by the estimates of the population. It usually varies between 0 and 1 and a result of 0,90 or above indicates a good model fit. In addition, the Adjusted Goodness-of-Fit Index (AGFI) is given. The AGFI is a measure of the relative

amount of variance accounted for by the model, corrected for the degrees of freedom in the model relative to the number of variables. The GFI and AGFI can be classified as absolute indexes of fit because they basically compare the hypothesised model with no model at all (Hu & Bentler, 1995). Although both indexes range from zero to 1,00, the distribution of the AGFI is unknown, therefore no statistical test or critical value is available (Jöreskog & Sörborn, 1986). The parsimony goodness-of-fit index (PGFI) addresses the issue of parsimony in SEM (Mulaik et al., 1989). The PGFI takes into account the complexity (i.e., number of estimated parameters) of the hypothesised model in the assessment of overall model fit and provides a more realistic evaluation of the hypothesised model. Mulaik et al. (1989) suggested that indices in the 0,90's accompanied by PGFIs in the 0,50's are not unexpected, however, values > 0,80 are considered to be more appropriate (Byrne, 2001).

The Normed Fit Index (NFI) will be used to assess global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index is normed to fall on a 0 to 1 continuum. Marsh, Balla and Hau (1996) indicate that this index is relatively insensitive to sample sizes. The Comparative Fit Index (CFI) represents the class of incremental fit indices in that it is derived from the comparison of a restricted model (i.e. one in which structure is imposed on the data) with that of an independence (or null) model (i.e., one in which all correlations among variables are zero) in the determination of goodness-of-fit. The Tucker-Lewis Index (TLI; Tucker & Lewis, 1973) is a relative measure of covariation explained by the model that is specifically developed to assess factor models. For these fit indices (NFI, CFI and TLI), it is more or less generally accepted that a value of less than 0,90 indicates that the fit of the model can be improved (Hoyle, 1995), although a revised cut-off value close to 0,95 has been advised (Hu & Bentler, 1999).

In order to overcome the problem of the sample size, Browne and Cudeck (1993) recommended the use of the Root Mean Square Error of Approximation (RMSEA) and the 90% confidence interval of the RMSEA. The RMSEA estimates the overall amount of error; it is a function of the fitting function value relative to the degrees of freedom.

The RMSEA point estimate should be 0,05 or less and the upper limit of the confidence interval should not exceed 0,08. Hu and Bentler (1999) suggested a value of 0,06 to be indicative of good fit between the hypothesised model and the observed data. MacCallum, Browne, and Sugawara, (1996) elaborated on these cut-off points and noted that RMSEA values ranging from 0,08 to 0,10 indicate mediocre fit, and those greater than 0,10 indicate poor fit.

1.5 CHAPTER DIVISION

The chapters in this mini-dissertation are presented as follows:

Chapter 1: Research proposal and problem statement.

Chapter 2: Research article.

Chapter 3: Conclusions, limitations and recommendations.

1.6 CHAPTER SUMMARY

In this chapter an introduction to the research study was given. The problem statement briefly outlined the constructs and reasons for the study. Research objectives were given and the chapter was concluded by discussing the research method.

The next chapter deals mainly with the statistical analysis of the empirical results of this study, after which the results are discussed. The chapter concludes with a discussion of the results, noting of limitations and suggested recommendations.

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CHAPTER 2

ARTICLE 1

RELATIONS OF INDICATORS OF WORK CLIMATE AND SATISFACTION TO TURNOVER INTENTION IN THE CONTEXT OF SOCIAL SUPPORT

Z. Ermel

ABSTRACT

The primary objectives of this research was to study the relationship between indicators of work climate (job challenge demand, role overload and role conflict, job and pay satisfaction), social support at work, and turnover intention of employees ($n=208$) in a tertiary education institution. A cross-sectional survey design was used. A convenience sample was taken from a South African University of Technology ($n=208$). Results indicate that when an employee feels that he has too much to do in too little time available (quantitative role overload), and when his work is too difficult (qualitative role overload), his job satisfaction will decrease which in turn could lead to higher levels of turnover intention. It is also indicated that social support has a mediating effect and when social support (supervisor and colleague support) increases, job satisfaction increases and turnover intention decreases. Recommendations for the organisation and future research are made.

OPSOMMING

Die primêre doelstellings van hierdie navorsing was om ondersoek in te stel na die verhouding tussen indikators van werksklimaat (werksuitdagingsaanvraag, roloerlading en rolkonflik, werks-en betalingstevredenheid), sosial ondersteuning by die werk, en werkers se voorneme om te bedank ($n=208$) in 'n tersiêre instansie. 'n Dwarsdeursnee-ontwerp is gebruik. 'n Beskikbaarheids steekproef is geneem van 'n Suid-Afrikaanse Universiteit van Tegnologie ($n=208$). Die resultate het getoon dat indien 'n werknemer voel dat sy/haar werk meer is as wat hy/sy in die gegewe tyd kan vermag (kwantitatiewe roloerlading), en wanneer sy/haar werk te moeilik is (kwalitatiewe roloerlading), sal sy/haar werktevredenheid verlaag en sy/haar voorneme om te bedank toeneem. Daar word ook aangedui dat sosiale ondersteuning (werkgewer en kollega ondersteuning) 'n bemiddelende effek het, en wanneer sosiale ondersteuning verhoog, verhoog werkstevredenheid en verlaag die vlakke van

voorneme om te bedank. Voorstelle vir die organisasie en toekomstige navorsing is
gemaak.

Higher education institutions play a fundamental role in achieving social equity and promoting higher levels of economic and social development (Pienaar & Bester, 2006). Rothmann and Jordaan (2006) indicate that South Africa's higher education system went through huge changes during the past twenty years. These enormous and constant changes and turbulence are due to factors such as globalisation, new technology, and national macro-economic and fiscal policies and circumstances (Pienaar & Bester, 2006). Other factors that contributed to these changes are the inequities and distortions of education systems, often resulting in students who are not on standard, coming from poorly economic and academic contexts, as well as a decline in state subsidisation of education (Rothmann & Jordaan, 2006). These changes may have implications for employees in terms of work experience and psychological health.

According to Afolabi (2002), organisational climate is a relatively permanent quality of an organisation's internal environment that distinguishes the organisation from other organisations. Work climate refers to the customs in which organisations establish routine behaviours and the actions that are expected, supported and rewarded. This climate includes organisational norms, culture, equity, social processes, leadership styles and management practices. If employees perceive this climate as conducive, it is expected that they should experience higher job satisfaction. When employees experience the organisational climate as unfavourable, it could lead to a lack of job involvement and commitment, which in turn could lead to turnover intention. In this study, organisational climate is indicated by individual's experience of job challenge demands, which is the sense that the work tasks encourage learning of new knowledge, and that the nature of work requires continuous training as defined by Hellgren, Sjöberg and Sverke (1997), role overload and conflict, and the effect of job satisfaction.

