Does social support moderate between job characteristics, management communication and job satisfaction?

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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.

- The first chapter represents the research proposal. It is therefore in a different voice than subsequent chapters.
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DECLARATION

I, Ntswaki Julia Raboroko, hereby declare that “Does social support moderate the relationship between job characteristics, communication with the manager and job satisfaction?” 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.

Further I declare the content of this research will not be handed in for any other qualification at any other tertiary institution.

Ntswaki Julia Raboroko

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**SUMMARY**

**Title:** Does social support moderate between job characteristics, management communication and job satisfaction?

**Key terms:** Mining, job characteristics, job autonomy, job challenge, communication, manager communication, social support, job satisfaction

The South African mining industry is facing rising levels of skills shortage. According to reports, there are a number of reasons for this, one being the low number of graduates who enrol for engineering related qualifications versus the number of graduates who eventually graduate with an engineering qualification. More emphasis needs to be placed on bursaries for university candidates, as well as training in organisations, to groom graduates in this field.

The main purpose of this study was to determine the relationship between job characteristics, communication with the manager, organisational commitment, social support and job satisfaction for a sample of employees in South Africa, and specifically to determine whether social support plays a moderating role in this relationship. The participants were a convenience sample of trainees in a mining training academy, in the North-West Province. Participants’ informed consent was sought by explaining what the general purpose of the study is as well as including on the cover page of the questionnaire information around details of the study. Participants had the option of either posting the questionnaires after completing it in their own time (stamped envelope was supplied) or handing the completed questionnaire into their human resource department. This method allowed everyone to complete the questionnaire in their own time.

Regarding the relationship between job characteristics (i.e. job autonomy, job challenge, and communication with the manager); all were positively correlated to the outcome variable, namely job satisfaction. None of the interaction terms were significant predictors of the outcome variable (job satisfaction). A conclusion can be drawn from this that social support does not have a moderating effect on the relationship between the measured independent variables (job characteristics and manager communication) and the outcome variable (job satisfaction). However, when only social support from supervisor and colleagues and the job characteristics were considered, it was seen that job autonomy, feedback and social support
from colleagues are significant predictors of job satisfaction. This finding indicates that it is not only important for trainees to experience autonomy in the execution of their tasks, but that they also need collegial support and good feedback about such performance in order to experience job satisfaction.

In conclusion, recommendations for future research were made.
OPSOMMING

Titel: Dien sosiale ondersteuning as reguleerder tussen werkseienskappe, bestuurskommunikasie en werksbevrediging?

Sleutelwoorde: Mynwese, werkseienskappe, werksoutonomie, werksuitdaging, kommunikasie, bestuurskommunikasie, sosiale ondersteuning en werksbevrediging

Die Suid-Afrikaanse mynwese staar al ’n al hoe groter wordende vaardigheidsstekort in die gesig. Verskeie verslae verskaf ’n aantal redes vir hierdie verskynsel. Een rede daarvoor is dat min kandidate inskryf om ’n ingenieursverwantestudierigting te volg, in vergelyking met die aantal gegradueerdes wat wel ’n ingenieurskwaliﬁkasie behaal. Meer klem moet daarop gelê word om beurse aan universiteitskandidate beskikbaar te stel, asook om opleiding by maatskappe te doen met die oog daarop om kandidate te werf.

Die hoofdoel van hierdie studie is om die verwantskap tussen werkseienskappe, kommunikasie met die bestuurder, betrokkenheid by die organisasie, sosiale ondersteuning en werksbevrediging (in ’n steekproef wat onder Suid-Afrikaanse werknemers gedoen is) vas te stel, en dan spesifiek ook om vas te stel of sosiale ondersteuning ’n regulerende rol in hierdie verhouding speel.

Die deelnemers bestaan uit ’n steekproef van leerders wat geneem is by ’n mynopleidingsakademie in die Noordwesprovincie. Om die deelnemers se toestemming te verkry is hulle vooraf ingelig wat die doel van die studie is; gedetailleerde inligting oor die vraelys is ook op die voorblad aangebring. Deelnemers het die keuse gehad om die voltooide vraelyste te pos (gefrankeerde koeverte is voorsien) of dit by die menslike hulprondepartement in te gee. Dit het beteken dat die deelnemers die vraelyste teen hulle eie tempo kon voltooi.

Daar is ’n positiewe korrelasie tussen werkseienskappe (m.a.w. werksoutonomie, werksuitdaging en kommunikasie met die bestuurder) en die uitkomsveranderlike, naamlik werksbevrediging. Geen van die interaksieterme is beduidende voorspellers van die uitkomsveranderlike, nl. werksbevrediging nie.
Die afleiding kan gemaak word dat sosiale ondersteuning nie ’n regulerende rol tussen die gemete onafhanklike veranderlikes (werkseienskappe en bestuurskommunikasie) speel nie. Indien slegs sosiale ondersteuning van toesighouers en collegas asook werkseienskappe in ag geneem word, is werksoutonomie, terugvoer en sosiale ondersteuning van collegas beduidende voorspellers van werksbevrediging. Hierdie bevinding dui daarop dat dit nie slegs belangrik vir leerders is om outonomie in die uitvoering van hulle opdragte te ondervind nie, maar dat hulle ook die ondersteuning van hulle collegas asook voldoende terugvoer van hoe hulle die take uitgevoer het nodig het om werksbevrediging te ervaar.

Om af tesluit is aanbevelings vir verdere navorsing gemaak.
CHAPTER 1

1.1 PROBLEM STATEMENT

1.1.1 Overview of the problem

According to Mayfield and Mayfield (2002) the need of organisations for committed and satisfied employees is higher than ever due to the recent shifts in the business environment such as economic slowdown, which place a premium on increasing worker productivity, skilled worker shortages and increasing ethnic and cultural diversity amongst employees. These same conditions are no different in the South African context (Kraal, 2003).

The recent global recession has meant that countries and organisations had to review their retention strategies because of the strict financial budgets they had to work on; monetary retention strategies had to be revised as well. One implication is that human resource practitioners had to look at non-monetary, sustainable retention strategies in the short and long term. The impact of the recession on the different sectors of the economy was reported by H. Marais (http://www.amandlapublishers.co.za/home-menu-item/156-the-impact-of-the-global-recession-on-south-Africa). He indicated that output in the mining sector shrank by 33% in the final quarter of 2008, its biggest decrease on record. Other sectors, such as manufacturing, were also affected. Marais also reported that the value of South Africa’s exports fell by 24% in the first quarter of 2009, as demand decreased and commodity prices fell.

Looking at all the facts mentioned above, it is clear that organisations need to look at more than just monetary rewards to retain staff and ensure job satisfaction. Organisations will have to look at how to improve intrinsic factors of each employee’s job to achieve job satisfaction and retain critical skills.

The many economic, political and social changes that are taking place in the country have led to an increased need for organisations to manage their workforce more conservatively. With the implementation of the Employment Equity Act (EE) Act, no. 55 of 1998 (South Africa, 1998) arose the need for organisations to grant equal access to individuals of all races to participate in the economic activities of the country and correct historic disparities in the
representation of employees from different races in the workplace. This includes aspects such as more flexible working hours, competitive wages and a quest for a more satisfying work environment. It is therefore important that organisations examine and prioritise factors such as giving employees adequate challenging work and allowing control over how work gets done. These variables are important (Harris, 2005; Spector, 1986) and can have positive outcomes for organisations as well as individual employees.

Organisations also have to consider the role of support for employees. This is particularly relevant in this day and age where employees are faced with multiple roles as well as various problems to contend with. The effects and importance of social support have been dealt with by researchers such as Barrera and Ainlay (1983) and Eisenberger, Stinglhamber, Vandenberghe, Sucharski and Rhoades (2002). These authors all seem to be of the same opinion that by providing social support, organisations communicate a sense of caring and support to employees who in the end will contribute more to the success of the organisation and thus stay committed. The possible moderating or “buffering” role of support between work stress and individual outcomes has also been noted (Beehr, King, & King, 1990).

It is important to note that although organisational commitment as an outcome variable will not be the outcome of this research study, its importance and link as an outcome like, job satisfaction, will be mentioned. A number of studies have indicated that job satisfaction as an outcome variable can very much be linked to organisational commitment (Bartle, Dansby, Landis & McIntrye, 2002; Redfern, Hannan& Norman, 2002; Kim, Leong & Lee, 2005). Based on such extensive research studies, one can also go the extent of hypothesizing that these two variable needs to be studied together, i.e., the experience of one leads to the other.

It is important to note that the rationale behind examining the above-mentioned variables is largely based on the Interactive Transactional Process Model, as well as Hackman and Oldham’s (1976) Job Characteristics Model. According to Sulsky and Smith (2005) the Interactive Transactional Process Model incorporates environmental stressors, perceptions, stress responses and stress outcomes, together with a host of other moderating variables. These variables include, among others, the individual’s physical condition, heredity, self-esteem and social support. A number of studies such as those conducted by Abbot, Boyd and Miles (2006) and Bhuian and Menguc (2002) have indicated that job characteristics are the best predictors of employee job attitudes such as satisfaction and organisational commitment.
With organisations attempting to distinguish themselves through their understanding of what makes their employees “tick” and what makes them happy, research into variables such as job satisfaction prove to be quite imperative. To demonstrate the importance of examining job satisfaction as an outcome variable, this research will look at research done by various researchers. Hackman and Oldham (1976), Hulin (1991) and Loher, Noe, Moeller & Fitzgerald (1985) all agree that job and organisational characteristics have an impact on an employee’s job satisfaction (William, 2004). Previous studies of managers show that supervisory support and positive working environments positively correlate with higher levels of job satisfaction (Jurik & Winn, 1987, Van Voorhis, Cullen, Link & Wolfe (1991), in Liao, Hu & Chung, 2009). Mentioning supervisory support is imperative, as it is also a variable of interest in this study. The importance of communication with one’s manager can be seen from extensive research done around role ambiguity or role conflict (Wolfe, Quinn, Snoek & Rosenthal, 1964, Bauer & Simmons, 2000), where managers fail to communicate role expectation to subordinates, hence they experience either stress, lack of productivity and even lowered job satisfaction. The learnings from studies conducted on role ambiguity or conflict highlight a communication problem which usually leads to a subordinate left with very limited or no information on role expectations. The lack of extensive research around manager communication makes this study all the more important.

The above demonstrates the importance and link between job characteristics and their relation to job satisfaction. It is clearly important to evaluate employees’ work experience in terms of their experienced autonomy and control, the social support they experience and how these variables relate to their perception of job satisfaction. The objective of this research is to investigate the relationship between the discussed job characteristics i.e., job autonomy, job challenge (skill variety) and communication with the manager and social support as moderator, and job satisfaction as the outcome variable. The next sections will examine the variables of interest. This section will mainly look at previous research and literature on all variables, as well as identifying any links between the possible relationships amongst these variables.

