Talent retention among trainers and learners in a mining environment

Nyaradzo Chidyamakono, Honours (Industrial Psychology)

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Supervisor: Prof. J. Pienaar

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FOR THE READER'S ATTENTION

The reader is reminded of the following:

- The references, as well as the style as prescribed by the *Publication Manual (5th edition)* of the American Psychological Association (APA), were followed in this mini-dissertation. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University, Potchefstroom Campus, to use APA style in all scientific documents.

- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables.

ACKNOWLEDGEMENTS

DECLARATION

I, Nyaradzo Chidyamakono, hereby declare that "Talent retention among trainers and learners in a mining environment" is my own original work and that the opinions and views expressed in this work are those of the authors and relevant literature references shown in the references.

I further declare that the content of this research will not be submitted at any other tertiary institution to obtain any other qualification.

NYARADZO CHIDYAMAKONO   **DECEMBER 2010**

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SUMMARY

Title: Talent retention among trainers and learners in a mining environment

Key words: Labour turnover, overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment, turnover intentions, employee, mining organisation.

Global growth in mining activities has resulted in stiff competition for talented employees and characterised the mining industry with high turnover rates. The South African mining environment has not been an exception to this phenomenon. The aim of this study was to inform the design of talent retention strategies through determination of turnover intention predictors and exploration of the turnover process experienced by employees. The study hypothesised that job satisfaction and affective organisational commitment mediate the effect of overall justice, centralisation, trust and job challenge on turnover intentions. A cross-sectional survey design with a random sample of trainers and learners from a South African gold mining company was used (n=171 and n=230, respectively). Results indicate that job satisfaction mediates the effect of centralisation on turnover intention for learners. Only job satisfaction directly predicts turnover intention for trainers, and overall justice and trust play a direct role in the prediction of turnover intention for learners. It was also found that job challenge predicts job satisfaction for trainers, whilst job challenge, centralisation and trust predict job satisfaction for learners. Therefore, to retain trainers, the mining company should focus on enhancing those factors that facilitate job challenge perceptions and job satisfaction. In retaining learners, its thrust should be increasing job challenge, decentralisation, overall justice, trust and job satisfaction.

OPSOMMING

Titel: Die behoud van talentvolle instrukteurs en leerders in 'n mynbou-omgewing

Sleutelwoorde: Arbeidsomset, algehele geregtigheid, sentralisasie, vertroue, uitdaging in die werksomgewing, werksbevrediging, affektiewe organisatoriese betrokkenheid, voornemens om van werk te verander, werknemer, mynbou-organisasie.

Die wêreldwye groei in mynbedrywighede het gelei tot strawwe kompetisie om talentvolle werknemers te behou. Die mynbedryf is ook gekenmerk deur hoë arbeidsomset en die Suid-Afrikaanse mynbou-omgewing is nie 'n uitsondering op diè gebied nie. Die doel van hierdie navorsing is die toeligting van ontwerpstrategieë om talent te behou deur middel van die vasstelling van arbeidsomsetvoorspellers, asook die bestudering van die proses van arbeidsomset soos dit deur die werknemers ervaar word. Die navorsing veronderstel dat werksbevrediging en affektiewe organisatoriese betrokkenheid die uitwerking wat algehele geregtigheid, sentralisasie, vertroue en uitdaging in die werksomgewing op arbeidsomset het, sal bemiddel 'n Deursnee opname-instrument - wat bestaan uit 'n ewigkansige steekproef van instrukteurs en leerders van 'n Suid-Afrikaanse goudmynmaatskappy - is gebruik (n=171 en n=230 onderskeidelik). Die uitslag dui daarop dat werksbevrediging die uitwerking van sentralisasie op leerders se voornemens om van werk te verander, bemiddel. Werks-bevrediging - alleenlik - voorspel instrukteurs se voorneme om van werk te verander direk, terwyl algehele regverdigheid en vertroue 'n direkte rol speel in die voorspelling van leerders se voorneme om van werk te verander. Die navorsing het ook vasgestel dat uitdagings in die werksomgewing werksbevrediging vir instrukteurs voorspel, terwyl uitdagings in die werksomgewing, sentralisasie en vertroue werksbevrediging vir leerders voorspel. Dit spreek dus vanself dat indien die mynmaatskappy instrukteurs wil behou, hulle daarop moet fokus om die faktore te versterk wat uitdagings in die werksomgewing en werksbevrediging fasiliteer. Om leerders te behou moet die kern van die maatskappy se beleid wees om uitdagings in die werksomgewing, desentralisasie, algehele geregtigheid, vertroue en werksbevrediging te verbeter.

CHAPTER 1

INTRODUCTION

This mini-dissertation focuses on the determination of predictors of turnover intentions experienced by trainers and learners within a South African gold mining environment. The study postulates that job satisfaction and affective organisational commitment mediate the effects of overall justice, centralisation, trust and job challenge on turnover intention. Chapter 1 gives the problem statement, which states the motivation for the current research, as well as a literature review, which will establish what previous research has found regarding the constructs. The objectives of the study and the main paradigms from which the research is conducted are also discussed. Information on the research method, participants, measuring battery and statistical analysis is provided. Chapter 2 will consist of the research article and Chapter 3 will give conclusions based on the findings, acknowledge limitations and make recommendations as well.

1.1   PROBLEM STATEMENT

1.1.1   Overview of the problem

The increase in research and literature on voluntary turnover predictors and talent retention strategies over the past two decades highlights the importance of talent retention in organisations the world over. Whether the economy is viable or there is an economic recession, talented employees will always be a source of competitive advantage (Daly, 2007; Jassim, 1998; Personnel Decisions International, 2009; Tanton, 2007). Due to growth of the mining industry in countries like China, Russia and India and the already existent ventures in Canada and Australia, South African mines have been facing a fierce war for talent (*www.moneyweb.co.za*). This has resulted in many mining organisations in South Africa experiencing immense "...dysfunctional turnover...," as Hollenbeck and Williams (cited in Trevor, 2001, p. 621) call it. Dysfunctional turnover refers to the organisation's loss of employees, which it cannot afford. Dysfunctional turnover has been found to be associated with huge costs for the organisation (Sjöberg & Sverke,

2000). These costs include production time costs (when a job falls vacant), inefficiencies in the workflow (caused by a vacant post), ineffective work processes caused by an inability to find the right person for the job (*www.moneyweb.co.za*) and recruitment and training costs (Adidam, 2006; Mache, 2007).

South African gold mining has not been an exception in this regard. (*www.implats.co.za/cr/reports/2008/human_capital.htm*). The estimated average turnover for the mining industry in 2008 was 18% (*www.implats.co.za/cr/reports/2008/human_capital.htm*). In 2008, Implats experienced an overall turnover of 8,9% (*www.implats.co.za/cr/reports/2008/human_capital.htm*). AngloGold Ashanti has been experiencing the same problem. According to AngloGold Ashanti's 2007 Annual Report, the labour turnover rate of miners and artisans shot from 10% to 55% (*www.anglogold.co.za*). In the report Mr. Johann Viljoen (Vice President: Southern Africa Division) explained that, in addition to losing their workforce to mining companies, the mine was losing employees to engineering and construction projects within South Africa (*www.anglogold.co.za*).

This research endeavours to determine turnover intention predictors and to explore the psychological states experienced by trainers and learners (within a large gold mining company), who are considering leaving the organisation. Studying the turnover process and talent retention during an economic recession is important, because there is a possibility that some companies may currently be engaging in activities to poach the mining company's talented employees in order to gain a competitive edge over it. In addition to that, this study is reinforcing the organisation's focus on talent retention strategies even at this phase of the economy. Conversely, the low cost of labour and fewer job opportunities for most employees may cause employees to become desperate and stick to their current employer.

The proposed study may assist in managing retention through identification of specific factors that are likely to predict turnover intentions. The study will utilise Fishbein and Ajzen's (1973) three-component model of behaviour, as it seems to explain the turnover process adequately. As Coomber and Barriball (2006) and Van der Vliet and Hellgren (2002) explain, the model

stipulates that, before an employee thinks about leaving the organisation, he or she needs to form cognitive perceptions about his organisation and work climate. These perceptions will elicit certain affective responses towards the organisation's characteristics and work climate. The affective responses will in turn drive the employee to make a conative decision about whether to stay or leave the organisation. Affective reactions such as job satisfaction and affective organisational commitment, therefore, mediate the effect of organisational perceptions on turnover intentions (Hellgren, Sjöberg & Sverke, 1997; Van der Vliet & Hellgren, 2002).

This study follows this framework as it investigates the effects of overall justice, centralisation, trust and job challenge on turnover intention, as mediated by job satisfaction and affective organisational commitment. The focus of this study falls more on how the employee interprets the organisational environment and the work climate (psychological climate) and not the organisational characteristics or work climate *per se*, because it is these subjective views that affect an employee's work attitude and behaviour (Hellgren et al., 1997; Van der Vliet & Hellgren, 2002). Hellgren et al. (1997) are of the notion that the individual employee's needs and values guide his/her interpretation of his/her work situation. It therefore seems paramount to study employees' perceptions, because despite their subjectivity, employees' experiences affect both the individual employees and the entire organisation.

Generally, favourable job perceptions have been found to be positively related to job satisfaction (Hellgren et al., 1997) and affective organisational commitment (Meyer & Allen, 1990). Numerous literature has noted job satisfaction's relatedness to turnover intention (Karsh, Booske & Sainfort, 2005; Trimble, 2006) and commitment's relatedness to turnover intention (Dixon, Turner, Cunningham & Kent, 2005; Karsh et al., 2005; Meyer & Allen, 1990; Sjöberg & Sverke, 2000**;** Sturges & Guest, 2001; Trimble, 2006; Wasti, 2003). These findings drive this research to investigate those factors that may elicit both job satisfaction and organisational commitment, as they are expected to indirectly reduce intentions to quit.

Focus is on turnover intention, because it has been found to be the strongest predictor of actual turnover (Coomber & Barriball, 2006; Karsh et al., 2005). In addition to that, Lambert, Hogan

and Barton (2001) postulate that if intentions to quit are detected, the organisation can devise strategies to reverse them. It must be noted that this is very difficult, because once a worker has set his/her mind to leave, very little can be done to convince him/her otherwise. However, considering the fact that the economy is going through a recession and there are fewer job opportunities for employees, the organisation under study may still have reasonable time to do something about its talent retention developmental areas.

1.1.2   Literature review

The variables to be studied include overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment and turnover intention.

Overall justice refers to perceptions that employees hold about the fairness of their conditions of employment (Folger & Cropanzano, 1998; Reithel, Baltes, & Buddhavarapu, 2007). This includes perceptions of fairness in the procedures utilised to come to allocation decisions (procedural justice) and perceptions of fairness about the outcomes of those procedures (distributive justice) (DeConinck & Stilwell, 2004; Lambert, 2003; Parker & Kohlmeyer III, 2004). Aamodt (2007) includes interactional justice in the overall justice equation and describes it as the perceived fairness of the interpersonal treatment employees receive. Greenberg (cited in Lambert, 2003, p. 155), states that perceptions of organisational justice are "…a basic requirement for the effective functioning of organizations and the personal satisfaction of the individuals they employ." In addition to that, the fair treatment of employees by supervisors reduces uncertainty among employees (Wiesenfeld, Swann, Brockner & Bartel, 2007), affirms basic moral principles (Folger & Cropanzano, 1998) and strengthens employees' status in the organisation (Wiesenfeld et al., 2007). Management's treatment of employees in a fair manner demonstrates its respect for employees (Lambert, 2003; Wiesenfeld et al., 2007), makes employees feel valued and is thus self-enhancing to the employees (Wiesenfeld et al., 2007). Benefits of the presence of overall justice within the organisation are that it instils employees' trust of management, strengthens the employee's commitment to the organisation (DeConinck & Stilwell, 2004; Lambert, 2003) and causes employees to use positive and cooperative behaviours

more frequently during conflict management (Zellars, Liu, Bratton, Brymer & Perrewe, 2004). Research has found that overall justice is positively related to job satisfaction (Lambert, 2003; Parker & Kohlmeyer III, 2004; Rifai, 2005) and affective organisational commitment (Meyer & Allen, 1990; Parker & Kohlmeyer III, 2004; Van der Vliet & Hellgren, 2002). Considering the abovementioned relationships, overall justice is expected to be related to talent retention in that it is likely to make employees feel secure and satisfied with their jobs and subsequently influence them to have intentions to stay within the organisation. Because overall justice is a basic need for every employee, it seems reasonable to also study another basic necessity, decentralisation (studied as centralisation), as it is likely to have the same effect on talent retention.

Centralisation is defined as the extent to which employees are allowed to - and actually participate in - decision making (Kim, 2002; Mellor, Mathieu & Swim, 1994). This study is of the view that centralisation is vital for the current organisation, as it supposes that it is at the planning stage of departmental strategies where implementation of strategies begins. The research is investigating employees' involvement in decision making on departmental issues. Korsgaard, Schweiger and Sapienza (1995), content that the effectiveness of a team's decision making partly depends on full participation of all members. Involvement or non-involvement in decision making seems to elicit a variety of affective responses from employees (Korsgaard et al. 1995). These responses include: commitment to the decision (Covey, cited in Lambert, 2003; Korsgaard et al., 1995), attachment to the team, trust in the team's leader (Korsgaard et al. 1995); and commitment to the organisation (Sjöberg & Sverke, 2000). Centralisation also seems to influence the extent to which processes are perceived to be procedurally fair or not. Low centralisation results in employees viewing organisational processes as fair (DeConinck & Stilwell, 2004; Korsgaard et al., 1995; Parker & Kohlmeyer III, 2004; Zellars et al., 2004). High centralisation (i.e. low decision-making participation) was found to be negatively related to affective organisational commitment (Mellor et al., 1994; Meyer & Allen, 1990). In light of the expected centralisation-talent retention link, it also seems vital to study trust.