Rothman and Jordaan (2006) found that job demands are relatively correlated with resources. Job demands include factors like high work pressure and emotionally demanding tasks, which in turn may hinder the mobilisation of job resources like social support. Such resources may reduce the negative effects of job demands. For the purpose of this research, job challenge demands refers to the demands placed on individuals to continually develop their own competence in order to meet the requirements of the job.

Elloy and Smith (2003) describe role overload as the feeling that multiple demands are exceeding resources, such as when one does not have enough time to complete a set of tasks. This is also referred to as quantitative role overload (Beehr, Walsh, & Taber, 1976). Qualitative role overload occurs when some elements of the work task are too difficult or demanding (Sverke et al., 1999).

According to Koustelios et al. (2004), numerous studies exist on role conflict as component of work climate and as cause of low satisfaction. Role conflict refers to a situation where an individual is confronted with conflicting demands within a single role or multiple roles (Elloy & Smith, 2003). Thus, role conflict occurs when two or more demands are in conflict. These conflicting demands may come from either the same person or different people at work, such as supervisors, colleagues and subordinates. These conflicts may be due to a time factor when one is expected to perform one task at the same time as another task is required to be done. Competing legitimate requests may be involved where one might negate the other. For example, when one supervisor asks you to cancel the order, but the other supervisor tells you to ship the order (Caplan et al., 1975). Role conflict is considered as a stressor and it can occur because of conflicting messages, a demand for high quality work in a limited time or divided loyalties between colleagues and the organisation (Guimareas, 1995).

When role conflict is measured, the interaction between the existence of conflicting expectations and how much those conflicts are appraised as threatening that are mostly associated with the outcomes of stress (Sieggell, 1999). Lui, Ngo and Tsang (2001) are of opinion that role conflict includes feelings of internal emotional distress which people will attempt to resolve or reduce. According to Koustelios et al. (2004), increased role conflict together with role ambiguity could decrease job satisfaction. Rogers, Clow and Kash (1994) found in their study that role conflict has a direct impact on job tension which in turn impacts on job satisfaction. When role conflict is reduced, the tension will be reduced and this will increase job satisfaction. Therefore, a negative relationship is found between role conflict and job satisfaction (Lui et al., 2001).

Locke (in Schwepker, 2001) described job satisfaction as the pleasurable emotional state caused by the appraisal of a person's job as achieving or facilitating the achievement of his job values.

Chen (2006) describes job satisfaction as an affective response to specific aspects of the job. According to Pienaar and Bester (2006), job satisfaction has a huge impact on productivity and it is therefore very important for any organisation. Satisfaction is an affective response to specific aspects of the job and it reflects the positive-emotional state that was the result of appraisals of the individual's job (Guimaraes, 1995). According to Brayfield and Rothe (1951), job satisfaction could be inferred from the individual's attitude toward his work. Job satisfaction is therefore seen as an attitude eliciting an expression of feeling toward an object. Though job satisfaction is a frequently studied variable, few studies have taken place in tertiary education institutions (Oshagbemi & Hickson, 2003).

Afolabi (2002) describes job satisfaction as the feelings and thoughts that individuals derive from actual work experiences that lead to organisational commitment. When the work climate is seen as conducive, employees will experience job satisfaction. Guimaraes (1995) reported that previous research showed that role conflict is negatively associated with job satisfaction and organisational commitment, but positively associated with intention to leave. According to Reed, Kratchman and Strawser (1994) job satisfaction is entangled with the employee's perception of whether the organisational climate and important job attributes are favourable. Guimaraes (1995) indicated that job satisfaction is associated with positive attitudes towards the organisation and has a direct effect on turnover intention. Zeffane (1994) indicates that job satisfaction has been found to be negatively related to turnover in various studies.

According to Oshagbemi (2000), researchers have investigated a few aspects of job satisfaction. Pay satisfaction is one of the distinguishable aspects of general satisfaction, together with satisfaction with work itself, promotion, colleagues and supervisors. Pay satisfaction occurs when existing pay corresponds to, or is greater than, desired pay (Oshagbemi, 2000). Oshagbemi (1995) found that out of eight aspects of job satisfaction, pay and promotion were the main sources of low job satisfaction. Schulze (2006) indicated that pay satisfaction was positively correlated with job satisfaction. When employees compare themselves to other who are doing the same job they judge whether they are treated fairly in terms of pay. When the salary is lower than those of others in similar jobs, they become dissatisfied and their intention to leave becomes higher (Afolabi, 2002).

Zeffane (1994) is of opinion that employees' turnover intention is one of the most widely researched topics in organisational analyses. However, a lack of convergence among proposed models in previous research has led to confusion as to what causes turnover intention. The divergence between these models seems to hinder uniformity and generalisations. These included different factors such as external factors (the labour market); institutional factors (such as working conditions, pay and supervision); employee personal characteristics (intelligence, aptitude, gender, age, interests) and the employee's reaction to his/her job (including aspects such as job satisfaction, job involvement and job expectations). Some researchers have also speculated that individual performance affects turnover, while others indicated that personal styles and work perceptions play a significant role in the relation between performance and turnover (Zeffane, 1994). According to Pitt and Ramasehan (1995), turnover has been attributed to dissatisfaction with some aspects of the job, like dissatisfaction with pay. In a study done by Siegell (1999), role conflict was not associated with turnover intention.

Turnover is a huge problem for most organisations because it is extremely costly for the employer, especially in jobs which offer higher education and on-the-job training (Van Dick et al., 2004). Job satisfaction is a very powerful work-related attitude and is probably the most frequently investigated predictor of turnover (Van Dick et al., 2004). Afolabi (2002) found that perceived organisational climate influences job satisfaction and turnover intention. When employees perceived their organisational climate as favourable, it increased their job satisfaction and decreased their turnover intention. Chen (2006) indicates that turnover leads to high costs for the organisation. It was found in this study that among various aspects, job satisfaction and organisational commitment are good predictors of turnover intention.

Social support as mediator

Social support has an influence on the way an individual copes with stress and this has an effect on a person's choice of coping strategy. According to Pienaar and Bester (2006), social support increases the effectiveness of problem and emotion focused coping, depending on job demands. According to Shimazu, Shimzu and Odara (2005), coping and supervisor support have independent and direct effects on psychological distress, and active coping together with co-worker support have an interactive effect on psychological distress. Co-worker support had a greater impact on the relationship between active coping and psychological distress than supervisor support. Thus, high levels of co-worker support led to lower levels of psychological distress.

