

Investigating job satisfaction of supervisors in the chrome industry

W. Dreyer

National diploma in Mechanical and Electrical Engineering

**Mini-dissertation submitted in partial fulfilment of the requirements for the degree
Masters in Business Administration at the Potchefstroom Business School,
Potchefstroom Campus of the North-West University**

Supervisor: Mrs M.M Heyns

Date: October 2012

Acknowledgements

All the glory to GOD who gave me the strength to start and complete this course. During the past three years, the Lord taught me that anything is possible through faith. I sincerely thank Him for carrying me and my family when times were tough and for keeping us together.

Sincere thanks to the following people:

- My wife, Diana, for her love and loyal support during the past three years and for understanding the importance of the course for our family's future.
- My children, Muzaan, Niané and Daniel. You accepted giving up a lot of time that we should have spent together during my studies. I will make it up to all of you!
- My parents and mother-in-law for their constant support, interest and encouragement.
- My friend, Andries van Heerden, for his support and encouragement. His door was always open to me for advice.
- Sincere thanks to Marita Heyns for being an excellent study leader; guiding me through what needed to be done. I enjoyed working with you.
- Christine Bronkhorst and her team at the Ferdinand Postma library for reacting promptly when I asked for information during the writing of this mini-dissertation.
- Mari van Reenen and Lusilda Boshoff for sharing their knowledge on the stats with me. You made it a lot easier.
- Francois Coetzee (GWM Boshhoek Xstrata) for the opportunity to take on this course and also for his consent in conducting this study at Boshhoek.

Abstract

This study is undertaken to investigate the effect job satisfaction (or dissatisfaction) has on the employees of Xstrata Alloys. Specifically, the focus falls on the supervisors employed at Xstrata's Boshhoek plant. The supervisors form the first line of management and therefore have the opportunity to influence the work force, be it intentionally or unintentionally, either positive or negative. It is the responsibility of every organisation to put measures in place to ensure a workforce of satisfied employees as the productivity and performance of the entire company could rest on this.

This research study focuses on the quantitative method to obtain the necessary data. The Minnesota Satisfaction Questionnaire (MSQ) short form is specifically used in the collection of data for this study.

A few interesting findings are evident: supervisors that have been in a certain line of work for longer periods of time, perceive themselves to experience less praise for jobs well done, whereas employees who have been appointed in supervisory positions for longer periods of time, have even lower levels of general satisfaction. The supervisors in the different departments are found to differ in their perceptions of certain job satisfaction items. Supervisors in the Admin and Production departments, harbour more positive feelings about some of the items than the supervisors in the Engineering department. A difference in perception is also noted between the supervisors with Afrikaans and other languages as home language, regarding their perception of some of the items of job satisfaction.

It is recommended that future studies should focus on including the whole workforce, opposed to only the supervisors.

Key Words

Job satisfaction, Supervisors, Minnesota Satisfaction Questionnaire

Opsomming

Die fokus van hierdie studie is om die effek van werkstevredenheid (of werksontevredenheid) op die werknemers van Xstrata Alloys te ondersoek. Die fokus val spesifiek op die toesighouers werksaam by Xstrata se Boshoeck plant. Die toesighouers vorm die eerste linie van bestuur en het daarom die geleentheid om die werksmag te beïnvloed, hetsy positief of negatief. Dit is die verantwoordelikheid van elke organisasie om maatstawwe in plek te stel, om 'n werksmag bestaande uit tevrede werknemers te verseker, aangesien die produktiwiteit en werksverrigting van die hele maatskappy hierop kan berus.

Hierdie navorsingstudie fokus op die kwantitatiewe metode om die nodige data te bekom. Die "Minnesota Satisfaction Questionnaire (MSQ) short form" word spesifiek gebruik in die insameling van data vir die studie.

'n Aantal interessante bevindings is gemaak. Die studie lig die volgende uit: toesighouers wat vir langer periodes in 'n sekere lyn van werk is, voel dat hulle minder vir goeie werk geprys word. Werknemers wat vir langer periodes as toesighouers aangestel is, ervaar selfs laer vlakke van algemene tevredenheid. Dit word bevind dat die toesighouers in verskillende departemente verskil wat hul persepsies van sekere items van werkstevredenheid betref. Toesighouers in die Admin- en Produksiedepartemente huldig meer positiewe gevoelens ten opsigte van sekere van die items as die toesighouers in die Ingenieursdepartement. Daar word ook 'n verskil bespeur in die persepsies van die toesighouers met Afrikaans en ander tale as huistaal, wat hul persepsies betref van sekere van die items van werkstevredenheid.

Daar word aanbeveel dat toekomstige studies daarop behoort te fokus om die hele werksmag in te sluit, eerder as slegs net die toesighouers.

Sleutelwoorde

Werkstevredenheid, toesighouers, Minnesota Satisfaction Questionnaire

INDEX

List of abbreviations	8
List of tables	9
List of figures	10
CHAPTER 1	11
1.1 Introduction	11
1.2 Background	11
1.2.1 The effect job satisfaction has on the performance of an employee	14
1.3 Problem statement	15
1.4 Research objectives	16
1.4.1 Primary objective	16
1.4.2 Secondary objectives.....	16
1.5 Scope	17
1.6 Research methodology	17
1.6.1 Phase 1: Literature review	18
1.6.2 Phase 2: Empirical study	19
1.6.2.1 Research Design	19
1.6.2.2 Participants	20
1.6.2.3 Measuring instrument	20
1.6.2.4 Statistical Analysis	21
1.7 Limitations / Anticipated problems.....	21
1.8 Chapter division.....	22
1.9 Chapter summary	22
CHAPTER 2: LITERATURE REVIEW	23
2.1 Introduction.....	23
2.1.1 The relationship between job satisfaction and job performance	24
2.1.2 The relationship between job satisfaction and organisational commitment	24
2.2 Defining job satisfaction	25
2.2.1 Could job satisfaction be this simplistic or is there more to the concept?	25
2.3 Outcomes of job satisfaction	26
2.3.1 Rewards.....	26
2.3.2 Commitment	27
2.3.3 Overall effectiveness	27
2.4 The preconditions of job satisfaction	28

2.5	The job characteristics model.....	30
2.6	Major correlates and consequences of job satisfaction	32
2.6.1	Motivation	33
2.6.2	Job involvement.....	33
2.6.3	Organisational citizenship behaviour.....	33
2.6.4	Absenteeism	33
2.6.5	Withdrawal cognitions.....	33
2.6.6	Turnover.....	34
2.6.7	Perceived stress	34
2.6.8	Job performance.....	34
2.7	Variables of job satisfaction.....	34
2.7.1	Demographic variables	35
2.7.1.1	Age.....	35
2.7.1.2	Gender.....	36
2.7.1.3	Marital status and family	36
2.7.1.4	Level of education.....	37
2.7.1.5	Professional experience and expertise.....	37
2.7.2	Work task variables	38
2.7.2.1	Job design	38
2.7.2.2	Workload.....	39
2.7.3	Institutional factors.....	40
2.7.3.1	Pay satisfaction.....	40
2.7.3.2	Contract	41
2.7.3.3	Performance management	41
2.7.3.4	Organisational climate	42
2.7.3.5	Professional development	42
2.8	Models of job satisfaction	43
2.8.1	Need fulfilment.....	43
2.8.2	Discrepancies	44
2.8.3	Value attainment.....	44
2.8.3.1	The value-percept theory.....	44
2.8.4	Equity.....	45
2.8.5	Dispositional/genetic components	45
2.9	Summary	45
CHAPTER 3: RESEARCH METHODOLOGY		46
3.1	Introduction.....	46
3.2	Research approach	46
3.3	Research design.....	47

3.4	Participants	47
3.5	Sample	48
3.6	Measuring instruments	48
3.7	Procedure	50
3.8	Summary	50
CHAPTER 4 – DISCUSSION OF RESULTS.....		51
4.1	Introduction.....	51
4.2	Frequencies and descriptive statistics for demographic variables and items of job satisfaction.....	52
4.3	Comparison of items of job satisfaction for different genders	53
4.4	Correlation between age and items of job satisfaction.....	55
4.5	Comparison of items of job satisfaction for departments and home language	59
4.6	Summary	66
CHAPTER 5 – CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS		67
5.1	Introduction.....	67
5.2	Conclusions	67
5.3	Limitations	68
5.4	Recommendations.....	68
5.5	Summary	70
REFERENCE LIST		71
Appendix A.....		79
Appendix B.....		84

List of abbreviations

MSQ	Minnesota Satisfaction Questionnaire
SA	South Africa
JCM	Job characteristics model
Alderfer's ERG theory	Alderfer's Existence/Relatedness/Growth theory

List of tables

Table 3.1: Characteristics of participants	48
Table 4.1: Cronbach's Alpha coefficient	52
Table 4.2: Summary of tests for parametric and non-parametric data	53
Table 4.3: Mann-Whitney test results	54
Table 4.4: Spearman's Rank correlation coefficient: age versus items of job satisfaction	56
Table 4.5: Spearman's Rank correlation coefficient - Years in line of work vs. items of job satisfaction	57
Table 4.6 : Spearman's Rank correlation coefficient - Years appointed as a supervisor vs. items of job satisfaction	58
Table 4.7: Spearman's Rank correlation coefficient - Highest level of education vs. items of job satisfaction	59
Table 4.8: Effect size table for Admin, Engineering and Production (A)	61
Table 4.9: Effect size table for Admin, Engineering and Production (B)	62
Table 4.10: Effect size table for English, Afrikaans and other home languages (A)	64
Table 4.11 : Effect size table for English, Afrikaans and other home languages (B)	65

List of figures

Figure 1.1 Organisational structure – Xstrata (Human Resources Department, Xstrata Boshhoek Plant)	12
Figure 1.2 Division of total workforce of Xstrata Boshhoek into three categories (Human Resources Department, Xstrata Boshhoek Plant)	13
Figure 2.1 The job characteristics model (Schermerhorn et al., 2011:143).....	30

CHAPTER 1

1.1 Introduction

The focus of this study is to determine the level of job satisfaction amongst supervisors in the chrome industry.

Chapter one provides the reader with an overview of what this study entails; this includes a description of how the study is conducted and what measures are followed to analyse the data.

1.2 Background

Xstrata Alloys is the world's largest producer of ferrochrome and a leading producer of primary vanadium. Xstrata Alloys also owns carbon and anthracite operations, which supply key raw materials to its ferrochrome smelters and owns an interest in a joint venture platinum group metals mine and concentrator.

This study focuses on the job satisfaction supervisors, specifically, experience in Xstrata. Supervisors play a fundamental role in the organisational structure of Xstrata, as they form the first line of authority. In other words, the supervisors occupy the first supervisory level of decision making and management of people and are also the first to be reported to. They hand out instructions to the workforce and the workforce (such as the artisans, production assistants and cleaners) report to them in return.

As illustrated by the following Figure 1.1, the supervisor acts as the link between the management (above the supervisor) and the workforce (below).

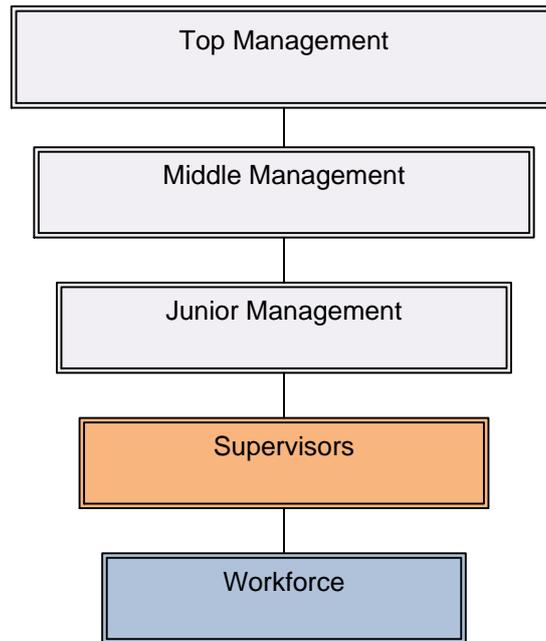


Figure 1.1 Organisational structure – Xstrata (Human Resources Department, Xstrata Boshhoek Plant)

The management takes on a leadership role by providing direction and a clear strategy to the plant. Management is responsible for anticipating the future and planning ahead to ensure the smooth flow of the day to day operations. Managers also provide guidance to the supervisors as to how operations should best be executed.

On the other hand, supervisors' primary engagement lies with the workforce. Managing, directing and interacting with the workforce to reach the set targets on a daily basis, are their first concern. For these goals to be reached, supervisors need to create a motivating climate in which to maintain a healthy workforce in order to keep the line of duties operational.

Supervisors play a significant role in the plant, acting as the first line of decision makers managing those reporting to them. Seeing that the supervisors are the first line of management, they will have the biggest influence on the people. It can be seen that the workforce component is relatively large in correlation to that of the supervisors' and the managers' components as set out in percentage in the following graph.

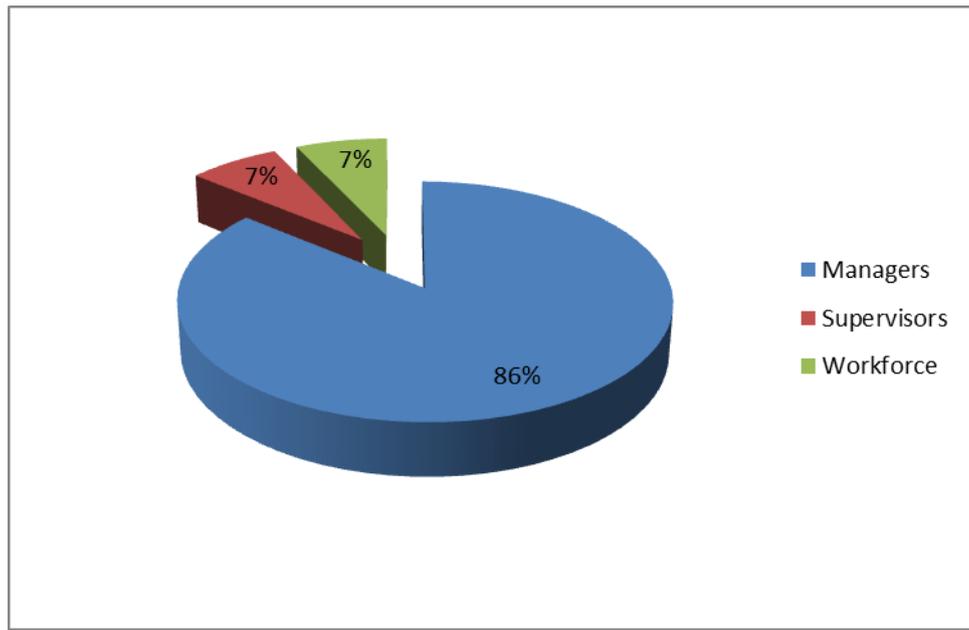


Figure 1.2 Division of total workforce of Xstrata Boshhoek into three categories (Human Resources Department, Xstrata Boshhoek Plant)

As can be detected from figure 1.2, 6.7% of Xstrata Boshhoek's workforce consists of supervisors, while 6.9% consists of management and 86.4% of the rest of the workforce.

It can thus be concluded that supervisors play a significant role in the plant. From informally observing the supervisors operating in the plant previously, it could be presumed that if supervisors are not satisfied in their jobs, their negative attitude and body language could, unintentionally, rub off on their subordinates (who make out the largest percentage of the total workforce of Xstrata Boshhoek), influencing job performance. This could in turn lead to production loss and overall bad performance of the company.

From a manager's point of view, it proves to be important to take cognizance of the level of job satisfaction his/her supervisors experience, as this could influence the performance of the section under his/her leadership and ultimately the plant as a whole. Although research revealed that job satisfaction is not a direct cause of performance, job satisfaction is not unimportant (Coetsee, 2002:49) and the possibility of a correlation does exist.

Today's corporate world is all about costs, performance and the optimal utilisation of assets. It cannot be afforded not to utilise people, regarded as an asset, to the optimum – even if it means only a small percentage in difference - every cent counts.

In the light of the given background underlying the study, a brief literature review will follow, linking the practice to the theory.

1.2.1 The effect job satisfaction has on the performance of an employee

Job satisfaction is a multi-dimensional, enduring, important and much researched concept in the field of organisational behaviour (Pietersen, 2005:19).