1.1.2 Literature review

Job characteristics
The job characteristics model (JCM) of Hackman and Oldham (1976) is a widely studied model of motivational job design that has explained important work outcomes (e.g. job satisfaction, tenure) for workers in a wide variety of blue and white collar jobs (Panzano, Seffrin, & Jones, 2004). According to Panzano et al. the JCM shows certain core features of jobs as seen by the worker, which in turn impact one’s psychological reactions to the job and the outcomes that follow from those reactions. Put differently, this model states that perceived core job characteristics impact on work outcomes through their effects on psychological reactions to the job itself. These core job characteristics described by Hackman and Oldham (1976) include skill variety (the perceived variety and complexity of skills and talents required to perform the job), task identity (the extent to which the job is seen as involving a whole, identifiable task), task significance (the extent that the job affects the well-being of others), autonomy (the extent the job is seen as allowing for personal initiative in performing the work) and feedback (the extent to which the job itself provides information about job performance).

The JCM posits that the way jobs are perceived in terms of these five core dimensions impacts on three particular psychological reactions to the job (Panzano et al., 2004). These

Figure 1. Oldham and Hackman’s Job Characteristics Model

The JCM posits that the way jobs are perceived in terms of these five core dimensions impacts on three particular psychological reactions to the job (Panzano et al., 2004). These
reactions, referred to as critical psychological states, include experienced meaningfulness of work (the extent to which the work is seen as making a difference to others), felt responsibility (the extent to which the worker assumes responsibility for his/her work) and knowledge of results (the extent to which the worker is aware of the quality of his/her work). Panzano et al. (2004) also state that jobs that are seen as high in any of the five core dimensions tend to been regarded as more meaningful by workers, can be expected to engender greater responsibility on the part of the workers and can also be expected to provide clear cues to workers on the quality of their work. This model, therefore, explains the purpose or hypothesis of this study, by indicating that the presence of the core dimensions, in this case, job autonomy, manager communication (feedback) job challenge (skill variety) will directly lead to the experience of any of the model outcomes, in this case, being job satisfaction.

Finally, critical psychological states can provide possible explanations in terms of the variability in specific work outcomes which include general job satisfaction, perceived job performance, internal work motivation (the extent to which the worker is motivated by doing good work), satisfaction with growth (the extent to which the worker is satisfied with the opportunity to learn new things on the job) and thoughts of quitting (Panzano et al., 2004). Panzano et al. (2004) explain that the linkages in the model will be significantly stronger for those individuals who show greater motivation to learn and grow.

For purposes of this study it is critical that the reader understands that the word “job characteristics” is used as an inclusive term for job autonomy and job challenge and therefore, reference to job characteristics is reference to these two dimensions, i.e. job autonomy and job challenge. This researcher will therefore use the JCM as a basis to describe how the various hypotheses were derived at. The first hypothesis on which this research is based is that when, for example, where high levels of autonomy, job challenge, communication with the manager are experienced, employees will find higher levels of satisfaction in their jobs. The second hypothesis is that social support can have a moderating effect the relationship between job autonomy, job challenge and manager communication.

**Job challenge**
Walsh and Thomas (1980) define job challenge as the degree to which the knowledge, skills and abilities of the role of the incumbent are perceived to be engaged or enlarged by the job. They state that the extent to which the job encourages the use of abilities and skills may determine the amount of challenge identified within the job. This view that perception may determine job challenge is also held by Baum, Singer and Baum (1981), stating that a person’s perception of a situation predisposes the situation into becoming a threat or a challenge. It is clear that individual employees actually need to perceive the job as challenging.

A study conducted by Medford (1986) on job challenge shows that job challenge is an important determinant of job satisfaction. About 43% of the variance in satisfaction for the total sample in this study could be attributed to job challenge. Steers (1981) mentions that by increasing job autonomy, task significance, responsibility and feedback, a situation where stress is reduced and job-person-fit is also improved can be created. In light of this, it is clear that by providing employees with more challenging work, other benefits can be reaped by the organisation and employees. When one examines Oldham and Hackman’s model, it is clear that job challenge is presented as “skill variety”, where, the focus is on the complexity of the task as well as the skill and talents required for the role.

**Communication with the manager**

Leader communication has long been shown to be a critical factor in superior worker motivation and performance (Levering, 1988, Robbins, 2001) and has great potential to aid organisations in their quest for committed employees. The importance of leader communication is again highlighted by research that shows that leader communication practices play an integral part in developing and sustaining employee commitment (Goleman, 1999, 2000; Reina & Reina, 1999).

To demonstrate how important this link is between communication and certain other variables (e.g. job satisfaction), Downs, Clampitt and Pheiffer (1988) suggest that this relationship goes beyond correlation to that of being causal. This stance is maintained by
Greebaum, Hellweg and Falcione (1988) whose work confirms the link between communication, job satisfaction and organisational commitment.

Goleman (1991), Groen and Uhl-Bien (1995) as well as Robbins (2001) show how important communication is as it can lead to positive benefits in areas such as job satisfaction and organisational commitment. These authors state that employee performance, job satisfaction and retention are influenced by relations with an individual’s immediate supervisor. This means that for organisations aiming to increase employee satisfaction and organisational commitment, communication between managers/supervisors and employees will have to be prioritised and optimised. Goleman (1998, 2000) and Robbins (2001) are also of the opinion that such positive relations depend largely on competent leadership skills, many of which are grounded in communication abilities such as listening and feedback. Fortunately such skills can be learned (Mayfield & Mayfield, 2002) and can be improved as well (Goleman, 1998, Scandura & Graen, 1984). An important contribution from the current investigation may follow in terms of recommendations for fostering positive social support and interpersonal relations at work.

Burke and Wilcox (1969) indicate that greater openness of communication is associated with higher job satisfaction. Richmond, McCroskey and Davis (1982) also emphasise the interface of superior-subordinate relations and its impact on job satisfaction. Openness in terms of communication can therefore lead to satisfied employees, which in turn may lead to higher organisational commitment. This can be supported by results from a number of studies conducted to determine the link between these variables. Meyer, Allen and Smith (1993) studied job satisfaction among nurses in Canada and found positive correlations between affective and normative commitment, job satisfaction and the intention to stay. Glisson and Durick (1988) also indicate a strong correlation between satisfaction and commitment. It then becomes apparent that communication with the manager, job satisfaction and organisational commitment are linked (for example, Downs et al., 1988; Glisson et al., 1988; Richmond et al., 1982).

**Job satisfaction**

When examining literature on job satisfaction, it is evident that it is an important factor organisations need to consider when trying to diagnose and solve a number of problems or
challenges. Schulze (2006) finds in his study that job satisfaction has the highest correlation with physical working conditions and support, while Pienaar and Bester (2006) find that job satisfaction can have a significant impact on productivity.

The next question would be how to define job satisfaction. Locke (in Schwepker, 2001) defines it as the pleasurable emotional state caused by the appraisal of one’s job as facilitating the achievement of one’s job values. According to Stanely (2001) job satisfaction is a person’s attitude towards his/her job. This can be explained by Lopopolo (2002) who states that job satisfaction is an employee’s global/comprehensive evaluation of his/her job. Although there is not one universal definition of job satisfaction, most researchers’ definitions (Stanely, 2001, Rothmann & Agathagelou, 2000, Robbins, 1998) have a common denominator: job satisfaction tends to influence or is influenced by a number of other job factors. These researchers all indicate that employees who experience high/positive job satisfaction are likely to stay with their organisations and are likely to be committed to their jobs, among other positive outcomes. There is a link between a company’s bottom line results, customer service levels and the extent to which its employees experience job satisfaction (www.clcexecutiveboard.com). This paper indicates that a number of research studies conducted by various organisations such as Development Dimension International have researched and reported that a relationship between employee satisfaction and customer satisfaction as well as productivity. Job satisfaction been linked with variables such as turnover and commitment (Hellgren et al., 1997; Karsh, Booske & Sainfort, 2005), and it is therefore quite important that more studies be conducted, especially because of the testing economic circumstances for industries competing for scares skills, such as mining organisations. Understanding this concept and also understanding the extent to which one’s own labour force is “satisfied” is very critical and will continue to be so.
Social support

According to Maria (2004) social support can either be tangible or intangible. It is assistance and protection offered amongst individuals, particularly those in the work environment. Beehr and McGrath (1992) identify social support as the combined emotional and instrumental/task-related support one receives from various work associates. For example, one can receive emotional support, encouragement (general indications of care and concern) during stressful times and conflict, or one can receive instrumental support and practical help necessary for completing one’s day-to-day work duties (Ibarra, 1993).

Social support constructs and their operationalisation, according to Barrera (1986), have been generally divided into three broad categories: enacted support, perceived social support and social embeddedness. Pappas (2007) points out that various approaches for operationalisation and measurement exist within each category. Enacted support involves specific actions performed by others when they render assistance to a focal individual (Pappas, 2007).

Perceived support involves appraisal of one’s supportive ties as indicative of being adequately connected to others (Pappas, 2007). This category involves whether one perceives others as caring for him/her or not. Researchers such as Eisenberger, Huntington, Hutchinson and Sowa (1986), Eisenberger et al. (2002) and Byrne (2003) differentiate between the constructs of supervisor and co-worker support. Pappas (2007) describes social embeddedness in terms of diversity management. According to Pappas it refers to both the number and types of connections that individuals form with others as providers of social support and is therefore descriptive of the degree and nature of diversity inclusiveness existing within an organisation. This implies that the more connections an employee has, the more support is theoretically available to him or her and the better buffered he or she is against the stresses associated with work (Sarason & Lorentz, 1983).

This study will also focus on perceived support. According to Rhoades and Eisenberger (2002) perceived social support of employees is important as they tend to form general beliefs regarding the extent to which their supervisors and colleagues care about them and value their contributions. Pappas (2007) concurs, stating that it is important to examine social support. The study of social support will give organisations an idea of what their employees
perceive as important; an alignment may then be formed between what is important to employees and what the organisation offers to them.

It is clear from the literature that job autonomy, communication with the manager and social support are related to organisational commitment. This has been demonstrated in the work of Goleman (1999, 2000), Rhoades and Eisenberger (2002), Reina and Reina (1999) and Spencer (1986). In the quest to ensure that employees remain committed to the organisation, it is imperative that their experienced control over how their jobs are carried out be increased. This will, as stated by Eisenberger et al. (1999), communicate a sense of trust in the employees’ abilities. The experience of social support can also play an important role in securing employees commitment to the organisation. Another variable that can increase employees’ commitment to the organisation is effective communication with the manager (Levering, 1988; Robbins, 2001). Immediate supervisors and leaders in organisations need to be educated and informed about the importance of creating effective and open communication channels with their subordinates. This entails improving the frequency and efficiency of the feedback provided to employees from their supervisors, which in turn could result in more committed and better performing employees (Goleman, 1991; Groen & Uhl-Bien, 1995; Robbins, 2001).