Bigliardi et al. (2005) have suggested that supervisor and co-worker support must be fostered as a method to increase job satisfaction, while Schulze (2006) indicated that supervisory style could contribute to the experience of employee job satisfaction. Osca et al. (2005) indicate also that the presence of co-worker and supervisor support have a positive influence on job satisfaction. These researchers suggested that social support to employees should be used as an inexpensive method to improve work performance, job satisfaction and involvement.

Although some contradictions exist, social support seems to play an important role in predicting turnover intention. It was found that social support from supervisors reduced burnout levels and through this turnover intention (Firth, Mellor, Moore, & Loquet, 2003). Some studies have been unsuccessful in finding a mediating effect for social support in the relationship between job stressors and turnover intention. It was also found that peer social support was associated with higher job satisfaction. On the negative side, turnover intention has also been associated with the presence of social undermining by colleagues (Firth et al., 2004). According to Love and Edwards (2005), positive social support from colleagues and supervisors has been identified as a moderator of stress.

Jawahare and Hemmasi (2006) found that a lack of organisational support to employees and their development could have social consequences. Employees who experienced frustration due to

inadequate opportunities experienced higher levels of turnover intention. Their results indicated that support to employees and their development could enhance their job satisfaction, decrease their turnover intention, and retain the intellectual climate (Jawahare & Hemmasi, 2006).

According to Pienaar and Bester, (2006) tertiary institutions' success, functioning and sustainability depends highly on how the careers of staff are successfully managed amidst all the demands and changes they are faced with. Therefore, higher education institutions depend on the intellectual capital and commitment of their employees. Pienaar and Bester (2006) further found that academic staff experience high role overload and role conflict.

The objective of this research was to investigate the relationship between specific work climate indicators (job challenge demand, role overload, role conflict, job satisfaction and pay satisfaction), turnover intentions and experienced social support (supervisor and co-worker support) for staff in a tertiary education institution. More specifically, a mediating effect for social support on the translation of the climate variables into turnover intention is hypothesised and will be investigated.

Research hypotheses related to the present study are formulated as follows:

- H01: There exists a practically significant positive relationship between work climate (as indicated by high job challenge demand, high role overload and high role conflict) and turnover intention.
- H02: There exists a practically significant negative relationship between work climate (job satisfaction, pay satisfaction and social support) and turnover intention.
- H03: Individual indicators of work climate (job challenge demand, role overload and role conflict, job satisfaction and pay satisfaction and social support) predict turnover intention.
- H04: Social support plays a mediating role in the translation of work climate in turnover intention.

METHOD

Research design

According to Kerlinger and Lee (2000) the research design's purpose is to control variance. The design is a strategy to answer the central research problem. A cross-sectional survey design is used to investigate units of a given phenomenon at a specific point in time (Mouton & Marias 1996). A cross-sectional survey design will be the most suited to study the problem of turnover intention in a cost-effective manner, because data can only be collected once. A quantitative, descriptive design is used to attain the research objectives. All the employees of the institution researched were invited to take part in the research and the data that were returned were used.

Participants

A convenience sample was taken from a South African University of Technology. Five hundred employees were targeted, of which 208 returned useable questionnaires. The population includes workers from different cultural groups, gender, employment status and qualifications. Characteristics of the study population are reported in Table 1.

Table 1

Characteristics of the Participants

| Item | Category | Frequency | Percentage |
|---------------------|---|-----------|------------|
| Gender | Female | 139 | 66,80 |
| | Male | 64 | 30,80 |
| Parental status | No children | 115 | 55,30 |
| | Children | 92 | 44,20 |
| Household situation | Single (Living alone) | 38 | 18,30 |
| | Married or living with a partner | 135 | 64,90 |
| | Living with parents | 16 | 7,70 |
| | Divorced or separated | 10 | 4,80 |
| | Remarried | 6 | 2,90 |
| | | | |
| Education level | Grade 10 (Standard 8) | 6 | 2,90 |
| | Grade 11 (Standard 9) | 4 | 1,90 |
| | Grade 12 (Matric) | 24 | 11,50 |
| | Technical College Diploma | 19 | 9,10 |
| | Technikon Diploma | 47 | 22,60 |
| | University degree (BA, BComm, Bsc, Honours) | 53 | 25,50 |
| | Postgraduate degree (Masters or Doctorate) | 54 | 26,00 |
| Language | Afrikaans | 89 | 42,80 |
| | English | 24 | 11,50 |
| | Sepedi | 3 | 1,40 |
| | Sesotho | 37 | 17,80 |
| | Setswana | 16 | 7,70 |
| | isiSwati | 1 | 0,50 |
| | Tshivenda | 7 | 3,40 |
| | isiNdebele | 13 | 6,30 |
| | isiXhosa | 11 | 5,30 |
| | isiZulu | 3 | 1,40 |
| | isiTsonga | 3 | 1,40 |
| | | | |
| Employment status | Permanent | 151 | 72,60 |
| | Substitute position | 6 | 2,90 |
| | Employed by the hour | 7 | 3,40 |
| | Employed for a project | 4 | 1,90 |
| | Trainee | 6 | 2,90 |
| | Other | 30 | 14,40 |
| | | | |
| Full-time/Part-time | Full-time | 169 | 81,30 |
| | Part-time | 32 | 15,40 |
| Union member | Yes | 142 | 68,30 |
| | No | 66 | 31,70 |

The sample consisted mostly of females (66,80%). Males made up 30,80% of the sample. The sample consisted of 81,30% participants that were full-time employees, while 15,40% were employed part-time. The majority of the employees (42,80%) were Afrikaans speaking and 11,50% were English speaking. The indigenous languages of Sepedi, Sesotho, Setswana, Tshivenda, isiNdebele, isiXhosa, isiZulu and isiTsonga represent 45,20% of the sample. Most of the participants (94,70%) have at least completed high school or tertiary studies. The majority of participants were union members (68,30%). A large amount of participants (64,90%) are married or live with a partner. More than half of the participants (55,30%) indicated that they do not have children younger than 12 living with them. The average age of the participants is 40 years and the average amount of years participants have been working for the organisation is 9,90 years.

Measuring Instruments

The first construct is *Job challenge demand* and is measured by an instrument developed by Hellgren et al. (1997). The scale consists of three items which captures the sense that new learning and knowledge is encouraged and the nature of work requires continuous training. An example item is "I am learning new things all the time in my job". The scale consists of response alternatives ranging from 1 (disagree) to 5 (agree). A high score indicates a more challenging job. Reliability, as indicated by Chronbach's coefficient alpha, was 0,81 (Hellgren et al., 1997).