Job satisfaction can be described as a positive or negative attitude that individuals have about their jobs (Coetsee, 2002:45). In their study, Buitendach and Rothmann (2009:2) defined job satisfaction as a positive or affective function of the perceived relationship between what a person wants from his/her job and what the person perceives as offered.

Job satisfaction results from the way a person perceives his job and also job-related matters such as salary, relationships with colleagues and the amount and quality of support he received from managers (Coetsee, 2002:45). People who perceive their workplace and working conditions to be positive are likely to experience job satisfaction. Job satisfaction is the most important determinant of the quality of an employee's work-life (Coetsee, 2002:45) and according to Warr (2007:19) an important dimension of an individual's happiness at work. According to Buitendach and Rothmann (2009:1) job satisfaction is relevant to employees' physical and mental well-being. This is supported by Roelen *et al.* (2006:433) who believes that a strong relationship exists between low job satisfaction and burn-out, depression, anxiety and low self-esteem.

The key-aspects that contribute to job satisfaction have been identified as recognition in one's work, level of salary, opportunities for promotion and achievement of personal goals (Mackenzie, 2008:1). Coetsee (2002:47) adds, among others, co-workers, job security and working conditions to the list.

These variables can be arranged according to two dimensions, namely: intrinsic and extrinsic. Intrinsic satisfaction refers to the job tasks themselves and includes variety and achievement of personal goals. Extrinsic satisfaction is experienced in aspects that have little to do with the job task or the content of the work itself. Co-workers, working conditions and salary fall in this category (Buitendach & Rothmann, 2009:2).

Job Satisfaction affects performance outcomes in several ways. The premise of many social scientists and managers is that satisfied workers will be more productive and remain with the

organisation longer, whereas dissatisfied workers will be less productive and more inclined to quit (Sarker *et al.*, 2003:745). According to Oshagbemi (2003:1210) much of the research regarding job satisfaction has been focusing on the assumption that job satisfaction is a potential determinant of absenteeism, turnover, in-role job performance and extra-role behaviours. Rice (1984:6) states that work can have an important effect on the quality of life of the employee and, according to Locke (as cited by Buitendach & Rothmann, 2009:1), may manifest in behaviour such as absenteeism, complaints and grievances, frequent labour unrest and termination of employment. Coetsee (2002:45) emphasises that in situations where employees are experiencing their work surroundings and situation as negative, absenteeism increases, labour turnover is higher and identification with and commitment to the organisation decrease. Stress levels also increase and burn-out and stress-related illnesses are more common.

Keeping the above facts and statements in mind, interestingly enough, the overwhelming body of research, according to Coetsee (2002:47) finds no clear link between satisfaction and performance. Although some employees are satisfied with their work, they are poor performers. On the other hand, there are people who are dissatisfied with their work, but who are excellent performers. The author emphasises that it should be understood that performance is not the result or consequence of satisfaction, but rather that satisfaction results from performance when rewards received for good performance, are perceived as reasonable (Coetsee, 2002:47).

Experts believe that job satisfaction has a direct effect on labour market behaviour and economic efficiency by means of the impact on productivity and turnover of staff (Mackenzie, 2008:1). As the dissatisfaction of an employee can be very costly and disruptive to organisational effectiveness, more and more companies recognize the importance and need to monitor job satisfaction (Terpstra & Honoree as cited by Vorster, 2010:1).

1.3 Problem statement

An unsatisfied workforce could lead to different situations, such as strikes, a negative workforce, unproductiveness and little participation. Seeing that the supervisors manage the greatest part of the workforce on the plant, they can easily influence the workforce, be it intentionally or unintentionally.

An extensive amount of money is invested each year on training employees to be competent in the workplace. Career upliftment, ensuring constant growth of employees, is a priority of

most companies understanding that this will lead to growth in the company. It is a fact that a shortage in trained and skilled labour exists. As has been pointed out in section 1.1 in more detail, job satisfaction has a direct relationship to both labour turn-over and high absenteeism (Coetsee, 2002:49). When a skilled and trained person is lost to another company, the loss is significant: replacing such a person means that more money and time need to be invested for such a replacement to reach the same level of skills and this inevitably leads to production loss.

Through conducting the study, a gap in research in the area of job satisfaction in Xstrata could be filled. It is the first study of its kind being done in Xstrata and the findings could add new insights to the nature of job satisfaction in the stated target group. The study could either contribute to a better management approach or point out that the right approach is already being implemented.

The objective of this research is to investigate the nature of job satisfaction in Xstrata, which will be discussed in more detail next.

1.4 Research objectives

1.4.1 Primary objective

The primary objective of this research is to determine the nature of the job satisfaction of supervisors in Xstrata. The central research question to be addressed is the following: What is the nature of job satisfaction amongst supervisors in Xstrata?

1.4.2 Secondary objectives

To address the primary objective, the following secondary objectives have been identified:

- i. To conduct an in-depth literature study to determine the essence of job satisfaction and the impact it has in the working environment.
- ii. To conduct a full empirical assessment on the nature of job satisfaction amongst a specified target group (supervisors) in Xstrata.
- iii. To interpret the assessment results and its possible implications for the business.

The primary and secondary objectives of the study were outlined in this section. The scope of the study will be discussed next and includes subjects such as the fields of the study and the concepts that will be investigated.

1.5 Scope

This study will be done in the subject field of Organisational behaviour. The central focus will be on determining the level of job satisfaction amongst supervisors in the said company.

Only job satisfaction, as human variable, is included in the study while all other forms of human variables are excluded.

The focus of this study falls particularly on the supervisors who act as a link between the management and the workforce. The management and workforce are excluded from the study.

Xstrata consists of various divisions, therefore, this study will only be limited to the Boshhoek plant (a chrome smelter), situated in the North West province, and will exclude all other plants in the Xstrata group.

The scope in this section provided the reader with details concerning the discipline the study will be conducted in, the aspects that will be covered and the sector in which the study will be done.

The research methodology will be addressed next, and attends to the way the study will be conducted in. It consists of an explanation of the necessity of the literature review and empirical study.

1.6 Research methodology

This research study focuses on the quantitative approach to obtain the necessary data. The quantitative method, as explained by *Welman et al.* (2011:6) is limited to what can be observed and measured objectively. It strives to form laws that apply to the population and that explain causes of objectively observable and measurable behaviour. It is used for justification and testing of hypotheses; structured questionnaires are, amongst other

techniques, used as measuring instrument in cases where data is collected from a larger population.

Conversely, the aim of the qualitative method is to understand human behaviour from the perspective of the people involved (the experiencing of human behaviour). It is measured in the form of unstructured interviews and detailed observation processes (in-depth measures) to gain better information about the views of subjects in smaller samples (Welman *et al.*, 2011:8). The information is then used to build models and generate hypotheses. Much time is needed for this method, as one-on-one meetings with the members of the population are conducted.

In view of the above contrasting approaches, the researcher opts for the quantitative method as the most suitable option to deal with the research question in mind.

The research is conducted in 2 phases: firstly, a literature review is done followed by an empirical study testing the literature in practice.

1.6.1 Phase 1: Literature review

An in-depth literature study is conducted to investigate and analyse the findings of previous research studies done on the same topic, or closely related topics to the one being researched. Through this, the gaps existing in the literature could be identified and further research conducted in these areas. This will also inform the empirical phase of the study.

The literature study is compiled of numerous sources including books, journals and the internet. The Ferdinand Postma Library (North West University) is consulted and its search engines used to gather information and high impact articles related to the study. This will ensure that only scientifically sound information is used in the literature review.

1.6.2 Phase 2: Empirical study

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

1.6.2.1 Research Design

The aim of the research design, according to Welman *et al.* (2011:52) is to provide a plan on how research participants will be obtained and how information for the study will be collected from them. It provides detail on how the research will be conducted: what will be done with participants, keeping in mind a view to reaching conclusions about the research problem. It forces the researcher to investigate all possible methods on how the research can be done and to ensure that the best possible method for the particular study is used to conduct the research.

The research for the purpose of this study can be classified as descriptive for two reasons: explaining phenomena and predicting goals (Welman *et al.*, 2011:23:66). The first goal of research is to explain phenomena, such as human behaviour, by indicating how variables are related to one another and in what way different variables affect each other. Secondly, we may be able to change or control human behaviour through the possibility of explanation or prediction thereof (Welman *et al.*, 2011:23:66).

The specific design that is used, is a quantitative approach with structured questionnaires as measuring instrument. The questionnaire used, the Minnesota Satisfaction Questionnaire (MSQ short form), was developed by the University of Minnesota in 1977. The design of this questionnaire is such that the objectives of the study are met in utilising it, since it focuses specifically on two distinct scales i.e.: intrinsic and extrinsic job satisfaction, where, unlike intrinsic job satisfaction, extrinsic job satisfaction has little to do with the work task itself (Buitendach & Rothmann, 2009:2).

In 2009, Buitendach and Rothmann conducted a study to validate the Minnesota Job Satisfaction Questionnaire in selected organisations in South Africa. The first objective of their study was to investigate construct equivalence and reliability and the second objective to investigate the reliability of subscales with demographic variables of employees at selected organisations in SA (Buitendach & Rothmann, 2009:5).

The researchers conducted a simple component analysis on the 20 items of the MSQ on the total sample of workers at selected organisations in South Africa. The results of their study indicated that the MSQ is in fact a reliable instrument to assess the dimensions of the extrinsic and intrinsic job satisfaction of employees at selected organisations in South Africa. The use of the MSQ to assess the levels of job satisfaction of South African employees was recommended by Buitendach and Rothmann (2009:6).

1.6.2.2 Participants

In the empirical study the objectives are tested. The population of this study is made up of the supervisors in the Xstrata Boshhoek plant. The sample group, that is also equal to the population, is 68. By including all the supervisors of Xstrata Boshhoek, the whole population is included, thus ensuring validity.

The findings of the research study should not be generalised to the whole of the Boshhoek plant, as the results reflect only the satisfaction level of the supervisors. The findings should also not be generalised to include the supervisors of other plants in the Xstrata group or to bigger companies in general, but should be limited to the population as previously specified.

1.6.2.3 Measuring instrument

The researcher opts for the quantitative method to gather data for the study. The MSQ short form will be used to gather data about the job satisfaction of participants (Buitendach & Rothmann, 2009:3). The MSQ short form consists of 20 items (Spector, 1997:15) and a 5-point Likert-type response format is used. The respondent needs to indicate how satisfied he/she is with the reinforcer on this present job. On each item the respondent has five response alternatives from which he can choose. The MSQ comprises of two distinct dimensions: intrinsic and extrinsic job satisfaction (Buitendach & Rothmann, 2009:3). According to Cook *et al.* (1981:23) test retest reliabilities of between 0.70 and 0.80 are reported, with an alpha coefficient of 0.96 (Rothmann *et al.* cited by Buitendach & Rothmann, 2009:3).

Ethical consideration is paid towards Xstrata Boshhoek and the supervisors completing the questionnaires. Permission to conduct the study at Boshhoek plant is obtained from the General Works Manager. The supervisors are informed upfront on what the purpose of this

study is and why it is necessary to conduct the study. It is also explained to them that the questionnaires are completed anonymously and that the information is kept confidential.

1.6.2.4 Statistical Analysis

The data from the questionnaires are then statistically analysed to determine the following: the means and the standard deviation of the data. These are then interpreted to reveal either a negative or a positive experience of job satisfaction. The results are measured against the objectives of this study. Finally, the findings are discussed and recommendations made.

In this section, the different concepts of the empirical study were briefly discussed and the necessity for a literature study for the mini-dissertation outlined.

The possible limitations and anticipated problems will be attended to in the following section.

1.7 Limitations / Anticipated problems

The possibility exists that not all the supervisors on the Xstrata Boshhoek plant will be cooperative in participating in the study and completing the questionnaires thoroughly and genuinely.

It is also possible that some of the supervisors could either be in training or on sick or annual leave on the specific day the questionnaires are handed out. To ensure that all the participants complete the questionnaires, these facts are made sure of beforehand, and if possible, a date is selected that all supervisors are supposed to be present on the plant. If the possibility occurs that a supervisor is absent on the selected date, the questionnaire is held back and handed out to him on his first day back on the job.

The possible limitations were listed in this section. The following section will outline the different chapters that the mini-dissertation consists of.

1.8 Chapter division

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

Chapter 1: Introduction and problem statement.

Chapter 2: Literature review.

Chapter 3: Research methodology.

Chapter 4: Discussion of results.

Chapter 5: Conclusions, limitations and recommendations.

1.9 Chapter summary

Chapter 1 introduced the focus of the study by briefly discussing the topic of the mini-dissertation. The discussion on the background of the study, provided insight into the motivation for conducting it, and also a brief preliminary literature review provided background of definitions and previous research findings on the topic of the study. A problem statement indicated what the problem is that the study will attempt to address. The primary and secondary objectives of the study were outlined. The scope of the study was outlined, and addressed subjects such as which elements of the topic will be covered by the research and also which elements will be excluded. The research methodology firstly outlined the reason for a literature review being included in the mini-dissertation and secondly, briefly discussed the different elements the empirical study consists of. The possible limitations, or any problems anticipated, were mentioned and briefly discussed. Lastly, a chapter division gave an indication on the subjects each chapter of the mini-dissertation will cover.

Chapter 2 provides an in-depth literature study investigating the topic of the study. Previous research and research findings on the topic are analysed and linked to this study. The complexity of (inter) relationships are investigated and discussed.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides insight into the complex and multidimensional nature of the construct of job satisfaction. The relationship between job satisfaction and job performance, and job satisfaction and organisational commitment, respectively, is looked into. Job satisfaction, in its complexity, is defined. An explanation of the outcomes and causes of job satisfaction follows. The goal and operation of the job characteristics theory is explained. Next, the major correlates of job satisfaction are discussed. The variables of job satisfaction are discussed under three broad headings, namely demographic variables, work task variables and institutional factors. The chapter is concluded by a brief overview of the measurement of job satisfaction.

Job satisfaction is the degree to which people like their jobs. Some people enjoy work and it becomes a central part of their lives. In contrast, others hate to work and do so only because they must (Spector, 1997:vii). Why is job satisfaction so important? To what extent does job satisfaction, in fact, influence an organisation's productivity?

Pienaar and Bester (2006:581) stress the importance of job satisfaction for any organisation, taking into account the considerable impact that it has on productivity. Experts believe that job satisfaction has a direct effect on labour market behaviour and economic efficiency by means of its impact on productivity (Mackenzie, 2008:1). Job satisfaction stand central to processes such as organisational commitment and employee withdrawal (Kinicki *et al.*, 2002:14). A workforce that experiences job satisfaction contributes greatly towards organisational effectiveness, and ultimately survival. Job satisfaction is regarded as related to important employee and organisational outcomes, ranging from factors such as job performance to issues such as health and longevity (Spector, as cited by Roos, 2005:37).

The Integrative model of organisational behaviour (Colquitt *et al.*, 2011:9) proposes job satisfaction (amongst other elements) to be a direct cause of both job performance and organisational commitment, the two most important outcomes of organisational behaviour. Most employees have two primary goals for their career lives: to perform their everyday jobs well and to remain an employee at a company they respect. Most managers have similar goals for their employees: to maximize employees' job performance and to ensure that they stay with the company (Colquitt *et al.*, 2011:9).

2.1.1 The relationship between job satisfaction and job performance

According to Ivancevich and Matteson (2002:122) research proposes that a three-way relationship exists between job satisfaction and job performance: (1) job satisfaction causes job performance, (2) job performance causes job satisfaction and (3) different variables moderate the job satisfaction-job performance relationship. Rashed (2001) points out that higher levels of job performance have always been associated with higher levels of job satisfaction. Zeffane (1994:71) argues that job satisfaction leads to greater performance, just as higher levels of performance leads to greater satisfaction.

2.1.2 The relationship between job satisfaction and organisational commitment

It seems that some discrepancy exists with regard to the relationship between job satisfaction and organisational commitment. Mathieu and Farr (1991:149) found the influence of job satisfaction on organisational commitment to be stronger than that of organisational commitment on job satisfaction. Satisfied employees bring a favourable attitude and a greater commitment to the organisation (Raabe & Beehr, 2003:140). According to Meyer *et al.* (2002:132) previous research highlighted a strong relationship between various facets of job satisfaction and organisational commitment. In their study, Igbaria and Guimaraes (1993:167) confirmed that a direct relationship exists between job satisfaction and organisational commitment.