According to Robinson (1996, p. 576), trust refers to, "…one's expectations, assumptions, or beliefs about the likelihood that another's future actions will be beneficial, favourable, or at least not detrimental to one's interests." Trust is the willingness of one party to be vulnerable to

another party (Albrecht & Travaglione, 2003; Mulki, Jaramillo & Locander, 2006), based on the belief that the latter party is competent, open, concerned and reliable (Albrecht & Travaglione, 2003). The above-mentioned definitions of trust seem to allude to the cognitive way in which trust is established (Mulki et al., 2006; Robinson, 1996). It seems that an individual analyses his or her past and present experiences with another party in order to determine whether that party is worthy of his or her trust or not. This study measures the extent to which employees perceive their employer to be trustworthy. Trust is critical in any relationship or contract, as it determines how one party will behave towards the other (Robinson, 1996). Trust has been noted to be related to increased efficiency and effectiveness (Gould-Williams, 2003), organisational commitment and increased job satisfaction (Mulki et al., 2006). According to Albrecht and Travaglione (2003), factors antecedent to trust may include open and consistent communication, job security, perceived organisational support and procedural justice. A lack of trust, on the other hand, can lead to dysfunctional outcomes such as cynicism, low motivation, low commitment, a lack of confidence in the organisation (Gould-Williams, 2003) and less willingness to act in ways that maintain trust (Robinson, 1996). Previous research indicates that trust is positively related to job satisfaction (Alder, Noel & Ambrose, 2006) and affective organisational commitment (Albrecht & Travaglione, 2003; Meyer & Allen, 1990). The last independent variable to be studied is job challenge, as it is also expected to elicit job satisfaction emotions and commitment which are likely to result in intentions to stay within the organisation.

Job challenge is defined as the extent to which one's job is perceived to provide opportunities for utilisation of one's skills and abilities (Hellgren et al., 1997) and contributes to new knowledge and learning (Dixon et al., 2005; Hellgren et al., 1997). Meyer and Allen (cited in Dixon et al., 2005, p. 174) state that job challenge can also be referred to as "…the excitement and stimulation associated with a particular task set…" Kirk-Brown and Wallace (2004) are of the view that job challenge reflects the desire of employees to be stimulated and challenged by their tasks and to be able to fully utilise previously acquired skills. Mache (2007) mentions high performers' need to be constantly challenged with higher standards of performance. This seems to imply that routine work can end up boring employees and influence negative affective responses to the job. Assigning employees challenging tasks makes them feel that they are capable and valuable and will make them more willing to commit to the organisation (Dixon et al., 2005; Gould-Williams,

2003). Research highlights a positive relationship between job challenge and job satisfaction (Hellgren et al., 1997; Kirk-Brown & Wallace, 2004; Van der Vliet & Hellgren, 2002) and affective organisational commitment (Dixon et al., 2005; Meyer & Allen, 1990; Sturges & Guest, 2001; Van der Vliet & Hellgren, 2002). All the above-mentioned variables are presumed to lead to talent retention through job satisfaction and affective organisational commitment.

Job satisfaction refers to a positive affective response by an employee regarding his or her overall job, based on the employee's overall evaluation of actual outcomes of the job, with those that he/she expects, needs, wants, desires, or perceives to be fair and just (Lambert, 2003; Lambert et al., 2001; Parker & Kohlmeyer III, 2004; Zellars et al., 2004). Trevor (2001) defines it as an affective attachment one has to his or her job, viewed either in its entirety (global satisfaction), or with regard to specific aspects of the job (for example remuneration). This research endeavours studying global job satisfaction. Hellgren et al. (1997) state that if one has favourable perceptions of his/her job, then he/she is likely to be satisfied with his/her job. Trevor (2001, p. 622) states that job satisfaction, "…plays a major role in virtually all turnover theories and operates as the key psychological predictor in most turnover studies." In support of that, Lambert et al. (2001) and Vidal, Valle & Aragon (2007) highlight the consistent negative relationship between job satisfaction and voluntary turnover that has been found by most research (Hellgren et al., 1997; Karsh, Booske & Sainfort, 2005; Lambert et al., 2001; Vidal et al., 2007, Wotruba, Brodie & Stanworth, 2005). Affective organisational commitment, another affective response like job satisfaction, is expected to have the same effect on talent retention as job satisfaction.

There are numerous definitions for affective organisational commitment. However, it is overall defined as an affective or emotional attachment to the organisation (Gould-Williams, 2003; Lambert, 2003; Meyer & Allen, 1990). Affective organisational commitment is said to consist of a strong belief and acceptance of the organisation's goals and values (Lambert, 2003; Meyer & Allen,1990; Parker & Kohlmeyer III, 2004), a willingness to exert considerable effort on behalf of the organisation (Lambert, 2003; Meyer & Allen,1990; Parker & Kohlmeyer III, 2004; Van Scotter, 2000) and a strong desire to maintain an enjoyment of organisational membership

(Meyer & Allen,1990; Parker & Kohlmeyer III, 2004). Of the three components of commitment (affective, continuance, and normative), affective organisational commitment has the strongest link to turnover, since employees with affective commitment remain within the organisation because they want to (Meyer & Allen, 1990). Compared to job satisfaction, commitment is regarded to be stable over time (Gould-Williams, 2003). Therefore, Parker and Kohlmeyer III, (2004) state that affective organisational commitment has a stronger relation to work outcomes. According to Meyer and Allen, (1990) and Mulki et al. (2006), positive work experiences that fulfil the employee's psychological needs to feel comfortable within the organisation and to be competent in his work role, are the strongest antecedents of commitment. Commitment is associated with increased job performance, organisational citizenship behaviours, attendance and decreased turnover intentions (Dixon et al., 2005). Several studies found a negative correlation between affective organisational commitment and turnover intention (Karsh et al. 2005; Sjöberg & Sverke, 2000; Wotruba et al., 2005). Turnover intention is the dependent variable in the study that works against talent retention. As a result it should be avoided. Therefore it seems important to also study turnover intention.

According to Sjöberg and Sverke (2000) turnover intention is the extent to which the employee plans to leave his/her current position. Takase, Maude and Manias (2005, p. 209) describe turnover intention as "…attitudinal (thinking of quitting), decisional (intention to leave), and behavioral (searching for a new job) processes preceding voluntary turnover." Intentions to stay or leave a job are viewed to be the final cognitive step in the decision-making process of voluntary turnover (Coomber & Barribal, 2006; Karsh et al., 2005; Lambert et al., 2001). According to Lambert et al. (2001), the availability of employment opportunities has a significant positive effect on turnover intent. Job satisfaction and commitment are the strongest predictors of turnover intentions (DeConinck & Stilwell, 2004; Karsh et al., 2005; Mulki et al., 2006). In that regard, Smith, Daskalaki, Elgert and Brown (2004) state that management is greatly responsible for turnover, as they are the ones that shape workers' experiences that indirectly influence turnover intention. Below is a model illustrating the relationships of the constructs or variables described above. It is based on the Attitude Behaviour Model of Fishbein and Ajzen (cited in Hellgren et al., 1997, p. 416).
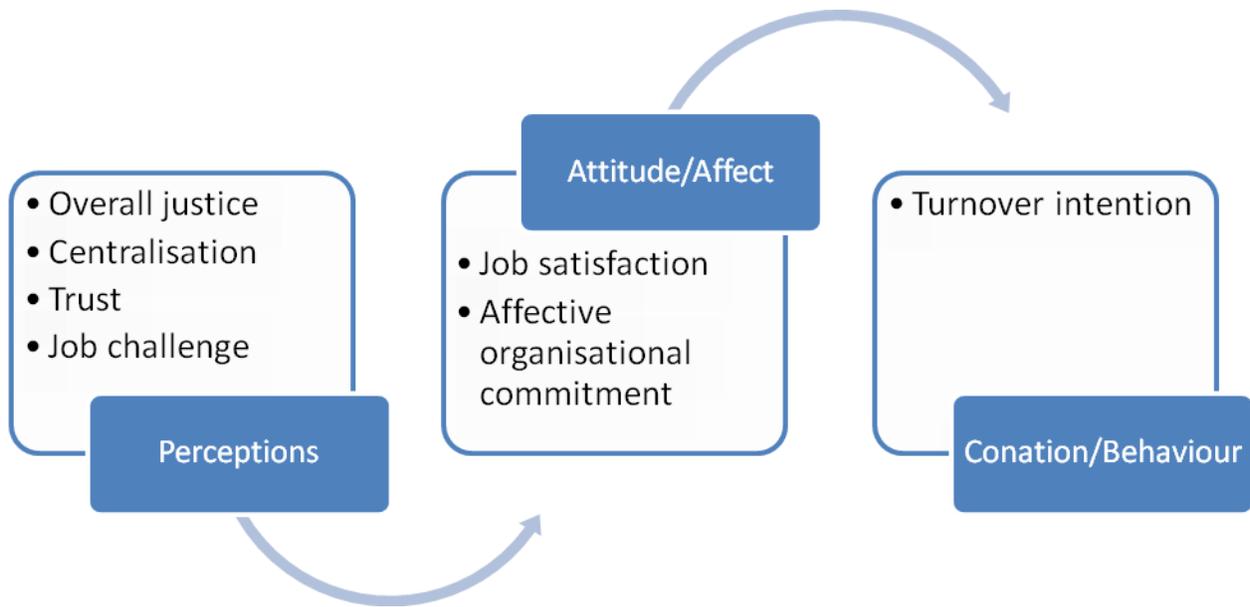
Figure 1. A model describing the expected relationship between perceptions, affections and behaviours associated with the turnover process.

The study postulates that, before an employee makes a conative decision about whether to stay with the organisation or leave, he forms cognitive perceptions about overall justice within the organisation, centralisation of departmental decisions, trustworthiness of the employer, and whether or not his job is sufficiently challenging. These perceptions are derived from the organisational/departmental culture and work environment. The aforementioned perceptions are expected to elicit the presence or absence of feelings of job satisfaction and organisational commitment. In turn, these affective responses will then drive the employee to decide to stay with or leave the organisation. Such a decision manifests in the form of intentions stay within or leave the organisation. Job satisfaction and affective organisational commitment emotions are expected to mediate the effect of overall justice, centralisation, trust and job challenge perceptions on turnover intentions.

The objective of this research is thus to identify those variables, amongst others, overall justice, centralisation, trust, job challenge, job satisfaction and affective organisational commitment that predict turnover intention. Knowledge of predictors of turnover intention among trainers and

learners should enable the mining organisation being studied, to design evidence-based talent retention strategies.

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

- Is there a relationship between turnover intention, job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge according to literature?
- What is the relationship between turnover intention, job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge in a mining organisation among trainers and learners?
- Can turnover intention be predicted by job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge among trainers and learners?
- Does job satisfaction and affective organisational commitment mediate the relationship of overall justice, centralisation, trust and job challenge to turnover intention among trainers and learners?
- What similarities and/or differences occur among trainers (employees who train other employees in technical, functional and generic skills) and learners (employees who receive the training) regarding their experience of interrelationships between overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment and turnover intention.
- What recommendations can be made to the mining organisation in terms of talent retention of trainers and learners?

1.2 RESEARCH OBJECTIVES

The research objectives are divided into general and specific objectives.

1.2.1 General objective

The general objective of this research is to identify organisational and work characteristics associated with the increased likelihood of employees leaving the organisation in order to recommend relevant talent retention strategies.

1.2.2 Specific objectives

The specific objectives of this research are:

- To determine whether there is a relationship between turnover intention, job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge in literature.
- To determine the kind of relationship that could be found between turnover intention, job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge among trainers and learners in a mining environment.
- To investigate if turnover intention can be predicted by job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge among trainers and learners.
- To determine whether job satisfaction and affective organisational commitment mediate the relationship of overall justice, centralisation, trust and job challenge to turnover intention among trainers and learners.
- To determine the similarities and/or differences encountered by trainers (employees who train other employees in technical, functional and generic skills) and learners (employees who receive the training) in the way they experience the interrelationships of overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment and turnover intention.
- To make recommendations to the mining organisation with regards to retention of trainers and learners.

1.3 PARADIGM PERSPECTIVE OF THE RESEARCH

A certain paradigm perspective that includes the intellectual climate and the market of intellectual resources (Lundin, 1996; Mouton and Marais, 1988), directs the research. According to Mouton and Marais (1988, p. 145), a paradigm is a set of "...achievements that are acknowledged and accepted by a given scientific community as the basis for further research." When a certain paradigm perspective directs the research, it means that the paradigm perspective is helping to solve a practical problem, in this case voluntary turnover, by:

- Providing clues regarding the selection of empirical and theoretical problems that are appropriate and relevant for further problem-solving activities.
- Giving researchers a platform to verify predictions made under the paradigm by facts/results emanating from their studies. In other words, it assists in solving problems relating to matching theory and facts.
- Providing a platform for further articulation and refinement of the theory (or theories) of the paradigm.
- Providing clues concerning the solution of problems.
- Determining the validity of those solutions.

1.3.1   Intellectual climate

Mouton and Marais (1988) define an intellectual climate as a variety of meta-theoretical values or beliefs which are held by those practising within a discipline (Industrial Psychology) and sub-disciplines (for example, Organisational Behaviour) at any given stage. The origin of these beliefs, values and assumptions cannot usually be traced to scientific contexts; hence they are not directly related to theoretical goals of the practice of scientific research. These could be beliefs, values or assumptions about organisational behaviour, for instance, as well as more discipline-specific beliefs/values/assumptions relating for example to motivation, job satisfaction, and recruitment and selection. According to Mouton and Marais (1988), these beliefs tend to display the qualities of postulates or assumptions and this makes them subjects for further scientific and structured research.

1.3.2   Discipline

This research falls within the boundaries of behavioural sciences and more specifically Industrial Psychology. Industrial Psychology, according to Aamodt (2007), is a branch of psychology that applies the principles of psychology to the workplace. Mcdougall (2007) defines Psychology as an organised body of knowledge which aims to render the knowledge of human nature more exact and more systematic, in order for psychologists to be able to control themselves more wisely and to influence fellow men more effectively. Industrial psychologists, therefore, are able to apply psychological theories to explain and enhance the effectiveness of human behaviour and cognition in the workplace. They can, for example, use principles of learning to develop training programmes as well as the principles of motivation and emotion to motivate and satisfy employees. The different sub-disciplines of Industrial Psychology include Health and Wellbeing, Recruitment and Selection, Human Resource Development, Career Management and Development, Group Behaviour, Teams and Conflict and Leadership and Measuring Behaviour, among others. The sub-disciplines of Industrial Psychology that are focused on in this research are Organisational Behaviour and Psychological Testing.