The second construct is *Role overload (quantitative)*. The scale consists of three items developed by Beehr et al. (1976) and measures the feeling of having too much to do in too little time. Response alternatives range from 1 (disagree) to 5 (agree) where a high score indicates a heavier workload. "I often have too much to do in my job" is a typical item. Glaser et al. (1999) found a Cronbach alpha of 0,82 in their study.

Role overload (qualitative) was measured by four items which were taken from the instrument developed by Sverke et al. (1999) and measures 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. An example of an item used in this questionnaire

is: “My work contains elements that are too demanding”. In a recent study by Glaser et al. (1999), the variable yielded a Cronbach alpha value of 0,82.

The instrument used to measure *Role conflict* was a scale which was modified and adapted from the scale developed by Rizzo et al. (1970). This original questionnaire consisted of 30 items, 15 dealing with role ambiguity (even numbers) and 15 with role conflict (odd numbers). An item example is “I work under incompatible policies and guidelines”. The adapted instrument consists of four items capturing conflict between employees’ perception of how the work should be done and how supervisors or others tell them to do it. The responses range from 1 (disagree), to 5 (agree), with a high score indicating more role conflict. Alpha coefficient reliability for this scale was 0,88 (Elloy & Smith, 2003).

Job satisfaction was measured by a three item scale which was developed by Hellgren et al. (1997). This scale is based on Brayfield and Rothe (1951). The response range is from 1 (disagree) to 5 (agree), where a high score reflects satisfaction with the job. An item example is “I am satisfied with my job”. This instrument measures overall job satisfaction (Coefficient alpha = 0,86).

Pay satisfaction was measured by a scale which consists out of five items constructed by Judge and Welbourne (1994). This scale measures the degree of satisfaction with the current salary. Response alternatives range from 1 (disagree) to 5 (agree). A high score reflects satisfaction with the level of pay. Research results on this questionnaire indicated that the dimensions were reliable as well as generalisable.

Turnover intention was measured by a scale consisting of three items which was developed by Sjöberg and Sverke (2000). This scale measures the strength of the respondent’s intention to leave the present work situation. The response alternatives range from 1 (disagree) to 5 (agree). A high score indicates a strong intention to leave the work situation. The items were taken from different propensity to leave scales. Examples of items are “I am actively looking for other jobs”, “I feel that I could leave this job”, “If I was completely free to choose I would leave this job”.

The scale was modified so that all questions were transformed into statements. Estimated cronbach alpha was 0,83 (Sjöberg & Sverke, 2000).

Social support was measured by 6 items, which are based on Caplan et al. (1975). These factors are based on the source of the support (co-worker and supervisor support). The response alternatives range from 1 (disagree) to 5 (agree). A high score on the scales reflects the sense that support is available. Items focus on the extent to which people surrounding the employee are good listeners and provide help and support. Examples of items are: "I usually receive help from my colleague(s) when something needs to be done quickly." "I can receive support from those who are close to me when it comes to problems at work". The estimate of reliabilities for the specific subscales ranged from 0,73 to 0,83.

Statistical Analysis

The SPSS program (SPSS, 2007) was used to carry out the statistical analysis. Cronbach alpha coefficients (α) were used in order to determine the reliability of the measuring instruments, while descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) were used to analyse the data. The Pearson product moment correlation coefficient, and the Spearman correlation coefficient, in cases where the distribution of scores is skew, were used to indicate the extent to which one variable is related to another. Effect sizes were used in order to determine the practical significance of relationships between variables. The level of statistical significance was set at $p \leq 0,05$. Structural equation modelling (SEM) methods as implemented by AMOS (AMOS, 2007) were used to test the structural model, using the maximum likelihood method. SEM is a statistical methodology that takes a confirmatory (i.e. hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). Numerous aspects of SEM set it apart from the older generation of multivariate procedures (Byrne, 2001). In the first place, it takes a confirmatory instead of an exploratory approach to data analysis. It also demands that the pattern of inter-variable relations is specified a priori. SEM lends itself well to the analysis of data for inferential purposes. Secondly, although traditional multivariate procedures are unable of either assessing or correcting for measurement

error, SEM provides precise estimates of these error variance parameters. Thirdly, SEM procedures can incorporate both unobserved (latent) and observed variables.

Hypothesised relationships are tested empirically for goodness of fit with the sample data. The χ^2 -statistic and several other goodness-of-fit indices summarise the degree of correspondence between the implied and observed covariance matrices. Jöreskog and Sörbom (1993) suggest that the χ^2 -value may be considered more appropriately as a badness-of-fit rather than as a goodness-of-fit measure in the sense that a small χ^2 -value is indicative of good fit. However, because the χ^2 -statistic equals $(N - 1)F_{\min}$, this value tends to be substantial when the model does not hold and the sample size is large (Byrne, 2001). A large χ^2 relative to the degrees of freedom indicates a need to modify the model to fit the data better. Researchers have addressed the χ^2 limitations by developing goodness-of-fit indexes that take a more pragmatic approach to the evaluation process. One of the first fit statistics to address this problem was the χ^2 /degrees of freedom ratio (Wheaton, Muthén, Alwin, & Summers, 1977). These criteria commonly referred to as "subjective" or "practical" indexes of fit, are typically used as adjuncts to the χ^2 statistic.

The Goodness of Fit Index (GFI) indicates the relative amount of the variance/co-variance in the sample predicted by the estimates of the population. It usually varies between 0 and 1 and a result of 0,90 or above indicates a good model fit. In addition, the Adjusted Goodness-of-Fit Index (AGFI) is given. The AGFI is a measure of the relative amount of variance accounted for by the model, corrected for the degrees of freedom in the model relative to the number of variables. The GFI and AGFI can be classified as absolute indexes of fit because they basically compare the hypothesised model with no model at all (Hu & Bentler, 1995). Although both indexes range from zero to 1,00, the distribution of the AGFI is unknown, therefore no statistical test or critical value is available (Jöreskog & Sörbom, 1986). The parsimony goodness-of-fit index (PGFI) addresses the issue of parsimony in SEM (Mulaik et al., 1989). The PGFI takes into account the complexity (i.e., number of estimated parameters) of the hypothesised model in the assessment of overall model fit and provides a more realistic evaluation of the hypothesised model. Mulaik et al. (1989) suggested that indices in the 0,90's accompanied by PGFIs in the 0,50's are not unexpected, however, values $> 0,80$ are considered to be more appropriate (Byrne, 2001).