From the above citations, it can be concluded that a relationship between job satisfaction and job performance, and job satisfaction and organisational commitment does exist, although there is a discrepancy over the extent of these relationships. The nature of these relationships is inconclusive (Rashed, 2001:93).

The introduction to Chapter 2 gave insight into the importance of job satisfaction for any organisation and also briefly discussed the relationship between job satisfaction and job performance, and job satisfaction and organisational commitment respectively.

The next section attends to defining the construct that is job satisfaction.

2.2 Defining job satisfaction

Roelen *et al.* (2006:434) defined job satisfaction as “the positive emotional reactions and attitudes individuals have towards their job”. According to Coetsee (2002:45) the concept of job satisfaction entails a person’s attitude, either positive or negative, towards his/her job. This attitude is the result of the way an individual perceives his/her job, as well as related matters, for instance support and benefits. Even more importantly, an individual’s attitude about his/her job results from his/her perception of the degree to which there is a good fit between the individual and the organisation (Coetsee, 2002:45).

From these explanations and definitions of job satisfaction, it can be concluded that a person with a high level of job satisfaction should hold a positive attitude towards a job; in contrast, a person who is dissatisfied with his/her job should hold a negative attitude about the job (Robbins, 2003:72).

2.2.1 Could job satisfaction be this simplistic or is there more to the concept?

Hulin and Judge (cited by Credé *et al.*, 2009:248) defined job satisfaction as multidimensional psychological responses to an individual’s job. The authors maintain that job satisfaction is composed of cognitive, affective and behavioural components. Tutuncu and Kucukusta (2009:1228) regard job satisfaction as an attribute that exists as the equity of a variety of desired and non-desired job-related experiences. Job satisfaction, as latent construct, cannot be represented by one dimension alone; the construct of job satisfaction only exists as the summed aggregate of its dimension (Law *et al.*, 1998:746). This is supported by Law and Wong (1999:148) who states that the traditional view of job satisfaction is that overall job satisfaction is formed from its individual facets or dimensions.

Different aspects impact upon a job and affect job satisfaction, e.g. its rewards, and characteristics of the job itself, e.g. contents (Roos, 2005:38). Spector (as cited by Roos, 2005:38) states, that this view provides a more accurate picture of job satisfaction, as an individual typically experiences different levels of satisfaction across different job aspects. The factors that potentially influence job satisfaction differ from person to person, and it could also differ for the same person over time and across his life stages (Roos, 2005:48). Judge and Klinger (2007:400) emphasise that two employees may have the same job and experience the same job characteristics, and yet have different levels of job satisfaction.

Hadebe (as cited by Roos, 2005:37) stresses that the importance of job satisfaction in the workplace is underscored by its undeniable connection to an individual's entire life. Taking into account that a person's job is an all important part of his/her life, it can be concluded that job satisfaction is part of life satisfaction.

In the light of the multidimensional and complex nature of job satisfaction, it should be pointed out that a person's compatibility with an organisation (person-organisation fit) has a unique influence on job satisfaction and pertains to the way an individual matches an organisation's values, goals, and mission (Lauver & Kristof-Brown, 2001:455).

In addition to its complexity, job satisfaction is also bipolar in nature (Credé *et al.*, 2009:247). Job satisfaction is pinpointed onto a continuum ranging from maximally unsatisfied to maximally satisfied. An individual's standing on the satisfaction-dissatisfaction continuum, is determined by his/her perception of a specific aspect of the job. Employees experience both positive and negative aspects of the job; these are weighted and aggregated and an overall evaluation of the specific aspect of the job is done. It is this evaluation that determines an employee's standing on the continuum (Credé *et al.*, 2009:247). According to Tutuncu and Kucukusta (2009:1228) job dissatisfaction would be the outcome of any working experience in the absence of satisfaction.

This section attempted to provide a definition and an explanation of the nature of job satisfaction. The following section addresses the outcomes of job satisfaction.

2.3 Outcomes of job satisfaction

The outcomes of job satisfaction comprise of rewards received by the employee, the commitment of the employee, and his/her overall effectiveness. Singh and Dubey (2011:42) emphasise the fact that job satisfaction significantly affects major organisational outcomes.

2.3.1 Rewards

Strong evidence exists that individuals who perform better like their jobs better because of the rewards often associated with good performance (Spector, 1997:56). Employees will experience job satisfaction if they perceive that their individual capacities, experience and values can be organised in their work environment, and also that the work environment offers them opportunities and rewards (Dawis, 1992; Roberts & Roseanne, 1998:261). In

Singh and Dubey's (2011:42) own words: "It is but human to strive for satisfaction in every aspect of life, and in the organisational context, this may be related to striving towards securing a good job, with a good pay and high job satisfaction".

2.3.2 Commitment

Much of the research done in the area of job satisfaction explicitly assumed that job satisfaction is a potential determinant of absenteeism, turnover, in-role job performance and extra-role behaviours (Oshagbemi, 2003:1210). Coetsee (2002:49) states as a fact that job satisfaction is directly correlated with labour-turnover (resignations) and high absenteeism. Warr (2007:432) points out that it is widely assumed by researchers that unhappiness in a job leads individuals to leave that job; it is consistently found that employees who leave a job tend to have been less satisfied. Firms invest a lot of time, effort and money in hiring and training their employees, and as a result job dissatisfaction and turnover is costly (Burney & Swanson, 2010:169). Researchers propose that satisfied workers should be more productive and remain with the organisation longer, while dissatisfied employees should be less productive and more inclined to quit (Sarker *et al.*, 2003:745). Sempene *et al.* (2002:23) emphasise that people will evaluate their jobs on the basis of factors which they consider as being important to them.

2.3.3 Overall effectiveness

An employee's occupation acts as a main source of income and takes up a large part of the day. Seeing that the role of an occupation stands central in many people's lives, job satisfaction is an important component of overall well-being (Sharma & Jyoti, 2009:51). Coetsee (2002:45) emphasises the existence of abundance of scientific proof that job satisfaction is related to physical and psychological well-being, as well as a positive quality of life experience. Furthermore, research proves that job satisfaction (and dissatisfaction) are stress-related, resulting in various illnesses. It is also strongly related to the longevity of people. In their study Faragher *et al.* (2005:108) found that strong relationships exist between job dissatisfaction and burnout.

All of the above mentioned issues have the potential of crippling the employee to the point where he/she is not able to perform his/her job effectively, hence directly influencing the company he/she works for (Oshagbemi, 2003:1210). The employee's performance and organisational productivity are, hence, also influenced (Singh & Dubey, 2011:42).

Spector (1997:56) proposes that when employees are happy with their jobs they might possibly be more motivated, work harder, and therefore perform better. Smerek and Peterson (2007:246) conclude that job satisfaction is important to the overall effectiveness and vitality of an organisation.

The outcomes of job satisfaction were discussed under the headings of rewards, commitment and overall effectiveness. A brief discussion of the causes of job satisfaction and their correlation to job satisfaction follows.

2.4 The preconditions of job satisfaction

According to Coetsee (2002:47) the elements of a motivating climate act as the most important causes of and contributors to job satisfaction. The following factors are proposed as being the most important (Coetsee, 2002:47; Colquitt *et al.*, 2011:110; Zeffane, 1994:70; Kinicki *et al.*, 2002:16):

- Pay and recognition
- Promotional opportunities
- Co-workers
- Working conditions
- Job security
- Mentally challenging work
- Person-job-fit
- Work itself
- Supervision by supervisors
- Participation

In the past, several research studies have investigated the effect such preconditions have on job satisfaction (Zeffane, 1994:70; Russel *et al.*, 2004:879).

In his study Zeffane (1994:70) found *task variety* and *participation* to be significant causes of job satisfaction. Russel *et al.* (2004:885) found *work itself* to be the single strongest driver of

job satisfaction. *Supervision* and *co-workers* were also found to be strong, while *promotion* and *pay* were found to have moderately strong effects.

In the light of research, results highlighting satisfaction of work itself, to be such an important role player in overall job satisfaction (Russel *et al.*, 2004:885), the concept is deserving of a deeper discussion.

Satisfaction with work itself focuses on what employees actually *do* (Colquitt *et al.*, 2011:109). It reflects employees' feelings about their actual work tasks and what these tasks entail, for instance if they are challenging, interesting, respected, and if skills are needed in the completion thereof, rather than being dull, repetitive, and uncomfortable. Colquitt *et al.* (2011:111) point out that simplifying tasks may result in an easier (and more boring) accomplishment thereof, but that it doesn't necessarily make it better.

What is it then that makes work tasks more satisfying? According to Colquitt *et al.* (2011:111) research suggests that three "critical psychological states" make work satisfying. These are meaningfulness of work, responsibility for outcomes, and knowledge of results.

Meaningfulness of work reflects the degree to which work tasks are viewed as something that play a significant role in aiding the organisation or society in some meaningful way (Colquitt *et al.*, 2011:111). In a qualitative study, Honey (2004:388) found that work was perceived as a meaningful activity that results in a feeling of contributing to society, social status and a feeling of being able to improve oneself. The characteristics of one's job could influence the degree of meaningfulness an employee experiences at work (Kahn, 1990:704). Perceiving *responsibility for outcomes* represent the degree to which employees feel that they play a key role in the quality of the unit's work, and that their efforts really do matter. *Knowledge of results* reflects the extent to which employees know how well they are doing; they are aware of their mistakes and accomplishments (Colquitt *et al.*, 2011:111).

This section addressed the preconditions of job satisfaction and the concept of satisfaction with work itself, and the three psychological states were looked into.

What kinds of tasks result in the three psychological states mentioned in the previous section? The Job characteristics theory (which describes the central characteristics of intrinsically satisfying jobs) attempts to answer this question in the next section.

2.5 The job characteristics model

The job characteristics model (JCM), was created by two behaviour researchers, Hackman and Oldham, their goal being to promote high intrinsic motivation by designing jobs that possess the five core job characteristics (Kreitner & Kinicki, 2008:231). The model proposes that jobs containing intrinsically motivating characteristics, will lead to higher levels of job satisfaction (Hackman & Oldham as cited by Judge & Klinger, 2007:399). According to Schoedt (2009:621) Hackman and Oldham argue that the degree of presence of intrinsic core job characteristics perceived by the employee, make the job meaningful and satisfying to the employee.

The core job characteristics are proposed as leading to three critical psychological states: experienced meaningfulness of work, responsibility for outcomes, and knowledge of results. These states, in turn, lead to outcomes such as job satisfaction, motivation, growth and performance (Judge & Klinger, 2007:399; Coetsee, 2002:161; Kreitner & Kinicki, 2008:231).

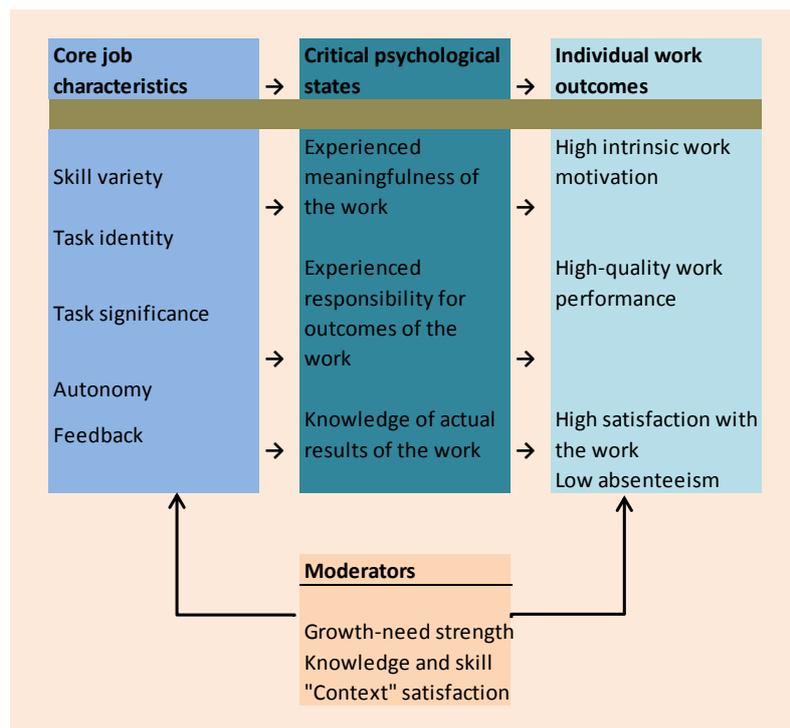


Figure 2.1 The job characteristics model (Schermerhorn et al., 2011:143)

Figure 2.1 illustrates how five core job characteristics could lead to the three critical psychological states. The higher a job scores on each core characteristic, the more it is considered to be enriched (Schermerhorn *et al.*, 2011:143). The five core job characteristics include skill variety, task identity, task significance, autonomy and job feedback (Coetsee, 2002:160; Schermerhorn, 2011:143; Schoedt, 2009:621; Kreitner & Kinicki, 2008:232).

- Skill variety: the extent to which a job includes a variety of activities and requires the employee to make use of a number of skills, abilities and talents (Coetsee, 2002:160; Schermerhorn, 2011:143; Kreitner & Kinicki, 2008:232).
- Task identity: the degree to which a job requires completion of a whole and identifiable piece of work, involving a job being done from beginning to end and with a visible outcome (Coetsee, 2002:160; Schermerhorn, 2011:143; Kreitner & Kinicki, 2008:232). Coetsee (2002:160) points out that it is important that the employee knows how and where the task at hand fits in and what contribution he is making in realising the visions and goals of the organisation.
- Task significance: the extent to which the job involves a meaningful contribution to the organisation and society (Schermerhorn, 2011:143), affecting the lives of other people, both within or outside the organisation (Kreitner & Kinicki, 2008:232). Coetsee (2002:160) adds that it is important for the employee to know what the goals of his task entail and how this relates to other tasks in the organisation.
- Autonomy: the degree of freedom, independence and discretion an employee is allowed in planning, scheduling and determining the procedures used in completing the job (Schermerhorn, 2011:143; Kreitner & Kinicki, 2008:233; Coetsee, 2002:160). According to Coetsee (2002:161) autonomy also includes empowering the employee to accept responsibility, for both the results and for how the work is done.
- Feedback: the degree to which direct and clear information are provided to the employee on how well a job has been carried out (Schermerhorn, 2011:143), as well as on the effectiveness of his/her performance (Coetsee, 2002:161).

The first three core characteristics (skill variety, task identification and task significance) combine to determine experienced meaningfulness of work (Kreitner & Kinicki, 2008:232; Coetsee, 2002:162). The presence of these characteristics in the job leads to the employee experiencing the job as important, valuable and worthwhile (Coetsee, 2002:162). Autonomy leads to experienced responsibility for the results, and feedback determines an employee's knowledge of the actual results of the work activities (Kreitner & Kinicki, 2008:232).

The job characteristics model maintains that the five core job characteristics do not affect all people in the same way (Schermerhorn *et al.*, 2011:144). This approach maintains that enriched jobs will only positively affect those individuals who are a good match for them. In the case where a poor fit exists between a person and an enriched job, positive outcomes are less likely and problems may result. The job characteristics model view “fit” from the perspective of three moderator variables: *growth needs*, *knowledge and skills*, and *context satisfaction*.

Growth-need strength: the degree to which opportunity for self-direction, learning, and personal accomplishment at work are desired by an individual.

Knowledge and skill: if individuals’ capabilities fit the demands of enriched jobs, they are likely to feel good about them and to perform well. Individuals who feel inadequate, or who are in fact inadequate, in this regard are likely to experience difficulties.

Context satisfaction: the degree to which individuals are satisfied with aspects of the work setting, for instance salary levels and relationships with co-workers. In general it is believed that those who are satisfied with job context are more likely to do well with job enrichment (Schermerhorn *et al.*, 2011:144).

Schermerhorn *et al.* (2011:145) conclude that job characteristics have a more extensive influence on job satisfaction than on job performance. Kreitner & Kinicki (2008:233) suggest that managers may want to use this model to increase employee job satisfaction as past research overwhelmingly demonstrates that a moderately strong relationship exist between job characteristics and job satisfaction. Many organisations, realising how critical the five core job characteristics are to job satisfaction, have implemented job characteristics theory to aid in improving satisfaction among their employees (Colquitt *et al.*, 2011:117).

The job characteristics theory was explained using the job characteristics model. The next section addresses the major correlates and consequences of job satisfaction.