To conclude: by increasing and improving job autonomy, communication with the manager and social support, employee’s job satisfaction can be expected to increase. The management and enhancement of commitment is very important. Harris (2005) points out that the nature of problems associated with lack of commitment on the side of employees should include the costs usually incurred by organisations as a result of employees leaving the organisation. These costs also include those of finding and training new talent. The costs associated with lack of job satisfaction are not only monetary, but can also be in the form of decreased morale in the organisation. Leaders need to invest substantially in ensuring that employees’ jobs are not only rewarding in monetary terms, but that employees are in fact satisfied with the non-monetary benefits offered by the job and organisation.

The objective of this research is to examine the relationship between the experiences of job autonomy, job challenge, communication with the manager and job satisfaction, and to assess whether social support plays a moderating role in terms of employees’ experiences of these
factors. Below is a graphical illustration of the relationship this research paper will be investigating:

![Diagram showing the relationship between core dimensions, social support, and job satisfaction.](image)

Figure 2. *The relationship of core dimensions to social support and job satisfaction.*

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

- How are the variables, and the relationship between job characteristics, i.e., job autonomy and job challenge, communication with the manager, social support and job satisfaction, conceptualised in the literature?
- Is there a relationship between job characteristics, i.e., job autonomy and job challenge, communication with the manager, social support and job satisfaction for the selected participants?
- Can job characteristics, i.e., job autonomy and job challenge, communication with the manager, and social support be used to predict job satisfaction?
- Does social support play a moderating role in the relationship between job characteristics, i.e. job autonomy and job challenge, communication with the manager, and job satisfaction?

In order to answer the above research questions, the following research objectives have been set:
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 investigate whether employees’ job satisfaction can be predicted by their experience of the job characteristics and communication with the manager, as defined by Hackman and Oldham (1976). The focus specifically falls on whether social support from both supervisors and colleagues might play a moderating role in terms of employees’ satisfaction and the experience of job autonomy, job challenge and communication with the manager.

1.2.2 Specific objectives

The specific objectives of this research are:

- To conceptualise the relationship between job characteristics, communication with the manager, social support and job satisfaction from the literature.
- To determine the relationship between job characteristics, communication with the manager, social support and job satisfaction for a sample of employees in South Africa.
- To determine whether job characteristics, communication with the manager, and social support can be used to predict job satisfaction.
- To determine whether social support plays a moderating role in the relationship between job characteristics, communication with the manager, and job satisfaction.
- To make recommendations for future research and for management of these variables within the organisation.

1.3 PARADIGM PERSPECTIVE OF THE RESEARCH

A certain paradigm perspective that includes the intellectual climate and the market of intellectual resources directs the research (Lundin, 1996; Mouton & Marais, 1992). The
research is based on a specific research paradigm while the study itself follows the basic assumptions of a specific school of thought. For example, when one bases his research on the humanistic paradigm, one will primarily conduct the research with the idea that the research participants will allow him to further understand human behaviour in a specific context. The relevant intellectual climate and market of intellectual resources are discussed next.

1.3.1 Intellectual climate

According to Mouton and Marais (1992) intellectual climate refers to a variety of non-epistemological value systems/beliefs that are underwritten in any given period in a discipline. These beliefs, values and assumptions do not deal directly with the epistemological views of research practice as it normally originates in a non-epistemological context. The disciplinary relevance of the study as well as its meta-theoretical assumptions is discussed next.

1.3.2 Discipline

This research falls within the boundaries of the behavioural sciences and more specifically Industrial Psychology. Industrial and Organisational Psychology is a discipline focusing on the scientific study of human behaviour in the workplace. It examines the relationship between individuals and work processes with a view with the aim of predicting and promoting mental health and productivity, as well as facilitating optimal utilisation of human resources in an organisational context (www.unisa.ac.za).

The sub-discipline of Industrial Psychology that the researcher focused on is Personnel Psychology. Munchisky, Kriek and Schreuder (2002) define Personnel Psychology as being concerned with all aspects of theory of psychology as applied to the understanding of individual differences. It implies that it is an applied science focusing mainly on individual differences in behaviour and job performance, as well as on the methods of measuring and predicting that performance.

All the variables in the study can be assumed to fall under Personnel Psychology, as this sub-discipline of Industrial Psychology deals with individuals in the organisations and not necessarily with the organisational systems. The researcher – in this study - will attempt to
understand how individual behaviours/perceptions of job autonomy, job challenge, communication with the manager and social support in the context of work can predict affective commitment to the organisation.

1.3.3 Meta-theoretical assumptions

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

1.3.3.1 Literature review

According to De Carvalho (1991) the humanistic paradigm is a school of thought that emphasises freedom. According to this theory people are free agents with the ability to make choices, who can be aware of their actions and their intentions, who can be affected by their relationships with others and who are also more than the sum of their parts. This school of thought views individuals as masters of their own fate. Penny, Perlow and Ruscitto (1996) also state that humanistic psychologists believe that an individual’s behaviour is connected to his/her inner feelings and self-image.

The following basic assumptions are relevant in this regard (Avis, Pauw, & Van der Spuy, 2000):

- Not all human behaviour can be explained in terms of a stimulus-response model.
- Behaviour cannot be studied without taking into account the organism that produces the behaviour.
- The behaviourism methodological foundations are rejected.
- All human beings have a capacity for growth and creativity.
- Individuals are affected by their relationships with others and this tends to influence people’s experience of self.
- Human beings behave in a purposeful, goal-directed manner.
- The choices that people make are based on their needs, wishes, values and emotions.
Because individuals are said to be influenced by their environment and relationships with others, this study will be conducted on the assumption that the work environment, (how autonomous one's work is perceived to be, the amount of control experienced in performing one’s work, and the communication and relationship or support with one's manager) may lead to a specific outcome, namely increased or decreased commitment to the organisation. This paradigm again emphasises the importance for organisations to understand what is important to their employees. This study will be based on the assumption that meaning and purpose are important to humans, thus the motivation to examine the importance of having control over one's work, as well as being tasked with challenging and meaningful work.

Lundin (1996), states that systems theory is one of the most powerful conceptual tools available for understanding the dynamics of organisations and organisational change.

System theory is the trans-disciplinary study of the abstract organisation of phenomena, independent of their substance, type, spatial or temporal scale of existence (www.tcw.utwente.nl/theorieenoverzicht). It investigates both the principles common to all complex entities and the - usually mathematical - models which can be used to describe them (www.tcw.utwente.nl/theorieenoverzicht). This theory proposes that real systems are open to and interact with their environments and acquire new properties though emergence, resulting in continual evolution. This theory states: rather than reducing an entity to the properties of its parts or elements, focus should be on the arrangement of and relations between the parts that connect them into a whole. This paradigm highlights the importance of understanding how systems - whether biological or organisational - relate. It is an important paradigm to consider in this study as the researcher will attempt to demonstrate a relationship between numbers of variables in an organisational system.

1.3.3.2 Empirical study

According to May (1998) the positivistic paradigm emphasises the supremacy of human reason and the fact that there is a single, objective truth which can only be discovered by science. The world is a rational and ordered place with a clearly defined past, present and future. The positivistic paradigm can be applied to this study due to the fact that objective and scientific tools will be used in the collection and analysis of data. The assumption is that
because of the scientific rigour of the analysis and tools to be used, objective results will be obtained.

The functionalist paradigm is concerned with understanding society/organisations in a way that will generate useful empirical knowledge (Babbie, 1979). Plug, Louw, Gouws and Meyer (1997) state that functionalism assumes that units of psychological phenomena can be explained in terms of relationships and that these explanations serve to enhance human adaptation and survival. When applying this to the study at hand, it is clear that the results of this study will be of significant value to organisations and Industrial/Organisational Psychology profession in the quest to make work more meaningful, as well as understanding what people regard as important in their work.

1.3.4 Market of intellectual resources

The market of intellectual resources refers to the collection of beliefs that directly involves the epistemological status of scientific statements (Mouton & Marais, 1992). The two main types of epistemological beliefs are the theoretical and the methodological beliefs.

1.3.4.1 Theoretical beliefs

Theoretical beliefs can be described as all beliefs that can make testable judgements regarding social phenomena. These are all judgements concerning the ‘what’ and ‘why’ of human phenomena and include all conceptual definitions, models, as well as theories of research (Mouton & Marais, 1992).

A. Conceptual definitions

The relevant conceptual definitions are given below:

- *Job autonomy* is defined by Hackman and Lawler (1971) as describing individuals’ feelings of personal responsibility for their work.
• **Job challenge** is defined by Hellgren et al. (1997), based on James and Sells (1981), as the degree to which the job is perceived as providing opportunities for making use of skills and abilities.

• **Job characteristics** are defined as those factors that influence employees’ intrinsic work motivation by the achievement of critical psychological states (Hackman & Lawler, 1971).

• **Communication** is defined by Gurainik (1976) as an exchange of information. It is a variety of behaviours, processes and technologies by which meaning is transmitted or derived from information. In this research **communication with the manager** is taken to represent the phenomenon defined by Gurainik, as applied to the relationship between an employee and his/her manager. The measuring scale will also refer to communication as “feedback”. **Feedback** (represented by **Communication with the manager**) is defined by (Panzano et al., 2004) as the extent to which the job itself provides information about job performance.

• **Job satisfaction** is defined by Kreitner and Kinicki (2001) as an affective or emotional response towards various aspects of one’s job.

• **Social support** is defined by Barrera and Ainlay (1983) as referring to one's social relationships as buffers of life's stressors and promotive of one's general health. Maria (2004) also defines social support as the assistance and protection given to others, especially those in the work environment.

• **Skill variety** is defined by Panzano et al. (2004) as the extent to which a worker views his or her job as complex and requiring a variety of skills and talents.

• **Task identity** (represented by **Job challenge**) can be defined as the extent to which the job is seen as involving a whole, identifiable task (Panzano et al., 2004).
B. Models and theories

A model is defined as a way of reproducing the dynamics of an occurrence through the relation between the main elements in a process, and to represent it in a simplified style (Mouton & Marais, 1992). A theory is defined as a set of interrelated constructs, definitions and propositions that present a systematic view of phenomena by specifying relations among variables with the purpose of explaining and predicting the phenomena (Mouton & Marais, 1992).

The study on social support will be based on Eisenberger's theory of organisational support, which is founded on the basic assumptions of the social exchange theory (Eisenberger et al., 1986). This theory is founded on the notion of the norm of reciprocity, which states that people have a felt responsibility to help those that have helped them (Gouldner, 1960). The organisational support theory suggests that employees develop global beliefs to assess the organisation's readiness to reward increased work effort. Harris (2005) states that organisational support communicates the extent to which the organisation values employees’ contributions and cares about their well-being. This process of forming a perception is said to begin with the evaluation of positive work experiences, followed by the calculation of the frequency of such experiences and lastly, the sum equals the employee’s perception of organisational support.

