

**Investigating the relationship between job characteristics and job satisfaction
in the steel manufacturing industry**

R Steinmann

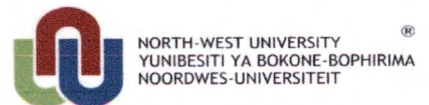
24792977

Mini-dissertation submitted for the degree *Master in Business Administration* at the
Potchefstroom Campus of the North-West University

Supervisor: Prof LTB Jackson

April 2016

It all starts here [™]



ABSTRACT

Employees can be seen as the most valuable asset of a company, as no company can operate without them. Therefore, it is important to keep them satisfied. The primary objective of this study is to investigate job characteristics and employee's job satisfaction with a specific focus on employees working in the steel manufacturing industry. The specific objectives were to determine the relationship between job characteristics and job satisfaction, to establish whether job resources and job demands, as independent variables, are significant predictors of intrinsic job satisfaction. A further objective was to determine whether job resources and job demands as independent variables are significant predictors of extrinsic job satisfaction. The research study, therefore, aims to gain valuable insight as to what the employees regard as important job characteristics to foster job satisfaction. This insight may be valuable for both management and organisation as a whole, in order to foster job satisfaction.

In this study, a qualitative research approach was followed by using a cross-sectional field survey, to include the wide range of age groups of the employees within the steel manufacturing industry. In this study, the participants consist of employees working in the steel manufacturing industry of South Africa. Questionnaires were distributed in Gauteng - 600 hard copies, as well as an electronic version, were distributed to various steel manufacturing companies and CEOs of these companies. A total of n=278 responses were received.

The finding of this study has shown that organisational support, growth opportunities and relationship with co-workers (job resources) are all positively related to extrinsic motivation, while being negatively related to overload (job demand) and job insecurity (small effect).

OPSOMMING

Werknemers kan gesien word as die waardevolste bate van 'n maatskappy aangesien 'n maatskappy nie kan funksioneer sonder werknemers nie. Die primêre doelwit van hierdie studie is om die werks eienskappe en werkstevredenheid te ondersoek met spesifieke fokus op die werknemers in die staalvervaardigingsbedryf. Die spesifieke doelwitte is om te bepaal wat die verhouding is tussen werks eienskappe en werkstevredenheid, om te bepaal of werks hulpbronne en werks eise as direkte veranderlikes aanmerklike voorspeller is van intrinsieke werkstevredenheid en om vas te stel of werks hulpbronne en werks eise as direkte veranderlikes aanmerklike voorspeller is van ekstinsieke werkstevredenheid. Hierdie navorsingstudie poog dus om insig te bekom oor wat werknemers as belangrike werkeienskappe beskou om werkstevredenheid te bekom. Hierdie insig mag waardevol wees vir beide die bestuur en die staalbedryf as geheel om werk om stevredenheid te bevorder.

In hierdie studie is 'n kwantitatiewe navorsingsbenadering gevolg deur die gebruik van 'n deursnit-veldopname om die wye verskeidenheid ouderdomsgroepe van die werknemers in die staalindustrie in te sluit. Die deelnemers aan die studie bestaan uit werknemers in die staalvervaardigingsbedryf van Suid-Afrika. Vraelyste is regoor die Gauteng provinsie versprei – 600 harde kopieë sowel as 'n elektroniese weergawe is aan verskeie staalvervaardigingsmaatskappye en uitvoerende hoofde van dié maatskappye gestuur. 'n Totaal van $n = 278$ response is ontvang.

Die gevolgtrekking waartoe die studie kom, dui dat organisasie bystand, bevordering geleentheid en verhouding met mede werknemers (werk hulpbronne) hou almal positief verband met ekstrinsieke motiveering, terwyl dit n negatiewe verband hou met oornedigheid (werk aanvraag) en werks onsekerheid (klein effek).

TITLE:

Investigating the relationship between job characteristics and job satisfaction in the steel manufacturing industry.

KEYWORDS:

Job demands, Job resources, Job characteristics, Autonomy, Career opportunities, Emotional load, Job feedback, Job security, Skills variety, Task identity, Task significance, Relationship with colleagues, Relationships with immediate supervisor, Growth opportunities, Remuneration and Work load