2.6 Major correlates and consequences of job satisfaction

Thousands of studies have examined the relationship between job satisfaction and other organisational variables. It is impossible to examine all of these variables at once, therefore an overview of the eight organisational variables, considered most important by Kreitner and Kinicki (2008:173), will be given.

2.6.1 Motivation

The potential exists that employees' motivation can be enhanced through various attempts to increase job satisfaction (Kreitner & Kinicki, 2008:173).

2.6.2 Job involvement

Job involvement is the extent to which an employee is personally involved with his/her work role (Kreitner & Kinicki, 2008:173).

2.6.3 Organisational citizenship behaviour

Schermerhorn *et al.* (2011:74) define organisational citizenship behaviour as "discretionary behaviours that represent a willingness to *go the extra mile*". Organisational citizenship behaviour includes employee behaviours that go beyond what is expected of an employee and which exceed work-role requirements (Kreitner & Kinicki, 2008:174). Examples include punctuality and attendance well beyond standard or enforceable levels and making constructive statements about the company or department. Schermerhorn *et al.* (2011:74) classify a good organisational citizen as someone who does things, not required of them, to help others, or to advance the performance of the organisation as a whole.

2.6.4 Absenteeism

Absence, according to Spector (1997:59), can reduce organisational effectiveness and efficiency by increasing labour costs. Oshagbemi (2003:1210) states that much of the research done in the area of job satisfaction has been based on the assumption that job satisfaction is a potential determinant of absenteeism. Kreitner and Kinicki (2008:174) dispute that research proved that it is unlikely that a significant decrease in absenteeism would be realized by increasing job satisfaction.

2.6.5 Withdrawal cognitions

Withdrawal cognitions represent an employee's overall thoughts and feelings about quitting a job. Some people quit their jobs impulsively or in a fit of anger, but most go through a process of thinking the situation through in deciding on whether or not to quit. It is believed that job satisfaction is one of the most significant contributors of tendencies to quit, and that

employee turnover can indirectly be reduced by enhancing employee job satisfaction (Kreitner & Kinicki, 2008:174).

2.6.6 Turnover

Turnover is very costly due to lost experience, and the expenses for recruiting and training of replacements (Schermerhorn *et al.*, 2011:74). It also disrupts organisational continuity (Kreitner & Kinicki, 2008:175). Various things can be done in an attempt to reduce employee turnover; many of which revolve around attempts to improve job satisfaction.

2.6.7 Perceived stress

Various researches have proved that stress is positively related to absenteeism, turnover, coronary heart disease, as well as viral infections, and can have a very negative impact on organisational behaviour and an individual's health (Kreitner & Kinicki, 2008:175).

2.6.8 Job performance

Extensive research has been done on the relationship between job satisfaction and job performance. The dominant beliefs concluded from these researches are either that satisfaction causes performance or that performance causes satisfaction (Kreitner & Kinicki, 2008:173-175).

The major correlates of job satisfaction were discussed in this section. Insight into the relationship between some organisational variables and job satisfaction is provided next.

2.7 Variables of job satisfaction

McKenzie (2008:7) refers to the variables of job satisfaction as 'pushers and pullers' and states that these can have an impact on an employee, either independently or in combination with other factors. According to Moeller and Fitzgerald (as cited by McKenzie, 2008:7) job satisfaction variables have been associated with personal, interpersonal and organisational factors, which are measured in terms of demographic variables, variables concerning the work task itself and variables that form part of the work environment or institutional variables, as referred to by Vorster (2010:32).

2.7.1 Demographic variables

According to Al-Zoubi (2012:29) determining the satisfaction differences between males and females and different age groups, can lead to a better understanding of consequences and causes of job satisfaction. This can also be applied to tenure, education, and income. Al-Zoubi (2012:29) concludes that research indicates that the demographics of an employee are strong predictors of his or her level of job satisfaction.

2.7.1.1 Age

McKenzie (2008:7) concludes from past research that a positive correlation exists between job satisfaction and age, but also that there is a discrepancy on the shape of this relationship. Some researchers proclaim that the relationship between job satisfaction and age are linear, while others dispute that the relationship proves to be U-shaped (McKenzie, 2008:7).

Bernal *et al.* (1998:287) support the linear relationship and point out that satisfaction increases with age. According to the authors, individuals experience different values, expectations and needs at different ages. The younger workforce generally pursues challenges and responsibilities that are not readily available to them due to their inexperience. Older workers, on the other hand, have had time to move into more rewarding and desirable roles creating a greater job satisfaction (Bernal *et al.*, 1998:287). It can thus be concluded that older employees experience higher job satisfaction than younger ones (Clark *et al.*, 1996:73,74). The fact that a generational gap exists in values and education, and that it creates a difference in expectations, can be disputed (Bernal *et al.*, 1998:288).

In a large-sample study using survey responses from British employees, Clark *et al.* (1996:57,73) demonstrated that overall job satisfaction is U-shaped in relation to age. According to Vorster (2010:23) this supports the findings by many researchers that, in general, morale prove to be high among young workers, feeling positive about their new shift to adulthood. This is followed by an increasing boredom and the perception that there is a decrease in opportunities, causing positive feelings to go down during the first few years of employment. A low point is reached when workers are in their middle to late twenties or early thirties. In due time, however, the employee comes to terms with his situation, and job satisfaction rises again (Vorster, 2010:23).

It is important for a company to have knowledge of age differences as it could lead to a better understanding of the causes and consequences of job satisfaction (Al-Zoubi, 2012:29).

2.7.1.2 Gender

Theories on the variable of gender lie in the probability of differences in satisfaction occurring between the genders due to differences in value and attitudes of each gender (Long, 2005:303; Clark, 1997:342).

McKenzie (2008:8) states that the impact of other variables seems to influence the differences in attitudes. Long (2005:303) found differences purely based on the level of education; both males and females who had lower levels of education were in lower skilled jobs and showed lower levels of job satisfaction. Women with higher levels of education, in contrast, were found to have lower levels of satisfaction than males, in the case where the differences were based on differences in expectations. In a recent study, Al-Zoubi (2012:39) found that females experience higher job satisfaction than males in some occupations.

A theory exists about females possessing social-orientated communal behaviour, whilst males demonstrate task-orientated agented behaviour (Kim *et al.*, 2009:613). This theory thus holds that women are satisfied with their jobs when they interact with others who understand their roles in the organisation, whereas men are satisfied when others value their performance. Therefore, females are more likely to experience dissatisfaction than males, unless they have a clear specification of their role expectations.

2.7.1.3 Marital status and family

Generally, married adults are better adjusted than unmarried people (Vorster, 2010:25). According to Herzberg *et al.* (as cited by Vorster, 2010:25) job satisfaction has a positive relation to adjustment.

In a study on children and the hours women work, Paull (2008:F25,F26) concluded that women of childbearing age tend to prefer part-time or no work due to the demands of raising a family. This need tends to decline in the first ten years after the birth of the firstborn, after which time women tend to go back to working – part-time or full-time respectively. Men, in contrast, are satisfied with working full-time, irrespective of having a family.

Yildirim and Aycan (2007:1368) explain work-family conflict as a type of inter-role conflict that occurs as a result of incompatible role pressures from the family and work domains. Work can interfere with family and family can interfere with work. Work is allowed more to interfere with family than the other way around. This stems from Pleck's asymmetrically permeable theory stating that work and family boundaries are asymmetrically permeable. Research shows that work demands positively and strongly relate to work-family conflict.

Yildirim and Aycan (2007:1368) emphasise that work-family conflict decreases one of the key indicators of psychological well-being, namely, life satisfaction, although individual employees will react differently to the same work demands. Individuals are protected from the effects of stress by factors such as social support, interpersonal relationships and social interactions.

2.7.1.4 Level of education

McKenzie (2008:9) states that an individual's level of education is assumed to increase one's ability in obtaining a job, and in addition, a job that one is interested in and which has greater earning potential.

Stewart-Dedmon (as cited by Curtis, 2008:175) concluded that educational preparation is regarded to be important in relation to job satisfaction, but that it could not be regarded as the predominant factor. Al-Zoubi (2012:40) concludes that generally, employees with higher levels of education experience less job satisfaction.

2.7.1.5 Professional experience and expertise

According to McKenzie (2008:9) the trend of professional experience related to job satisfaction, is similar to the trend as found in age related to job satisfaction, in that the years of professional experience have a positive linear association with job satisfaction. The reasons for this association have been linked to factors such as having a change in status, increase in salary and greater autonomy. The individual develops confidence and a sense of self-pride and self-worth which correlates with Maslow's Hierarchy of Needs theory. As a result, human needs are being met and job satisfaction are influenced positively (McKenzie, 2008:9).

2.7.2 Work task variables

Work task variables refer to the nature of the work. It is easy to link the nature of work to the nature of career choice and hence, career satisfaction. A variety of work task variables exist, but for the purpose of this study, the focus of the work task variables will only be in relation to job satisfaction (McKenzie, 2008:10).

The work task variables form part of the intrinsic factors or motivators in Herzberg's Two Factor theory, where the presence and quality of these factors assist in increasing the level of job satisfaction (Kreitner & Kinicki, 2008:215).

2.7.2.1 Job design

Vorster (2010:26) defines job design as any set of activities that involves the alteration of specific jobs or independent systems of jobs, with the intent of improving the quality of the employee's job experience and his/her on-the-job productivity. To Schermerhorn *et al.* (2011:139) job design is the process through which job tasks, and the work arrangements that allow them to be accomplished, are planned and specified. As explained by Kreitner and Kinicki (2004:267) job design may be used as a motivation strategy to provide a solution where an employee experiences inconvenience, regarding the type of work, work characteristics, or the work environment.

Vorster (2010:30) states that a sense of personal achievement and recognition is achieved when job design provides employees with the opportunity to experience a more challenging and responsible work diversity. It is pointed out by Schermerhorn *et al.* (2005:150) that, on average, job design affects performance, but not nearly as much as it influences job satisfaction. The best job design, according to Schermerhorn *et al.* (2011:139), is one that meets organisational requirements for high performance, offers a good fit with individual skills and needs, and provides valued opportunities for job satisfaction.

According to Schermerhorn *et al.* (2005:127) job design assist managers in planning and identifying job tasks and work schedules to meet organisational requirements for increased performance. Job design offers an opportunity for job satisfaction as it incorporates individuals' skills and needs with organisational requirements.

2.7.2.2 Workload

Work overload is, according to Robinson and Griffiths (2005:210), the most frequently cited source of job stress. Mulki *et al.* (2008:285) explain that organisational restructuring, reorganising, and an increasing emphasis on productivity improvements have resulted in employees being saddled with increased responsibilities. Companies tend to focus on profit maximization via cost-cutting which often results in employee layoffs. This, in turn, leads to overwork for those employees who remain in the organisation. Information overload followed advances in communication technology, forcing employees to process more information at an ever-increasing rate (Mulki *et al.*, 2008:285).

Work overload is defined as an acute stressor that measures the individual's perception that he or she has too many everyday tasks to finish in a given time (Greenglass *et al.*, 2003:582).

Karasek (1979:287,288) states that the job demand control model suggests that employees experience distress when a lack of control is perceived over the job demands required of them. The author maintains that the most stressful situations in the workplace occur when employees feel that they have too much work to get through and believe that they lack the resources necessary to deal with job demands. Cox (as cited by Mulki *et al.*, 2008:286) points out that researchers have long argued the fact that stress does not result from the source of the pressure, but mostly from the employee's perception of the pressure he or she experiences.

Greenglass *et al.* (2003:582) emphasises that high levels of work overload can make employees angry, as well as suspicious of their supervisors and ultimately the organisation. Kickul (as cited by Mulki *et al.*, 2008:288) supports this by pointing out that frustrations derived from work overload can result in hostile attitudes and counterproductive work behaviour on the part of employees. In addition, feelings of frustration, anger and cynicism can be triggered by work overload (Greenglass *et al.*, 2003:582). This reaction is the result of employees' believe that they are giving too much of themselves to the organisation, and that they do not receive the compensation they deserve in return for their effort. If an employee harbours perceptions of work overload, he or she may also believe that there is a mismatch between job rewards received and the individual's capabilities (Greenglass *et al.*, 2003:582).

2.7.3 Institutional factors

2.7.3.1 Pay satisfaction

Financial rewards and compensation (salaries) have an effect on employees' motivation and performance (Matsie, 2008:29). According to McKenzie (2008:11) one of the important driving forces behind job satisfaction is salary and payments received for efforts. To an individual it is both a financial reward for efforts, as well as an indicator of their value in what they do. Schermerhorn *et al.* (2011:132) emphasises that when pay functions well, it can assist an organisation to attract and retain highly capable workers, as well as to satisfy and motivate these workers to work hard at achieving high performance.

Human behaviour is the product of consequences (Herselman, 2001:3). Improvement in work-related behaviour can be ensured by using several positive reinforcements such as salary/wage increases, bonuses and other forms of monetary performance-related incentives (Herselman, 2001:3).

According to Oshagbemi and Hickson (2003:357) two of the most important aspects in overall job satisfaction are job and pay satisfaction. Pay satisfaction is often neglected in terms of research. Pay satisfaction, as explained by Oshagbemi (cited by Matsie, 2008:2), occurs when existing pay is in correspondence with, or greater than the desired pay. On the other hand, pay dissatisfaction is experienced when existing pay is less than an employee's desired pay.

Herselman (2001:4) considers money to be the most important external motivator in the company. Management define their motivational strategies with reference to financial pay-outs, and employees frequently interpret motivation in terms of monetary rewards received. Furthermore, a good salary or wage package supports a person's sense of self-esteem, indicates his/her value to the company and reflects his/her achievements. It also acts as a means of rating oneself against other individuals (Herselman, 2001:4).

Schermerhorn *et al.* (2011:133,134) lists the following as creative pay practices in addition to salary:

- Bonuses
- Gain sharing and profit sharing

- Stock options and employee ownership
- Skill-based pay

2.7.3.2 Contract

A contract proves to be important in giving employees a sense of security in their employment combined with direction and definition of their job role and tasks. Having a contract can influence attitude, behaviour and commitment to their position, resulting in an overall increase in job satisfaction. This occurs irrespective of the contract being for a permanent or a temporary position only (McDonald & Makin, 2000:84,85,90).

2.7.3.3 Performance management

According to Fletcher and Williams (1996:171) the efforts of many organisations, have in recent years been directed towards strategies attempting to improve the contribution of individual employees to the overall success of the company. This process was named “performance management”.

Van Rooyen (2007:i) states that over the past decade, a consensus was reached on the importance of performance management as the mechanism to improve the contribution of individual employees to organisational success.

According to Phillips and Phillips (2002:9) employees show a great need for rewards based on their individual performance and contribution. Robbins (2000:69) warns that employees are likely to reduce their efforts if the rewards received are based on non-performance factors alone.

Schermerhorn *et al.* (2011:131) explain that reward systems emphasise a mix of extrinsic and intrinsic rewards. Intrinsic rewards are work outcomes that are positively valued by the individual and directly linked to the task performed. Extrinsic rewards are those given to a person or group by some other person or source in the work setting. Cummings and Worley (2005:382) stress the importance of rewards: “To the extent that rewards are available, durable, timely, visible, and performance contingent, they can support and reinforce organisational goals, work designs, and employee involvement.”

2.7.3.4 Organisational climate

Afolabi (2002:102) describes organisational climate as a relatively permanent quality of an organisation's internal environment, which distinguishes the organisation from other organisations.

Work climate includes the customs in which organisations establish routine behaviours, as well as the actions that are expected, supported and rewarded. Among these are the organisation's norms, culture, equity, social processes, leadership styles and management practices (Afolabi, 2002:102).

The work environment, as pointed out by Decker (1997:454), can range from the physical set-up, such as access to toilet facilities or the internet and physical space to work in, to more complex elements such as organisational management.

Arvey *et al.* (1989:191) emphasise that the work environment is a variable that can be changed or adapted to improve job satisfaction without much effort. Afolabi (2002:102) is of the opinion that employees will experience higher job satisfaction when working for a company if they perceive the climate as conducive. According to Arvey *et al.* (1989:191) the absence or limitation of important factors that result in psychological stress, are essential in an effort towards increasing job satisfaction.