Organisational Behaviour refers to the way individual employees conduct themselves in the workplace. Organisational behaviour is relevant in this study in that it is through understanding turnover behaviour that evidence-based talent retention interventions can be designed. The way people behave in an organisation is influenced by that particular organisation's organisational climate (Crafford, Moerdyk, Nel, O'Neill, Schlechter and Southey, 2006). According to Crafford et al. (2006), an organisational climate is the set of characteristics that describes an organisation and distinguishes it from other organisations. The research is therefore studying individual employees' perceptions about some aspects of the relevant organisation's climate (such as justice and centralisation), as well as their relationship to turnover behaviour.

The adverse effects of voluntary turnover on organisations, as well as the dire need for evidence-based talent retention interventions, imply the need for strategies derived from objectively measured variables. Hence psychological testing is one of the main sub-disciplines directing this

study. According to Murphy and Davidshofer (2005), a psychological test is a measuring instrument that has the following defining characteristics:

- It measures a sample of behaviour. In this study the sample behaviour includes feelings, perceptions, attitudes and behaviour.
- The sample is obtained under standardised conditions. The conditions in this case are behaviour that is studied in the workplace within a specific period of time (that is, August 2009).
- There are established rules for scoring or obtaining quantitative/numeric information from the behaviour sample. This study involves self-report measures. Each scale consists of a specific number of items. The respondent's answer to each item is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). After the responses on all items have been added, a high/low score will indicate a high/low level of the variable.

To ensure that accurate inferences can be made from the data, the validity and reliability of all scales to be used are evaluated.

1.3.3 Meta-theoretical assumptions

Three paradigms are relevant to this research. Firstly, the literature review is done within the Humanistic and Cognitive-Behaviouristic paradigms, and secondly the empirical study is done within the Positivistic paradigm.

1.3.3.1 Literature review

Humanism

Lundin (1996), states that Humanism has a positive and optimistic view of human nature. The assumptions of Humanism, listed below, led to the formal study of organisational behaviour and behavioural science (Crafford et al., 2006). The following basic assumptions of Humanism are relevant to the study:

1. Human beings have an inherent capacity for kindness, love, and generosity (good characteristics). These good characteristics have to be nurtured by the environment and the society - in this case the organisation through the organisational climate. In the wrong society or culture the good tendencies could be drowned or squelched (Maslow in Lundin, 1996).

2. Organisations are dependent on human initiative, energy, motivation and co-operation for their success (Crafford et al., 2006). Hence the need to retain talented employees, which is the focus area of this study.

3. Employees are human beings with needs, emotions, attitudes and unique personalities (Crafford et al., 2006). The study is investigating the psychological needs of employees through measurement of variables like justice, involvement in decision making (centralisation), trust, and job challenge.

4. Attention is focussed on the experiencing individual (participant's perceptions, feelings and intentions). Experiencing is the primary phenomenon (Lundin, 1996). The research takes a perceptual and not an objective approach, because it is the employee's subjective view of the situation that determines his or her future actions or behaviour.

5. Emphasis is on distinctive human qualities such as choice, creativity, evaluation, and self-regard (realisation), as opposed to considering people in reductionist or mechanistic terms (Lundin, 1996). The study views employees as having the ability to evaluate their situation with regards to the organisational and work climate, as well as having a choice whether to stay or leave the organisation. Whether they leave or not is determined by various other factors, such as availability of employment and personal circumstances.

6. Emphasis is on the meaningfulness in the selection of problems to be studied (Lundin, 1996). As mentioned above, talent retention is a challenge faced by numerous organisations. Results of the study can assist the current organisation with effective evidence-based interventions aimed at talent retention.

7. An ultimate concern with valuing human dignity and an interest in the development of the potential inherent in every person (Lundin, 1996), hence the focus on those variables that fulfil the employee's psychological need for comfort and competency in his or her role. These are variables which eventually elicit satisfaction with the job and affective commitment to the organisation.

8. Life goals such as self-realisation or self-actualisation are of equal importance. Growth force is viewed as part of the human genetic make up (Lundin, 1996). This supports the need to include the variable job challenge in the study.

Cognitive Behaviourism

The study chose the perceptual approach to the organisational and work climate characteristics based on the Cognitive Behaviourism approach. This approach postulates that most human responses (output) are determined by the way human beings represent and evaluate the events (input), not the events themselves (David, 2006). Cognitive Behaviour Therapy (CBT), therefore, acknowledges that human beings may see events as bad, but it does not want people to see events as "awful." Such cognitions of "awfulising" may result in them experiencing negative emotions, such as betrayal. Therefore, CBT teaches and encourages clients to view events as "less bad" or "less awful" (David, 2006, p. 82). The following basic assumptions of Cognitive Behaviourism are relevant to the study:

1. Peoples' interpretation of events and not the events themselves, determines their responses to the events (David, 2006; Szentagotai, Schnur, DiGiuseppe, Macavei, Kallay & David, 2005). Based on unique attributes of each participant in this study, his or her subjective evaluation of overall justice, for example, will determine his or her emotional response to the organisation. The response may not be limited to emotional reactions, such as discomfort or dissatisfaction, but to certain behaviours such as an active pursuit of another job in a different organisation (ABCDE model of Cognitive Behaviour Therapy, in Szentagotai et al., 2005).

2. Lazarus (in Szentagotai et al. 2005, p. 141) states that evaluative cognitions result "...directly in emotions..." Based on this stance, the study postulates that perceptions employees hold about certain organisational and work characteristics should elicit affective responses to the job and the organisation (such as job satisfaction and/or affective organisational commitment).

3. The cognitive evaluations or appraisals of the situation may even be subconscious; however, they will still trigger a specific (behavioural) response (Wegner's theory of Deep Unconscious, in Szentagotai et al., 2005). This is evidenced in turnover intentions in this research, noted as the best precursor of actual turnover.

1.3.3.2 Empirical study

Positivism Paradigm

The Positivism paradigm holds the following assumptions:

1. The research process is "...rational and logical so as to eliminate all elements of subjectivity and idiosyncrasy from the outset..." (Mouton and Marais, 1988, p. 30). Hence this research study is highly structured and follows specific procedures in research proposal design, selection of participants, data collection and data analysis.

2. The purpose of science is simply to stick to what can be observed and measured (Trochim & Donelly, 2006). Data, therefore, needs to be operationalised (Lundin, 1996). Every variable in this study is defined in practical terms and is translated into a real measure or scale. As a result each scale can be distinguished from other related concepts and items of each scale are representative of that specific scale.

3. Science is "...the way to get the truth, to understand the world well enough to predict and control it..." (Trochim & Donelly, 2006, p. 18). To be able to accurately predict organisational behaviour - and possibly control it - this study will test the reliability of each scale, as well as the relations between them by means of various statistical analysis.

4. Scientists use deductive reasoning to postulate theories that they can test (Trochim & Donelly, 2006). This study is based on specific theories and models. The results of the study, therefore, can support or deny the postulations of those theories (in the sample under study) and possibly lead to refinement of the theories.

1.3.4   Market of intellectual resources

The market of intellectual resources refers to beliefs that have a direct bearing upon scientific statements as knowledge claims (Mouton and Marais, 1988). Two major types of these beliefs are theoretical and methodological beliefs.

1.3.4.1 Theoretical beliefs

Theoretical beliefs can be described as "...assertions about the what (descriptive) and why (interpretative) aspects of human behaviour..." (Mouton and Marais, 1988, p. 21). These may include conceptual definitions, models and theories.

A. Conceptual definitions

The relevant conceptual definitions are given below:

Organisational characteristics

The *Overall Justice three-item scale* developed by Van der Vliet and Hellgren (2002) measures the general sense of fair treatment by the employer.

The *Centralization three-item scale* of Mellor, Mahieu, and Swim (1994) measures the extent to which staff is encouraged or allowed to participate in the decision-making processes.

The *Trust four-item scale* (Robinson, 1996) reflects perceptions that the employee holds about the employer's trustworthiness.

Work climate

The *Job Challenge four-item scale,* developed by Hellgren, Sjöberg and Sverke (1997), measures the extent to which an employee's work contributes to new knowledge and learning.

Work-related attitudes and behaviours

The *Job Satisfaction three-item scale,* measuring job-satisfaction was developed by Hellgren, Sjöberg, and Sverke (1997) and is based on that of Brayfield and Rothe (1951).

This *Affective Organizational Commitment scale* is the short version of the scale developed by Allen & Meyer (1990) for measuring affective commitment to the organisation.

The *Three-item Turnover Intention scale*, developed by Sjöberg and Sverke (2000), measures the strength of the respondent's intentions to leave his/her present position.

B. Models and theories

A model is defined as an attempt made to represent the dynamic aspects of a phenomenon - for instance, turnover processes - by illustrating the relationships between the major elements of that phenomenon in a simplified form (Mouton and Marais, 1988). This simplification helps the researcher by drawing his or her attention to specific themes. According to Gorell (cited in Mouton and Marais, 1988, p. 140), four characteristics of theoretical models are:

- They identify central problems or questions concerning the phenomenon (labour turnover) that ought to be investigated.
- They limit, isolate, simplify and systematise the domain that is investigated, for example psychological turnover processes.
- They provide a new language game or universe of discourse within which the phenomenon may be discussed. Terms like perceptions, attitudes and intentions, for example, are used.
- They provide explanation sketches and the means for making predictions.

A model that directs this study is the Attitude Behaviour Model.

Attitude Behaviour Model
In order to improve the prediction of behaviour, Fishbein and Ajzen developed a three-component model which explains the functioning of attitude (Hellgren et al., 1997). According to Liska (1984), the model reflects a causal structure of the relationship between attitude and behaviour. The following basic assumptions of the Attitude Behaviour Model are relevant to the study:

1. Behaviour is directly caused by behavioural intentions (conation) (Ajzen & Fishbein, 1973; Hellgren et al., 1997; Liska, 1984). Turnover, in this study, is believed to be directly caused by turnover intentions. Without those intentions, no voluntary turnover is expected to occur.

2. Cognition (perceptions about one's work and organisational environment) precedes affection (feelings about one's work and organisational environment), which in turn precedes conation (how somebody behaves, in response to the affection) (Hellgren et al., 1997). Liska (1984) explains that attitudes (affective evaluations) are a function of beliefs about the expectations of significant others (in this case, the employer) multiplied by the motivation to conform to them. Following this framework, this study is of the notion that perceptions one has (about the trustworthiness of the employer, the amount of participation in decision-making on departmental issues, general fairness within the organisation and how challenging one's job is), lead to high or low levels of job satisfaction and affective organisational commitment (affect), which in turn lead to the intention to stay or leave the organisation (conation). In essence, this means that the effect of job perceptions on turnover intention is mediated by job satisfaction and organisational commitment. On the other hand, behaviour intentions mediate the effect of affective evaluation and cognition on behaviour.

A theory is defined as "...a set of interrelated constructs (concepts), definitions and propositions that present a systematic view of phenomena by specifying relations between variables, with the purpose of explaining and predicting the phenomena...," (Mouton and Marais, 1988, p. 142). According to Mouton and Marais (1988), a criterion for a sound theory is in its ability to explain real/actual relationships between phenomena. Theories that direct this study include the Discrepancy Theory and the Person-Environment Fit Theory.

Discrepancy Theory
According to Jiang and Klein (2002), Discrepancy Theory may assist in explaining behaviour along lines of intentions to remain or leave an organisation. In explanation of this theory, Aamodt (2007) states that an employee will be satisfied with his or her job as long as the job and organisational characteristics meet his or her various needs, wants, expectations and values. The theory acknowledges that individuals vary in their needs, wants, expectations and values (Aamodt, 2007; Jiang & Klein, 2002). Job satisfaction, therefore, is related to the extent to which job and organisational characteristics match those desired by the individual (Jiang & Klein, 2002) – the closer the match, the higher the job satisfaction. Larger discrepancies or gaps result

in dissatisfaction, small gaps result in more satisfaction. The effects of discrepancy depend on the specific wants of the employee, the intensity of the need for certain aspects of a job or organisation, as well as personal perceptions of discrepancies (Jiang & Klein, 2002). If, for example, job challenge is the employee's objective job facet and job challenge is not part of the job characteristics in his or her job, then the employee would be dissatisfied. That dissatisfaction may result in intentions to seek a more challenging job. On the other hand, another employee who prefers routine would be uncomfortable in an organisation that stresses new knowledge and learning. That employee would be dissatisfied. A meta-analysis by Wanous, Poland, Premack, and Davis (cited in Aamodt, 2007, p. 342) concluded that "...when an employee's expectations are not met, the results are lower job satisfaction..., decreased organizational commitment..., and an increased intent to leave the organization..."

Person-Environment Fit Theory

The Person-Environment Fit Theory helps explain turnover behaviour. Van Vienan (2001) states that the Person-Environment Fit Theory is applied in organisational settings with the aim of predicting individual outcomes such as work attitudes, stress and well-being. It is based on the following assumptions:

- Human behaviour is a function of the interaction between the person and the environment (Takase et al., 2005; Van Vienan, 2001). This study refers to the interaction between the employee, the work and its organisational climate.

- The person and the environment need to be compatible (Van Vienan, 2001). According to Takase et al. (2005), the person brings a set of attributes to his work. These attributes include his or her personality, self concept, professional identity, skills, physiological and cognitive abilities to conduct his tasks, personal and professional goals, needs to satisfy his physiological well-being and professional values (i.e. professional recognition). The environment's attributes include the personality of the workplace, which is made up of the employees, job content and demands, organisational culture, physical structures, systems and procedures. The theory recognises that the attributes of both the person and the environment can change over time.

- The theory predicts that the individual's behaviour depends on the comparison of his or her own characteristics with those of the environment. Ryska (2002) states that person-environment fit reflects the extent to which relevant characteristics of the work environment meet the attributes of the individual. It seems that Ryska (2002) uses the word "relevant," because employees' experience of the fit differs from person to person in a given occupational context in accordance with their attributes (Takase et al., 2005). Other than that, research has not specified or concluded which characteristics of people and environments are crucial for establishing fit (Ryska, 2002; Van Vienan, 2001). This study, therefore, selected one job characteristic and three organisational characteristics which it deemed critical for job satisfaction and affective attachment to the organisation.