An attempt will also be made in this research to examine employees’ perception of their supervisors’ and colleagues’ support. The aim will be to determine whether one's perception of this support does in fact influence employee commitment to the organisation.

Figure 3. Illustration based on the Cognitive-Transactional Model of stress
Above is an illustration based on the Cognitive-Transactional Model of stress. Based on the original ideas of Lazaru, DeLongis, Folkman and Gruen (1985), this model assumes that for stress to occur, cognitive appraisal of the situation must firstly be experienced by the organism, and this appraisal must result in the perception of an imbalance between the demand and the capability of the organism to deal with it (Sulsky & Smith, 2005). Sulsky and Smith (2005, p.27) also state that “the cognitive-transactional model assumes that a stressor cannot be labelled as such unless it is perceived to be a stressor”. The researcher’s assumption follows that when employees perceive their jobs to be highly autonomous or adequately challenging, they could be more committed to the organisation or experience higher job satisfaction.

According to this model, social support - as an environmental variable - can play a role whether an individual will perceive a situation as positive (not stressful, or in the case of the model, high job autonomy and job challenge) or stressful (lack of job autonomy or challenge) (Sulsky & Smith, 2005). These authors explain that according to this model an individual’s perception of both the environmental and personal factors will play a significant role in determining whether a situation is experienced as stressful or not and thus partly determine the consequent behaviour resulting from that perception. For example, should an employee perceive his/her job as not challenging, autonomous (negative perception, stressful) this may result in either the employee staying in the job (dissatisfaction) or leaving the organisation. The aim of the research would therefore again involve examining whether social support does play a role in employees’ experiences of stressful situations (in this case the lack of job autonomy and job challenge).

The examination of affective organisational commitment will be based on Meyer and Allen's (1987) three-component model. This model describes three approaches to commitment which are labelled affective, normative and continuance commitment.

1.3.4.2 Methodological beliefs

The empirical study is presented within the positivist and functionalist frameworks/paradigms. The root assumption of the positivist framework is that there is a single objective truth which can be discovered by science (May, 1998). May also states that
this paradigm regards the world as a rational and ordered place which clearly defines the past, present and future.

The root assumption of the functionalist framework is that units of psychological phenomena can be explained in terms of relationships and these explanations serve to enhance human adaptation and survival (Plug et al., 1997).

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 literature review regarding job autonomy, job challenge, communication with the manager, affective organisational commitment and social support is done. The sources that will be consulted include:
- Academic journals
- The Internet
- Dissertations and theses
- Books
- Electronic databases

1.4.2 Phase 2: Empirical study

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

1.4.2.1 Research design

According to Bless and Smith (2005) research design relates directly to the testing of hypotheses. It specifies the most adequate operations to be performed in order to test specific hypotheses under given conditions.
The research can be classified as descriptive and exploratory. The aim of the research is to gain broader understanding of how the construct of social support may have a moderating effect on the relationship of the variables in question. This study can be said to be descriptive in nature, as the construct of social support in the mining industry has not received much attention. The study will also investigate the psychometric properties/reliability of measures that have not previously been applied very often in South Africa.

The specific design that will be used is the cross-sectional research design. This research design is the most commonly used in psychology as it allows for research participants of different ages and groups to be studied simultaneously, as well as their behaviour to be compared (Coleman, 2003). According to Burns and Grove (1993) cross-sectional designs allow for the use of surveys as a data collection method and this method will also be applied in this study. According to Zechmeister (1997) this design can also be used to assess relationships between variables within a population.

1.4.2.2 Participants

For the purpose of this study non-probability sampling will be used, particularly availability sampling. This means that the researcher will include those individuals from the population that are readily available. This sampling method does have its disadvantages, for example the generalisations based on this method are extremely risky. The reason why this sampling method has been chosen is because of convenience for the researcher in terms of time and money. Participants include 700 employers in a mining company: 300 trainers and 400 trainees. The reason for undertaking this study is to assist the organisation concerned in profiling those factors or job characteristics important to employees with the goal of retaining most if not all of the trainees.

1.4.2.3 Measuring battery

The measuring scales for the different variables are listed and discussed below. The survey will also include a biographical section which participants have to complete.
Job autonomy will be measured with a four-item scale adapted by Sverke and Sjoberg (1994), based on Hackman and Oldham (1975) and Walsh, Taber and Beehr (1980). This scale measures the extent of autonomy and influence on how the work is carried out. The responses range from 1 (disagree) to 5 (agree) and a high score indicates a stronger sense of autonomy. A sample item from this scale used to measure the construct is “I can make my own decisions on how to organise my work”. Sverke and Sjoberg (1994) report a Cronbach reliability coefficient of 0.75.

Job challenge will be measured by a four-item scale developed by Hellgren, Sjoberg and Sverke (1997). A high score on this scale captures the extent to which the work contributes to new knowledge and learning. A sample item from this scale used to measure the construct is “I am learning new things all the time in my job” and the responses range from 1 (disagree) to 5 (agree). The reported coefficient alpha for the items of this scale is 0.81 (Hellgren et al., 1997).

Skill variety will also be indicated by job challenge which will be measured by a four-item scale developed by Hellgren et al., (1997). A high score on this scale captures the extent to which the work contributes to new knowledge and learning. A sample item from this scale used to measure the construct is “I am learning new things all the time in my job”, and the responses range from 1 (disagree) to 5 (agree). The reported coefficient alpha for the items of this scale is 0.81 (Hellgren et al., 1997).

Communication with the manager will be measured with a scale based on research conducted by Colquitt (2001), and measures the degree to which the supervisor employs clear and open communication in relation to the employee. With responses ranging from 1 (disagree) to 5 (agree), a high score is an indication of clear and ample communication. A sample item from this scale is “My manager has an open communication with me” and this scale presented with ample reliability in the work of Colquitt (2001). Communication with the manager represents the “feedback” dimension in the model of Oldham and Hackman.

Job satisfaction is defined by Kreitner and Kinicki (2001) as an affective or emotional response towards various aspects of one’s job. Coetssee (2002) explains that this perception of one being satisfied with one’s job is a result of the individual employee’s perception of his
job and related matters such as supervisory style, social support, challenge and autonomy. The three items comprising the scale measuring satisfaction with the job were developed by Hellgren, Sjöberg, and Sverke (1997), based on Brayfield and Rothe (1951). The response alternatives range from 1 (disagree) to 5 (agree) and a high score reflects satisfaction with the job.
Social support will be measured with a scale based on the work of Caplan, Cobb, French, Van Harrison and Pinneau (1975). This scale consists of two factors based on the source of the support, namely collegial and supervisory support. With responses ranging from 1 (disagree) to 5 (agree), a high score reflects a sense that support is available. A sample item from this scale used to measure support from colleagues is “When I encounter problems at work, there is always a colleague to turn to”. According to Ganster, Fullser and Mayer (1986) this scale is often used to measure variables of supervisor and colleague support and it generally performs well. The reported Cronbach reliability ranges from 0.73 to 0.83 on the scale.

Task identity may be indicated by the Quality Knowledge scale, developed by Näswall, Baraldi, Richter, Hellgren, and Sverke (2006). The scale consists of four items which indicate the respondents’ identification with their work and quality of work. The four items are: “I know when I have done good work”, “I can sense when I have carried out a job well”, “I can judge the quality of my work”, and “When my work is carried out well, I can feel it”.

1.4.2.4 Statistical analysis

The statistical analysis will be carried out with the SPSS Version 16.0 for Windows programme (2008). The reliability of the constructs will be assessed by means of the Cronbach alpha coefficients. Descriptive statistics (means, standard deviations, skewness and kurtosis) and inferential statistics will also be used in the analysis of the data.

In the attempt to determine the relationship between the variables, correlation coefficients will be computed. The statistical significance of the data will be determined by setting the value at the 95th percentile confidence interval level ($p \leq 0.05$). The practical significance of the findings will be determined by making use of effect sizes.

Regression analysis will be used in order to determine whether each of the variables can predict job satisfaction, and also to investigate the moderating role of social support.

1.4.2.5 Ethical considerations
According to Bless and Smith (2005) the following are ethical considerations in research:

- **Highest quality research**
The researcher has received adequate training in terms of a social scientists needs to conduct research. This research will also be of the highest quality, because it will be reviewed by a highly experienced researcher not only during data collection and data analysis, but also whilst reporting results.

- **Relevance**
The variables of interest have already been indicated by consulting the importance and relevance of previous and current literature. This study will greatly add to the body of research on how organisations can optimise the talents of employees by considering factors such as job challenge and job autonomy.
- Confidentiality/Informed consent
  For purposes of ensuring that participants’ identities are protected, they will not be required to indicate their names or any other identifying information. All the participants will receive a detailed explanation on how the research results will be used and for what purpose.

- Promulgation of results
  Results will be made public by publishing this research study in an academic journal where peers may review the research. In order to also ensure that the results are available to anyone who would need them or find them to be beneficial, it may also be made available in the North-West University, Potchefstroom Campus library.

1.5 CHAPTER SUMMARY

This chapter gave an introduction into the research study. The problem statement and various research objectives were highlighted. The chapter then concluded with a discussion on the measuring instruments, research methods and finally a brief overview of the chapters to follow.
REFERENCES


Does social support moderate between job characteristics, management communication and job satisfaction?

Ntwaki Julia Raboroko

ABSTRACT

Due to the continued skills shortage in South Africa, attracting, managing and retaining talent is key. It is evident that organisations will have to start addressing factors that inform retention strategies. They now have the task of finding ways of acknowledging the fact that work is currently considered by many as an extension of their lives and personalities and not purely as work. The primary objective of the research was to study the relationship between job characteristics, management communication and job satisfaction and also to investigate whether social support mediates this relationship among employees in a mining company (n=229) by using a cross-sectional survey design. The following scales were used: Sverke and Sjöberg’s Job Autonomy Scale, Hellgren, Sjöberg, and Sverke’s Job Challenge Scale, Colquitt’s Communication Scale, and Caplan, Cobb, French, Van Harrison, and Pinneau’s Social Support Scale. A demographic questionnaire was also used. The results indicate that there is a relationship between job characteristics, manager communication and job satisfaction. The moderating role of social support in this relationship was not supported.