2.7.3.5 Professional development

Chen *et al.* (2004:426) are of the opinion that job challenges and demands are related to future career needs arising from career opportunities; they are concerned with the extent to which the work tasks encourage new knowledge and continuous learning. Employees are prone to continually seek new job challenges from supervisors to gain professional knowledge, to secure more challenging work, and to earn and enjoy recognition from their supervisors and co-workers as a result of this new knowledge. Job challenges and demands promote superior performance by employees and this could lead to greater rewards and autonomy. Chen *et al.* (2004:426,433) concludes that job challenges and demands increase job satisfaction and decrease turnover intention.

Professional development proves to be crucial in improving service delivery (Vorster, 2010:38). Van Zyl (2005:18) explains that training should be considered only in the case

where productivity improvements are a primary goal. Employers should first determine in which areas training is necessary. Training and productivity improvement are logical extensions of one another: improvement in performance relies, to one degree or another, on training. McClelland (1993:15) explains that training and productivity efforts share a common goal: improving performance on individual and collective levels, resulting in increased efficiency, quality and output while simultaneously controlling (and reducing) costs. Matsie (2008:36) considers this to be important, seeing that it is through training that employees will be equipped with knowledge and skills to perform their jobs better.

Boninelli and Meyer (2004:121) stress that management should invest in training and staff development if they want to improve productivity and whilst doing this also match skills to competitive demands and business context, provide attractive development and career options, and ensure effective career management practice. Human resource development can be linked to Alderfer's ERG theory (Van Tonder, 2007:46).

This section concluded on the job satisfaction variables relevant to this study.

With much being said about the construct that is job satisfaction, the following summary provides an overview of the models of job satisfaction. These can be regarded as frameworks within which researchers fit the discussed results.

2.8 Models of job satisfaction

As each one of the causes of job satisfaction offers a unique solution toward stopping the decline in job satisfaction (as uncovered in recent employee surveys). It is important to be sure to understand each one (Kreitner & Kinicki, 2008:170). Five predominant models of job satisfaction focus on the different causes. These models give insight into the variety of methods that can be used to increase the job satisfaction experienced by employees.

2.8.1 Need fulfilment

According to models that emphasise need fulfilment, satisfaction is determined by the extent to which the characteristics of a job provide an individual with the opportunity to fulfil his/her needs. It is generally accepted that need fulfilment is correlated with job satisfaction (Kreitner & Kinicki, 2008:170,171).

2.8.2 Discrepancies

Kreitner and Kinicki (2008:171) point out that satisfaction, as proposed by the models of discrepancy, is a result of expectations being met. Met expectations represent the difference between what an employee expects to receive from a job, for instance a good pay, and what he/she actually receives. A person will be dissatisfied when he/she receives less than what was expected. In contrast, an individual will be satisfied when he/she receives what has been expected and more.

2.8.3 Value attainment

The general idea behind value attainment is that satisfaction results from an employee's perception that his/her job allows for fulfilment of his/her work values. According to Kreitner and Kinicki (2008:171) research consistently supports the idea that fulfilment positively correlates with job satisfaction. It can thus be concluded that employee satisfaction can be enhanced by structuring the work environment and its associated rewards and recognition to reinforce employees' values.

2.8.3.1 The value-percept theory

Colquitt *et al.* (2011:107) explain that Locke's (1976) value-percept theory proposes that job satisfaction depends on whether a person perceives that his/her job supplies the things that he/she values.

The following equation reflects the essence of the theory:

$$\text{Dissatisfaction} = (V_{\text{want}} - V_{\text{have}}) (V_{\text{importance}})$$

V_{want} represents how much of a value an individual wants, V_{have} reflects how much of that value the job actually supplies, and $V_{\text{importance}}$ represents how important the value is to the employee (Colquitt *et al.*, 2011:107). A sense of dissatisfaction results from big differences between wants and haves; even more so when the value in question is important to the employee.

Judge and Klinger (2007:393) conclude that the theory predicts that discrepancies between what is desired and what is in fact received are dissatisfying only if the job facet in question is important to the individual. The most common facets employees consider in judging their

level of job satisfaction are pay satisfaction, promotion satisfaction, supervision satisfaction, co-worker satisfaction and satisfaction with the work itself (Colquitt *et al.*, 2011:108). Satisfaction with these five facets adds together to create “overall job satisfaction” (Colquitt *et al.*, 2011:107,108).

2.8.4 Equity

The idea underlying this model is that satisfaction is a function of how “fairly” an employee is treated at work. Satisfaction is the result of one’s perception that work outcomes, relative to inputs, compare favourably with that of a significant other’s. It is thus important to monitor employees’ perceptions of fairness and to interact with employees in such a way that they will feel equitably treated. (Kreitner & Kinicki, 2008:172).

2.8.5 Dispositional/genetic components

The dispositional/genetic model attempts to explain the pattern of some employees being satisfied across a variety of job circumstances, whereas others always seem to be dissatisfied. Kreitner and Kinicki (2008:172) point out that it is implied by this model that stable individual differences are just as important in explaining job satisfaction as characteristics of the work environment.

The five models of job satisfaction provided insight into the variety of methods that can be used to increase the job satisfaction experienced by employees.

2.9 Summary

This chapter gave insight into job satisfaction as a multidimensional construct. After defining the concept, the outcomes and causes of job satisfaction were discussed. The job characteristics theory was explained and an overview of the major correlates of job satisfaction was provided. The different variables of job satisfaction were discussed.

In the following chapter, the research methodology of the present study is discussed. Available measuring instruments for the measurement of job satisfaction are discussed and the researcher’s choice of measuring instrument for the present study explained.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Job satisfaction is subjective and based on individuals' attitudes and expectations (Judge & Larson, 2001:88). This, together with the impact of variables (as previously discussed), can act either independently or in combination to influence the overall attitude. Measurement of job satisfaction is made difficult by this complexity, as well as by the variety of variables and the possibility of unknown or undefined variables. Van Saane *et al.* (2003:191) highlighted the fact that no 'gold standard' for measuring job satisfaction exists. There are no standardized variables by which one can measure job satisfaction.

Schermerhorn *et al.* (2011:73) point out that employees' job satisfaction can be inferred by careful observation and interpretation of what people say and do while going about completing their work tasks. More formal measuring instruments to be used are one-on-one interviews, either direct (Welman *et al.*, 2011:8) or telephonically (Buchbinder *et al.*, 2001), and self-administered questionnaires (Schermerhorn *et al.*, 2011:73; Welman *et al.*, 2011:6).

The introduction to Chapter 3 provided a brief overview of the general information surrounding the measuring of job satisfaction. The next section restates the research approach followed by the researcher.

3.2 Research approach

The quantitative method is used in this study. Welman *et al.* (2011:6) explain that this method is limited to what can be observed and measured objectively, and strives to form laws that apply to the population and that explain causes of objectively observable and measurable behaviour.

The quantitative method comprises of different types of techniques (briefly named in section 3.1) that could be used to collect data for a research study. For the purpose of this study, measuring the job satisfaction experienced by supervisors, structured questionnaires are used. It was decided on to make use of the Minnesota Satisfaction Questionnaire (MSQ) short form developed by Weiss *et al.* (1967:2) of the University of Minnesota in 1967. The characteristics and use of the MSQ short form is further discussed in section 3.5 of this chapter.

The specific research approach of the current study was looked into. The research design followed for this study is explained next.

3.3 Research design

The population in this study is small. It is thus possible to target the entire population to participate in the study, rather than to use only a sample from the population. The advantage of using the entire population, as opposed to a sample, is a better representation of findings with regards to the Boshhoek plant. Hence, a more accurate reflection of the job satisfaction levels amongst supervisors employed at the plant.

This study makes use of a population consisting of supervisors at the Xstrata Boshhoek plant. These supervisors, as discussed in Chapter 1, form the frontline of communication and influence affecting the workforce.

The survey technique is used to collect data. This technique gathers information from the target population by means of questionnaires (Burns & Grove, 1993). Questionnaires are handed out to the supervisors at the end of a compulsory supervisory management course attended by supervisors in three different sessions. Upon handing out the questionnaires to the participants, the purpose of the study is explained by the researcher. Also, the duration the questionnaires take to complete, the confidentiality the questionnaires are handled with, the voluntary nature of participating in the survey, and the fact that no benefits should be expected from participation, are highlighted.

This section explained the research design of the study. A brief mentioning of the participants of the current study follows in the next section.

3.4 Participants

The target population is 68 supervisors employed at the Xstrata Boshhoek plant. The target population was stated in the previous section. Next, the sample selected for this study is discussed.

3.5 Sample

The population for the current study is 68 supervisors employed at the Xstrata Boshhoek plant. Sixty questionnaires were handed out at the end of the supervisor sessions, of which all were filled in and handed back. Eight of the supervisors on the plant were on leave at the time. To these, the questionnaires were handed out as soon as they returned to work. All of these were also filled in and returned.

As indicated in table 3.1, the highest age distribution is between the age groups 26-35 years. This is an indication that the employees are relatively in the middle of their working life. More males (83.3%) than females (16.2%) participated in this research.

Table 3.1: Characteristics of participants

Item	Category	Frequency	Percentage
Age	25 years and younger	4	5.9%
	26-35 years	33	48.5%
	36-45 years	22	32.4%
	46-55 years	8	11.8%
	56 years and older	1	1.5%
Gender	Male	57	83.8%
	Female	11	16.2%

The sample used in this study was discussed. A discussion of the selected measuring instrument follows.

3.6 Measuring instruments

A self-administered questionnaire is used as measuring instrument for the purpose of this study. The Minnesota Satisfaction Questionnaire (MSQ) short form developed by Weiss *et al.* (1967:2) of the University of Minnesota in 1967, is specifically selected.

The questionnaire consists of the following three sections:

i. Cover page

This section explains the purpose and aim of the study and also discusses the duration of the questionnaire, and the voluntary and confidential nature thereof. It is emphasised that no benefits would result from participating in the study. Lastly, a letter of consent is signed by every participant stating their willingness to participate.

ii. Demographic questionnaire

The demographic questionnaire consists of 7 questions (all open-ended) based on the biographical data of the participants. The questions provide a summary of the age, gender, level of education and work environment of the participants.

iii. Minnesota satisfaction questionnaire (MSQ) – short form

This questionnaire comprises of 20 questions (20 items) (Spector, 1997:15). It uses a 5-point Likert-type response format (Buitendach & Rothmann, 2009:3).

Two distinct components define the MSQ: intrinsic and extrinsic job satisfaction. This distinction is considered an advantage of the MSQ. Extrinsic job satisfaction is regarded as satisfaction with aspects that have little to do with the job tasks or content of the work itself. On the other hand, intrinsic satisfaction refers to the job tasks themselves (Buitendach & Rothmann, 2009:2).

The MSQ short form consists of three scales, namely intrinsic, extrinsic and general satisfaction. Weiss *et al.* (1967:23) report internal reliability coefficients for the sub-scales and overall scale for a number of samples, as follows: Intrinsic Satisfaction, median 0.08, range 0.84 to 0.91; Extrinsic Satisfaction, median 0.80, range 0.77 to 0.82; General Satisfaction, median 0.90, range 0.87 to 0.92. Test-retest reliabilities of between 0.70 and 0.80 are reported by Cook *et al.* (1981:23), with an alpha coefficient of 0.96 (Rothmann *et al.*, 2000).

The measuring instrument used in this study was explained. Next, the procedure for obtaining data is explained.

3.7 Procedure

The population for this study is compiled by all the supervisors (68) employed at the Xstrata Boshhoek plant. Questionnaires are handed out to each supervisor at the end of a Supervisory Management course. This course is compulsory and is attended by all of the supervisors employed at the plant, except for those who are on leave at the time. To those on leave, the questionnaires are handed out as soon as they return to work. The purpose of the research and the questionnaires are explained to the participants. Included in the questionnaires are instructions on how the questionnaires should be completed. Ethical considerations are looked into. It is explained to the participants that participation of the study is voluntary and that each questionnaire is handled in total confidence and anonymity.

In this section, the method of obtaining data for the research was discussed. A summary of the chapter follows.

3.8 Summary

In this chapter, the research approach was stated briefly. The specific research design of the current study, as well as the participants and sample (type of sample, size of population, response rate and demographic considerations) were discussed. The instrument used for collecting data, and its different components, were discussed. Furthermore, the reliability of the instrument was looked into. Lastly, the procedure followed in obtaining the data for the study was explained. The ethical considerations were accounted for.

CHAPTER 4 – DISCUSSION OF RESULTS

4.1 Introduction

The goal of the current study is to measure the job satisfaction levels of the supervisors employed at the Xstrata Boshhoek plant.

The study firstly aims at measuring the general satisfaction levels of the supervisors, and secondly, the two subscales (intrinsic and extrinsic satisfaction). Furthermore, the items of job satisfaction are measured in an attempt to pinpoint any problem areas regarding the satisfaction levels of the supervisors, as well as to see if more reasons could be found for employees experiencing job satisfaction.

In total, 68 supervisors are employed by the plant. All 68 supervisors, making up the whole population, are targeted to participate in the study. Questionnaires (refer to appendix A for the questionnaire) are handed out to the whole population. A 100% response rate was obtained.

The focus of this study is on the descriptive statistics and effect sizes (practical significance). From this, conclusions about the population are drawn. According to Ellis & Steyn (2003:51-53) p-values should not be interpreted when working with a population. It is therefore important to emphasise the fact that no p-values are thus reported in this study.

Parametric statistical tests often rely on the assumption of normality. Kolmogorov-Smirnov tests, Shapiro-Wilk tests and normal probability plots are used to determine whether the continuous variables (A2, A5, A6, B1-B20) are normally distributed. For all variables deviation from normality is found. Therefore, non-parametric tests are conducted in addition to parametric tests and these form the focus of the discussion and interpretation.

This section provided an introduction to Chapter 4. A statistical analysis of the data retrieved from the study is presented and discussed in detail next. To begin with, the frequencies and descriptive statistics of the demographic variables are discussed. A comparison of the items of job satisfaction versus genders follows. Next, the correlation between age and the items of job satisfaction are discussed. A comparison of the items of job satisfaction and the different departments and home languages concludes the chapter.

4.2 Frequencies and descriptive statistics for demographic variables and items of job satisfaction

Of the 68 supervisors participating in the study, 83,8% are male and 16,2% are female. Of the participants 30,9% have matric as highest level of qualification, while 32,4% have a certificate, 25,0% a diploma and 11,8% a degree or higher qualification. The different departments on the plant are represented by the participants as follow: 27,9% of participants are from the Administration department, 35,3% from Engineering and 36,8% from the Production side. The home language of 39,7% of the participants are African languages, while 45,6% are Afrikaans and 14,7% English.

The mean age of the participants is 36.49 with a minimum and maximum age of 23 and 75 respectively and a standard deviation of 8.008. The participants have been working in their line of work for a minimum of 1 year and a maximum of 35 years, with a mean of 10.744 and a standard deviation of 7.53 years. Participants have been appointed as supervisors for a minimum of 1 month and a maximum of 20 years, with a mean of 4.68 and a standard deviation of 4.3 years.

The frequencies and descriptive statistics of the items of job satisfaction are summarised in Appendix B.

Cronbach's alpha coefficient is determined to establish whether the subscales and total scale are sufficiently reliable. $\alpha > 0,7$ is indicative of sufficient reliability (Field, 2005:668).

For reliable scales, average scores of all items in the scale may be calculated. Cronbach's alpha coefficients and average scores for the total scale (general satisfaction) and its subscales (intrinsic and extrinsic satisfaction) are presented in table 4.1.

Table 4.1: Cronbach's Alpha coefficient

Items of Job Satisfaction	Mean	Std. Deviation	Cronbach's alpha
Intrinsic satisfaction	3.520	0.706	0.847
Extrinsic satisfaction	2.850	0.829	0.765
General satisfaction	3.290	0.683	0.895

From table 4.1 it can be concluded that the data concerning the general satisfaction level of the supervisors and that of the two subscales, intrinsic and extrinsic satisfaction, are

sufficiently reliable. The mean for general satisfaction is measured to be 3.29 indicating that the general satisfaction level of the supervisors at the Boshhoek plant are slightly more than satisfied, with a standard deviation of 0.683.

4.3 Comparison of items of job satisfaction for different genders

According to Swinscow and Campbell (2001:521,664) the tests for the parametric and non-parametric data could be summarised as set out in the table below.

Table 4.2: Summary of tests for parametric and non-parametric data

	Parametric	Non-parametric
Distribution	Normal	Any
Variance	Homogeneous	Any
Type of data	Ratio or Interval	Ordinal or Nominal
Data points	Independent	Any

The Mann-Whitney test is a non-parametric test and is used to statistically analyse the data for this study. A comparison of the items of job satisfaction for different genders is done by means of this test. Table 4.3 sets out the results of the test.