- Employees who perceive a good fit with their organisation, job, co-workers and supervisor tend to be satisfied with their jobs, identify with the organisation, remain with the organisation, perform better, engage in organisational citizenship behaviours (Aamodt, 2007) and tend to be committed to their organisation (Van Vienan, 2001). A misfit may result in job dissatisfaction, a loss of work motivation or intentions to leave the job (Takase et al. 2005).

- Occupational stress is generated largely by a misalignment between an individual's attributes and the characteristics of the work environment (Ryska, 2002). A coping strategy for employees in the form of escaping (such as turnover intention) may occur.

1.3.4.2 Methodological beliefs

Methodological beliefs can be defined as beliefs concerning the nature of social sciences research (Mouton and Marais, 1988), such as the paradigm from which the research study is directed. According to Mouton and Marais (1988, p. 23), methodological beliefs are nothing more than "…methodological preferences, assumptions, and presuppositions about what ought to constitute good research...."

The empirical study is presented within the Positivism framework. The root assumptions of the Positivism framework are stated under point 1.3.3.2.

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 overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment and turnover intention is done. The sources that will be consulted include:

- Journal articles
- Books
- Internet

1.4.2   Phase 2: Empirical study

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

1.4.2.1 Research Design

According to Mouton and Marais (1988, p. 32), a research design is "...the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure..." They further explain that the aim of the research design is to align the pursuit of a research goal with the practical considerations and limitations of the project. For instance, it outlines how sampling procedures, surveys, data, measures and statistical computations will work together to address the central research questions (Cresswell, 2009; Trochim & Donelly, 2006).

This research can be classified as a relational study. It is relational in the sense that it measures the relationship between the various variables in the study and whether certain variables can predict others in a cross-sectional fashion (Trochim & Donelly, 2006).

The specific design that will be used is a cross-sectional design. This is a study that takes place at a single point in time (Trochim & Donelly, 2006). This type of study will provide the research with a picture of the participants' current perceptions of fairness within the mining organisation, involvement in decision making regarding departmental issues, levels of trust of the organisation, levels of job satisfaction, commitment to the organisation and presence or absence of intentions to leave the organisation.

1.4.2.2 Participants

The study aims to analyse perceptions that trainers and learners hold about their jobs and organisation, as well as and the feelings and thoughts attached to those perceptions. It will therefore utilise a random sample. This will ensure a larger sample and responses that are representative of the entire population under study (Cresswell, 2009).

Participants to be approached include trainers and learners in a mining company. A mining company was chosen because there is a lot of dysfunctional turnover in the mining industry as stated in the problem statement. The training section was selected, because most mining companies invest a lot of resources in training and developing their employees, only to lose them to competition and other industries once they have completed training. In addition to that, it is critical to retain trainers, because without trainers there is no one to impart knowledge and skills to. Some 700 participants will be approached, that is, 400 learners and 300 trainers.

1.4.2.3 Measuring Battery

The research will use the following instruments:

The *Overall Justice scale* was developed by Van der Vliet and Hellgren (2002). It measures a general sense of fair treatment by the employer. The instrument consists of three items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). The instrument comprises items such as "I feel that my employer treats me fairly," and "I find that my employer behaves fairly

towards me." A high score indicates a high level of overall justice. Näswall. Baraldi, Richter, Hellgren and Sverke (2006) found alpha coefficients for this instrument ranging between 0,88 and 0,90.

The *Centralization scale* was developed by Mellor, Mathieu, and Swim (1994). It measures the extent to which staff is encouraged or allowed to participate in decision-making processes pertaining to departmental issues. The instrument consists of three items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). A high score indicates a high level of centralisation. The instrument comprises items such as "Employees are encouraged to participate when important decisions are made in this department." The reliability of this instrument was found to be adequate in previous research (Mellor et al., 1994; Van der Vliet & Hellgren, 2002). Mellor et al. (1994), and Van der Vliet and Hellgren (2002) found alpha coefficients for this instrument ranging from (α=0,73) and (α=0,83).

The *Trust scale* was developed by Robinson (1996). It measures the employee's perceptions of the employer's trustworthiness. The instrument consists of five items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree), with a high score indicating a high level of trust. Some typical statements from this scale include, "I can expect my employer to treat me in a predictable and consistent manner," and "My employer is always reliable." Näswall et al. (2006) found alpha coefficients above 0,90 for this instrument.

The *Job Challenge scale* was developed by Hellgren, Sjöberg and Sverke (1997). It measures the extent to which one's work contributes to new knowledge and learning. The instrument consists of four items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). An example of the items it contains is "I'm learning new things all the time in my job." A high score indicates a high level of experiencing job challenge. Näswall et al. (2006) found alpha coefficients for this instrument ranging between 0,57 and 0,77.

The *Job Satisfaction scale* was developed by Hellgren, Sjöberg and Sverke (1997), based on that of Brayfield and Rothe (1951). The instrument consists of three items ("I enjoy being at my job." "I am contented with the job I have." "I am satisfied with my job.") and is scored on a scale of 1

(strongly disagree) to 5 (strongly agree). A high score indicates a high level of job satisfaction. Näswall et al. (2006) found alpha coefficients ranging from 0,88 and above for this instrument.

The scale measuring *Affective Organizational Commitment* was developed by Allen and Meyer (1990). It measures the extent to which one is affectively committed to his organisation. The instrument consists of four items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). An example of the items it contains is "The organization has a big personal importance to me.," A high score indicates a high level of affective organisational commitment. In previous research (Albrecht & Travaglione, 2003; Meyer & Allen, 1990; Rifai, 2005), the reliability of this instrument was found to be adequate. Albrecht and Travaglione (2003), Meyer and Allen (1990) and Rifai (2005), found alpha coefficients for this instrument ranging from (α=0,70) and (α=0,92).

The *Turnover Intention scale* was developed by Sjöberg and Sverke (2000). It measures the strength of the respondent's intentions to leave the present position. The instrument consists of three items (for example "I feel that I could leave this job,"), and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). A high score indicates a high level of turnover intention. Näswall et al. (2006) found alpha coefficients for this instrument ranging between 0,76 and 0,87.

The *Biographical Questionnaire* was developed by the researcher for the purposes of investigating the biographical characteristics of the participants. It measures age, gender, language, educational qualifications, employment status and years within the organisation among other things. The questionnaire consists of 14 questions and the types of responses to select from differ depending with the question asked. Examples of questions asked include, "What is your home/first language?" and "How many years have you been working for the organisation you are now working for?" Responses to these question may also assist in the investigating the correlations between various biographical factors and work attitudes.

1.4.2.4 Statistical Analysis

The statistical analysis will be carried out using the SPSS-program (SPSS, 2009) based on Field (2009). The frequency analysis technique will assist in cleaning the dataset (Field, 2009). Descriptive statistics will be used to:

- Analyse the distribution of data (such as the frequency of individual values or range of values for a variable) (Field, 2009).
- Analyse the central tendency of specific variables (such as means and modes) (Field, 2009).
- Analyse dispersion or variability (that is the spread of values around the central tendency such as standard deviations, skewness and kurtosis) (Field, 2009).

Exploratory Factor Analyses will be used to investigate the construct validity of measuring instruments (Field, 2009). For instance, it will determine the proportion of variance explained by different items on a scale, as well as the dimensions that constitute every construct or scale. Cronbach alpha coefficients will be determined by means of a reliability analysis to assess the reliability of each scale (Field, 2009).

Product moment correlations such as Pearson and Spearman will be used to determine whether there is a relationship between the various constructs (overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment and turnover intention) or not (Field, 2009). If relationships with practical significance are detected, then a multiple regression analysis will be used to investigate the direction of the relationships. A multiple regression analysis will assist in finding out if any independent variables predict the dependent variable - in this case turnover intention (Field, 2009). To test for the various mediating effects, procedures as described in Barron and Kenny (1986) will be followed. Mediation can be illustrated by regressing the mediator on the independent variable and showing it to have an effect, then by showing the dependent variable to have an effect on the independent variable in a second regression, finally by regressing the dependent variable on both the proposed mediator and the independent variable and finding that the mediator to affect the dependent variable (Barron & Kenny, 1986).

1.4.2.5 Ethical considerations

Participation in this study will be voluntary. A brief explanation of the purpose of the study will be given to potential participants as a way of exercising honesty, fairness and respect. Confidentiality and anonymity will be assured. Informed consent will be required from participants as a way of respecting their privacy, confidentiality and autonomy. The research will ensure sensitivity to the needs of participants and address each and every concern they may raise. Participants will be informed of the date they will receive a summary of the final results.

1.5   CHAPTER SUMMARY

In this chapter the rationale for the current research was discussed and a review of the literature was conducted to explore findings of previous researchers and to define the relevant constructs. Specific research questions were formulated and turned into the objectives for the study; the main paradigm perspectives of this study was then investigated, including the intellectual climate, the discipline, the meta-theoretical assumptions and the market of intellectual resources. The research method was then explained which included the design the researcher plans to use, the participants and the procedure, the measuring battery and lastly the statistical techniques that will be used to answer the above-mentioned research questions.

The research article will appear in the following chapter. This will include an in-depth literature review, followed by the results obtained from the research, which will then be discussed.

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Talent retention among trainers and learners in a mining environment

Nyaradzo Chidyamakono

ABSTRACT

Global growth in mining activities has resulted in stiff competition for talented employees and characterised the mining industry with high turnover rates. The South African mining environment has not been an exception to this phenomenon. The aim of this study was to inform the design of talent retention strategies through determination of turnover intention predictors and exploration of the turnover process experienced by employees. The study hypothesised that job satisfaction and affective organisational commitment mediate the effect of overall justice, centralisation, trust and job challenge on turnover intentions. A cross-sectional survey design with a random sample of trainers and learners from a South African gold mining company was used ($n=171$ and $n=230$, respectively). Results indicate that job satisfaction mediates the effect of centralisation on turnover intention for learners. Only job satisfaction directly predicts turnover intention for trainers, and overall justice and trust play a direct role in the prediction of turnover intention for learners. It was also found that job challenge predicts job satisfaction for trainers, whilst job challenge, centralisation and trust predict job satisfaction for learners. Therefore, to retain trainers, the mining company should focus on enhancing those factors that facilitate job challenge perceptions and job satisfaction. In retaining learners, its thrust should be increasing job challenge, decentralisation, overall justice, trust and job satisfaction.

OPSOMMING

Die wêreldwye groei in mynbedrywighede het gelei tot strawwe kompetisie om talentvolle werknemers te behou. Die mynbedryf is ook gekenmerk deur hoë arbeidsomset en die Suid-Afrikaanse mynbou-omgewing is nie 'n uitsondering op diè gebied nie. Die doel van hierdie navorsing is die toeligting van ontwerpstrategieë om talent te behou deur middel van die vasstelling van arbeidsomsetvoorspellers, asook die bestudering van die proses van arbeidsomset soos dit deur die werknemers ervaar word. Die navorsing veronderstel dat werksbevrediging en affektiewe organisatoriese betrokkenheid die uitwerking wat algehele

geregtigheid, sentralisasie, vertroue en uitdaging in die werksomgewing op arbeidsomset het, sal bemiddel 'n Deursnee opname-instrument - wat bestaan uit 'n ewigkansige steekproef van instrukteurs en leerders van 'n Suid-Afrikaanse goudmynmaatskappy - is gebruik (n=171 en n=230 onderskeidelik). Die uitslag dui daarop dat werksbevrediging die uitwerking van sentralisasie op leerders se voornemens om van werk te verander, bemiddel. Werks-bevrediging - alleenlik - voorspel instrukteurs se voorneme om van werk te verander direk, terwyl algehele regverdigheid en vertroue 'n direkte rol speel in die voorspelling van leerders se voorneme om van werk te verander. Die navorsing het ook vasgestel dat uitdagings in die werksomgewing werksbevrediging vir instrukteurs voorspel, terwyl uitdagings in die werksomgewing, sentralisasie en vertroue werksbevrediging vir leerders voorspel. Dit spreek dus vanself dat indien die mynmaatskappy instrukteurs wil behou, hulle daarop moet fokus om die faktore te versterk wat uitdagings in die werksomgewing en werksbevrediging fasiliteer. Om leerders te behou moet die kern van die maatskappy se beleid wees om uitdagings in die werksomgewing, desentralisasie, algehele geregtigheid, vertroue en werksbevrediging te verbeter.

SUMMARY

Despite global growth in mining activities, the mining industry still faces numerous challenges as far as the supply of the right skills is concerned (The Skills Portal, 2008). For instance, there is an increase in mining development in Asia (Deloitte Mining Advisory Services, 2010), Canada (The Skills Portal, 2008), South Africa (SAinfo, 2008), Australia and New Zealand (Ferreira, 2009). These ventures and already existent mining activities imply that there is stiff competition for mining personnel within the industry. This war for talent is exacerbated by a shortage of skilled labour (Creamer, 2008; Schultz & Grimm, 2008; The Skills Portal, 2008) and a decline in the general image of the mining industry (Deloitte Mining Advisory Services, 2010; Schultz & Grimm, 2008). This, in turn, results in low numbers of graduates entering the industry (Deloitte Mining Advisory Services, 2010; Schultz & Grimm, 2008; Walker, 2005), a high average age of artisans remaining in industry (Creamer, 2008; Deloitte Mining Advisory Services, 2010; The Skills Portal, 2008), and tough competition for skills from industries like construction, engineering, infrastructure, manufacturing, oil and gas. Talented personnel, therefore, is in demand and highly mobile. As a result the industry experiences high turnover rates.

High turnover has a direct negative impact on bottom-line results. The costs of turnover include loss of process knowledge, decreased productivity, lower effectiveness, reduced efficiency, low morale among remaining employees, ailing customer relations and high recruitment, selection and transition costs for new employees. In addition to that, organisations encountering high turnover rates acquire unhealthy reputations in the job market, which makes recruitment of future candidates even tougher (Abraham, 2007). If dysfunctional (i.e. beyond what may be considered "normal") turnover is not attended to, it can contribute to closure of organisations. For example, one of the factors that led to the proposed closure of one of Aquarius Platinum's mines is excessive labour turnover (Seccombe, 2010). Hence an organisation's ability to retain its talent is a critical component in determining its present and future success (Duraisingam, Pidd & Roche; 2009; Sutherland & Jordaan; 2004).