OPSOMMING

Dit het deurslaggewend geword om talent in Suid-Afrika te bestuur en te behou indien die voortdurende vaardigheidstekort in ag geneem word. Dit is duidelik dat organisasies faktore wat retensiestrategië ten opsigte van vaardighede bepaal, moet aanspreek. Hulle taak is om maniere te vind om toe te gee dat baie mense huidiglik werk nie slegs as werk beskou nie, maar as ’n uitbreiding van hulle lewens en persoonlikehede. Die primêre doel van hierdie navorsing is om die verhouding tussen werkseienskappe, bestuurskommunikasie en werksbevrediging te bestudeer, asook om deur middel van ’n kruisdeursnitopname vas te stel of maatskaplike ondersteuning die verhouding tussen werknemers in ’n mynmaatskappy (n=229) bemiddel. Die volgende skale is gebruik: Sverke en Sjöberg se Werkselfstandigheid skaal, Hellgren, Sjöberg, en Sverke se Werkuitdagingskaal, Colquitt se Kommunikasieskaal en Caplan, Cobb, French, Van Harrison, en Pinneau se Maatskaplike Ondersteuningskaal. ’n Demografiese vraelys is ook gebruik. Die resultate toon aan dat daar ’n verband tussen werkseienskappe,
bestuurskommunikasie en werksbevrediging bestaan. Die bemiddelingsrol van maatskaplike ondersteuning is nie deur die navorsing ondersteun nie.
The size of most organisations in the mining sector often mean that they will require large labour forces with different and diverse skills and business operations, often in different locations across the globe. A number of other factors, such as the ageing workforce (who are typically also the most highly skilled), small numbers of graduates with qualifications suited for the mining industry (such as in engineering, geology) and socio-economic challenges (such as HIV in the workplace) are a few challenges that mining companies are facing. Recruiting strategically has become one of the most critical talent management strategies for retaining those employees with scarce and critical skills. This is even more important for those organisations operating in the mining sector as the future of this industry is highly dependent on these very critical and scarce skills (http://www.pwc.com/gx/en/mining/skilled-workforce/index.jhtml)

Organisations are continuously looking to find ways in which key employees with critical and scarce skills can be retained. These endeavours usually mean that the employer needs to understand engagement factors that lead to employees being “satisfied” and “happy” in their jobs. Several authors (Beylerian & Kleniner, 2003; Devine, Reay, Stainton, & Collins-Nakai, 2003; Hellgren, Näswall, & Sverke, 2005) concur that because the nature of the working relationship is constantly changing in the emerging new economy, employers will be tasked with the challenge of creating a work environment in which the employee can engage in work that is perceived to aid personal growth and enrich lives. The employer should in return enjoy the benefits of higher productivity, trust and job satisfaction.

When one examines the mining industry, it is quite evident that the industry requires skills that are not always readily available in the South African market. Numerous reports (www.hsrc.ac.za/Media_Release.html) on the extent to which South Africa can supply the required skills in future show that chances are that this may prove to be close to impossible. Thus, the war for talent has begun on scarce and critical skills. Employers that will be able to retain individuals with scarce skills will need to ensure that job aspects such as engagement, satisfaction and support are at the top of their list of priorities. This statement is supported by Bateman and Snell (2004) who state that the right type of leadership is required for organisations to be able to promote and foster factors such as job autonomy, job satisfaction and social support. The scarcity of skills has also meant that employers are now faced with the challenge of ensuring they have adequate in-house training programmes for skills development and transference purposes. The transference of these skills from the senior and
more experienced staff to the less experienced trainees who join the company has become most critical for the mining training academy that forms the focus of this research.

In trying to understand the research problem and resolve it, the Job Characteristics Model (JCM) of Hackman et al. (1976) is proposed. This model suggests that certain job outcomes can be predicted based on the presence of dimensions such as autonomy in the job and variety in the actual work content/execution. With this framework in mind, the study attempted to illustrate that the higher the presence of job characteristics such as job autonomy, task identity, feedback and skill variety, the more satisfied the employee will be at work. The focus now falls on a discussion of these variables.

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<tr>
<th>Core Dimensions</th>
<th>Psychological states</th>
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<td>Skill Variety</td>
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<td>Task Identity</td>
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<td>Autonomy</td>
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<td>Low absenteeism &amp; turnover</td>
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<td>Feedback</td>
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Figure 4. Hackman and Oldham’s Job Characteristics Model

The model above is the theoretical framework/rationale upon which the study was based. This research study looked at all the core dimensions (skill variety, task identity, task significance, job autonomy, and feedback) within this model representing job characteristics and their relationship with the model outcome i.e., high job satisfaction. In summary, this study looked at whether there was any relationship between the core dimensions and the outcome, job satisfaction. The model above does not, however, illustrate the moderating effect of social support, but the literature is strongly supportive of this moderating and so-called “buffering” effect of work-based social support (Eisenberger et al., 1999, Levering, 1988; Robbins, 2001).
Literature review

Social support has been indicated by several studies (Swanson & Power, 2001, Coetsee, 2002) as an important factor to be considered in the studies examining outcomes such as satisfaction or tenure. Several studies have shown that social support can increase job satisfaction and commitment (Furnham & Walsh, 1991), decrease intention to leave (Anderson, 1991) and enhance overall mental health (Buunk & Vehover, 1991). Kirmeyer (1990) claims that social support at work is critically important because of its potential to moderate detrimental effects of workplace stressors. According to Siebernhagen (2006) there is almost universal consensus that perceptions of emotional support at work are associated with job satisfaction and negatively associated with job strain.

One can assume that work elements such as job autonomy, job challenge, communication with the manager and social support are likely to become more and more important in fostering job satisfaction and that organisations will need to find creative ways of integrating these elements into everyday work (Coetsee, 2002, Yang, Xin & Congwei, 2007).

Looking at the characteristics Hackman and Oldham (1976) identified, job autonomy was defined by Langfred and Moye (2004) as extending to giving an employee considerable amount of freedom and control in terms of how his/her work is carried out. Bearing this definition as well as other studies on the construct (Au & Cheung, 2004, Bandura, 1986, Jackson, 1983) in mind, one can assume that employees who perceive their organisations/managers as giving them control over how their job tasks are carried out can be expected to be more satisfied than those who don’t enjoy this same level of control. Research conducted on the lack of job autonomy (Bandura, 1986, Jackson, 1983 & Kasl, 1989) indicates that there is an association between perceptions of control and lower levels of psychological strains (Au & Cheng, 2004) and those workplaces with lower levels of autonomy may produce high levels of stress in the employees. Such increases can in turn be reducing job satisfaction and work fulfilment (Au & Cheng, 2004).

A second variable, job challenge, was of interest in this study. Walsh and Thomas (1980) define job challenge as the extent to which one perceives the knowledge, skills and abilities of the role as enabling and expanding by the job and is therefore conceptually similar to the skill variety dimension proposed by Hackman and Oldham (1976). A study conducted by
Medford (1986) shows that job challenge is an important determinant of job satisfaction. In this study about 43% of the variance in satisfaction for the total sample could be attributed to job challenge. Steers (1981) mentions that by increasing job autonomy, responsibility and feedback, a better job person-fit can be achieved as well as reduced levels of stress can be achieved.

*Communication* is defined by Gurainik (1976) as an exchange of information. It is a variety of behaviours, processes and technologies by which meaning is transmitted or derived from information. In this research *communication with the manager* is taken to represent the phenomenon defined by Gurainik, as applied to the relationship between an employee and his/her manager. Downs, Clampitt and Pheiffer (1988) suggest the relationship between leader, communication and other variables such as job satisfaction, go beyond correlational to that of being causal. This stance is maintained by Greebaum, Hellweg and Falcione (1988) who confirms the link between communication, job satisfaction and organisational commitment. Leader communication was explored in the study in the context of trainees and supervisors in the mining context. In general there is consensus that communication with one’s manager may have a positive influence on an individual’s experience of job satisfaction and commitment (Levering, 1988, Robbins, 2001, Goleman, 1999, 2000, Reina & Reina, 1999). Considering the model of Hackman and Oldham (1976), this dimension represents feedback.

The benefits of having a more committed workforce include the fact that the organisation can enjoy an enhanced reputation in the job market and improved performance (Goleman, 1991; Mayfield & Mayfield, 2002). Mayfield and Mayfield (2002) also state that in order to achieve high levels of employee commitment and loyalty, leaders need to recognise the importance of high levels of communication.

According to Locke (1976) (in Schwepker, 2001) job satisfaction can be described as the extent to which one’s job is viewed as helping individual employees realise their job values. Kreittner and Kinicki (1998) have found that job satisfaction among employees is an indication of an organisation’s effectives. Robbins (2000) indicates that job satisfaction is a central concern for an organisation as it can be linked to the amount of effort an employee is likely to exert towards the achievement of the organisation’s goals. Numerous studies have
shown that job satisfaction has a direct link to the experience of other important factors within the job, amongst others, commitment (Johnson, 1996, Stanley, 2001, Judge, Boudreau & Bretz, 1994).

**Social Support as moderator**

When examining social support it is clear that one needs to differentiate between enacted and perceived social support. For the purpose of this study perceived social support was the construct measured. Papas (2007) define it as support involving an appraisal of one’s supportive ties, indicative of being adequately connected to others. Maria (2004) states that social support can be defined as the assistance (either tangible or intangible) and protection (shielding individuals from the adverse effects of life stress) given to others, especially individuals within the work environment.

Social support is an important factor to consider in understanding relationships between various organisational factors. It is central and important in an employee’s quest to managing and dealing with stress at work and stress in general. Much research (Beehr & McGrath, 1992, Ibarra, 1993) supports the effect of social support as a “barrier” between environmental stressors and an individual’s experience of those stressors. It is, in other words, a moderator of work stress. According to Bigliardi, Petroni and Dormio (2005) supervisor and co-worker support needs to be fostered as a technique of increasing job satisfaction. Several other researchers are of the opinion that social support in the form of supervisory or management support has an influence on an employee’s experience of job satisfaction and management of stress (Edwards, 2005, Oscar, Urien, Gonzalez-Camino, Martinez-Perez, Martinez-Perez, 2005 & Schulze, 2006). Firth, Mellor, Moore and Loquet (2004) have found that peer social support in particular was associated with job satisfaction. It is clear that as a moderator social support can play a central and important role in terms of the impact of a number of job outcomes and experiences.

**Job satisfaction**

Job satisfaction is described by Stanley (2001) as a person’s attitude towards his/her job. Lopopolo (2002) defines it as a process where an employee continuously evaluates their jobs and the extent to which they possess heartfelt beliefs about their jobs and organisations. The
rationale behind studying job satisfaction is that individuals spend a great deal of time at work, which works out to be a very large part of their life. Understanding and continuously finding different ways of increasing experiences of job satisfaction will continue to be a critical business objective. Researchers such as Furnham (1997) indicate that there are five levels or dimensions to job satisfaction: Need satisfaction explains work related opportunities provided by the actual job for the individual employee. There is also a generic component which assumes that job satisfaction is a function of both personal and genetic factors. Challenging work indicates that employees will choose work that allows them opportunities to develop skills at different levels, while supportive work conditions relates to the extent to which there is support in the work environment. Robbins (1998) indicates that friendly and supportive colleagues lead to greater levels of job satisfaction. The final dimension of job satisfaction is value attainment, which refers to the extent to which an employee’s values are aligned to those of the organisation.