Interpretation of the effect sizes for Mann-Whitney test:

$|w| > 0.1$ Small effect, no practical significant difference.

$|w| > 0.3$ Medium effect, practical visible difference.

$|w| > 0.5$ Large effect, practical significant difference (Ellis & Steyn, 2003:52).

Table 2.3: Mann-Whitney test results

Mann-Whitney test				
Items of Job Satisfaction	Male (n=57)	Female (n=11)	p-value	Effect size
	Mean rank	Mean rank		
B1	33.17	41.41	0.157	-0.17
B2	32.25	46.18	0.02	-0.28
B3	33.86	37.68	0.535	-0.08
B4	32.67	44.00	0.065	-0.22
B5	32.51	44.82	0.046	-0.24
B6	33.95	37.36	0.571	-0.07
B7	33.15	41.50	0.170	-0.17
B8	33.40	40.18	0.245	-0.14
B9	32.68	43.95	0.058	-0.23
B10	35.42	29.73	0.323	-0.12
B11	34.68	33.55	0.853	-0.02
B12	32.29	45.95	0.028	-0.27
B13	34.95	32.18	0.655	-0.05
B14	34.11	36.50	0.694	-0.05
B15	35.11	31.32	0.543	-0.07
B16	33.51	39.64	0.312	-0.12
B17	33.01	42.23	0.125	-0.19
B18	33.68	38.77	0.411	-0.10
B19	33.66	38.86	0.395	-0.10
B20	34.29	35.59	0.833	-0.03
Intrinsic satisfaction	33.06	41.95	0.171	-0.17
Extrinsic satisfaction	32.84	43.09	0.114	-0.19
General satisfaction	32.60	44.36	0.071	-0.22

From this table it is evident that a small practical visible difference exists between male and female supervisors in terms of general satisfaction.

A medium effect and practical visible difference exist between males and females, with regards to being left alone to work on a job. Females have a stronger need for being left to work alone than males (B2).

A medium effect and practical visible difference also exist between males and females, with regards to the way company policies are put into practice. Females feel stronger about the level to which company policies are put into place than males (B12).

No information regarding studies measuring general satisfaction against gender as single variable could be found in the literature. Past studies have measured the effect age and education respectively has on the satisfaction of males and females, and these have been reported in Chapter 2.

4.4 Correlation between age and items of job satisfaction

The Spearman's rank order correlation coefficients are used to determine the correlation between age and items of job satisfaction.

Spearman's rank order correlation coefficient is a non-parametric test and is robust against deviations from normality. It is therefore used instead of Pearson's correlation coefficient, which rely on the assumption of normality.

Interpretation of the Spearman's rank order correlation coefficient:

$ r \approx 0.1$	Small effect, no particular significant correlation.
$ r \approx 0.3$	Medium effect, practical visible correlation.
$ r \approx 0.5$	Large effect, practical significant correlation (Ellis & Steyn, 2003:53).
Sign:	
$r < 0$	Negative correlation
$r > 0$	Positive correlation

Table 4.4: Spearman's Rank correlation coefficient: age versus items of job satisfaction

Spearman's Rank correlation coefficient - Age vs. items of job satisfaction										
Items of job satisfaction	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Age	0.142	-0.064	0.121	-0.083	-0.126	-0.152	0.063	-0.211	-0.001	-0.014
p-value	0.249	0.605	0.327	0.501	0.308	0.215	0.61	0.084	0.996	0.908
Items of job satisfaction	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20
Age	0.052	-0.022	-0.165	0.093	-0.057	0.011	-0.034	-0.275	-0.28	-0.058
p-value	0.672	0.861	0.178	0.453	0.634	0.932	0.78	0.023	0.021	0.638
Items of job satisfaction	Intrinsic satisfaction			Extrinsic satisfaction				General satisfaction		
Age	-0.017			-0.15				-0.085		
p-value	0.890			0.223				0.490		

A very small practical visible negative correlation exists between age and general satisfaction. The small value of the general satisfaction measured against age, indicates that a person's age has almost no effect on his/her general job satisfaction.

A medium effect, practical visible negative correlation exists between age and the perceived way in which co-workers get along with each other. Thus, older participants are perceived to get along less with their co-workers (B18).

A medium effect, practical visible negative correlation also exists between age and the praise a person receives for doing a job. It can be concluded that participants feel they receive less praise the older they get (B19).

In the literature study (Chapter 2) it became evident that McKenzie (2008:7), Bernal *et al.* (1998:287) and Clark *et al.* (1996:73,74) agree that job satisfaction increases with age. McKenzie (2008:7) concludes from past research that a positive correlation exists between job satisfaction and age. This study has found two items of job satisfaction to be negatively correlated to age in comparison with the results in past studies.

This is a significant discrepancy in comparison to what have been presented in the literature. Probable reasons for the discrepancy could be the following: past studies could have made use of different questionnaires than the ones used in the current study; the older employees get, the less motivated they could become to face the challenges presented to them in their everyday jobs.

Table 4.5: Spearman's Rank correlation coefficient - Years in line of work vs. items of job satisfaction

Spearman's Rank correlation coefficient - Years in line of work vs. items of job satisfaction										
Items of job satisfaction	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Years in line of work	-0.079	-0.301	-0.082	-0.157	-0.109	-0.252	-0.04	-0.319	-0.305	-0.252
p-value	0.522	0.012	0.506	0.202	0.378	0.038	0.744	0.008	0.012	0.038
Items of job satisfaction	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20
Years in line of work	-0.171	-0.176	-0.256	-0.087	-0.126	-0.011	-0.1	-0.202	-0.352	-0.187
p-value	0.164	0.15	0.035	0.479	0.306	0.929	0.416	0.099	0.003	0.127
Items of job satisfaction	Intrinsic satisfaction			Extrinsic satisfaction				General satisfaction		
Years in line of work	-0.286			-0.282				-0.31		
p-value	0.018			0.02				0.01		

A medium effect, practical visible negative correlation exists between general satisfaction and the length of time participants have been in a line of work. The longer participants have been in a line of work, the lower the level of general satisfaction they perceive themselves to have.

A medium effect, practical visible negative correlation exists between the length of time participants have been in a line of work and the perceived chances they have to work alone on the job. The longer participants have been working in a certain line of work, the less satisfied they feel that they are given the opportunity to work alone (B2).

A medium effect, practical visible negative correlation exists between the length of time participants has been in a line of work and the way they perceive their jobs to provide for steady employment. The longer participants have been in a certain line of work, the less they feel secure and steady in their jobs (B8).

A medium effect, practical visible negative correlation exists between the length of time participants have been in a line of work and the perceived chances they get to do things for other people. It can be concluded that the longer participants have been in a line of work, the less satisfied they feel that they have opportunities to get to do things for others (B9).

A medium effect, practical visible negative correlation exists between the length of time participants have been in a line of work and the praise they perceive to receive for doing a job. Thus, the longer participants have been in a certain line of work, the less they feel that they are praised for jobs done (B19).

Table 4.6: Spearman's Rank correlation coefficient - Years appointed as a supervisor vs. items of job satisfaction

Spearman's Rank correlation coefficient - Years appointed as a supervisor vs. items of job satisfaction										
Items of job satisfaction	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Years appointed	0.046	-0.022	-0.015	-0.052	0.002	-0.187	0.013	-0.057	-0.105	-0.1
p-value	0.71	0.862	0.906	0.671	0.988	0.127	0.915	0.641	0.396	0.417
Items of job satisfaction	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20
Years appointed	0.054	-0.15	-0.061	-0.107	0.1	0.148	0.072	0.031	-0.243	-0.046
p-value	0.662	0.223	0.619	0.386	0.419	0.228	0.559	0.8	0.046	0.712
Items of job satisfaction	Intrinsic satisfaction			Extrinsic satisfaction				General satisfaction		
Years appointed	0.015			-0.140				-0.430		
p-value	.902			0.253				0.725		

A medium effect, practical visible negative correlation exists between the years an employee has been appointed as a supervisor and general satisfaction. Thus, the longer a person has been appointed as supervisor, the less general job satisfaction he/she experiences.

Table 4.7: Spearman's Rank correlation coefficient - Highest level of education vs. items of job satisfaction

Spearman's Rank correlation coefficient - Highest level of education vs. items of job satisfaction										
Items of job satisfaction	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Education	-0.047	-0.022	-0.198	0.004	0.014	0.088	-0.197	0.033	0	-0.072
p-value	0.706	0.856	0.106	0.977	0.908	0.473	0.107	0.788	0.997	0.559
Items of job satisfaction	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20
Education	-0.1	-0.218	0	-0.01	-0.117	0.029	-0.105	0.051	0.061	0.114
p-value	0.416	0.075	0.998	0.936	0.342	0.814	0.395	0.68	0.622	0.353
Items of job satisfaction	Intrinsic satisfaction			Extrinsic satisfaction				General satisfaction		
Education	-0.051			-0.010				-0.043		
p-value	0.678			0.937				0.730		

A very small practical visible negative correlation exists between education and general satisfaction. The small value of the general satisfaction measured against education, indicates that a person's education has almost no effect on his/her general job satisfaction.

From table 4.7 it is evident that no practical visible correlation is detected between the highest level of education and any items of job satisfaction.

In the literature study, it is stated that employees with higher levels of education generally experience less job satisfaction (Al-Zoubi, 2012:40). This study could find no relationship between the level of education and the level of job satisfaction.

4.5 Comparison of items of job satisfaction for departments and home language

Parametric and non-parametric tests

Omnibus tests were conducted to determine whether levels of job satisfaction differ for departments and home language. In particular, the parametric one-way ANOVA and non-parametric Kruskal-Wallis tests were conducted. For none of the job satisfaction variables do these tests show significant differences between the various levels of education ($p > 0,05$ in all cases). Note however, that these tests are based on p-values, which are not relevant for the current study since the whole population is considered. Therefore, effect sizes for

pairwise comparisons were calculated and are now discussed. For the parametric tests Cohen's d-values are used and Mann-Whitney's w-values for the non-parametric tests.

Guidelines for interpretation:

$ d = 0.2$	Small effect, no practical sign of difference.
$ d = 0.5$	Medium effect, practical visible difference.
$ d = 0.8$	Large effect, practical significant difference (Ellis & Steyn, 2003:52).
$ w > 0.1$	Small effect, no particular significant difference.
$ w > 0.3$	Medium effect, practical visible difference.
$ w > 0.5$	Large effect, practical significant difference (Ellis & Steyn, 2003:52).

Table 4.8: Effect size table for Admin, Engineering and Production (A)

Items of Job Satisfaction	Admin		Engineering		Production		ANOVA	Kruskal-Wallis
	Mean	Std Deviation	Mean	Std Deviation	Mean	Std Deviation	p-value	p-value
B1	3.789	1.182	3.708	1.268	3.920	.759	.788	.975
B2	3.632	.955	3.208	1.250	3.520	1.194	.452	.505
B3	3.421	1.216	3.125	1.296	4.080	.862	.014	.027
B4	3.316	.946	2.833	1.308	3.640	1.186	.061	.068
B5	3.474	1.124	2.458	1.215	3.240	1.332	.020	.018
B6	3.053	1.177	2.792	1.382	3.440	.961	.164	.184
B7	3.421	1.017	2.875	1.361	3.440	1.193	.202	.235
B8	3.842	1.068	3.625	1.056	3.840	.943	.707	.576
B9	4.000	.816	3.708	1.197	3.760	1.012	.630	.764
B10	3.579	.902	3.625	1.135	3.760	1.091	.835	.664
B11	3.632	1.116	3.375	1.377	4.040	.978	.142	.226
B12	3.211	.976	2.792	1.382	2.960	1.306	.555	.546
B13	2.158	1.119	2.042	1.042	3.040	1.369	.009	.021
B14	2.368	1.012	2.208	1.179	2.560	1.227	.568	.530
B15	2.947	1.079	3.042	1.459	3.480	1.295	.338	.305
B16	3.211	1.084	3.042	1.367	3.760	1.052	.094	.108
B17	3.526	1.124	2.792	1.179	3.640	.860	.015	.020
B18	3.158	1.302	3.333	1.204	3.320	1.376	.890	.907
B19	3.526	.841	2.458	1.141	3.600	1.225	.001	.002
B20	3.263	1.195	3.042	1.398	3.960	.935	.024	.035
Intrinsic satisfaction	3.504	.487	3.267	.923	3.767	.522	.044	.102
Extrinsic satisfaction	2.965	.496	2.458	.956	3.140	.781	.010	.018
General satisfaction	3.326	.414	3.004	.860	3.550	.558	.017	.049

Table 4.9: Effect size table for Admin, Engineering and Production (B)

Items of Job Satisfaction	Admin vs Engineering		Admin vs Production		Engineering vs Production	
	1 vs 2		1 vs 3		2 vs 3	
	Cohen's d-value	Mann Whitney's w-value	Cohen's d-value	Mann Whitney's w-value	Cohen's d-value	Mann Whitney's w-value
B1	0.064	-0.024	0.110	-0.036	0.167	-0.008
B2	0.338	-0.166	0.093	-0.022	0.249	-0.128
B3	0.228	-0.107	0.542	-0.278	0.737	-0.367
B4	0.369	-0.199	0.273	-0.185	0.617	-0.305
B5	0.836	-0.407	0.175	-0.075	0.587	-0.297
B6	0.189	-0.110	0.329	-0.166	0.469	-0.255
B7	0.401	-0.209	0.016	-0.030	0.415	-0.213
B8	0.203	-0.142	0.002	-0.032	0.204	-0.121
B9	0.244	-0.091	0.237	-0.109	0.043	-0.003
B10	0.041	-0.069	0.166	-0.148	0.119	-0.052
B11	0.186	-0.075	0.366	-0.188	0.483	-0.228
B12	0.303	-0.169	0.192	-0.100	0.122	-0.066
B13	0.104	-0.059	0.644	-0.312	0.729	-0.365
B14	0.136	-0.118	0.156	-0.061	0.286	-0.149
B15	0.065	-0.041	0.411	-0.231	0.300	-0.152
B16	0.124	-0.054	0.507	-0.266	0.526	-0.263
B17	0.623	-0.306	0.101	-0.006	0.720	-0.376
B18	0.135	-0.058	0.118	-0.060	0.010	-0.010
B19	0.936	-0.466	0.060	-0.094	0.932	-0.439
B20	0.158	-0.078	0.583	-0.301	0.657	-0.336
Intrinsic satisfaction	0.257	-0.138	0.502	-0.235	0.541	-0.269
Extrinsic satisfaction	0.530	-0.346	0.224	-0.086	0.713	-0.358
General satisfaction	0.374	-0.209	0.401	-0.145	0.635	-0.346

Tables 4.8 and 4.9 serve as the source from which the comparison of the groups Admin, Engineering and Production is discussed. For each of the results discussed, the d-values show a large effect, practical significant difference, while the w-values show an almost large effect, practical significant difference.

General satisfaction

A medium effect, practical visible difference exists in the level of general satisfaction experienced by employees in the Admin department and the Engineering department. It is evident that supervisors in the Admin department feel generally more satisfied than those in the Engineering department.

An almost large effect, practical visible difference exists in the level of general satisfaction experienced by employees in the Production department and the Engineering department. Supervisors in the Production department seem to feel generally more satisfied than those in the Engineering department.

B5: The way my boss handles his/her employees.

A large effect, practical visible difference exists between the ways the employees in the Admin department and the Engineering department perceive their boss to handle his/her employees. It seems that the supervisors in the Admin department have a more positive perception than those in the Engineering department.

B19: The praise I get for doing a good job.

A large effect, practical visible difference exists between the way the supervisors in the Admin department and those in the Engineering department perceive the praise they receive for doing a good job. From the table it is evident that the supervisors in the Admin department have a more positive perception than those in the Engineering department.

A large effect, practical visible difference is also evident in the way supervisors in the Engineering and Production departments perceive the praise they get for doing a good job. The results show that the supervisors in the Engineering department harbour a more negative perception about the praise they receive than those in the Production department.