The South African Mining Industry, which is renowned for its mining expertise, has tried to curtail the adverse effects of turnover by increasing both in-house and external training in order to ensure a consistent and adequate supply of skilled personnel for its production objectives (The Skills Portal, 2008; The Times, 2008). This has not been entirely effective, because as soon as the learners have received training, they are poached by local and international organisations. The Chamber of Mines and Exxaro CEO Sipho Nkosi, once said, "We pay people, we develop them and they go..." (Creamer, 2008, p. 205). The above-mentioned challenge necessitates the design and implementation of sound retention strategies.

It is, however, very difficult to plan retention without understanding the factors that make employees leave, as well the nature of the turnover process. The purpose of this study, therefore, was to explore the psychological states that learners and trainers - within a gold mining environment - experience while considering to leave, and to determine the predictors of turnover intentions. This was achieved by testing a turnover attitude behaviour model that is based on Fishbein and Ajzen's (1973) three-component model of behaviour. The model under study hypothesised that affective responses, such as job satisfaction and affective organisational commitment, mediate the effect of justice, centralisation, trust and job challenge on turnover intentions. The research focused on turnover intentions and not actual turnover, because the former still portrays a clear picture of what individual employees would do in an unconstrained environment (SamGnanakkan, 2010). It is also considered the most accurate predictor of actual turnover (Duraisingam et al., 2009; SamGnanakkan, 2010; Shim, Hwang & Lee, 2009; Wang, Chen, Hyde & Hsieh, 2010; Zeytinoglu, Denton, Davies & Plenderleith, 2009). Trainers and learners in the South African mining industry were specifically targeted for this research endeavour because there is a lack of literature on them, yet they are critical to the sustainability of mining. Without trainers, for instance, there is no impartation of skills. Massive investments are made in the learners, but once they are qualified, they are the hardest to retain.

This research contributes to talent retention management in that its results provide a platform for the design of evidence-based talent retention strategies. The predictive relationships shown by the results may highlight the variables this organisation needs to address in its retention efforts.

The literature review below provides a more detailed explanation of the variables – justice, centralisation, trust, job challenge, job satisfaction, commitment and turnover intention - that were studied, as well as how they are expected to relate to each other.

Literature review

Overall justice can be defined as an employee's perceptions about the fairness of the overall treatment he or she receives from the organisation (Lawson, Rodwell & Noblet, 2009; Nadiri & Tanova, 2009; St-Pierre & Holmes, 2010; Vasset, Mamburg & Furunes, 2010). Literature has identified three components of overall justice and these include distributive justice, procedural justice and interactional justice (Chen, Zhang, Leung, & Zhou, 2010; Lawson et al., 2009; McAuliffe, Manafa, Maseko, Bowie & White, 2009; Nadiri & Tanova, 2009; St-Pierre & Holmes, 2010; Vasset et al., 2010; Zhang & Agarwal, 2009). Distributive justice refers to the employee's appraisal of the fairness of his/her outcomes as compared to his/her inputs, relative to that of comparable others (Lawson et al., 2009; Zhang & Agarwal, 2009). Procedural justice has to do with the perceived fairness of the means used to determine the employee's outcomes (Nadiri & Tanova, 2009). Interactional justice is made up of interpersonal and informational justice. Interpersonal justice refers to an employee's perceptions of fairness about how he/she is treated during implementation of procedures - such as concern for his/her plight - and being treated with honesty, respect, and dignity (Chou, 2009). Informational justice describes the extent to which employees receive timely and accurate information about the decision-making processes and the outcomes of those processes (Lawson et al., 2009). Overall justice has the potential to influence many organisational outcomes (St-Pierre & Holmes, 2010). According to Haar and Spell (2009), situations where justice is lacking are linked with negative consequences such as increased stress, reduced job performance, reduced quality of work, frustration, reduced self image, decreased organisational commitment, reduced co-operation from co-workers, decreased citizenship behaviours, theft, lower organisational performance and higher turnover intentions. Previous research has found that overall justice is positively related to job satisfaction (Hossam & Elanain, 2010; Lawson et al., 2009; McAuliffe et al., 2009; Nadiri & Tanova, 2009; St-Pierre & Holmes, 2010; Wang, Cai & Deng, 2010), but negatively related to trust in the

employer (St-Pierre & Holmes, 2010) and the intention to stay (Nadiri & Tanova, 2009). Due to the fact that justice is a basic requirement for personal comfort and satisfaction (Greenberg, in Lambert, 2003), it was expected to be related to talent retention in that its presence will cause employees to be satisfied and have intentions to stay in their positions. All the other organisational and work climate variables under study (such as centralisation, trust and job challenge) are viewed as basic necessities for employees and subsequently related to intentions to stay.

Centralisation refers to an employee's perceptions about the extent to which he or she takes part in decision making (Kim, 2002). Centralisation limits the decision-making power of employees, whilst decentralisation enhances their involvement. Participative decision making, sometimes referred to as decentralisation, is said to have critical implications on employees' work attitudes, behaviour and organisational effectiveness (Angermeier, Dunford, Boss, Smith & Boss, 2009; Mehta, Gardia & Rathore, 2010). For instance, decentralisation is believed to improve the quality of the decisions made, build commitment to these decisions and enhance implementation success (Carmeli, Sheaffer & Halevi, 2009). Mehta et al. (2010) state that decentralisation makes employees feel respected and empowered, builds trust, strengthens staff morale, commitment and teamwork and increases organisational effectiveness. Research shows that centralisation is negatively related to job satisfaction (Mehta et al., 2010) and positively related to turnover intention (Knudsen, Ducharme & Roman, 2009). The positive feelings that participation in decision making evokes in employees are expected to have an impact on their intentions to stay. In light of the above-mentioned variables' link to talent retention, it seemed reasonable to also study trust.

Madjar and Ortiz-Walters (2009) define trust as one party's willingness to be vulnerable to another party, based on positive expectations of the other party's intentions or behaviours. This study specifically focused on employees' trust in their employer, usually represented by the supervisor. Trust has become increasingly important in organisations of today, because it enhances employee engagement, increases knowledge sharing (Thomas, Zolin & Hartman, 2009) and fosters innovative behaviours (Lehmann-Willenbrock & Kauffeld, 2010). Trust also

facilitates a cohesive culture within an organisation, which is critical in the implementation of strategy and organisational change (Neves & Caetano, 2009). Thomas et al. (2009, p. 290) state that if an employee does not trust her supervisor, she is more likely to spend her time, "covering her back, questioning her boss's directions, or even looking for another job." This implies that an employee, who does not trust his or her supervisor, is disengaged. Literature shows that trust predicts job satisfaction (Lehmann-Willenbrock & Kauffeld, 2010), is positively related to job satisfaction (Karalis & Dowling, 2010), predicts organisational openness (Thomas et al., 2009) and is negatively related to turnover intention (Institutes of Management and Administration, 2007; Neves & Caetano, 2009). Previous research clearly indicates the link between trust and talent retention. Likewise, the presence of job challenge was expected to be related to intentions to stay.

Job challenge is defined as the extent to which one's job provides him/her with a platform to utilise previously acquired skills and abilities and contributes to new knowledge and learning (Hellgren, Sjöberg & Sverke, 1997). Not much research has been done pertaining to the relationship between job challenge and job satisfaction, affective organisational commitment, or turnover intention. However, the stance is taken here that job challenge is a necessity to every employee, hence related to intentions to stay. Since the above-mentioned variables represent favourable organisational and work perceptions, they were expected to be related to job satisfaction, which was expected to be positively related to talent retention. It therefore seemed logical to study job satisfaction.

Job satisfaction is defined as an employee's affective response to his or her job, emanating from a comparison between desired job outcomes and actual outcomes (Rad & De Moraes, 2009). Low job satisfaction is associated with high absenteeism and decreased productivity (Meisinger, 2007), whilst high job satisfaction is linked to talent retention (Rad & De Moraes, 2009; Meisinger, 2007). Previous research shows job satisfaction as a significant predictor of turnover intention (Decker, Harris-Kojetin & Bercovitz, 2009; Duraisingam et al., 2009; Liesienė, Endriulaitienė, Bukšnytė, Gustainienė & Kern, 2010; McKnight, Phillips & Hardgrave, 2009; Peng, Huang, Zhang, Li & Pang, 2009). Hossam and Elanain (2010) show that job satisfaction

plays a partial mediating role between organisational justice and turnover intention. The presence of job satisfaction clearly contributes to retention of employees. Likewise, it also seemed important to study commitment.

Affective organisational commitment is an emotional attachment to the organisation reflected through identification with, and involvement in, the organisation (Kontoghiorghes & Frangou, 2009), and a desire to remain in the organisation (Antón, 2009). Kontoghiorghes and Frangou (2009) contend that affective commitment has a strong positive effect on desirable work behaviours such as attendance, performance and organisational citizenship behaviours. Affective organisational commitment plays a huge role in turnover literature and it is positively related to talent retention (Kontoghiorghes & Frangou, 2009). Previous research shows a negative relationship between affective commitment and turnover intention (Antón, 2009; Liesienė et al., 2010; SamGnanakkan, 2010; Suliman & Yousef, 2010; Timmerman, 2009). Hossam and Elanain (2010) found that commitment fully mediates the relationship between procedural justice and turnover intention and partly mediates the relationship between distributive justice and turnover intention. As indicated above, if employees are committed to the organisation, there is a high likelihood that they would want to maintain membership within that organisation, which subsequently results in retention of talent. The last, but essential, variable to be studied was turnover intention.

Wang et al. (2010, p. 875) define turnover intention as "a conscious psychological willingness to leave an organization." Turnover intention progresses across three stages and these include thinking about quitting one's job, actively looking for a job and applying for a job (Chou, 2009; Wang et al., 2010). This phenomenon is associated with disengagement, in the sense that employees intending on turnover will be disengaged (Ellis & Sorensen, 2007). This would then cost the organisation, because such employees are usually less productive. Hence, turnover intention should be avoided at all costs. Intentions to leave are also the strongest predictors of actual turnover (Duraisingam et al., 2009; SamGnanakkan, 2010; Shim et al., 2009; Wang et al., 2010; Zeytinoglu et al., 2009). Whether the intentions will be translated into actual turnover or

not depends on individual factors, work-related factors and economic conditions (SamGnanakkan, 2010).

As indicated above, research has consistently shown job satisfaction as an antecedent in the turnover process (Zimmerman & Darnold, 2009) and commitment's relationship to turnover intention (Trimble, 2006; Wasti, 2003). The objective of this study, therefore, was to investigate the mediation of the effect of justice, centralisation, trust and job challenge on turnover intentions by means of job satisfaction and affective organisational commitment. The study postulated specifically that if participants perceived their employment conditions to be fair, the departmental decision making process to be participative, their employer to be trustworthy and their jobs to be challenging, they would also be satisfied with their jobs and be affectively committed to their organisation. As a result they would have no intentions of leaving the organisation.

METHOD

Research Design

A cross-sectional design was utilised to collect data on the variables of interest. This type of study provided the research with a picture of the participants' perceptions of justice, centralisation, trust, job satisfaction, organisational commitment and turnover intentions at the point of data collection. This design also provides a platform to explore the relationships between these variables (Trochim & Donelly, 2006).

Participants

Table 1 below provides an overview of the characteristics of the participants.

Table 1

Characteristics of Trainers (n=171) and Learners (*n*=230)

Item	Category	Trainers		Learners	
		Frequency	Percentage	Frequency	Percentage
Gender	Male	106	62,00	204	88,70
	Female	62	36,30	25	10,90
Children	Younger than 12	93	54,40	114	49,60
	Not younger than 12	76	44,40	113	49,10
Household	Single	19	11,10	75	32,60
	Married or living with a partner	131	76,60	108	47,00
	Living with parents	4	2,30	38	16,50
	Divorced or separated	4	2,30	2	0,90
	Remarried	8	4,70	1	0,40
Education	Grade 10 (Standard 8)	26	15,20	23	10,00
	Grade 11 (Standard 9)	15	8,80	17	7,40
	Grade 12 (Standard 10)	66	38,60	122	53,00
	Technical College Diploma	25	14,60	44	19,10
	Technicon Diploma	18	10,50	11	4,80
	University degree (BA, BComm, Bsc, Honours)	15	8,80	7	3,00
	Postgraduate Degree (Masters or Doctorate)	1	0,60		
Language	Afrikaans	64	37,40	36	15,70
	English	19	11,10	5	2,20
	Sepedi	3	1,80	11	4,80
	Sesotho	24	14,00	56	24,30
	Setswana	20	11,70	29	12,60
	isiSwati	1	0,60	7	3,00
	Tshivenda			2	0,90
	isiXhosa	19	11,10	49	21,30
	isiZulu	8	4,70	7	3,00
	isiTsonga	3	1,80	18	7,80
	isiNdebele	2	1,20		
	Other	2	1,20	6	2,60
Employment Status	Permanent	155	90,60	122	53,00
	Substitute position	2	1,20		
	Employment by the hour	1	0,60	1	0,40
	Employment for a project	1	0,60		
	Trainee	7	4,10	96	41,70
	Other	3	1,80	1	0,40
Part/ Full time	Full-time	162	94,70	220	95,70
	Part-time	3	1,80	7	3,00
Union member	Yes	122	71,30	182	79,10
	No	45	26,30	41	17,80

The final study population consisted of 171 trainers and 230 learners, who on average have been working for the mining organisation for about 15 years (14,93 years, *SD* = 10,85) and 6,5 years (6,47 years, *SD* = 8,29) respectively. The frequencies for both trainers and learners were largely the same, except for gender, household and language variables. The sample was predominantly male (62%) for trainers and (88,7%) for learners, with more females among the trainers (36,3%) than the learners (10,9%). More participants among the learners were single (32,6%) as compared to the single participants among the trainers (11,10%); more trainers were married (76,6%) than learners (47%). More participants among the trainers indicated Afrikaans or English as a first/home language (48,5%), as compared to the learners (17,9%). The percentage of participants who had some form of tertiary-level qualification (Technical College diploma, Technicon diploma, University or Postgraduate degree) among the trainers and learners was 34,5% and 26,9% respectively. An average of 95% of both trainers and learners were full-time employees of the mining organisation.