Table of contents

CHAPTER 1: Nature and scope of the study	6
1.1 Background to the research contextualisation	6
1.1.1 Motivation of topic actuality	6
1.2 Problem statement	7
1.3 Objectives	8
1.3.1 Main Objective.	8
1.3.2 Specific Objectives.....	8
1.4 Research design / Research methodology	8
1.4.1 Research approach.....	8
1.4.2 Literature review.....	8
1.4.3 Research participants.....	9
1.4.4 Research measuring instrument.....	9
1.4.5 Research procedure and ethical considerations.....	10
1.4.6 Statistical analysis	11
1.5 Limitations of the study	12
1.6 Overview of chapter layout to follow	13
1.7 Chapter summary	13
CHAPTER 2: Literature review	14
2.1 Introduction	14
2.2 Job satisfaction	14
2.2.1 Defining job satisfaction	14
2.2.2 Approach to job satisfaction studies.....	15
2.2.3 Intrinsic and extrinsic job satisfaction	16
2.3 Motivational theories that enhance employees' job satisfaction	20
2.3.1 Herzberg's two-factor theory of job satisfaction	20
2.3.2 Maslow's hierarchy of needs	21
2.4 Theoretical approaches to job satisfaction	22
2.4.1 Job characteristics model	22
2.4.2 The Job Demands-Resources (JD-R) model.....	22
2.5 Chapter Summary	23
CHAPTER 3: Practical investigation	25
3.1 Introduction	25

3.2 Research procedure	25
3.2.2 Research design	25
3.2.3 Preliminary arrangements	25
3.2.4 Measuring instruments / data gathering methods	26
3.2.5 Study population	28
3.2.6 Research Objectives	29
3.2.7 Statistical analysis	29
3.2.8 Ethical aspects	31
3.3 Summary	31
CHAPTER 4: Research results	32
4.1 Exploratory factor analyses	32
4.2 Descriptive statistics and correlational analyses	35
CHAPTER 5: Conclusions and recommendations	38
5.1 Conclusion	38
5.2 Recommendations	39
5.3 Limitations of the study	43
6. REFERENCES	44

CHAPTER 1: Nature and scope of the study

1.1 Background to the research contextualisation

South Africa's metals industry is well-developed with supportive infrastructure and vast natural resources, which comprises of basic iron ore and steel, basic non-ferrous metals and metal products which roughly represent a third of all South Africa's manufacturing market (SouthAfrica.info. 2015). The steel manufacturing industry forms part of the conversion of standard steel products into intermediate products with the end users comprising of building and construction, automotive, machinery and mining. The industry is characterised by a very labour-intensive workforce, which consists of a mixture of highly skilled artisans, technicians and engineers. The industry also includes lower skilled employees such as semi-skilled and general workers. According to Um Jwali Market Research on the performance of the manufacturing sectors (Um Jwali Market Research, 2012:120), the metals sector is a potential key driver of job creation, due to its labour intensive nature. Um Jwali Market Research (2012:116) also highlights that in order to survive in the steel industry of South Africa, organisations have taken major steps to become more efficient. This has seen many steelworks engaging in ongoing restructurings and productivity improvement strategies. Due to the nature of the labour-intensive work inheritance, it is even more important for companies in the steel manufacturing industry to provide a platform that enhances working conditions. This can be done by designing job characteristics in such a way that motivates employees and increases their job satisfaction.

1.1.1 Motivation of topic actuality

Job satisfaction can be identified as employees' attitude towards their job and is based on numerous factors, both intrinsic and extrinsic to the individual (Tsourela *et al.* 2008:251).

For organisations to attract and retain employees as well as to enhance their well-being and performance in the workplace, employers must design jobs and work environments that are in line with employees' needs. Grant, Field, Parker and Frese,

(2010:145) define job design as the process of assigning tasks to a job, including the interdependency of those tasks with other jobs within the business. Morgeson and Campion (2002:368) explain that there are several clear relationships between work characteristic and employees' reactions, which will guide them to simultaneously maximise their efficiencies and satisfaction in the workplace. According to Sultan (2012:14), supervisors need to outline employees' tasks to the capabilities that are best suited for them.

For this reason, it is imperative for companies in the steel manufacturing industry to provide a platform that enhances working conditions with a specific focus on job characteristics to ultimately improve the overall performance of the company.

1.2 Problem statement

Bakker and Demerouti (2007:309) explain that many studies over the past three decades have shown that job characteristics can have a profound impact on employees' well-being. The disturbance of the equilibrium between the job demands that employees are exposed to and the resources that they have at their disposal, have a direct impact on employees' well-being and performance. Job demands are directly linked to high work pressure, an unfavourable physical work environment and emotionally demanding interaction with co-workers and clients. The concept 'job resources' refers to those physical, psychological, social or organisational aspects of the job that are either functional in achieving their work goals, or by reducing job demands and the associated physiological costs, as well as by stimulating personal growth, learning and development (Bakker & Demerouti, 2007:312).