Table 4.10: Effect size table for English, Afrikaans and other home languages (A)

Items of Job Satisfaction	English		Afrikaans		Other		ANOVA	Kruskal-Wallis
	Mean	Std Deviation	Mean	Std Deviation	Mean	Std Deviation	p-value	p-value
B1	3.444	1.188	3.700	0.949	4.161	0.898	0.034	0.018
B2	3.222	1.311	3.200	1.135	3.710	0.973	0.214	0.255
B3	3.630	1.245	3.000	1.054	3.677	1.166	0.275	0.216
B4	3.222	1.311	2.900	1.449	3.419	1.025	0.488	0.598
B5	2.889	1.311	3.000	1.333	3.161	1.293	0.730	0.730
B6	2.963	1.224	2.900	1.197	3.290	1.189	0.500	0.474
B7	3.000	1.209	2.600	1.265	3.645	1.112	0.025	0.025
B8	3.593	1.185	3.500	0.850	4.000	0.856	0.208	0.190
B9	3.593	1.152	3.500	1.179	4.097	0.790	0.102	0.167
B10	3.593	1.118	3.500	1.080	3.774	0.990	0.705	0.741
B11	3.519	1.312	4.200	0.632	3.677	1.194	0.304	0.451
B12	2.889	1.476	2.300	1.059	3.258	0.999	0.096	0.098
B13	2.222	1.219	2.200	1.033	2.710	1.346	0.279	0.310
B14	2.556	1.281	1.900	0.876	2.387	1.086	0.308	0.338
B15	3.148	1.433	2.500	1.354	3.419	1.119	0.151	0.187
B16	3.444	1.251	2.600	1.265	3.516	1.092	0.098	0.117
B17	3.148	1.167	3.000	0.943	3.548	1.091	0.252	0.196
B18	3.296	1.436	2.500	1.179	3.516	1.092	0.090	0.100
B19	3.185	1.331	2.900	1.197	3.258	1.125	0.723	0.709
B20	3.444	1.311	3.900	1.197	3.290	1.189	0.406	0.321
Intrinsic satisfaction	3.404	0.885	3.258	0.567	3.699	0.522	0.130	0.204
Extrinsic satisfaction	2.784	0.943	2.533	0.702	3.011	0.745	0.251	0.314
General satisfaction	3.200	0.832	2.990	0.543	3.476	0.530	0.095	0.156

Table 4.11: Effect size table for English, Afrikaans and other home languages (B)

Items of Job Satisfaction	English vs Afrikaans		English vs Other		Afrikaans vs Other	
	1 vs 2		1 vs 3		2 vs 3	
	Cohen's d-value	Mann Whitney's w-value	Cohen's d-value	Mann Whitney's w-value	Cohen's d-value	Mann Whitney's w-value
B1	0.215	-0.095	0.604	-0.353	0.486	-0.248
B2	0.017	-0.027	0.372	-0.182	0.449	-0.213
B3	0.506	-0.251	0.038	-0.007	0.581	-0.272
B4	0.222	-0.113	0.150	-0.061	0.358	-0.159
B5	0.083	-0.042	0.208	-0.104	0.121	-0.046
B6	0.051	-0.021	0.267	-0.141	0.326	-0.145
B7	0.316	-0.146	0.534	-0.274	0.826	-0.358
B8	0.078	-0.094	0.344	-0.166	0.584	-0.271
B9	0.079	-0.039	0.438	-0.215	0.506	-0.230
B10	0.083	-0.053	0.162	-0.065	0.254	-0.119
B11	0.520	-0.205	0.121	-0.053	0.438	-0.156
B12	0.399	-0.164	0.250	-0.130	0.904	-0.370
B13	0.018	-0.030	0.362	-0.187	0.379	-0.151
B14	0.512	-0.215	0.132	-0.047	0.449	-0.222
B15	0.452	-0.191	0.189	-0.084	0.679	-0.306
B16	0.668	-0.289	0.057	-0.017	0.724	-0.321
B17	0.127	-0.072	0.343	-0.183	0.503	-0.251
B18	0.554	-0.262	0.153	-0.043	0.862	-0.355
B19	0.214	-0.108	0.055	-0.022	0.299	-0.132
B20	0.348	-0.172	0.118	-0.082	0.509	-0.230
Intrinsic satisfaction	0.165	-0.132	0.333	-0.121	0.777	-0.293
Extrinsic satisfaction	0.266	-0.121	0.241	-0.104	0.641	-0.245
General satisfaction	0.252	-0.163	0.332	-0.107	0.895	-0.328

Tables 4.10 and 4.11 serve as the source from which the comparison between the language group Afrikaans versus others, is discussed. For each of the results discussed, the d-values show a large effect, practical significant difference, while the w-values show an almost large effect, practical significant difference.

General satisfaction

From tables 4.10 and 4.11 it can be concluded that, in general, the supervisors in the other language group, harbour the perception of being more satisfied than the supervisors in the Afrikaans group.

B7: Being able to do things that don't go against my conscience.

A large effect, practical visible difference exists in the way the supervisors in the Afrikaans and the other language groups perceive themselves as being able to do things that do not go against their conscience. The supervisors in the other language group are prone to harbour the perception that they are more able to do only things that are acceptable to them than the supervisors in the Afrikaans group.

B12: The way company policies are put into practice.

From the results, it is evident that a large effect, practical visible difference exists in the level to which the supervisors in the Afrikaans and other language group are satisfied with the way company policies are put into practice. The supervisors in the other language group have a more positive perception about this item than those in the Afrikaans group.

B18: The way my co-workers get along with each other.

A large effect, practical visible difference exists in the way the supervisors in the Afrikaans and other language group perceive the way in which their co-workers get along with each other. It is evident that the supervisors in the other language group feel that their co-workers get along with each other better than those in the Afrikaans group.

4.6 Summary

Chapter 4 discussed the results obtained from the statistics of the study. An introduction to the chapter gave an overview of the goal of the study, the way the population was composed and the tests that were used. The frequencies and descriptive statistics for the demographic variables were discussed. A discussion on and explanation of the subscale and total scale reliabilities and descriptive statistics followed. A comparison of the perception supervisors of different genders harbour, regarding the items of job satisfaction, was discussed next. This was followed by a discussion of the correlation existing between the different ages and the items of job satisfaction. Finally, the perception supervisors in different departments and different home languages have regarding the items of job satisfaction, was discussed.

CHAPTER 5 – CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

The goal of this study is to determine the levels of job satisfaction experienced by supervisors in the Xstrata Boshhoek plant. Supervisors form the focus of the study, because they act as the first line of management on the plant and therefore have the potential of influencing the entire workforce.

In this final chapter, general conclusions drawn from Chapter 4 are discussed. Furthermore, the limitations of the study are discussed and recommendations for future research in this area are made. Lastly, the results of the study are provided to management of the organisation where the study was conducted.

5.2 Conclusions

The following conclusions prove to be great points of concern:

From the study, it is evident that supervisors who have been in a certain line of work for a longer period in time, are more inclined to have the perception of experiencing less praise and acknowledgement for the work they do. As a result, they tend to feel insecure and experience their work environment as unstable. This inevitably leads to general job satisfaction levels to decline.

Furthermore, it is evident that employees who have been appointed in supervisory positions for longer periods of time, tend to have even lower levels of general job satisfaction.

The study highlights the difference in perception the supervisors in the Admin and Production departments have, versus the perception of those in the Engineering department. It seems that supervisors in the Admin department are more satisfied with the way they perceive their boss to handle them, than those in the Engineering department. It is also evident that the supervisors in the Admin and Production departments are more satisfied with the perceived praise they receive for a job well done, than those in the Engineering department.

Results from the study emphasise the difference in perception between the Afrikaans and other language group, regarding being satisfied in general. Especially three items of job satisfaction measured are highlighted by the results. It can thus be concluded that the other language group harbours a more positive perception that they are more able to do things that don't go against their conscience, than the Afrikaans group. The supervisors of the other language group also have a perception of being more satisfied with the way company policies are put into place and the way their co-workers get along with each other.

5.3 Limitations

The following limitations of the current study have been identified:

This study only focuses on determining the job satisfaction levels of the supervisors in the Boshhoek plant. Supervisors make out only 7% of the total workforce at the Xstrata Boshhoek plant. Ideally, a random sample of the entire workforce of the plant should have been identified and a study conducted on the job satisfaction levels of the entire plant. It could be very interesting to measure the job satisfaction levels of the entire workforce of the plant in a future study. Time has been a limitation in this study. Much more time will be needed to take on a study of such measures.

It should be noted that the current study is only conducted on the Boshhoek plant and that information gathered, results and conclusions drawn, cannot be generalised throughout Xstrata or used by other operations.

5.4 Recommendations

The following are recommended for future studies:

It is recommended that a future study be done on the whole workforce to determine their job satisfaction levels. This would provide management with good, usable information on what to focus on in order to improve overall productivity in the plant. The outcome of such a study could indicate to management in which areas training is needed.

In the comparison of the items of job satisfaction for home languages (Chapter 4) it became clear that supervisors with Afrikaans as home language are more likely to do things that go

against their conscience than supervisors with other languages as home language. The reasons for this finding warrants for further research.

The following are recommended to management of the Xstrata Boshhoek plant:

A certain point of focus should be employees who have been appointed as supervisors for a longer time. From the study it should be pointed out that the longer employees have been appointed as supervisors, the less general job satisfaction they tend to experience. These supervisors tend to be increasingly negative about their jobs. This could lead to a negative workforce as supervisors, forming the first line of management on the plant, have a huge influence on the workforce that they manage. Such potential problems should be brought under the attention of the senior managers on the plant and they should put a plan in place to address the issue. Frequently one-on-one discussions would be needed with these supervisors to get to the bottom of their feelings. Once the root of the problem has been identified, plans could be put in place to address these problems and to motivate supervisors.

Another point of focus should be the supervisors in the Engineering department. Firstly, the findings should be brought under the attention of the head of the engineering department. He should look into the situation by first analysing the problem areas pointed out by the study. It is recommended that he should look into all twenty job satisfaction items and not only the few that were emphasised by the results. Furthermore, it is advisable that the head of the department make contact with the head of the Admin and Production departments to find out what it is that they do correctly, and also what he could change in his department to address the problem accordingly.

Lastly, the job satisfaction levels of the Afrikaans speaking supervisors (Afrikaans as home language) should be put under the microscope. With the help of the results of this study and the twenty job satisfaction items, the problem areas should be identified and investigated. These should then be addressed in order to increase the job satisfaction levels of the supervisors with Afrikaans as home language.

Only once problem areas have been identified, can something active be done about them. While management is oblivious about a problem they cannot act to manage it. This study lifted out the problem areas present in the Xstrata Boshhoek plant amongst supervisors and paved the way for these to be addressed.

5.5 Summary

Chapter 5 provided a brief overview of the goal of the study that was conducted. Conclusions drawn from Chapter 4 and the limitations of the study were discussed. Finally, recommendations were made for both future studies and to the management of the Xstrata Boshhoek plant.

The main purpose of this study is to investigate the job satisfaction levels of the supervisors employed at the Xstrata Boshhoek plant. These supervisors form the first line of management on the plant, leaving the workforce they manage bare for influence, be it negative or positive. The level of job satisfaction the supervisors experience could directly influence their performance and productivity in their everyday tasks, and also the way they go about with the workforce they manage. Their job satisfaction level could thus intentionally or unintentionally rub off onto the rest of the workforce. This being said, it is clear that the job satisfaction levels of these supervisors made for a worthy and important study.

This study highlights the importance of organisations keeping up with their employees on a more personal level, in order to keep up to date with their employees' demands and needs. Clear problem areas are identified making it easy for the organisation to attend to. Comparisons between different groups create a starting point from which to address the issues at hand.

The recommendations made to the organisation (Xstrata Boshhoek) provide clear and simple solutions for addressing the issues highlighted by the study. The organisation can analyse the recommendations made to its management and customize it to produce custom made solutions to fit their unique environment.

It is my sincere belief that this study contributes to the field of organisational behaviour. It is my wish that the findings of this study will bring about a visible difference in the organisation it was conducted in.

REFERENCE LIST

- Afolabi, O.A. 2002. The influence of organisational climate and locus of control on job satisfaction and turnover intentions. *Nigerian journal of psychology*, 19(1):102-133.
- Al-Zoubi, M.T. 2012. Generating benchmark indicators for employee job satisfaction. *Total Quality Management & Business Excellence*, 23(1):27-44.
- Arvey, R.D., Abraham, L.M., Bouchard Jr., T.J. & Segal, N.L. 1989. Job satisfaction: environmental and genetic components. *Journal of applied psychology*, 74(2):187-192.
- Bernal, D., Snyder, D. & McDaniel, M. 1998. The age and job satisfaction relationship: does it shape and strength still evade us? *Journal of gerontology*, 53B(5):287-293.
- Boninelli, I. & Meyer, T.N.A. 2004. Building human capital: South African perspectives. Randburg, SA: Knowres Publications.
- Buchbinder, S.B., Wilson, M., Melick, C.F. & Powe, N.R. 2001. Primary care physician and job satisfaction and turnover. *American journal of managed care*, 7(7):701-713.
- Buitendach, J.H. & Rothmann, S. 2009. The validation of the Minnesota Job Satisfaction Questionnaire in selected organisations in South Africa. *SA journal of human resource management*, 7(1):1-8.
- Burney, L.L. & Swanson, N.J. 2010. The relationship between balanced scorecard characteristics and managers' job satisfaction. *Journal of managerial issues*, XXII(2):166-181.
- Burns, N. & Grove, S.K. 1993. The practice of nursing research: conduct critique and utilization. 2nd ed. Philadelphia: W.B. Saunders.
- Chen, T., Chang, P. & Yeh, C. 2004. A study of career needs, career development programs, job satisfaction and turnover intentions of R&D personnel. *Career development international*, 9(4):424-437.

- Clark, A.E. 1997. Job satisfaction and gender: why are women so happy at work? *Labour economics*, 4:341-372.
- Clark, A., Oswald, A. & Warr, P. 1996. Is job satisfaction U-shaped in age? *Journal of occupational and organizational psychology*, 69:57-81.
- Coetsee, L.D. 2002. Peak performance and productivity: a practical guide for the creation of a motivating climate. S.I. S.n.
- Colquitt, J.A., Jeffery, A.L. & Wesson, M.J. 2011. Organizational behavior: improving performance and commitment in the workplace. NY:McGraw-Hill Irwin.
- Cook, J.D., Hepworth, S.J., Wall, T.D. & Warr, P.B. 1981. The experience of work: A compendium and review of 249 measures and their use. London: Academic Press.
- Credé, M., Chernyshenko, O.S., Bagrami, J. & Sully, M. 2009. Contextual performance and the job satisfaction-dissatisfaction distinction: examining artifacts and utility. *Human performance*, 22:246-272.
- Cummings, T.G. & Worley, C.G. 2005. Organizational development and change. 8th ed. USA:Thompson South-Western.
- Curtis, E.A. 2008. The effects of biographical variables on job satisfaction among nurses. *British journal of nursing*, 17(3):174-180.
- Dawis, R.V. 1992. Person-environment fit and job satisfaction. (In Cranny, C.J., Smith, P.C. & Stone, E.F., ed. Job satisfaction: how people feel about their job and how it affects their performance. NY: Lexington Books. p. 69-88).
- Decker, F.H. 1997. Occupational and non-occupational factors in job satisfaction and psychological distress amongst nurses. *Research in nursing and health*, 20:453-464.
- Ellis, S.M. & Steyn, H.S. 2003. Practical significance (effect sizes) versus or in combination with statistical significance (p-values). *Management Dynamics*, 12(4): 51-53.

Farragher, E.B., Cass, M. & Cooper, C.L. 2005. The relationship between job satisfaction and health: a meta-analysis. *Occupational environmental Medical*, 62:105-112.

Field, A. 2005. *Discovering statistics using SPSS*. 2nd ed. London:SAGE.

Fletcher, C. & Williams, R. 1996. Performance management, job satisfaction and organizational commitment. *British journal of management*, 7:169-179.

Greenglass, E.R., Burke, R.J. & Moore, K.A. 2003. Reactions to increased workload: effects on professional efficacy of nurses. *Journal of applied psychology: an international review*, 52(4):580-597.

Herselman, S. 2001. Performance motivation among employees of a entiresale company. *Journal of ethnology*, 24(1):1-10.

Honey, A. 2004. Benefits and drawbacks of employment: perspectives of people with mental illness. *Qualitative health research*, 14(3):381-395.