Research Procedure

The study aimed to reach 700 participants, that is, 300 trainers and 400 learners. Out of the 700, 401 usable questionnaires were returned, culminating into a response rate of 57,29%. Questionnaires were sent to participants in stamped envelopes addressed to the researcher. The participants could complete the questionnaires in their own time. On completion, the participants could either seal the envelopes and post them directly to the researcher, or seal the envelopes and send them to the mining organisation's human resource office.

During administration of the study informed consent was solicited and received from the participants as a way of respecting their privacy, confidentiality and autonomy. A brief explanation of the purpose of the study was given in a cover letter to exercise honesty, fairness and respect. The research ensured sensitivity to the needs of participants and addressed each and every concern they raised. Participation was absolutely voluntary.

Measuring Battery

The researcher utilised the following instruments:

The *Overall Justice scale*, developed by Van der Vliet and Hellgren (2002), measures a general sense of fair treatment by the employer. The instrument consists of three items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). The instrument comprises items such as "I feel that my employer treats me fairly," and "I find that my employer behaves fairly towards me." A high score indicates a high level of overall justice being experienced. Näswall. Baraldi, Richter, Hellgren and Sverke (2006) found alpha coefficients for this instrument ranging between 0,88 and 0,90.

The *Centralization scale*, developed by Mellor, Mathieu, and Swim (1994), measures the extent to which staff is encouraged or allowed to participate in decision-making processes pertaining to departmental issues. The instrument consists of three items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). A high score indicates a high level of centralisation. The instrument comprises items such as "*Employees are encouraged to participate when important decisions are made in this department*". Mellor et al. (1994) and Van der Vliet and Hellgren (2002) found alpha coefficients for this instrument ranging between 0,73 and 0,83.

The *Trust scale* (Robinson, 1996) measures the employee's perceptions of the employer's trustworthiness. The instrument consists of five items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree) with a high score indicating a high level of trust. Some typical statements from this scale include: "*I can expect my employer to treat me in a predictable and consistent manner*," and "*My employer is always reliable.*" Näswall et al. (2006) found alpha coefficients above 0,90 for this instrument.

The *Job Challenge scale* was developed by Hellgren, Sjöberg and Sverke (1997). It measures the extent to which one's work contributes to new knowledge and learning. The instrument consists of four items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). An example of the items it contains is "*I'm learning new things all the time in my job*." A high score indicates a high level of experienced job challenge. Näswall et al. (2006) found alpha coefficients for this instrument ranging between 0,57 and 0,77.

The *Job Satisfaction scale* was developed by Hellgren, Sjöberg and Sverke (1997), based on Brayfield and Rothe (1951). The instrument consists of three items ("*I enjoy being at my job;*" "*I am contented with the job I have;*" "*I am satisfied with my job.*") and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). A high score indicates a high level of job satisfaction. Näswall et al. (2006) found alpha coefficients ranging from 0,88 and above for this instrument.

The *Affective Organizational Commitment scale* (Allen & Meyer, 1990) measures the extent to which one is affectively committed to his/her organisation. The instrument consists of four items and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). An example of the items it contains is, "*The organization has a big personal importance to me.*" A high score indicates a high level of affective organisational commitment. In previous research (Albrecht & Travaglione, 2003; Antón, 2009; Liesienė et al., 2010; Meyer & Allen, 1990; Rifai, 2005), the reliability of this instrument was found to be adequate, with alpha coefficients ranging between 0,70 and 0,92.

The *Turnover Intention scale*, as developed by Sjöberg and Sverke (2000), measures the strength of the respondent's intentions to leave the present position. The instrument consists of three items (for example: "*I feel that I could leave this job.*") and is scored on a scale of 1 (strongly disagree) to 5 (strongly agree). A high score indicates a high level of turnover intention. Näswall et al. (2006) found alpha coefficients for this instrument ranging between 0,76 and 0,87.

The *Biographical Questionnaire* was developed by the researcher for the purposes of investigating the biographical characteristics of the participants. It measures age, gender, language, educational qualifications, employment status and years within the organisation among other things. The questionnaire consists of 14 questions and the types of responses to select from differ depending with the question asked. Examples of questions asked include, "What is your home/first language?" and "How many years have you been working for the organisation you are now working for?" Responses to these question may also assist in the investigating the correlations between various biographical factors and work attitudes.

Statistical Analysis

The statistical analysis was carried out using the SPSS-program (SPSS, 2009) based on Field (2009). Descriptive statistics were used to:

- Analyse the distribution of data (such as the frequency of individual values or range of values for a variable) and clean the dataset (Field, 2009).

- Analyse the central tendency of specific variables (such as means) (Field, 2009).

- Analyse dispersion or variability (that is the spread of values around the central tendency, such as standard deviations, skewness and kurtosis) (Field, 2009).

Exploratory Factor Analysis was used to investigate the construct validity of measuring instruments (Field, 2009). For instance, it determined the proportion of variance explained by different items on a scale, as well as the dimensions that constituted every construct or scale. In terms of reliability analysis, Cronbach alpha coefficients were calculated using the procedures described by (Field, 2009).

Product moment correlations were used to clarify relationships between the various constructs (overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment and turnover intention) (Field, 2009). Multiple regression analysis assisted in finding out if any independent variables predicted the dependent variable (in this case, turnover intention) (Field, 2009). To test for the various mediating effects, procedures as described in Barron and Kenny (1986) were followed. Mediation can be illustrated by regressing the mediator on the independent variable and showing it to have an effect, then by showing the dependent variable to have an effect on the independent variable in a second regression. It can finally be illustrated by regressing the dependent variable on both the proposed mediator and the independent variable and finding that the mediator affects the dependent variable (Barron & Kenny, 1986).

The mediating effect of job satisfaction between overall justice, centralisation, trust, job challenge and turnover intention was investigated. According to Barron and Kenny (1986), this mediating effect can be illustrated by first regressing overall justice, centralisation, trust and job

challenge on job satisfaction, secondly by showing overall justice, centralisation, trust and job challenge to have an effect in predicting turnover intention, and thirdly by showing that turnover intention is affected by both job satisfaction and overall justice, centralisation, trust and job challenge.

RESULTS

Table 2 below gives the descriptive and reliability statistics of the participants:

Table 2

Comparison of Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments for Trainers (n=171) and Learners (n=230)

Variable	Trainers					Learners				
	Mean	*SD*	**Skewness**	**Kurtosis**	α	**Mean**	*SD*	**Skewness**	**Kurtosis**	α
Overall Justice	3,54	1,06	-0,72	-0,05	0,90	3,79	0,91	-0,65	0,10	0,76
Centralisation	2,88	0,93	0,37	-0,05	0,54	2,72	0,96	0,50	-0,21	0,63
Trust	3,60	0,93	-0,52	-0,09	0,90	3,84	0,84	-0,59	-0,05	0,83
Job Challenge	3,92	0,81	-0,70	0,37	0,66	4,37	0,63	-1,07[*]	1,06[*]	0,56
Job Satisfaction	3,81	0,84	-0,66	0,42	0,74	4,04	0,75	-0,78	0,76	0,67
Affective Organisational Commitment	3,40	0,67	-0,30	0,50	0,40	3,50	0,64	0,12	-0,10	0,27
Turnover Intention	2,19	1,08	0,83	-0,03	0,81	2,02	1,01	0,91	0,18	0,70

[*]High skewness and/or kurtosis.

Table 2 shows that more acceptable Cronbach alpha coefficients were obtained among the trainers (4) than among the learners (3), considering the guideline of Nunnally and Bernstein (1994). Although the reliability coefficients of *Job challenge* and *Centralisation* appeared to be somewhat lower for trainers, they were retained for analysis due to the explorative nature of the study (this practice is acceptable – see for example Easterby-Smith, Thorpe & Lowe, 2002). The same applies to *Job challenge, Centralisation* and *Job satisfaction* for the learners. The Affective organisational commitment scale's reliability coefficient for both trainers and learners fell way below 0,70, (0,40 and 0,27 respectively). This could distort statistical results related to this variable; therefore statistical computations involving relationships (correlations) with this variable were not computed for both trainers and learners. Furthermore, the scores on all scales,

except job challenge scores on the learners' side, were normally distributed as indicated by their skewness and kurtosis.

Table 3 below reports on the relationships between the different variables within the two groups of trainers and learners:

Table 3

Comparison of Correlation Coefficients between Overall Justice, Centralisation, Trust, Job Challenge, Job Satisfaction and Turnover Intention among Trainers (n=171) and Learners (n=230)

		Trainers					**Learners**				
	Variable	1	2	3	4	5	1	2	3	4	5
1	Overall Justice		-	-	-	-		-	-	-	-
2	Centralisation	-0,61**++		-	-	-	-0,46**+		-	-	-
3	Trust	0,85**++	-0,61**++		-	-	0,70**++	-0,53**++		-	-
4	Job Challenge	0,47**+	-0,46**+	0,53**++		-	0,28**	-0,27**	0,33**+		-
5	Job Satisfaction	0,44**+	-0,45**+	0,49**+	0,57**++		0,34**+	-0,38**+	0,50**++	0,43**+	
6	Turnover Intention	-0,42**+	0,39**+	-0,41**+	-0,34**+	-0,52**++	-0,41**+	0,35**+	-0,31**+	-0,30**+	-0,51**++

* Correlation is significant at the 0,05 level

** Correlation is significant at the 0,01 level

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

++ Correlation is practically significant $r \geq 0,50$ (large effect)

Table 3 shows that most of the variables were practically significantly related among both trainers and learners. Whilst all the variables are practically significantly related among trainers, learners missed this characteristic by 2 correlations, which were statistically significantly related only. The correlations (relationships) between the variables were stronger among the trainers and relative to learners' correlation coefficients. Correlation coefficients of the two groups are analysed separately below.

Correlations: Trainers

Turnover intention is negatively practically significantly related to *Job satisfaction* with a large effect, negatively practically significantly related to *Overall justice, Trust* and *Job challenge* and

positively practically significantly related to *Centralisation* - all with medium effect. *Job satisfaction* is positively practically significantly related to *Job challenge* with a large effect, positively practically significantly related to *Overall justice* and *Trust* and negatively practically significantly related to *Centralisation* - with medium effect. *Job challenge* is positively practically significantly related to *Trust* with a large effect, positively practically significantly related to *Overall justice* and negatively practically significantly related to *Centralisation -,* with medium effect. *Trust* is positively practically significantly related to *Overall justice*, negatively practically significantly related to *Centralisation* - with large effect. *Centralisation* is negatively practically significantly related to *Overall justice* - with large effect.

Correlations: Learners

Turnover intention is negatively practically significantly related to *Job satisfaction* with a large effect, negatively practically significantly related to *Overall justice*, *Trust* and *Job challenge* and positively practically significantly related to *Centralisation* - all with medium effect. *Job satisfaction* is positively practically significantly related to *Trust* with a large effect, positively practically significantly related to *Overall justice* and *Job challenge* and negatively practically significantly related to *Centralisation* - with medium effect. *Job challenge* is positively practically significantly related to *Trust* with medium effect, positively statistically significantly related to *Overall justice* and negatively statistically significantly related to *Centralisation*. *Trust* is positively practically significantly related to *Overall justice* and negatively practically significantly related to *Centralisation* - with large effect. *Centralisation* is negatively practically significantly related to *Overall justice* - with medium effect.

Table 4 below reports on the regression analyses predicting turnover intention. The mediating effect of job satisfaction is also investigated, for both trainers and learners. The data for trainers appears above the line and that for learners below the line.

Table 4

Multiple Regression Analyses for Trainers (n=171) and Learners (n=230), with Turnover Intention as Dependent Variable and Job Satisfaction as Mediator

Model		Unstandardised Coefficients		Standardised Coefficients	t	p	F	R^2	ΔR^2
		B	SE	Beta					
Dependent Variable: Job Satisfaction									
1	(Constant)	1,95	0,49		4,01	0,00	26,35	0,40	0,39
		1,75	0,43		4,06	0,00	27,59	0,34	0,32
	Job Challenge	0,41	0,07	0,41	5,53	0,00*			
		0,34	0,07	0,28	4,06	0,00*			
	Centralisation	-0,14	0,07	-0,15	-1,89	0,06			
		-0,10	0,05	-0,13	-1,97	0,05*			
	Overall Justice	0,01	0,09	0,01	0,09	0,93			
		-0,06	0,07	-0,07	-0,88	0,38			
	Trust	0,17	0,11	0,19	1,52	0,13			
		0,34	0,07	0,38	4,63	0,00*			
Dependent Variable: Turnover Intention									
2	(Constant)	3,31	0,71		4,64	0,00	11,32	0,22	0,20
		3,77	0,61		6,19	0,00	18,27	0,25	0,24
	Job Challenge	-0,17	0,11	-0,13	-1,57	0,12			
		-0,31	0,10	-0,19	-3,08	0,00*			
	Centralisation	0,20	0,11	0,17	1,90	0,06			
		0,21	0,07	0,21	2,91	0,00*			
	Overall Justice	-0,18	0,14	-1,18	-1,32	0,19			
		-0,36	0,09	-0,33	-3,99	0,00*			
	Trust	-0,10	0,17	-0,09	0,62	0,54			
		0,10	0,10	0,08	0,93	0,36			
3	(Constant)	4,26	0,71		6,02	0,00	14,02	0,31	0,29
		4,76	0,58		8,21	0,00	25.61	0,37	0,36
	Job Challenge	0,03	0,11	0,02	0,26	0,80			
		-0,12	0,10	-0,07	-1,20	0,23			
	Centralisation	0,14	0,10	0,11	1,33	0,19			
		0,16	0,07	0,15	2,29	0,02*			
	Overall Justice	-0,18	0,13	-0,18	-1,37	0,17			
		-0,40	0,08	-0,36	-4,72	0,00*			
	Trust	-0,02	0,16	-0,02	-0,12	0,90			

	0,29	0,10	0,24	2,89	0,00*
Job Satisfaction	-0,49	0,11	-0,38	-4,42	0,00*
	-0,57	0,09	-0,43	-6,44	0,00*

Table 4 indicates that *Job challenge* is the only statistically significant predictor of job satisfaction for trainers, whilst *Job challenge*, *Centralisation* and *Trust* are statistically significant predictors of job satisfaction for learners in Model 1. Model 2 shows that *Job challenge*, *Centralisation* and *Overall justice* are statistically significant predictors of turnover intention for learners. However, none of the variables are statistically significant predictors of turnover intention for trainers. Only *Job satisfaction* is a statistically significant predictor of turnover intention for trainers in Model 3, whilst *Centralisation, Overall justic*e, *Trust a*nd *Job satisfaction* are statistically significant predictors of turnover intention for learners. The mediation effect of *Job satisfaction* amongst *Job challenge*, *Centralisation*, *Overall justice* and *Trust,* as well as *Turnover intention*, is thus not supported among trainers. It is only *Job satisfaction* that plays a statistically significant direct role for trainers in the prediction of turnover intention. It can, however, also be seen that *Job satisfaction* acts as a mediator of centralisation on turnover intention for learners. *Overall justice* and *Trust* play a direct role in the prediction of turnover intention for learners.