With the labour market in challenging economic times, and where skilled labour in South Africa, especially around engineering (http://www.homecomingrevolution.co.za), organisations need to gather the intelligence around its labour force in terms of understanding what it will take to retain skilled labour. The proposed study will provide some insights into these questions for this mining organisation. According to www.clcexecutiveboard.com there is a relationship between bottom line results, customer satisfaction and job satisfaction. In other words, with increased satisfaction levels, one can expect higher revenue returns and increase the number of satisfied customers.
METHOD

Research design

The specific design that was used is the cross-sectional research design. This research design is the most commonly used in psychology as it allows for research participants from different biographical and occupational groups to be studied simultaneously and their behaviour compared (Coleman, 2003). According to Burns and Grove (1993) cross-sectional design allows for the use of surveys as a data collection method and it was also applied in this study. According to Schaugnessy and Zechmeister (1997) this design can also be used to assess relationships between variables within a population, which is the focus of the current investigation.

Study population and Data collection

The participants were trainees in a mining training academy, in the North-West Province. Table 1 reveals the characteristics of the participants. The process of collecting data included approaching the trainee population and asking for participation in the survey, which provided a convenience sample. Participants’ informed consent was sought by explaining what the general purpose of the study is as well as including on the cover page of the questionnaire information around details of the study. Participants had the option of either posting the questionnaires after completing it in their own time (stamped envelope was supplied) or handing the completed questionnaire to their human resource department. This method allowed everyone to complete the questionnaire in their own time.
It can be seen from Table 1 that the majority of participants in the sample were male (89,1%), with females making up only 10,9% of the sample. This may not be an over-representation of the gender spread in the mining industry. For instance when one looks at AngloGold (www.anglogold.co.za/suweb/informationforinvestors/reports07/reportstosociety07/women-SA.htm) women made up only 7% of the total number of employees in that company in 2005. This number has increased to only 9% in 2007. About 25% of participants were Sesotho speaking, followed by Tshivenda at 21,7%. Afrikaans speaking participants accounted for only 15,9% of the total sample. More than half (54,5%) of the participants have completed a high school (Grade 12) qualification, with only 3,1% in possession of a university degree. Of
the total sample employed, 96.9% were employed on a full time basis, while the rest were employed on a part-time basis. Most of the participants (81.6%) were union members compared to 18% who were non-union members. Upon examination of the participants’ home situation, 33.5% of participants were single/living alone. Of the remaining number 8.2% were living with a partner or married to the partner, with 17.0% still living with their parents. A smaller percentage (0.9%) of the participants were divorced or separated; 0.4% indicated “remarried” as their household situation. Participants have been with the organisation an average of 6.5 years and had a mean age of 30.

**Measuring instruments**

*Job autonomy* was measured with a four-item scale adapted by Sverke and Sjöberg (1994), based on Hackman and Oldham (1975) and Walsh, Taber and Beehr (1980). This scale measures the extent of autonomy and influence over how the work is carried out. The responses range from 1 (disagree) to 5 (agree) and a high score indicates a stronger sense of autonomy. A sample item from this scale used to measure the construct is “*I can make my own decisions on how to organise my work*”. Sverke and Sjöberg (1994) have reported a Cronbach reliability coefficient of 0.75.

*Job challenge* was measured by a four-item scale developed by Hellgren, Sjöberg and Sverke (1997). A high score on this scale captures the extent to which the work contributes to new knowledge and learning. A sample item from this scale used to measure the construct was “*I am learning new things all the time in my job*” and the responses range from 1 (disagree) to 5 (agree). The reported coefficient alpha for the items of this scale is 0.81 (Hellgren et al., 1997).
Communication with the manager was measured with item scale based on research conducted by Colquitt (2001), and measures the degree to which the supervisor employs clear and open communication in relation to the employee. With responses ranging from 1 (disagree) to 5 (agree), a high score was an indication of clear and ample communication. A sample item from this scale is “My manager provides necessary information in due time” and this scale presented with ample reliability in the work of Colquitt (2001). This dimension is measured by 9 items.

Job satisfaction is defined by Kreitner and Kinicki (2001) as an affective or emotional response towards various aspects of one’s job. Coetsee (2002) explains that this perception of one being satisfied with one’s job is a result of the individual employee’s perception of his job and related matters such as supervisory style, social support, challenge and autonomy. The reliability of the scale measuring job satisfaction was reported to be 0,88 and higher (Näswall, Baraldi, Ritcher, Hellgren, & Sverke, 2006). A sample item from this scale is “I am satisfied with my job”. This scale presented with responses ranging from 1 (disagree) to 5 (agree), with a high score being an indication of high job satisfaction. This scale represents one of the outcome variables in the Hackman and Oldham model.

Feedback was measured using four items developed by Hackman and Oldham (1975). This measure captures whether respondents get feedback from the supervisor on how they have carried out their work. As indicated in chapter 1, this measuring scale will also refer to communication as “feedback”. Feedback (represented by Communication with the manager) is defined by (Panzano et al., 2004) as the extent to which the job itself provides information about job performance. The response alternatives ranged from 1 (disagree) to 5 (agree), where a high score indicates that the supervisor gives feedback. A sample item from this scale is “I usually know whether or not my work is satisfactory on this job”. This scale represents one of the core dimensions in the Hackman and Oldham model. The reliability of the scale measuring feedback was reported to be between 0,86 – 0,87 (Näswall et al., 2006).

The four items in the scale measuring Quality knowledge were developed to capture to what extent the individual feels he/she can determine when his/her job is well, or adequately, done. A high score on this scale is supposed to reflect whether the individual can determine the quality of her work herself. The response alternatives ranged from 1 (disagree) to 5 (agree). This scale represents one of the core dimensions in the Hackman and Oldham model. A
sample item from this scale is “I know when I have done good work”. Näswall et al. (2006) reported the reliability of this scale at 0.80 and above.

*Job challenge demand* scale consists of three items developed by Hellgren et al. (1997). The scale captures the sense that the work tasks encourage learning of new knowledge and that the nature of work requires continuous training. The response alternatives ranged from 1 (disagree) to 5 (agree), where a high score indicates that the job is more challenging. This scale represents the *Skill variety* dimension in the Hackman and Oldham (1976) model. A sample item from this scale is “I’m learning new things all the time in my job”. Here reports the reliability as found in previous research was reported to be between 0.67 – 0.77 (Näswall et al., 2006).

*Social support* was measured with a scale based on the work of Caplan, Cobb, French, Van Harrison and Pinneau (1975). This scale consists of two factors based on the source of the support, namely collegial and supervisory support. With responses ranging from 1 (disagree) to 5 (agree), a high score reflects a sense that support is available. Six items were used to measure both colleague and supervisor support. A sample item from this scale used to measure support from colleagues was “When I encounter problems at work, there is always a colleague to turn to”. According to Ganster et al. (1986) this scale is often used to measure variables of supervisor and colleague support and it generally performs well. The reported Cronbach reliability on the scale ranges from 0.73 to 0.83 (Ganster et al., 1986)A sample item from this scale to measure support from supervisor was “When I encounter problems at work, I can always ask my manager for advice”.

**Statistical analysis**

The statistical analysis was carried out with the SPSS Version 16.0 for Windows programme (SPSS, 2010). The reliability estimates of the measuring instruments were assessed by means of the Cronbach alpha coefficients (Streiner, 2003). Descriptive statistics (means, standard deviations, skewness and kurtosis) and inferential statistics were also used in the analysis of the data. Pearson correlation coefficients were used to specify the relationship between the variables. In terms of statistical significance, it was decided to set the value at the 95th percentile confidence interval ($p \leq 0.05$). The practical significance of the results will be determined by using effect sizes (Ellis & Steyn, 2005). Regression analyses were used to
determine the influence of job characteristics and communication with the manager on job satisfaction, and further investigate the moderating role of social support in that relationship. The moderator effect was reported by considering the unadjusted and adjusted regression coefficients and coefficient of determination, as well as their degree of change after the inclusion of interaction terms of the moderator and the independent variables (Aiken & West, 1999).
RESULTS

Descriptive statistics are given below for the different variables.

Table 2

*Descriptive Statistics and Alpha Coefficients of the Measuring Instruments*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job autonomy</td>
<td>4.12</td>
<td>0.69</td>
<td>-0.94</td>
<td>1.48*</td>
<td>0.58</td>
</tr>
<tr>
<td>Job challenge</td>
<td>4.34</td>
<td>0.63</td>
<td>-1.05*</td>
<td>0.96</td>
<td>0.25</td>
</tr>
<tr>
<td>Communication with manager</td>
<td>3.73</td>
<td>0.93</td>
<td>-0.56</td>
<td>-0.35</td>
<td>0.86</td>
</tr>
<tr>
<td>Social support –Supervisor</td>
<td>3.41</td>
<td>1.09</td>
<td>-0.33</td>
<td>-0.53</td>
<td>0.83</td>
</tr>
<tr>
<td>Social support –Colleague</td>
<td>3.87</td>
<td>0.85</td>
<td>-0.60</td>
<td>0.04</td>
<td>0.77</td>
</tr>
<tr>
<td>Feedback</td>
<td>3.95</td>
<td>0.70</td>
<td>-0.61</td>
<td>0.97</td>
<td>0.63</td>
</tr>
<tr>
<td>Quality knowledge</td>
<td>4.49</td>
<td>0.54</td>
<td>-1.10*</td>
<td>0.79</td>
<td>0.62</td>
</tr>
<tr>
<td>Skill variety</td>
<td>4.00</td>
<td>0.71</td>
<td>-0.57</td>
<td>0.82</td>
<td>0.25</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>4.03</td>
<td>0.75</td>
<td>-0.78</td>
<td>0.76</td>
<td>0.67</td>
</tr>
</tbody>
</table>

*High skewness and/or kurtosis

Table 2 demonstrates that most of the Cronbach alpha coefficients were acceptable, according to the recommended guideline set by Clark and Watson (1995) is ≥ .60. The only exceptions were Job Challenge and Skill Variety, with Cronbach alpha’s of 0.25. The poor reliability yielded by these scales excludes them from further analysis. Distribution of the scores was determined by examining their skewness and kurtosis. Field (2005) and Pallant (2011) describe a distribution that is skewed as one where scores are clustered at one or other end of the score scale (distributions that are not symmetrical). Pallant (2011) describes kurtosis as the peakness or flatness of a frequency of a distribution. Bearing these descriptions in mind, it is clear that most on the scores were not far from zero and show a normal distribution, except for Job Autonomy, Job Challenge and Quality Knowledge which were all larger than one.