The Normed Fit Index (NFI) will be used to assess global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index is normed to fall on a 0 to 1 continuum. Marsh, Balla and Hau (1996) indicate that this index is relatively insensitive to sample sizes. The Comparative Fit Index (CFI) represents the class of incremental fit indices in that it is derived from the comparison of a restricted model (i.e., one in which structure is imposed on the data) with that of an independence (or null) model (i.e., one in which all correlations among variables are zero) in the determination of goodness-of-fit. The Tucker-Lewis Index (TLI; Tucker & Lewis, 1973) is a relative measure of covariation explained by the model that is specifically developed to assess factor models. For these fit indices (NFI, CFI and TLI), it is more or less generally accepted that a value of less than 0,90 indicates that the fit of the model can be improved (Hoyle, 1995), although a revised cut-off value close to 0,95 has been advised (Hu & Bentler, 1999).

In order to overcome the problem of the sample size, Browne and Cudeck (1993) recommended the use of the Root Mean Square Error of Approximation (RMSEA) and the 90% confidence interval of the RMSEA. The RMSEA estimates the overall amount of error; it is a function of the fitting function value relative to the degrees of freedom. The RMSEA point estimate should be 0,05 or less and the upper limit of the confidence interval should not exceed 0,08. Hu and Bentler (1999) suggested a value of 0,06 to be indicative of good fit between the hypothesised model and the observed data. MacCallum, Browne, and Sugawara, (1996) elaborated on these cut-off points and noted that RMSEA values ranging from 0,08 to 0,10 indicate mediocre fit, and those greater than 0,10 indicate poor fit.

RESULTS

Table 2 reports the descriptive statistics and reliabilities of the different variables.

Table 2

Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments

| Item | Mean | SD | Skewness | Kurtosis | α |
|--------------------------------|-------|------|----------|----------|----------|
| Job challenge demand | 11,17 | 2,45 | -0,55 | 0,11 | 0,44 |
| Role overload (quantitative) | 9,83 | 2,79 | -0,24 | -0,45 | 0,62 |
| Role overload (qualitative) | 10,87 | 3,62 | 0,12 | -0,57 | 0,71 |
| Role conflict | 13,69 | 4,14 | 0,12 | -0,39 | 0,62 |
| Job satisfaction | 10,31 | 3,06 | -0,47 | -0,18 | 0,82 |
| Pay satisfaction | 12,15 | 5,47 | 0,41 | -0,69 | 0,90 |
| Social support from colleagues | 10,81 | 2,78 | -0,36 | -0,27 | 0,83 |
| Social support from supervisor | 9,82 | 3,65 | -0,39 | -0,79 | 0,93 |
| Turnover intention | 8,75 | 3,47 | 0,05 | -0,94 | 0,77 |

Inspection of Table 2 shows that acceptable Cronbach alpha coefficients were obtained for all the scales except Job challenge demand ($\alpha=0,44$), Role overload (Quantitative) and Conflict, with Cronbach alphas of 0,62. Since job challenge demand presented with insufficient reliability, it was not included in further analysis. Although reliabilities for Quantitative Role Overload and Conflict were also not ideal, they were retained, given that little or no previous South African research with these scales exist. All the other alpha coefficients were higher than the recommended guideline of $\alpha \geq 0,70$ (Nunnally & Bernstein, 1994). The scores on all the questionnaires are normally distributed as indicated by skewness and kurtosis between the -1 and +1 range.

Table 3 gives the correlation coefficients between the variables. Pearson product-moment correlation coefficients were used to specify the relationship between variables.

Table 3

Correlation Coefficients between the variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------------------|--------|--------|--------|----------|--------|--------|--------|
| 1. Role Overload (Quantitative) | | | | | | | |
| 2. Role Overload (Qualitative) | 0,45** | | | | | | |
| 3. Role Conflict | 0,36** | 0,52* | | | | | |
| 4. Job Satisfaction | -0,16* | -0,29* | -0,22* | | | | |
| 5. Pay Satisfaction | -0,11 | -0,13 | -0,12 | 0,41** | | | |
| 6. Turnover Intention | 0,21* | 0,31** | 0,24* | -0,55*** | -0,26* | | |
| 7. Social support from Colleagues | -0,06 | -0,4 | -0,14* | 0,28* | 0,05 | -0,11 | |
| 8. Social support from Supervisor | -0,10 | -0,14* | -0,28* | 0,40* | 0,22* | -0,24* | 0,36** |

* Correlation is significant at the 0,01 level

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

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

As can be seen in Table 3, Quantitative role overload correlated positively and practically significant (with medium effect) with Qualitative role overload and Role conflict, and statistically significantly and negatively with Job satisfaction. A positive statistically significant correlation exists between Quantitative role overload and Turnover intention. Qualitative role overload was positively and practically significantly correlated with Role conflict (large effect) and Turnover intention (medium effect). Qualitative role overload also showed a negative statistically significant correlation with Job satisfaction and Social support from supervisor. There exists a negative statistically significant correlation between Role conflict and Job satisfaction, and Social support from supervisor, and a statistically significant positive correlation with Turnover intention. Job satisfaction was positively and practically significantly (with medium effect) related to both Pay satisfaction and Social support from supervisor. A negative practically significant (with large effect) correlation is evidenced between Job satisfaction and Turnover intention, and a positive statistically significant correlation between Job satisfaction and Social support from colleagues. Statistically significant correlations exist between Pay satisfaction and Turnover intention (negative), and Pay satisfaction and Social support from supervisor (positive). Turnover intention was negatively and statistically significantly correlated to Social support from supervisor, and there exists a positive practically

significant (with medium effect) correlation between Social support from colleagues and Social support from supervisor.

As a final step in the analyses, the structural model was tested. Since Job challenge demand presented with insufficient reliability, it was not included in further analysis. Although the indicators of Quantitative role overload and Role conflict also presented with less than ideal reliabilities, they are however retained for the structural model. Next, the hypothesised model for work climate, social support and turnover intention was tested using structural equation modelling. The model is presented in Figure 1.