Igbaria, M. & Guimaraes, T. 1993. Antecedents and consequences of job satisfaction among information center employees. *Journal of management information systems*, 9(4):145-174.

Ivancevich, J.M. & Matteson, M.T. 2002. *Organizational behavior and management*. 6th ed. NY: McGraw-Hill Irwin.

Judge, T.A. & Klinger, R. 2007. Job satisfaction: subjective well-being at work. (In Eid, W. & Larsen, R., eds. *The science of subjective well-being*. NY: Guilford publications. p. 393-413).

Judge, T.A. & Larson, R.J. 2001. Dispositional affect on job satisfaction: a review and theoretical extension. *Organizational behavior and human decision processes*, 86(1):67-98.

Kahn, W.A. 1990. Psychological conditions of personal engagement and disengagement at work. *Academy of management journal*, 33:692-724.

Karasek Jr., R.A. 1979. Job demands, job decision latitude, and mental strain: applications of job redesign. *Administrative science quarterly*, 24(2):285-308.

Kinicki, A.J., McKee-Ryan, F.M., Schriesheim, C.A. & Carson, K.P. 2002. Assessing the construct validity of the Job Descriptive Index: a review and meta-analysis. *Journal of applied psychology*, 87:14-32.

Kim, B.C., Murrmann, S.K. & Lee, G. 2009. Moderating effects of gender and organizational level between role stress and job satisfaction among hotel employees. *International journal of hospitality management*, 28:612-619.

Kreitner, R. & Kinicki, A. 2004. Organizational behavior. 6th ed. NY:McGraw-Hill

Kreitner, R. & Kinicki, A. 2008. Organisational behavior. 8th ed. Avenue of the Americas, NY: McGraw-Hill/Irwin.

Lauver, K.J. & Kristof-Brown, A. 2001. Distinguishing between employees' perceptions of person-job and person-organization fit. *Journal of vocational behavior*, 59:545-470.

Law, K.S. & Wong, C. 1999. Multidimensional constructs in structural equation analysis: an illustration using the job perception and job satisfaction constructs. *Journal of management*, 25(2):143-160.

Law, K.S., Wong, C. & Mobley, W.H. 1998. Toward a taxonomy of multidimensional constructs. *The Academy of management review*, 23(4):741-755.

Long, A. 2005. Happily ever after? A study of job satisfaction in Australia. *The economic record*, 81(255):303-321.

Mackenzie, A. 2008. Job satisfaction of South African registered dietitians. Stellenbosch: Stellenbosch University. (Thesis – Masters).

Mathieu, J.E. & Farr, J.L. 1991. Further evidence for the discriminant validity of measures of organizational commitment, job involvement and job satisfaction. *Journal of applied psychology*, 76:127-133).

Matsie, M.A.T. 2008. The impact of motivation on employee performance at level one district hospitals, with special reference to Metsimaholo district hospital in Sasolburg. Vanderbijlpark: NWU. (Mini-dissertation – MBA).

McClelland, S. 1993. A systematic approach to determine productivity improvement training needs. *Industrial management*, 35(4):15-18.

McDonald, D.J. & Makin, P.J. 2000. The psychological contract, organizational commitment and job satisfaction of temporary staff. *Leadership and organizational development journal*, 21(2):84-91.

Meyer, J.P., Stanley, D.J., Herscovitch, L. & Topolnytsky, L. 2002. Affective, continuance, and normative commitment to the organisation: a meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, 61:20-52.

Mulki, J.P., Lassk, F.G. & Jaramillo, F. 2008. The effect of self-efficacy on salesperson work overload and pay satisfaction. *Journal of personnel selling and sales management*, XXVIII(3):285-297.

Oshagbemi, T. 2003. Personal correlates of job satisfaction: empirical evidence from UK universities. *International journal of social economics*, 30: 1210-1232.

Oshagbemi, T. & Hickson, C. 2003. Some aspects of overall job satisfaction: a binomial logit model. *Journal of managerial psychology*, 18(4):257-267.

Paull, G. 2008. Children and women's hours of work. *The economic journal*, 118:F8-F27.

Phillips, J.J. & Phillips, P.P. 2002. Retraining our best employees. USA:ASTD.

Pienaar, C. & Bester, C. 2006. Typical career dilemmas of academic staff during the early career phases within a changing South Africa higher education institution. *South African journal of education*, 26(1): 581-594.

Pietersen, C. 2005. Job satisfaction of hospital nursing staff. *SA journal of human resource management*, 3(2):19-25.

Raabe, B. & Beehr, T.A. 2003. Formal mentoring versus supervisor and coworker relationships: differences in perceptions and impact. *Journal of organizational behavior*, 24:271-293.

- Rashed, A.A. 2001. The effect of personal characteristics on job satisfaction. A study among male managers in the Kuwait oil industry. *International journal of commerce & management*, 11:91-111.
- Rice, R.W. 1984. Organizational work and the overall quality of life. (In Oskamp,S., ed. Applied social psychology annual: applications in organizational settings. California: Sage.
- Robberts, H.F. & Roseanne, F.J. 1998. Evaluating the interaction between self-leadership and work structure in predicting job satisfaction. *Journal of business psychology*, 12:257-267.
- Robbins, S.P. 2000. Essentials of organizational behaviour. 6th ed. USA:Prentice Hall.
- Robbins, S.P. 2003. Organizational behaviour. Upper Saddle River: Prentice Hall.
- Robinson, O. & Griffiths, A. 2005. Coping with the stress of transformational changes in a government department. *Journal of applied behavioral science*, 14(2):204-221.
- Roelen, C.A.M., Koopmans, P.C. & Groothoff, J.W. 2006. Which work factors determine job satisfaction? Department of Social Medicine, University Medical Center, University of Groningen, Groningen: Netherlands: 433-439.
- Roos, W. 2005. The relationship between employment motivation, job satisfaction and corporate culture. UNISA. (Mini-dissertation – MASTERS).
- Russel, S.S., Spitzmuller, C., Lin, L.F., Stanton, J.M., Smith, P.C. & Ironson, G.H. 2004. Shorter can also be better: the abridged job in general scale. *Educational and psychological measurement*, 64:878-893.
- Rothmann, S., Scholtz, P.E., Fourie, M. & Rothmann, J.C. 2000. The relationship between industrial variables and work related outcomes. South Africa: NWU.
- Sarker, S.J., Crossman, A., & Chinmeteepituck, P. 2003. The relationship of age and length of service with job satisfaction: an examination of hotel employees in Thailand. *Journal of managerial Psychology*, 18:745-758.

Schermerhorn Jr., J.R., Hunt, J.G. & Osborn, R.N. 2005. Organizational behavior. Wiley international edition. 9th ed. USA:John Wiley & Sons, Inc

Schermerhorn Jr., J.R., Hunt, J.G., Osborn, R.N. & Uhl-Bien, M. 2011. Organizational behavior. 11th ed. Asia:John Wiley & Sons, Inc.

Schjoedt, L. 2009. Entrepreneurial job characteristics: an examination of their effect on entrepreneurial satisfaction. *Entrepreneurship theory and practice*, 33(3): 619-644.

Sempene, M.E., Rieger, H.S. & Roodt, G. 2002. Job satisfaction in relation to organisational culture. *South African journal of industrial psychology*, 28;23-30.

Sharma, R.D. & Jyoti, J. 2009. Job satisfaction of university teachers: an empirical study. *Journal of service research*, 9(2):51-80.

Singh, A.P. & Dubey, A.K. 2011. Role of stress and locus of control in job satisfaction amongst middle managers. *The IUP journal of organisational behavior*, X(1):42-56.

Smerek, R.E. & Peterson, M. 2007. Examining Herzberg's theory: improving job satisfaction among non-academic employees in a university. *Research in higher education*, 48(2):229-250.

Spector, P.E. 1997. Job satisfaction: application, assessment, causes and consequences. Thousand Oaks: Sage.

Swinscow, T.D.V. & Campbell, M.J. 2001. Statistics at Square One. Oxford: Blackwell BMJ Books.

Tutuncu, O. & Kucukusta, D. 2009. Canonical correlation between job satisfaction and EFQM business excellence model. *Quality and quantity*, 44:1227-1238.

Van Rooyen, K. 2007. The role of performance management in the enhancement of desired employee outcomes. Stellenbosch: University of Stellenbosch. (Thesis – Masters).

Van Saane, J.K., Sluiter, J.H., Verbreek, J.H.A.M. & Frings-Dresen, M.H.W. 2003. Reliability and validity of instruments measuring job satisfaction – a systematic review. *Journal of occupational medicine*, 53:191-200.

Van Tonder, M. 2007. The evaluation of the motivational strategies employed in a pharmaceutical organization. Potchefstroom: NWU. (Mini-dissertation - MBA).

Van Zyl, T. 2005. The impact of training and productivity in mass food production. Potchefstroom: NWU. (Mini-dissertation – Masters).

Vorster, M. 2010. A comparative study on pharmacist job satisfaction in the private and public hospitals of the North West Province. Potchefstroom: NWU. (Mini-dissertation – MBA).

Warr, P.B. 2007. Work, happiness and unhappiness. Mahwah, New Jersey: Lawrence Erlbaum.

Weiss, D.J., Dawis, R.V., England, G.W. & Lofquist, L.H. 1967. Manual for the Minnesota Satisfaction Questionnaire. Minneapolis: University of Minnesota, Industrial Relations Center.

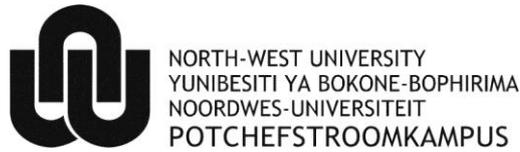
Welman, C., Kruger, F. & Mitchell, B. 2011. Research methodology. 3rd ed. Cape Town, SA: Oxford.

Xstrata Boshoeck. Human Resources Department. 2012. (Unpublished).

Yildirim, D. & Aycan, Z. 2007. Nurses' work demands and work-family conflict: a questionnaire survey. *International journal of nursing studies*, 45:1366-1378.

Zeffane, R.M. 1994. Correlates of job satisfaction and their implications for work redesign: a focus on the Australian telecommunications industry. *Public personnel management*, 23(1):61-76.

Appendix A



Private bag X6001 Potchefstroom 2520
Tel (018) 299 1111 Fax (018) 299 2799
<http://www.nwu.ac.za>

To whom it may concern

MBA Study Leader
Tel (018) 299-1419
Fax (018) 299-1416
E-mail Marita.Heyns@nwu.ac.za

INFORMED CONSENT FORM

RESEARCHER: W. Dreyer

MBA Student
Tel (014) 573-1279
Sel (082) 454-6665
E-mail wdreyer@xstrata.co.za

PURPOSE OF THE RESEARCH: To determine the level of job satisfaction of the supervisors in Xstrata Boshhoek.

BENEFITS: No direct benefits or compensation will be due to any participant.

DURATION: The completion of this questionnaire will take approximately 10 minutes.

VOLUNTARY PARTICIPATION: Participation in this research is completely voluntary. You may at any stage refuse to participate and or withdraw at any time without fear of repercussions and without providing any reason.

CONFIDENTIALITY: Data in this study will be confidential. No names will be used. The data will be analysed as a group and not independently.

CONSENT:

I have read and understand the nature of my participation in this research project and I agree to participate.

Name

Date

Signature

Directions

The purpose of this questionnaire is to give you a chance to tell **how you feel about your present job**, what things you are **satisfied** with and what things you are **not satisfied** with.

On the following pages you will find statements about certain aspects of your **present job**.

- Read each statement carefully.
- How do you feel about the aspect of your job described by the statement?
 - ✓ Circle 1 if you are **not satisfied** (if that aspect is much poorer than you would like it to be).
 - ✓ Circle 2 if you are **only slightly satisfied** (if that aspect is not quite what you would like it to be).
 - ✓ Circle 3 if you are **satisfied** (if that aspect is what you would like it to be).
 - ✓ Circle 4 if you are **very satisfied** (if that aspect is even better than what you expected it to be).
 - ✓ Circle 5 if you are **extremely satisfied** (if that aspect is much better than you hoped it could be).
- Answer every item.
- Do not turn back to previous statements.

A1. Check one: 1 Male 2 Female

A2. Age: _____

A3. Tick your highest level of education:

1

Matric

2

Certificate

3

Diploma

4

Degree or higher

A4. In which department do you work?

1	Admin
2	Projects
3	Services
4	Engineering
5	Furnace production
6	Sinter production
7	Recovery
8	Human Resources

A5. How long have you been in this line of work? _____ years.

A6. How long have you been appointed in this job? _____ years.

A7. Home language:

1	English
2	Afrikaans
3	Tswana
4	Xhosa
5	Other

Ask yourself: How **satisfied** am I with this aspect of my job?

1: I am **not satisfied** (this aspect of my job is much poorer than I would like it to be).

2: I am **only slightly satisfied** (this aspect of my job is not quite what I would like it to be).

3: I am **satisfied** (this aspect of my job is what I would like it to be).

4: I am **very satisfied** (this aspect of my job is even better than I expected it to be).

5: I am **extremely satisfied** (this aspect of my job is much better than I hoped it could be).

On my present job, this is how I feel about...

For each statement circle a number

B1	Being able to keep busy all the time	1	2	3	4	5
B2	The chance to work alone on the job	1	2	3	4	5
B3	The chance to do different things from time to time	1	2	3	4	5
B4	The chance to be "somebody" in the community	1	2	3	4	5
B5	The way my boss handles his/her employees	1	2	3	4	5
B6	The competence of my supervisor in making decisions	1	2	3	4	5
B7	Being able to do things that don't go against my conscience	1	2	3	4	5
B8	The way my job provides for steady employment	1	2	3	4	5
B9	The chance to do things for other people	1	2	3	4	5
B10	The chance to tell people what to do	1	2	3	4	5
B11	The chance to do something that makes use of my abilities	1	2	3	4	5
B12	The way company policies are put into practice	1	2	3	4	5
B13	My pay	1	2	3	4	5
B14	The chances for advancement on this job	1	2	3	4	5
B15	The freedom to use my own judgment	1	2	3	4	5
B16	The chance to try my own methods of doing the job	1	2	3	4	5
B17	The working conditions	1	2	3	4	5
B18	The way my co-workers get along with each other	1	2	3	4	5
B19	The praise I get for doing a good job	1	2	3	4	5
B20	The feeling of accomplishment I get from the job	1	2	3	4	5

The three scales of the short-form MSQ consist of the following items:

<i>Scale</i>	<i>Items</i>
Intrinsic.....	1 2 3 4 7 8 9 10 11 15 16 20
Extrinsic.....	5 6 12 13 14 19
General satisfaction.....	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 (Weiss <i>et al.</i> , 1967:4).

Appendix B

Frequencies and descriptive statistics of the job satisfaction questionnaire							
Items of Job Satisfaction	Not satisfied	Only slightly satisfied	Satisfied	Very satisfied	Extremely satisfied	Mean	Std. Deviation
B1	5.9	8.8	5.9	57.4	22.1	3.810	1.069
B2	5.9	22.1	7.4	51.5	13.2	3.440	1.151
B3	2.9	26.5	4.4	44.1	22.1	3.560	1.189
B4	5.9	30.9	7.4	42.6	13.2	3.260	1.205
B5	17.6	20.6	10.3	44.1	7.4	3.030	1.293
B6	10.3	29.4	5.9	48.5	5.9	3.010	1.199
B7	7.4	30.9	4.4	45.6	11.8	3.240	1.223
B8	2.9	13.2	7.4	57.4	19.1	3.760	1.009
B9	1.5	16.2	5.9	52.9	23.5	3.810	1.026
B10	1.5	22.1	1.5	58.8	16.2	3.660	1.045
B11	4.4	19.1	5.9	44.1	26.5	3.690	1.188
B12	11.8	33.8	8.8	36.8	8.8	2.970	1.246
B13	25.0	41.2	4.4	23.5	5.9	2.440	1.262
B14	20.6	48.5	7.4	19.1	4.4	2.380	1.146
B15	11.8	26.5	8.8	38.2	14.7	3.180	1.304
B16	7.4	25.0	5.9	48.5	13.2	3.350	1.207
B17	4.4	27.9	8.8	50.0	8.8	3.310	1.110
B18	11.8	20.6	10.3	42.6	14.7	3.280	1.280
B19	5.9	35.3	5.9	41.2	11.8	3.180	1.209
B20	7.4	22.1	8.8	42.6	19.1	3.440	1.238