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

**Correlation Coefficients between Variables**

<table>
<thead>
<tr>
<th></th>
<th>Communication with the manager</th>
<th>Social support - Supervisor</th>
<th>Social support - Colleagues</th>
<th>Feedback</th>
<th>Quality knowledge</th>
<th>Job satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job autonomy</td>
<td>0.24**</td>
<td>0.17*</td>
<td>0.26</td>
<td>0.42**</td>
<td>0.49**</td>
<td>0.35**</td>
</tr>
<tr>
<td>Communication with the manager</td>
<td>-</td>
<td>0.61*</td>
<td>0.35**</td>
<td>0.51**</td>
<td>0.06</td>
<td>0.36**</td>
</tr>
<tr>
<td>Social support - supervisor</td>
<td>-</td>
<td>-</td>
<td>0.17**</td>
<td>0.35**</td>
<td>0.07</td>
<td>0.33**</td>
</tr>
<tr>
<td>Socials support - colleagues</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.34**</td>
<td>0.23**</td>
<td>0.43**</td>
</tr>
<tr>
<td>Feedback</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.30**</td>
<td>0.40**</td>
</tr>
<tr>
<td>Quality knowledge</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.31**</td>
</tr>
</tbody>
</table>

*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 there is a statistically significant correlation between Communication with the Manager and Job Autonomy. Social Support from supervisor shows a statistically significant correlation with Job Autonomy and Communication with the Manager (practically significant, large effect). Social Support from colleagues also shows a statistically significant correlation (practically significant, medium effect) with Communication with the Manager and Social Support from the Supervisor. Feedback also indicates statistically significant correlations with Job Autonomy (practically significant, medium effect), Communication with the Manager (practically significant, large effect), Social Support from the Supervisor and Social Support from Colleagues (both practically significant, with medium effect). Quality Knowledge shows a statistically significant correlation (practically significant, medium effect) with Job Autonomy, Social Support from Colleagues and Feedback. Lastly, Job Satisfaction shows statistically significant correlations (practically significant, medium effect) with Job Autonomy, Communication with the Manager, Social Support from Supervisor, Social Support from Colleagues, Feedback and Quality Knowledge.

The final step of the analysis seeks to examine whether job characteristics and communication with the manager can predict job satisfaction, and to investigate the moderating effects of social support in that relationship.

The results of a multiple regression analysis with job satisfaction as a dependant variable, and communication with the manager, quality knowledge, job autonomy, feedback, social support
from colleagues and social support from supervisor as independent variables are reported in Table 4 below.

Table 4

*Multiple regression with Job autonomy, Communication with the Manager and Feedback, Quality Knowledge as independent variables and Job Satisfaction as outcome variable*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (unstandardised)</th>
<th>SE</th>
<th>Beta (standardised)</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$p$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job autonomy</td>
<td>0.30</td>
<td>0.08</td>
<td>0.28</td>
<td>-</td>
<td>-</td>
<td>0.00*</td>
<td>-</td>
</tr>
<tr>
<td>Communication with manager</td>
<td>0.15</td>
<td>0.06</td>
<td>0.10</td>
<td>-</td>
<td>-</td>
<td>0.01*</td>
<td>-</td>
</tr>
<tr>
<td>Feedback</td>
<td>0.19</td>
<td>0.08</td>
<td>0.18</td>
<td>-</td>
<td>-</td>
<td>0.02*</td>
<td>-</td>
</tr>
<tr>
<td>Quality Knowledge</td>
<td>0.08</td>
<td>0.10</td>
<td>0.06</td>
<td>-</td>
<td>-</td>
<td>0.41</td>
<td>-</td>
</tr>
<tr>
<td>All independent variables</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.27</td>
<td>0.26</td>
<td>-</td>
<td>17.63</td>
</tr>
<tr>
<td>Job Autonomy</td>
<td>0.28</td>
<td>0.08</td>
<td>0.26</td>
<td>-</td>
<td>-</td>
<td>0.00*</td>
<td>-</td>
</tr>
<tr>
<td>Communication with Manager</td>
<td>0.08</td>
<td>0.07</td>
<td>0.10</td>
<td>-</td>
<td>-</td>
<td>0.04*</td>
<td>-</td>
</tr>
<tr>
<td>Feedback</td>
<td>0.16</td>
<td>0.08</td>
<td>0.15</td>
<td>-</td>
<td>-</td>
<td>0.04*</td>
<td>-</td>
</tr>
<tr>
<td>Quality Knowledge</td>
<td>0.04</td>
<td>0.10</td>
<td>0.03</td>
<td>-</td>
<td>-</td>
<td>0.67</td>
<td>-</td>
</tr>
<tr>
<td>Social Support-Supervisor</td>
<td>0.05</td>
<td>0.05</td>
<td>0.22</td>
<td>-</td>
<td>-</td>
<td>0.00*</td>
<td>-</td>
</tr>
<tr>
<td>Social Support-Colleagues</td>
<td>0.19</td>
<td>0.06</td>
<td>0.22</td>
<td>-</td>
<td>-</td>
<td>0.00*</td>
<td>-</td>
</tr>
<tr>
<td>All moderator variables</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.32</td>
<td>0.05</td>
<td>-</td>
<td>14.71</td>
</tr>
<tr>
<td>Job Autonomy</td>
<td>-0.19</td>
<td>0.27</td>
<td>-0.18</td>
<td>-</td>
<td>-</td>
<td>0.49</td>
<td>-</td>
</tr>
<tr>
<td>Communication with Manager</td>
<td>0.25</td>
<td>0.23</td>
<td>0.31</td>
<td>-</td>
<td>-</td>
<td>0.28</td>
<td>-</td>
</tr>
<tr>
<td>Feedback</td>
<td>0.33</td>
<td>0.32</td>
<td>0.32</td>
<td>-</td>
<td>-</td>
<td>0.30</td>
<td>-</td>
</tr>
<tr>
<td>Quality Knowledge</td>
<td>0.11</td>
<td>0.37</td>
<td>0.08</td>
<td>-</td>
<td>-</td>
<td>0.76</td>
<td>-</td>
</tr>
<tr>
<td>Social support-Supervisor</td>
<td>0.16</td>
<td>0.50</td>
<td>0.24</td>
<td>-</td>
<td>-</td>
<td>0.75</td>
<td>-</td>
</tr>
<tr>
<td>Social support-Colleagues</td>
<td>-0.07</td>
<td>0.62</td>
<td>-0.08</td>
<td>-</td>
<td>-</td>
<td>0.91</td>
<td>-</td>
</tr>
<tr>
<td>Job Autonomy × Social Support-Supervisor</td>
<td>0.07</td>
<td>0.08</td>
<td>0.44</td>
<td>-</td>
<td>-</td>
<td>0.36</td>
<td>-</td>
</tr>
<tr>
<td>Job Autonomy × Social Support-Colleague</td>
<td>0.10</td>
<td>0.09</td>
<td>0.54</td>
<td>-</td>
<td>-</td>
<td>0.10</td>
<td>-</td>
</tr>
<tr>
<td>Communication with Manager × Social Support-Supervisor</td>
<td>-0.07</td>
<td>0.05</td>
<td>-0.47</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Communication with Manager × Social Support-Colleague</td>
<td>0.00</td>
<td>0.08</td>
<td>0.00</td>
<td>-</td>
<td>-</td>
<td>0.13</td>
<td>-</td>
</tr>
<tr>
<td>Feedback × Social Support-Supervisor</td>
<td>-0.10</td>
<td>0.08</td>
<td>-0.60</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>-</td>
</tr>
<tr>
<td>Feedback × Social Support-Collegues</td>
<td>0.02</td>
<td>0.12</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>0.86</td>
<td>-</td>
</tr>
<tr>
<td>Quality Knowledge × Social Support-Supervisor</td>
<td>0.04</td>
<td>0.12</td>
<td>0.23</td>
<td>-</td>
<td>-</td>
<td>0.76</td>
<td>-</td>
</tr>
<tr>
<td>Quality Knowledge × Social Support-Collegues</td>
<td>-0.04</td>
<td>0.15</td>
<td>-0.22</td>
<td>-</td>
<td>-</td>
<td>0.80</td>
<td>-</td>
</tr>
<tr>
<td>All interaction terms</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.35</td>
<td>0.03</td>
<td>-</td>
<td>6.87</td>
</tr>
</tbody>
</table>

*p<0.05
Table 4 indicates that in the first step of the model the independent variables Job autonomy, Communication with the Manager, Feedback and Quality knowledge had a significant effect on the outcome variable, Job Satisfaction. This was evident as these independent variables accounted for 27% of the variance in the outcome variable, Job Satisfaction. Inclusion of the Social Support variables in step two added an additional 5% to the variance explained in Job Satisfaction. However, only Social Support from Colleagues had a statistically significant correlation to Job Satisfaction, along with Job Autonomy and Feedback, which remained significant. In step 3, where all the variables were entered with Social Support, the moderating variable, the model was able to account for 35% of the change in the outcome variable. In step 3 where the interaction variables were entered, it is interesting to note that there were no statistically significant values to be reported regarding Social Support’s moderation on the relationship. This suggests that Social Support does not play a moderating role in the relationship between Job Characteristics, Communication with the Manager and Job Satisfaction.

DISCUSSION

The aim of the research was to investigate the relationship between job autonomy, job challenge, management communication and job satisfaction of trainees in a mining company in the North-West Province and also whether social support can moderate between these variables. Job satisfaction has - for a very long time - been indicated as an outcome of job autonomy, feedback from the manager, manager communication, quality knowledge and general social support in the workplace (Park, 2004; Brough et al., 2004; Au & Cheng, 2004; Lee, 2004; DeCarlo & Agarwalo, 1998; Medford, 1986; Goleman, 2000).

The measuring instruments presented with acceptable internal consistency. The only two scales which presented less than acceptable values were skill variety and job challenge. There could be a few reasons why these two scales presented such low consistency levels. One is the fact that more than 60% of the participants’ home language was not English, yet this was the only language in which the survey was made available. One can therefore hypothesise that questions in both these scales could have been misinterpreted or misunderstood by the participants whose home language is not English. The second reason for such low consistency levels could be due to the small number of items measuring these two scales. There is a relatively small number of participants in the actual survey, which may have also
detracted from reliability. Therefore, a larger sample, where the items measuring the two scales are adapted and possibly translated, could lead to an improved consistency level in the future.