DISCUSSION

The aim of the current study was firstly to determine the kind of relationship that could be found between turnover intention, job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge among trainers and learners. Secondly, the study aimed at investigating if turnover intention could be predicted by all the other variables under study. Thirdly, the study aimed at determining whether or not job satisfaction and affective organisational commitment mediate the relationship between overall justice, centralisation, trust and job challenge on the one hand and turnover intention on the other. The fourth aim was to determine the similarities and/or differences in the way trainers and learners experience the interrelationships between overall justice, centralisation, trust, job challenge, job satisfaction,

commitment and turnover intention. Lastly, the study aimed at using the results from the above-mentioned investigations to make recommendations regarding retention of trainers and learners. The results show that all the measuring instruments used in this study, except the affective organisational commitment scale, are suitable for analysis. Further statistical analyses relating to affective organisational commitment were, therefore, not computed. In terms of reliability, there were some scales (Centralisation and Job challenge for trainers, and Centralisation, Job challenge and Job satisfaction for learners) that had less than desirable reliability. These scales were retained in this analysis, but results have to be interpreted with caution. The future use of these scales needs to be carefully monitored.

Almost all the variables under study were practically significantly related for both trainers and learners. This implies that one is likely to find the correlations portrayed in the study in real life. The results indicate that trainers and learners experiencing job satisfaction (fulfilment derived from one's job based on a comparison of desired outcomes and actual outcomes) are less likely to want to leave their jobs (turnover intention). In previous research (Cai & Zhou, 2009; Chen & Scannapieco, 2010; Cornelißen, 2009; De Moura et al., 2009; Haar & Spell, 2009; Liesienė et al., 2010), a negative relationship between job satisfaction and turnover intention was also found. In addition to that, job satisfaction was shown to predict turnover intention for both trainers and learners. Hence the degree of satisfaction derived from an employee's job causes him or her to want to stay or leave his or her position. These findings are in line with previous research (Decker et al., 2009; Duraisingam et al., 2009; Liesienė et al., 2010; McKnight et al., 2009; Peng et al., 2009). Job satisfaction, therefore, seems to be a critical element in as far as being a determinant of turnover intention for both trainers and learners. The results seem to suggest that it may be expedient for the mining organisation to focus its efforts in ensuring that its trainers and learners are satisfied with their jobs as a retention measure. This could be achieved by consistently investigating factors that are related to those that predict job satisfaction among the above-mentioned groups and addressing them accordingly. These factors may include job autonomy, job security and work-life balance.

In this study job satisfaction is shown to be positively correlated to overall justice (extent to which one perceives one's employer to treat one fairly), trust (extent to which one perceives

one's employer as trustworthy) and job challenge (extent to which one perceives one's job as contributing to new knowledge and learning) and negatively related to centralisation (extent to which one is involved and actually takes part in departmental decision making) for both trainers and learners. Therefore, the higher the perceptions of justice, participation in decision making, trust and job challenge, the higher the feelings of job satisfaction. This is line with previous research, which found a positive relationship between job satisfaction and overall justice (Hossam & Elanain, 2010; Lambert, 2003; Lawson et al., 2009; McAuliffe et al., 2009; Nadiri & Tanova, 2009; Parker & Kohlmeyer III, 2004; Rifai, 2005; St-Pierre & Holmes, 2010; Wang, Cai & Deng, 2010), trust (Alder, Noel, & Ambrose, 2006; Karalis & Dowling, 2010), and job challenge (Hellgren et al., 1997; Kirk-Brown & Wallace, 2004; Van der Vliet & Hellgren, 2002), and a negative relationship between job satisfaction and centralisation (Mehta et al., 2010).

The results of the study go further to show job challenge as a statistically significant predictor of job satisfaction for trainers, and job challenge, centralisation and trust as statistically significant predictors of job satisfaction for learners. Lehmann-Willenbrock and Kauffeld (2010) also found that trust predicts job satisfaction. The above-mentioned predictive relationships imply that the organisation under study may need to focus its attention on enhancing job challenge for trainers and boosting job challenge, trust in the employer, as well as decentralisation for learners in order to effect job satisfaction and improve retention of the two groups.

Overall justice, trust and job challenge are shown to be negatively related to turnover intention, whilst centralisation is shown to be positively related to it for both trainers and learners. Previous research also found the negative relationship between turnover intention and overall justice (Nadiri & Tanova, 2009) and trust (Institutes of Management and Administration, 2007; Neves & Caetano, 2009), and a positive relationship between turnover intention and centralisation (Knudsen, Ducharme & Roman, 2009). This finding implies that if employees perceive the treatment they receive from their employer to be fair, trust their employer and feel challenged by their jobs, then they are less likely to want to leave their jobs. However, if employees perceive that they are excluded from decision making regarding their departments, they are more likely to have intentions to leave their jobs.

The results of the study go further to indicate that overall justice, centralisation and trust are significant predictors of turnover intention among learners. This implies that the absence of justice, trust and decentralisation may directly cause the learners to want to leave their jobs. It, therefore, follows that if the organisation under study detects a lack of justice, trust or participation in decision making among learners, it should immediately address these issues before turnover intentions manifest into absolute turnover.

It was found that job challenge is positively correlated to trust and overall justice and negatively related to centralisation for both trainers and learners. The relationship between job challenge and trust is even stronger for trainers. It seems that if trainers find their jobs stimulating and contributing to new knowledge and skills, they tend to trust their employer more. The reason for the above-mentioned correlation could be that the trainers would feel that the organisation cares for their growth and believes in their competence. The results also indicate that the higher the job challenge for trainers, the higher the perceptions of justice and involvement in decision making.

As expected, trust was found to be strongly related to overall justice (positively) and centralisation (negatively) for both trainers and learners. Previous research shows that centralisation predicts fairness perceptions (DeConinck & Stilwell, 2004; Korsgaard, Schweiger, & Sapienza, 1995; Parker & Kohlmeyer III, 2004; Zellars, Liu, Bratton, Brymer & Perrewe, 2004). This implies that if employees are treated fairly in terms of receiving equitable outcomes as compared to their inputs, the organisation ensures the consistent implementation of fair procedures as well as fair interactional treatment during implementation of procedures and employees are involved in decision making regarding issues pertaining to their departments, then they are likely to trust their employer. Since trust predicts job satisfaction for learners, the mining organisation's starting point for boosting trust could be fair and transparent practices and participative decision making.

The results also indicate that centralisation is strongly related to overall justice for both trainers and learners. This seems to allude to the point that if employees are involved in decision making

about the design and/or review of processes, they are likely to perceive the processes and their employer as fair.

The mediating effect of job satisfaction between overall justice, centralisation, trust and job challenge on the one hand, and turnover intention on the other, was only supported in the case of centralisation, and only among learners. It seems that it is only in the case of centralisation that learners have to develop an affective response to their job (job satisfaction) for them to decide whether to leave or stay in their jobs. The perceptions learners have about other independent variables in the study (overall justice and trust) seem to directly influence them to make a conative decision to leave or stay within the organisation.

As mentioned above, job satisfaction is negatively related to centralisation. The above-mentioned result, therefore, implies that centralisation causes the learner to be dissatisfied with his/her job, which subsequently causes him/her to want to leave the organisation. This implies that it is crucial for the organisation under study to avoid centralisation, as it has such a strong impact on the learner's general feeling about the job (job satisfaction), the very response that causes him/her to want to leave his/her position.

The above-mentioned findings, overall, have serious implications on the talent retention strategies of the organisation under study. It will have to take appropriate action regarding all the independent variables in the study, as well as job satisfaction, due to their direct and/or indirect links to turnover intention. For instance, the organisation may have to focus on boosting job challenge and job satisfaction for trainers. However, it also has to improve justice, decentralisation and trust as they are positively related to job satisfaction. On the learners' side, it may have to ensure enhancement of justice, decentralisation, trust, and job challenge perceptions including feelings of job satisfaction.

Because none of the independent variables were shown to predict turnover intentions among the trainers, and only job challenge was found to predict job satisfaction (a key turnover intention

predictor in that group), further investigation into factors that predict turnover intention and job satisfaction among trainers will be beneficial to the organisation.

Below are practical ways to implement the abovementioned:

Overall Justice: It may be expedient for the organisation under study to audit their systems and procedures, such as recruitment and selection, performance management and disciplinary and grievance handling, to ensure that they are fair. Fairness of procedures may be boosted through adherence to the following criteria: consistency, bias-suppression, accuracy, correctability, representativeness and ethicality (St-Pierre & Holmes, 2010). Overall justice perceptions can be further enhanced through treating trainers and learners with politeness, dignity and respect.

Centralisation: The organisation under study may enhance decentralisation through establishing a culture of participatory decision making. Trainers and learners need to be involved in decision making regarding factors like work objectives, schedules, budgets and processes. Participatory decision making will have to be enacted during problem analysis, strategy development and implementation. Supervisors may need to be trained in how to involve employees during decision making. Trainers and learners' suggestions need to be given serious consideration and be followed up with feedback and recognition.

Trust: Trust can be enhanced through supervisors' efforts to consistently build strong relationships with their subordinates (trainers and learners). Supervisors may also gain trust through the display of competency, strong business ethics, genuine concern, honesty, consistency and reliability.

Job Challenge: The organisation under study may instil job challenge perceptions through enriching trainers and learners' jobs. Activities to consider may include setting stretch targets, assigning them problem solving related tasks and having them run projects from beginning to completion.

Job Satisfaction: To enhance job satisfaction emotions, the organisation under study may have to address the abovementioned factors as all of them have been shown to be related to it and some of them have actually been shown to predict it.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to present an analysis and discussion of the literature and empirical results of the study based on the general and specific objectives that were set. The limitations of the study will be pointed out and recommendations for future research, as well as for use by the organisation, will be made.

CONCLUSIONS

The general objective of this research was to identify those variables among overall justice, centralisation, trust, job challenge, job satisfaction and affective organisational commitment that predict turnover intention in order to recommend evidence-based talent retention strategies for trainers and learners.

3.1.1 Conclusions from the literature

The first objective of the study was to determine whether there is a relationship between turnover intention, job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge in literature. Below are the findings:

Job Satisfaction: Previous research shows job satisfaction as a significant predictor of turnover intention (Decker, Harris-Kojetin & Bercovitz , 2009; Duraisingam, Pidd & Roche; 2009; Liesienė, Endriulaitienė, Bukšnytė, Gustainienė & Kern, 2010; McKnight, Phillips & Hardgrave, 2009; Peng, Huang, Zhang, Li & Pang, 2009), and is negatively related to turnover intention (Cai & Zhou, 2009; Chen & Scannapieco, 2010; Cornelißen, 2009; De Moura, Abrams, Retter, Gunnarsdottir & Ando, 2009; Haar & Spell, 2009; Liesienė et al., 2010). Hossam and Elanain (2010), show that job satisfaction plays a partial mediating role between organisational justice and turnover intention.

Affective Organisational Commitment: Previous research shows a negative relationship between affective commitment and turnover intention (Antón, 2009; Liesienė et al., 2010; SamGnanakkan, 2010; Suliman & Yousef, 2010; Timmerman, 2009). Hossam and Elanain (2010), found that commitment fully mediated the relationship between procedural justice and turnover intention, and partly mediated the relationship between distributive justice and turnover intention.

Overall Justice: Previous research has found that overall justice is positively related to trust of the employer (St-Pierre & Holmes, 2010), job satisfaction (Hossam & Elanain, 2010; Lambert, 2003; Lawson, Rodwell & Noblet, 2009; McAuliffe, Manafa, Maseko, Bowie & White, 2009; Nadiri & Tanova, 2009; Parker & Kohlmeyer III, 2004; Rifai, 2005; St-Pierre & Holmes, 2010; Wang, Cai & Deng, 2010), and organisational commitment (Meyer & Allen, 1990; Parker & Kohlmeyer III, 2004; Van der Vliet & Hellgren, 2002), and negatively related to turnover intention (Nadiri & Tanova, 2009).

Centralisation: Research shows that centralisation is negatively related to job satisfaction (Mehta, Gardia & Rathore, 2010), affective organisational commitment (Mellor, Mathieu & Swim, 1994; Meyer & Allen, 1990), and perceptions of fairness (DeConinck & Stilwell, 2004; Korsgaard, Schweiger & Sapienza, 1995; Parker & Kohlmeyer III, 2004; Zellars, Liu, Bratton, Brymer & Perrewe, 2004), and positively related to turnover intention (Knudsen, Ducharme & Roman, 2009).

Trust: It is indicated that trust is positively related to job satisfaction (Alder, Noel, & Ambrose, 2006; Karalis & Dowling, 2010) and affective organisational commitment (Albrecht & Travaglione, 2003; Meyer & Allen, 1990), and negatively related to turnover intention (Institute of Management and Administration, 2007; Neves & Caetano, 2009). The literature also shows that trust is a predictor of job satisfaction (Lehmann-Willenbrock & Kauffeld, 2010).

Job Challenge: Research shows a positive relationship between job challenge and job satisfaction (Hellgren, Sjöberg & Sverke, 1997; Kirk-Brown & Wallace, 2004; Van der Vliet &

Hellgren, 2002) and affective organisational commitment (Dixon, Turner, Cunningham & Kent, 2005; Meyer & Allen, 1990; Sturges & Guest, 2001; Van der Vliet & Hellgren, 2002).

3.1.2   Conclusions from the empirical study

The second objective of the study was to determine the relationships between turnover intention, job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge, among trainers and learners in a mining environment.