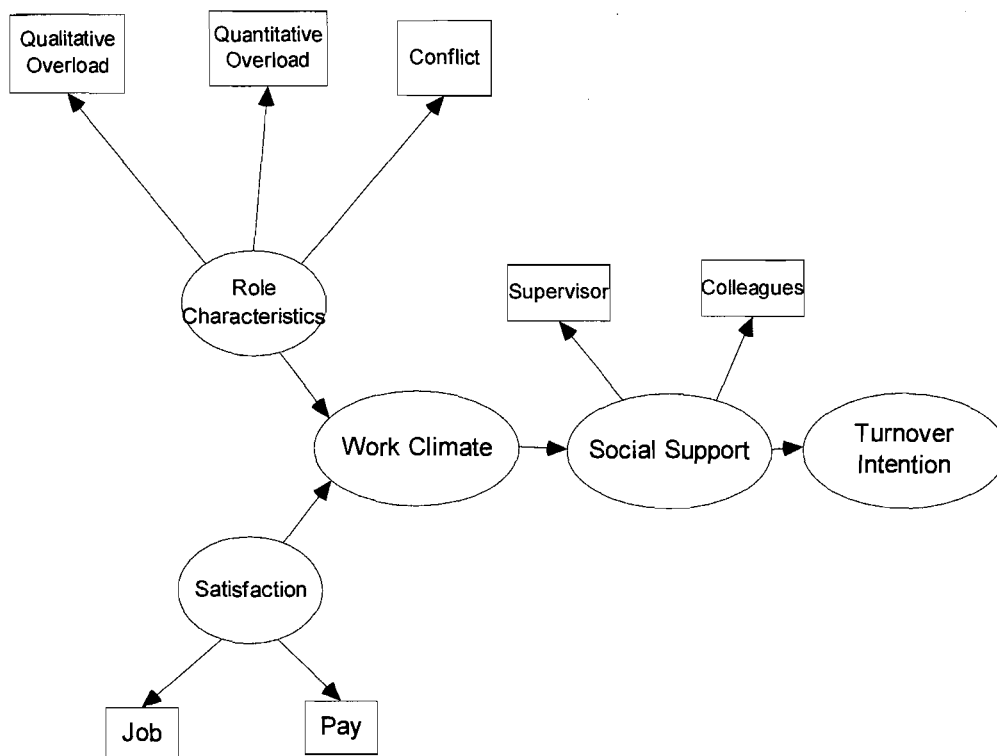


Figure 1. Hypothesised relationships between the variables.

Next, the results for model-fit are presented in Table 4.

Table 4

Goodness-of-fit Statistics for the Hypothesised Turnover Model

| Model | χ^2 | χ^2/df | GFI | AGFI | PGFI | NFI | TLI | CFI | RMSEA |
|--------------------|----------|-------------|------|------|------|------|------|------|-------|
| Hypothesized model | 164,00 | 4,82 | 0,85 | 0,76 | 0,53 | 0,70 | 0,66 | 0,74 | 0,00 |
| Covariance allowed | 138,24 | 4,19 | 0,88 | 0,81 | 0,53 | 0,75 | 0,72 | 0,79 | 0,00 |

Table 4 shows that the hypothesized turnover model showed reasonable fit to the data. A large χ^2 -value however translates into a χ^2/df value that is larger than the recommended value of 2,00. The GFI is close to the recommended value of 0,90. The AGFI value is close to 0,80 and the PGFI value is above 0,50, which is to be expected (Mulaik et al., 1989). The NFI, TLI and CFI values are well below the recommended value of 0,90, and the RMSEA value is smaller than 0,05. However, in order to improve fit further, the modification indices were considered, and covariance between Role characteristics and Satisfaction was suggested. This relationship also holds based on the correlations, where a statistically significant relationship is indicated between Role overload and Conflict on the one hand, and Job satisfaction on the other. This covariance was allowed, and the improved fit statistics are reported in Table 4. Although the χ^2 -value is still high, the GFI, AGFI, PGFI, NFI, TLI and CFI all indicate improved fit. Although fit is still not the best it could be, no further modification indices were suggested. Also, the difference in χ^2 and degrees of freedom proved to be statistically significant at the 95% level of significance (c.f. Tabachnick & Fidell, 2001). The final model is reported below.

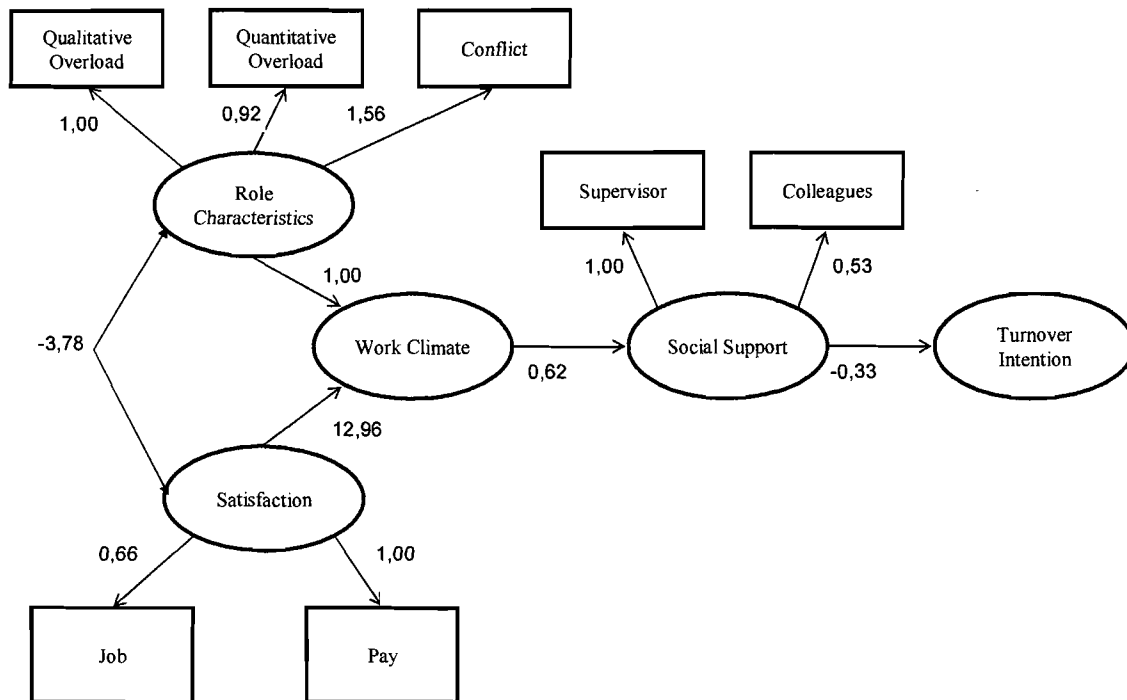


Figure 2. The final turnover model

The relationships of Role overload to Role characteristics are significant, and the figure also shows that role conflict has the strongest relationship to role characteristics. Job and pay satisfaction contribute significantly to general satisfaction. Role characteristics and satisfaction are strongly negatively related. Social support consisted out of supervisor support and support from colleagues. The model shows that work climate is positively related to social support, while social support relates negatively to turnover intention. The significant negative relationship of social support to turnover intention indicates a mediating effect for social support between work climate and turnover intention, since work climate does not directly contribute to turnover intention. From this model can be deduced that employees' turnover intention because of work climate is influenced by the amount of social support they experience.