Regarding the relationship between job characteristics (job autonomy, job challenge and communication with the manager, as well as feedback and quality knowledge) all were positively correlated to the outcome variable, namely job satisfaction. These findings indicated that employees who experience a certain degree of freedom in terms of how their work is completed, and who have open communication channels with their supervisors/managers, who receive regular feedback and are able to identify the quality of their own work tend to be more satisfied in their jobs. The findings about the correlation between job autonomy and job satisfaction are supported by researchers such as Au and Cheng (2004), Bandura (1988), and Jackson (1983). They also state that employees with lower levels of job autonomy tend to have higher levels of stress and less work fulfilment and job satisfaction. It can therefore be concluded that trainees who perceive the experienced levels of job autonomy, communication with the manager, feedback, have good quality knowledge and experience social support from supervisor and colleagues are highly likely to experience increased job satisfaction. The results that job autonomy, feedback communication with manager, quality knowledge and social support have a statistically significant correlation to job satisfaction are supported by previous research where such a relationship to job satisfaction was also reported (Furnham & Walsh (1991), Siebernhagen (2006), Downs et al., (1988), Robbins (2001), Goleman (2000).

None of the interaction terms were significant predictors of the outcome variable (job satisfaction). A conclusion can be drawn from this that social support does not have a moderating effect on the relationship between the measured independent variables (job characteristics and manager communication) and the outcome variable. However, when only social support from supervisor and colleagues and the job characteristics were considered, it was seen that job autonomy, feedback and social support from colleagues are significant predictors of job satisfaction for a group of trainees in a mining organisation. This finding indicates that it is not only important for trainees to experience autonomy in the execution of their tasks, but that they also need collegial support and good feedback about such performance in order to experience job satisfaction.
As evidence from this research, focus and resources should essentially be directed towards establishing job autonomy, feedback and social support from colleagues for trainees’ increasing job satisfaction. This view is clearly supported by research findings as reported by Nguyen, Taylor and Bradley, (2003) wherein job autonomy, feedback and social support from colleagues have demonstrated predictive ability for job satisfaction. The absence of all of these leads to stress and psychological strain. Examining why job autonomy, feedback and social support are specifically important for this study group in experiencing job satisfaction, one can for instance see that the participants’ average level of education of a Matric with either a college or technicon diploma and university degree with an average tenure of only 6 years and an average age of 30 years. More than forty percent of the participants were also either trainees or hourly paid. It is therefore proper to assume that autonomy to explore and practise as part of a trainee’s learning process would be important for an individual who is at this level. The hypothesis for feedback and social support from colleagues is that because participants were in a training programme emotional support from colleagues might indicate an important support structure during the traineeship. Regular feedback from the manager is also important as it can serve as the main measure of success for the trainee. When one also considers the environment and the location of most mines in the country, it is not surprising that social support from colleagues was one of the main predictors of job satisfaction. Most trainees working in the mines work shifts and live in mining communities away from their families and familiar surroundings. One can therefore, based on this hypothesis, expect that colleague support ends up being the most important form of support.

An important conceptual issue also emerges. A strong correlation was noted between the measurements of supervisor support and communication with the manager. One explanation is that upon examining items from these respective scales, there is reason to believe that some of the items, at face value, appear to be measuring the same thing. Considering items such as “My manager explains clearly and comprehensively when I need it” (communication with manager) and “When I encounter problems at work, I can always ask my manager for advice” (social support), it is clear that there could be a possible overlap between these two scales in terms of how they were originally defined and measured.

The results of this research study corroborate and can be linked back to the theoretical model used in this research. The model shows that the presence of certain core dimensions such as job autonomy, where an employee feels he/she has the freedom to choose how his/her work
gets done, job challenge (represented by task significance in the Oldham & Hackman model), communication with the manager, can all be expected to lead to job outcomes such as increased levels of job satisfaction (Oldham & Hackman 1976).
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CHAPTER 3
CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

This chapter sets out the conclusions regarding the literature review and the empirical study. Recommendations are made for future research and limitations are also highlighted.

3.1 CONCLUSIONS

This research study set out to answer the following research questions:

*How are the variables, and the relationship between job characteristics, communication with the manager, social support and job satisfaction conceptualised in the literature?*

- **Job autonomy** is defined by Hackman and Lawler (1971) as describing individuals’ feelings of personal responsibility for their work.
- **Job challenge** is defined by Hellgren et al. (1997), based on James and Sells (1981), as the degree to which the job is perceived as providing opportunities for making use of skills and abilities.
- **Job characteristics** are defined as those factors that influence employees’ intrinsic work motivation by the achievement of critical psychological states (Hackman & Lawler, 1971).
- **Communication** is defined by Gurainik (1976) as an exchange of information. It is a variety of behaviours, processes and technologies by which meaning is transmitted or derived from information. In this research, *communication with the manager* is thus taken to represent the phenomenon defined by Gurainik, as applied to the relationship between an employee and his/her manager.
- **Job satisfaction** is defined by Kreitner and Kinicki (2001) as an affective or emotional response towards various aspects of one’s job.
- **Feedback**, as defined by Panzano et al. (2004), is the extent that the job itself provides information about job performance.
- **Social support** is defined by Barrera and Ainlay (1983) as referring to one's social relationships as buffers of life's stressors and promotive of one's general health. Maria
(2004) also defines social support as the assistance and protection given to others, especially those in the work environment.

Specific research where relationships between these variables was reported includes, among others, Panzano et al. (2004), Downs et al. (1988), Robbins (2001), and Pappas (2007). These authors show that there is a positive relationship between one’s experience of satisfaction on their job and job autonomy, feedback and social support.

Is there a relationship between job characteristics, communication with the manager, and social support and job satisfaction for the selected participants?

The results indicated positive relationships between job autonomy, feedback, communication with the manager, social support from colleagues and supervisor and job satisfaction. Social support from colleagues, feedback and job autonomy were the variables with the strongest correlation to job satisfaction. This indicates that when resources are focused on improving support between colleagues, feedback provided by the managers as well as increased freedom in terms of how work is completed, once can expect the experience of job satisfaction to increase among trainees.

Can job characteristics, communication with the manager, and social support be used to predict job satisfaction?

The results indicated that job autonomy, feedback and social support from colleagues were the only variables that could statistically significantly predict job satisfaction for trainees in the mining organisation. However, when considered together with their respective interaction effects with social support, no variables proved to be statistically significant predictors. However, job characteristics, social support and their interactions explained 32% of the variance in job satisfaction.

Does social support play a moderating role in the relationship between job characteristics, communication with the manager and job satisfaction?

When examining the interaction terms, it is clear that social support does not moderate the relationship between job characteristics, communication with the manager and social support.
These results also suggest that, although the initial hypothesis was that social support does play a moderating role, the results suggest that for this group of trainees, job autonomy, feedback and social support form colleagues each have a direct and independent influence on job satisfaction.

### 3.2 LIMITATIONS

There is currently literature evidence supporting the moderating effects of social support on the relationship between job characteristics, management communication and job satisfaction. However, based on the findings of this study, there was no substantial evidence to prove the moderating effect of social support on this relationship. The challenge associated with demonstrating significant moderating results is hereby acknowledged and this can possibly be attributed to the small sample size. According to Brough and Pears (2004), similar challenges have been reported by previous researchers due to the operationalisation of the concepts, low statistical power to detect interactive effects and failure to consider the non-linear relationship that may exist between the measures. It is recommended that this apparent lack of evidence be investigated further.

The second limitation of this study is its cross sectional nature. A longitudinal design would have been able to demonstrate a stronger causal relationship and conclusions. Longitudinal research is a research design that allows for the same sample of participants to be observed and studied repeatedly over a more extended period of time, thus enhancing the validity of the design (Coleman, 2003). The moderating effect of social support between job characteristics, communication with the manager and job satisfaction still requires further research.

A final limitation of this study is that it only included trainees from one specific organisation, and the results may not be representative of trainees from other mining organisations, or even trainees in other industries.
3.3 RECOMMENDATIONS

3.3.1 Recommendations for the organisation

The research findings, overall, indicate that job satisfaction of trainees in a mining organisation can be predicted by job autonomy, feedback and social support from colleagues. These findings are consistently supported by other research findings where the same variables have been found to be good predictors of job satisfaction. Findings on social support from supervisor have presented with results inconsistent with existing research on supervisor support and job satisfaction (Park, Wilson & Lee, 2004; Brough & Frame, 2004). It is also clear that for this organisation to increase the experience of job satisfaction of the trainees, focus needs to be on increasing autonomy offered in the training programme, the frequency and consistency of feedback from the managers, as well as finding creative ways of fostering or creating support networks amongst the group of trainees themselves - even with more senior employees in the organisation., Trainees could therefore be using support by colleagues as one way of buffering the stresses and psychological strains associated with undergoing the training programme itself.

It is evident from the results of this study that trainees in the mining organisation view colleague support as one of the predictors of satisfaction. The organisation needs to find ways of creating formal networking opportunities for trainees/employees where they interact on about more topics than just work. Informal social activities or groups can be created where trainees socialise, particularly outside the workplace. Another support structure that can be formed is a “buddy” programme where trainees are paired in groups with a more experienced or senior employee during their traineeship.

This study also indicated that feedback was a significant predictor of job satisfaction. The organisation could look to strengthen its performance management processes and training where supervisors and managers are provided with practical skills/tips on providing regular non-formal feedback to trainees. This informal feedback can then be supplemented by monthly or bi-monthly one-on-one sessions with each trainee. Such sessions will not only provide trainees with the feedback on their performance but it may also provide the trainees with the experience of support from their supervisor in terms of meeting their individual performance objectives. Because of the current lower rates of graduates from university with engineering related qualifications as well as artisans, a further recommendation is that the
organisation focuses and dedicates more resources into this current “trainee programme” where new graduates are taken on for a “traineeship”. This strategy can continue to assist the organisation in terms of attracting, developing and retaining these graduates long after the training period is over. More resources in terms of training and developing these trainees can also lead to a higher retention rate to combating the skills shortage experienced by the industry as a whole.

### 3.3.2 Recommendations for future research

Recommendations for future research include conducting more longitudinal research design should where interactions of these variables can be fully examined over extended periods. When one considers the role played by the core dimensions or job characteristics known to have a direct effect on one’s experience of job satisfaction, it is important that these predictors (such as job autonomy, feedback) are identified and studied further, particularly amongst trainee groups in the mining industry.

Two of the measuring instruments, Job challenge and Skill variety did not prove to be reliable. One of the concerns which came to light was the similarity of the items for these two scales. Once could make the assumption that the participants interpreted the items of these two different scales in the same way, obscuring their individual effects. A recommendation is that the items need to be differentiated even more particularly for populations whose first language may not be English.

Lastly, the scales of communication with the manager and social support from supervisor show an overlap. Recommendations are made that future researchers need to examine the possibility of clearly defining the two constructs and looking at the construction of the items which make up each of these scales. One of the reasons includes the fact that the majority of South Africans do not use English as their first language which would expand the possibility of misinterpreting and confusing the items for the two scales. The construction of these items needs to clearly differentiate between these two scales.
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