The results show that all the measuring instruments used in this study, except for the affective organisational commitment scale, are suitable for analysis. All analyses relating to affective organisational commitment were therefore not computed, hence its absence in the results stated below. With regards to trainers, the results indicate that:

Turnover intention is negatively practically significantly related to job satisfaction with large effect, and negatively practically significantly related to overall justice, trust and job challenge, and positively practically significantly related to centralisation, all with medium effect. Job satisfaction is positively practically significantly related to job challenge with large effect, positively practically significantly related to overall justice and trust and negatively practically significantly related to centralisation, with medium effect. Job challenge is positively practically significantly related to trust with large effect, positively practically significantly related to overall justice, and negatively practically significantly related to centralisation, with medium effect. Trust is positively practically significantly related to overall justice and negatively practically significantly related to centralisation, with large effect. Centralisation is negatively practically significantly related to overall justice, with large effect.

The learners' results show that turnover intention is negatively practically significantly related to job satisfaction with a large effect, negatively practically significantly related to overall justice, trust and job challenge and positively practically significantly related to centralisation, all with medium effect. Job satisfaction is positively practically significantly related to trust with large effect, positively practically significantly related to overall justice and job challenge and

negatively practically significantly related to centralisation, with medium effect. Job challenge is positively practically significantly related to trust with medium effect, positively statistically significantly related to overall justice and negatively statistically significantly related to centralisation. Trust is positively practically significantly related to overall justice and negatively practically significantly related to centralisation, with large effect. Centralisation is negatively practically significantly related to overall justice, with medium effect.

The third objective was to investigate if turnover intention can be predicted by means of job satisfaction, affective organisational commitment, overall justice, centralisation, trust and job challenge among trainers and learners.

It was found that - among trainers - only job satisfaction is a statistically significant predictor of turnover intention, whilst among learners overall justice, centralisation, trust and job satisfaction were found to be statistically significant predictors of turnover intention.

The fourth objective was to determine whether job satisfaction and affective organisational commitment mediate the relationship of overall justice, centralisation, trust and job challenge to turnover intention among trainers and learners.

As stated above, the commitment scale showed poor reliability and no calculations could be done by using it.

The mediation effect of job satisfaction between job challenge, centralisation, overall justice and trust on the one hand and turnover intention on the other, was not supported where trainers are concerned. It was found, however, that, job satisfaction mediates the effect of centralisation on turnover intention for learners.

The fifth objective was to determine the similarities and/or differences encountered by trainers (employees who train other employees in technical, functional and generic skills) and learners (employees who receive the training) in the way they experience the interrelationships between

overall justice, centralisation, trust, job challenge, job satisfaction, affective organisational commitment and turnover intention.

Table 5

Comparison and Contrast of the experience of the interrelationships between overall justice, centralisation, trust, job challenge, job satisfaction and turnover intention by Trainers (n=171) and Learners (n=230)

	Similarities	Differences
Correlations	- Turnover intention is negatively practically significantly related to job satisfaction with a large effect, negatively practically significantly related to overall justice, trust and job challenge and positively practically significantly related to centralisation, all with medium effect. - Job satisfaction is positively practically significantly related to overall justice and negatively practically significantly related to centralisation, with medium effect. - Trust is positively practically significantly related to overall justice and negatively practically significantly related to centralisation, with large effect.	- Job satisfaction is positively practically significantly related to job challenge with large effect among the trainers, whilst among the learners, job satisfaction is positively practically significantly related to trust with large effect. - Among the trainers Job challenge is positively practically significantly related to trust with large effect, whilst among the learners the relationship of Job challenge to trust is positively practically significant with a medium effect. - Whilst Job challenge is positively practically significantly related to overall justice, and negatively practically significantly related to centralisation, with medium effect among the trainers, that correlation

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		is only statistically significant among the learners. Centralisation is negatively practically significantly related to overall justice, with large effect.
		• Centralisation is negatively practically significantly related to overall justice, with large effect among the trainers, on the other hand, that correlation is negatively practically significant with a medium effect.
Multiple Regressions	• Job satisfaction is a statistically significant predictor of turnover intention.	• Overall justice, centralisation and trust were found to be statistically significant predictors of turnover intention among the learners, but these predictive relationships were not found among the trainers.
Mediation Effects		• Job satisfaction was shown to mediate the effect of centralisation on turnover intention for learners, however that mediation effect was not supported among the trainers.

The last objective was to make recommendations to the mining organisation with regards to retention of trainers and learners.

These are given under point 3.3.

3.2 LIMITATIONS

The first limitation of the study is that the research design was cross-sectional. This implies that the way some of the participants experienced certain dimensions may have been influenced by temporary circumstances, such as the global recession. For greater reliability of responses, a longitudinal study may need to be performed. The nature of the design also limits one in making causal attributions to the relationships between these variables.

The Affective Organisational Commitment scale's reliability coefficient for both trainers and learners fell way below 0,70, (0,27 and 0,40 respectively). This highlights the need for future research to re-analyse content and construct validity and possibly revise the items. This is likely to ensure construct reliability and more accurate results. Whilst the reliability of some scales (centralisation and job challenge for trainers, and centralisation, job challenge and job satisfaction for learners) was suitable for this exploratory analysis, the scales had less than desirable reliability. These constructs would require a slight review of the reliability status and appropriate corrective action to be taken.

Alternatives to the abovementioned measuring instruments include the affective commitment dimension of the Organisational Commitment scale by (Meyer & Allen, 1997, cited in Mguqulwa, 2008) for affective commitment, the Minnesota Satisfaction Questionnaire 20 by (Dawis, England & Lofquist, 1967, cited in Martin, A. & Roodt, 2008) for job satisfaction and the Job Challenge scale by (Lawler & Hall, 1970).

All items on the measuring instruments had specific alternatives to choose from. Additional open-ended questions would have provided information, which would have enhanced a further understanding of participants' views.

Despite the fact that the participants were pre-briefed about the anonymity of the results, the use of a self-report instrument may have posed social desirability implications. This may have

resulted in findings being distorted. Accuracy of the research results could have been enhanced by using mixed methods for each variable/dimension.

3.3 RECOMMENDATIONS

3.3.1 Recommendations for future research

Because none of the independent variables were shown to predict turnover intentions among trainers, it may be expedient for future research to identify other variables that are likely to cause trainers to want to leave the organisation and to investigate their relationship to turnover intention. In addition to that, further investigation into factors that predict job satisfaction for trainers will also help in informing talent-retention strategies for trainers, because job satisfaction predicts turnover intention. These factors may include job autonomy, job security and work-life balance.

Whilst overall justice's predictive relationship to turnover intention for learners was shown and its negative relationship to turnover intention for trainers, such information is inadequate as far as designing talent retention strategies is concerned. It may help if overall justice is studied in its separate components so that organisations under study my easily identify the specific areas of overall justice in which they are strong, as well as those that need immediate attention, so that appropriate action can be taken.

3.3.2 Recommendations for the participating organisation

The results mentioned above have important implications for the development of strategies to minimise turnover intentions and improve the well-being of employees. Since the results for trainers and learners are somewhat different, retention recommendations for each group will be presented separately.

Trainers:

Because only job satisfaction was found to predict turnover intention and job challenge was shown to predict job satisfaction, it was recommended that the mining organisation under study boost job challenge and job satisfaction among trainers. Further investigation into other factors that predict job satisfaction was also recommended, because job satisfaction is crucial in minimising, if not avoiding, intentions to leave. The organisation under study may still work on enhancing justice, decentralisation and trust among trainers, because these were shown to be positively related to job satisfaction. Its thrust, however, when it comes to retention strategies for trainers, should be job challenge and job satisfaction.

Practical ways of implementing the above-mentioned recommendations are stated in the organisational recommendations below.

Job Satisfaction: The organisation may augment job satisfaction among trainers by improving job challenge, because it was shown to be related to job satisfaction as well as predict it, and by enhancing overall justice, decentralisation and trust, because they are related to job satisfaction.

Job Challenge: The organisation can enhance job challenge for trainers by doing the following: place them in roles which allow them to use their competencies, set them stretch targets and allocate them new modules to train. When it comes to retention strategies for trainers, assigning them a variety of tasks, assigning them more problem-solving related tasks, putting them in project teams working on products, process or business improvement (in order to increase the number of people where co-operation is necessary), rotating them across various work areas or business units, having them run a project or assignment from beginning to completion (such as assigning them to set up a new training centre for a new mining venture), providing less specific directions and rules, involving them in strategic planning for the business and providing continuous development would contribute to job challenge perceptions.

Overall Justice: Overall justice is positively related to job satisfaction and negatively related to turnover intention. Overall justice may be improved through design and implementation of fair

systems and procedures regarding factors like recruitment and selection, job evaluation, performance appraisals and disciplinary and grievance handling. Application of procedures' fairness may be boosted through adherence to the following criteria of fair procedure: consistency, bias-suppression, accuracy, correctability, representativeness and ethicality (St-Pierre & Holmes, 2010). Justice can be further enhanced by means of employment and psychological contract fulfilment. In addition to that, perceptions of justice can be elicited by consistently treating trainers with politeness, dignity, respect and demonstrating emotional support to trainers. The organisation may need to avoid the following patterns of behaviour because they may lead to perceptions of injustice: making wrongful accusations, bad-mouthing trainers, invading trainers' privacy, disclosing confidence and secrets, publicly criticising and berating trainers or using pejorative labels (for example troublemaker) to stigmatise a trainer (Fujishiro & Heaney, 2009). Lastly, the organisation may facilitate justice by providing thorough, accurate and complete explanations of systems and procedures, as well as justification for decisions - tailored for the wide variety of trainers - in a timely manner. According to Zhang and Agarwal (2009), when individuals receive open and complete information about their jobs and organisational activities, as well as how they are judged by authorities, they are likely to feel that they are treated fairly by the organisation.

Centralisation: Centralisation is negatively related to job satisfaction and positively related to turnover intention. The first step that the mining organisation can take towards decentralisation or participative departmental decision making could be by making it policy. Secondly, supervisors of trainers could be trained in involving trainers in decision making regarding operational processes and individual work. Factors that characterise participative decision making that could be included in this training are conversation, dialogue, argument and the achievement of decisions that emerge from discussion and consensus (Cunningham, Olshfski & Abdelrazek, 2009). It should, however, not just be supervisors of trainers that are trained, but everyone in a supervisory position in order to ensure that decentralisation becomes part of the organisational culture. If supervisors of supervisors (middle and top management) are not trained, they may continue exhibiting a centralised style of decision making which will have a

ripple effect on the behaviour of supervisors of trainers who may copy the centralised style of decision making.

Thirdly, the organisation may need to ensure that information (work-related and other meaningful information) flows freely to and from trainers in order for them to have adequate information to contribute to decision making. According to Angermeier, Dunford, Boss, Smith, and Boss (2009), sharing meaningful organisational information sends a signal that management trusts employees, which in turn motivates employees to use the information to benefit the company.

Having done that, decentralisation can be improved further by providing trainers with platforms and channels through which they can air their views out during analysis of problems, development of strategies and implementation of solutions. Trainers would need to see proof that their ideas will be accepted or at least seriously considered. Therefore to discard ideas or suggestions that can not be implemented, or are not feasible, departmental managers should provide them with the criteria that their input must meet beforehand. It would also be wise for departmental managers to give trainers time to think about ideas or alternative decisions, as employees do most creative thinking off the spot. Integration of trainers' suggestions into the final decision or implementation must be visible so that they know that they have made a contribution. Suggestions can be followed up by responsive action and recognition, as well as feedback on outcomes. This is likely to encourage employees to continue putting forward ideas and sharing knowledge that they may otherwise withhold.

Trust: Trust is positively related to job satisfaction and negatively related to turnover intention. According to Albrecht and Travaglione (2003), the best way to nurture trust among employees is for the organisation to prove itself to be competent, open, reliable, and concerned about them. This implies that for trainers to trust the mining organisation, its management/supervisors have to be seen as knowledgeable about their areas of work and the general business environment, skilled, open in their communication style, concerned about trainers' feelings, wants, needs and personal problems, as well as reliable.

Other factors that may enhance trust for the employer on the part of trainers' managers include: consistently building strong relations with the trainers, honesty, displaying strong business ethics, keeping in close touch during difficult times, being easily available and maintaining confidences when trainers disclose personal matters.

Learners:

It was found among learners that overall justice, trust and job satisfaction directly predict turnover intentions. Job challenge, on the other hand, directly predicts job satisfaction. Results of the study also indicate that job satisfaction mediates the effect of centralisation on turnover intention. The organisation that was studied may therefore need to enhance overall justice, decentralisation, trust and job challenge, as well as job satisfaction among learners. It is crucial for the organisation to improve overall justice and trust because the absence of these variables causes the learner to have intentions of quitting. It is also essential to increase job satisfaction, because it predicts turnover intentions and mediates the relationship between centralisation and turnover intention as well. It will be beneficial for the mining organisation to work on reducing centralisation, because it impacts on the general feelings of the employee (job satisfaction) that directly cause the learner to want to leave or stay within the organisation, depending on job satisfaction levels.

Below are specific recommendations pertaining the above:

Job Satisfaction: The organisation may foster job satisfaction by means of improving or reducing those variables that were shown to predict job satisfaction and those that are related to it, depending on the direction of the relationships. Variables that were found to be related to job satisfaction and predict it, are centralisation, trust and job challenge. Overall justice was shown to only be positively related to job satisfaction, but that it still contributes to talent retention if it is enhanced.

Centralisation: Centralisation predicts both job satisfaction and turnover intention; however, its effect on turnover intention is mediated by job satisfaction. The same recommendations about decentralisation made in the trainers' section, also apply to the learners.

Overall Justice: Overall justice is positively related to job satisfaction and its absence causes learners to want to leave the organisation. The same recommendations on justice made in the trainers' section, also apply to learners.

Trust: Trust is positively related to job satisfaction and negatively related to turnover intention. In addition to that, it directly predicts job satisfaction and turnover intention. The same strategies for boosting trust, recommended in the trainers' section, also apply to learners.

Job Challenge: Job challenge is positively related to job satisfaction and directly predicts job satisfaction. In addition to recommendations about job challenge made in the trainers' section, the organisation may enhance job challenge among learners by placing them in roles in the workplace which allow them to use their acquired skills, gradually stretching their work objectives and giving them the opportunity to teach a process or a course to other team members or lower level learners.

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