DISCUSSION

The aim of this research was to examine the relationships between indicators of work climate (job challenge demand, role overload and role conflict, job and pay satisfaction), social support at work, and turnover intention. The results showed that the measuring instruments used in this study are reliable in terms of their use, except the scales measuring job challenge demand as well as role overload and role conflict.. The job challenge demand construct comes from the work of Hellgren et al. (1997). Although the construct certainly presents with some merit in adding to our understanding of work climate, it failed to present with ample reliability in the current sample and was subsequently left out from further analyses. Most of these measures have been taken from the international literature, and their validation in the South African context presents original results and a unique contribution of this study.

It was seen that the measures of quantitative and qualitative role overload and role conflict were strongly and positively related. This makes sense, since when an employee feels that his/her work is more than he/she can accomplish in a given time (quantitative role overload), he/she may very likely feel that he/she does not have the required skills and knowledge to complete the task (qualitative role overload), and additionally could experience conflicting demands (role conflict). It was also seen that the role characteristics (overload and conflict) related strongly and negatively to job satisfaction. This result substantiates previous research in showing role demands to detract from job satisfaction (Pienaar & Bester, 2006). Quantitative and qualitative role overload and role conflict related positively to turnover intention, which implies that employees who feel that they do not have enough time to finish tasks, or that tasks are too difficult to accomplish, are also more likely to think about leaving the organisation.

Qualitative role overload related negatively to job satisfaction and social support from supervisor, which means that when an employee feels that the task is too difficult to complete, he/she may experience lower job satisfaction. Additionally, when the employee experiences high levels of social support from his/her supervisor, his/her qualitative role overload may decrease. Role conflict also related negatively to job satisfaction and social support from the supervisor, which can be interpreted as meaning that when an employee is confronted with conflicting

demands within a single or multiple role, his/her job satisfaction may decrease. In turn, when the employee experiences high levels of social support from his/her supervisor, his/her feelings of role conflict could decrease, since the supervisor holds a position from which priorities for roles may be delineated. Role conflict also related positively to turnover intention, which means that if an employee experiences conflicting demands within a single or multiple roles, his/her intention to leave the organisation could increase.

Job satisfaction related positively to pay satisfaction and the social support received from the supervisor and colleagues. This finding indicates that when an employee experiences high levels of job satisfaction, he is likely to also experience satisfaction with his/her level of remuneration. An employee is also likely to experience high levels of job satisfaction when the amount of social support received from supervisor and colleagues is high. Job and pay satisfaction was negatively related to turnover intention, which also confirms the previously established negative relation of satisfaction with turnover intention (Oshagbemi, 2000; Zeffane, 1994).

Turnover intention was negatively related to social support received from the supervisor. Thus, when employees feel that they receive adequate social support from their supervisor, their intention to leave the organisation will be lower compared to those individuals who do not experience adequate support. The more social support the employee experience from his/her supervisor, the less his/her intention to leave the organisation will be.

Based on the results of the structural equation model, satisfaction and role characteristics were strongly and negatively related, which substantiates previous research findings (Koustelios et al., 2004). Social support had a mediating effect between work climate (as evidenced by role characteristics and satisfaction) and turnover intention. From this can be taken that employees' turnover intention, because of work climate, is influenced by the amount of perceived work-based social support. Social support has previously been indicated to be a moderator of turnover intentions (Firth et al., 2003; Love & Edwards, 2005), and the current results underline these previous findings. It could thus be argued that high levels of social support will decrease levels of turnover intention. The structural equation model did, however, present with less than perfect

fit. Reasons for this could be that this model did not include all the variables of work climate, or it could be that there are more important variables which were not measured in this study.

RECOMMENDATIONS

It was found that social support related negatively to turnover intention and the negative experience of work climate, which included role overload (qualitative and quantitative) and role conflict. Social support from supervisors contributed to higher levels of job satisfaction and high levels of role overload and role conflict lead to lower levels of job satisfaction. Thus, when this tertiary education institution wants to increase employees' job satisfaction, role overload and role conflict must be constructively managed in order to be minimised. Employees must be given enough time to complete difficult tasks, or easier tasks when less time is available. Social support from supervisors is a predictor of job satisfaction and turnover intention. The importance of this source of support must be emphasised and enhanced in order to enhance job satisfaction and reduce turnover intentions of employees.

The job challenge scale might be measured with more items in future South African research to improve its reliability and enhance our understanding of role characteristics. Also, since the scale is a relatively new addition to the literature, future studies should include sufficient representation of different South African language groups to investigate whether this construct carries the same meaning across language groups (construct equivalence).

LIMITATIONS

The following limitations must be considered to place these results in proper context. This data is cross-sectional and it represents employees' opinions, attitudes and feelings at one point in time. In order to overcome this problem, a longitudinal evaluation of employee attitudes, opinions and feelings may provide a better examination of perceived social support on employee outcomes such as job satisfaction and turnover intention. Social desirability (employees presenting themselves in a falsely positive or negative light) may also be present. The questionnaire was distributed to all the campuses of the specific University of Technology which are situated in

four different regions. It could be that the organisational climate across campuses differs. The questionnaire which was used is based on international scales which might not have been suitable for a South African context, especially considering also that the questionnaire was only in English. The questionnaire was very long and this could have had an impact on employee's concentration levels.

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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 chapter 1. The limitations of the current study will be pointed out. Finally, recommendations for the organisation and further research are made.

3.1 CONCLUSIONS

3.1.1 Conclusions regarding the specific theoretical objectives

The following conclusions can be made in respect of the constructs of indicators of work climate (job challenge demand, role overload and role conflict, job and pay satisfaction), social support at work, and turnover intention.

Job challenge demand is conceptualised in the literature as the resources available and the degree to which the individual has the opportunity to use his/her skills, knowledge and abilities. It is an indication of how much the work task encourages learning of new knowledge, and the nature of the work requiring continuous learning (Hellgren, Sjöberg, & Sverke, 1997). It was found in previous research that job challenge demand and challenging work increased job satisfaction and decreased turnover intention (Chen, Chang, & Yeh, (2004).

Role overload is conceptualised in the literature as the volume or demands that comprise an individual's role in the organisation. Role overload is divided into qualitative and quantitative dimensions. Quantitative role overload is described as a job stressor reflecting the experience and feeling of having too much work to do in too little time (Beehr, Welsh & Taber, 1976). Qualitative role overload occurs when there is a sense that the work is too difficult or too demanding for the individual to complete (Sverke, Hellgren, & Öhrming, 1999).

Quantitative and qualitative role overload is influenced by the individual's capacities, skills and abilities, and the working conditions. Role overload could lead to poor quality performance and lower job satisfaction (Rogers, Clow & Kash, 1994; Koustelios et al., 2004) which in turn could increase turnover intention (Afolabi, 2002; Chen, 2006).

Role conflict occurs when an individual is confronted with conflicting demands within a single role or multiple roles. These conflicting demands may come from the same person or more people (Elloy & Smith, 2003). Role conflict is considered as a stressor and it can occur in a variety of ways such as conflicting messages, a demand for high quality work in a short time or divided loyalties between co-workers and the organisation (Guimaraes, 1995). It was reported in previous research that role conflict is negatively associated with job satisfaction, and organisational commitment, but positively associated with the intention to leave (Afolabi, 2002).

Job satisfaction is described by Hellgren et al. (1997) as a positive emotional state which reflects affective reactions to the perceived content and characteristics of specific facets of job satisfaction. Job satisfaction can also be defined as a positive attitude that an employee has towards his/her job, and towards the organisation, which has a direct effect on turnover intention. It was found in various studies that a negative relationship is found between job satisfaction and turnover intention (Zeffane, 1994).

Pay satisfaction is defined by Judge and Wellbourne (1994) as the degree of a person's satisfaction with his/her current salary. Pay satisfaction occurs when existing pay corresponds to, or is greater than, the desired pay. Previous research indicated conflicting opinions on the meaning of pay satisfaction but most research on pay satisfaction is centered on individual and organisational variables. Pay satisfaction correlates positively with job satisfaction (Schulze, 2006).

Social support is conceptualised in the literature as the amount of support an employee experiences by people around him being good listeners, or by being there for the employee when help is needed (Caplan, Cobb, French, Van Harrison, & Pinneau, 1975). It was found in previous research (Shimazu, Shimzu, & Odarm, 2005) that coping and supervisor support had

independent and direct effects on psychological distress and active coping and co-worker support had an interactive effect on psychological distress.

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 of the measuring instruments of job challenge demands, role overload (quantitative and qualitative), role conflict, job satisfaction, pay satisfaction, social support and turnover intention for employees in a tertiary institution.*

The Cronbach alpha values obtained for all the scales (job satisfaction, pay satisfaction, social support and turnover intention) are all higher than 0,70, except for job challenge demand, quantitative role overload and role conflict. It can therefore be concluded that four of the seven specific measuring instruments are reliable in terms of their specific use for employees in a South African tertiary institution. However, regarding the dimension of quantitative role overload and role conflict, and especially job challenge demand, some refinement might be necessary in order to improve the alpha values of these scales. It may be necessary to include extra items in this scale, or rephrase existing items to increase the inter-item correlation within this factor.

- *To examine the relationships between individual indicators of work climate (job challenge demand, role overload and role conflict, job satisfaction and pay satisfaction and social support) and turnover intention.*

Results showed that when an employee feels that he/she had too much to do in too little time (quantitative role overload) or if the task is too difficult to complete he/she will experience lower levels of job satisfaction which in turn leads to higher levels of turnover intention. Social support from the supervisor and colleagues increase the employee's feelings of a positive emotional state towards his/her job or work experience (job satisfaction). The higher the employee's job

satisfaction is, the lower will his/her intention to leave his/her work be (turnover intention). Turnover intention will also be lower when social support from the supervisor is high or when employees experience less feelings of not having enough time to complete tasks, not having adequate skills and knowledge to complete tasks or when feelings of role conflict are low.

- *To determine if indicators of work climate can be used to predict turnover intention.*

Indicators of work climate used in this study were job challenge demand, quantitative and qualitative role overload, role conflict, job satisfaction and pay satisfaction. The results of this study indicate that high levels of role overload and role conflict are associated with low levels of job and pay satisfaction. Role overload and role conflict related positively to turnover intention. Thus, when an employee experiences high levels of role overload and role conflict, his/her feelings of leaving the job will be enhanced (Guimareas, 1995). Job satisfaction was negatively related to turnover (Zeffane, 1994), as was pay satisfaction. Thus, when the general satisfaction with the job or the remuneration received is low, educators may develop a stronger intention to leave their employment (Afolabi, 2002).

- *To determine if social support plays a mediating role in the translation of work climate in turnover intention.*

The two sources of social support that were used in this study are social support from the supervisor and social support from colleagues. The relationship of social support to turnover intention indicates a mediating effect for social support between work climate (consisting of role characteristics and satisfaction) and turnover intention. From this can be deduced that an employee's turnover intention, due to work climate is influenced by the amount of social support perceived. Results indicated that high levels of social support are associated with greater satisfaction and lowered turnover intention. Thus, it can be said that social support plays a mediating role in the translation of work climate in turnover intention.

3.2 LIMITATIONS OF THE RESEARCH

The following limitations must be considered to place these results in proper context. This data is cross-sectional and it represents employees' opinions, attitudes and feelings at one point in time. In order to overcome this problem, a longitudinal evaluation of employee attitudes, opinions and feelings may provide a better examination of perceived social support on employee outcomes such as job satisfaction and turnover intention. Social desirability (employees presenting themselves in a falsely positive or negative light) may also be present. The questionnaire which was used could have been too long and this could have had an impact on employee's concentration levels.

The results found with the scale for job challenge demands indicated that it was not reliable for the current sample. However, this component of role characteristics might be important in furthering our understanding. It seems that an important part of the study was lost due to this scale not working properly.

3.3 RECOMMENDATIONS

Recommendations are made with regard to the relevant organisation, as well as with regard to future research.

3.3.1 Recommendations for the organisation

The organisation must see that employees are not overloaded and do not have too much to do in too little time, since this is associated with turnover intention. Turnover intention can also be due to an employee's feeling that he does not have the required skills and knowledge to complete a task. The organisation must guard against individuals being confronted with conflicting demands within a single role or multiple roles. If the organisation facilitates enhanced social support from supervisors to employees, employees could experience higher satisfaction with their work. This social support from supervisors will negate turnover intentions.

3.3.2 Recommendations for further research

Future research should continue examining additional ways in which social support plays a mediating role in the relationship between role overload, role conflict, job satisfaction and turnover intention. Further research must be done on the impact of job challenge demand as part of work climate and the effect it has on job satisfaction and turnover intention. In further research different tertiary institutions could be used and equal participation from men and woman must be considered. In order to more strongly illustrate the mediating effect of social support, other variables of work climate could be included in the SEM model. In order to measure the mediating effect of social support in future, a larger sample must be used and a longitudinal study is needed to provide a better examination of the effect of social support on employees.

The job challenge scale might be measured with more items in future South African research to improve its reliability and enhance understanding of role characteristics. Also, since the scale is a relatively new addition to the literature, future studies should include sufficient representation of different South African language groups to investigate whether this construct carries the same meaning across language groups (construct equivalence).

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