For this reason, this investigation could shed some light on the role of job characteristics on the attitudes of employees working in the steel manufacturing industries, as well as to identify areas for intervention.

1.3 Objectives

1.3.1 Main Objective.

The primary objective of this study is to investigate the job characteristics and employee's job satisfaction in the steel manufacturing industry.

1.3.2 Specific Objectives.

- To determine the relationship between job characteristics and job satisfaction.
- To determine whether job resources and job demands as independent variables are significant predictors of intrinsic job satisfaction.
- To determine whether job resources and job demands as independent variables are significant predictors of extrinsic job satisfaction.

1.4 Research design / Research methodology

1.4.1 Research approach

In this study, a qualitative research approach will be followed to achieve the research objectives. Welman, Kruger and Mitchell (2012:8) explain that the aim of qualitative research methods is to establish the socially constructed nature of reality, to stress the relationship between the researcher and the object of the study and to put emphasis on the value-laden nature of the research.

1.4.2 Literature review

According to Welman *et al.* (2012:40), the identification of key words forms an integral part of planning the search for relevant literature. The literature review for this study focuses on gaining information on the following keywords: *Job characteristics, Autonomy, Career opportunities, Emotional load, Job feedback, Job security, Skills variety, Task identity, Task significance, Relationship with colleagues, Relationships with immediate supervisor, Remuneration and Work load.*

An in-depth literature study will be conducted to explore the different models for explaining the role of the different job characteristics, as well as to explain the Job Demands-Resources (JD-R) model. An additional aim in the literature study is to see how job demands and resources affect employees' attitudes towards job satisfaction.

To conduct the literature study, data bases namely: GoogleScholar, Google, Emerald, SAePublications, Juta, Scopus, EbscoHost, LexisNexis, JSTOR as well as local and international articles related to the topic, will be used.

1.4.3 Research participants

In this study the population will consist of employees working in the steel manufacturing industry of South Africa. A convenience sampling method will be used as most steel manufacturing entities will be conveniently available to approach across the Gauteng province. Maree *et al.* (2010:177) and Welman *et al.*, (2012:69) explain that convenience sampling methods are used where the sample is easily and conveniently available.

1.4.4 Research measuring instrument

Questionnaires will be used to gather information from the participants working in the steel manufacturing industry, in order to measure their job satisfaction. In addition to this, the relationship between the various job characteristics and their job satisfaction will also be measured. The study objectives were explained to the participants in such a way that they will see the benefit of voicing their thoughts regarding certain job characteristics, within their business, that affect their overall job satisfaction. Maree *et al.* (2010:9) highlight that the advantages of using questionnaires for data-collection is that one can get respondents to complete questionnaires in a short space of time; questionnaires can be checked for accuracy by the test administrators; it is relatively cheap; easy to complete and the respondents can be reached over long distances.

The first section of the questionnaire, **Section A**, obtains the biographical information from the participants. This includes their gender, age, ethnicity,

language, qualification and function area of the participant's work-group within the organisation.

Section B of the questionnaire will include the Minnesota Satisfaction Questionnaire (MSQ) (Weiss *et al.* 1967:2), which will be used to measure employees' job satisfaction. This section includes two dimensions, namely: intrinsic and extrinsic satisfaction. A five-point Likert scale, ranging from 1 (strongly dissatisfied) to 5 (strongly satisfied), is used. This scale allows participants to indicate the degree to which they are satisfied or dissatisfied with the topic of the question that is posed.

The third section of the questionnaire, **Section C**, includes the Job Demand-Resource Scale (JDRS) originally developed by Jackson and Rothmann (2005:112), to measure job demands and resources for educators. The JDRS questionnaire consists of 48 questions, some of which will be adjusted and checked for validity in order to suit the relevance of this study. The dimension used for this study includes; autonomy, career opportunities, emotional load, job feedback, job security, relationship with colleagues, relationship with immediate supervisor, remuneration, task identity, task significance and work load. As in Section B of the questionnaire, a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), will be used. Participants will be expected to follow the same strategy for answering the questions in this section, as explained for Section B of the questionnaire.

1.4.5 Research procedure and ethical considerations

E-mails were sent to CEO's and senior executives of various steel manufacturing entities, in order to obtain permission with regard to the distribution of the questionnaires amongst their workers, for the recruitment of participants for this study. An electronic version of the questionnaire was designed with a 'link' that enabled participants, who have access to e-mails, to merely click on the link, which will direct them to the questionnaire.

Hard copy questionnaires will be printed and physically taken to various steel manufacturing entities, where permission are granted. Structured interviews with individual employees, working in the steel manufacturing industry, will be arranged in

order to explain the aim and nature of this study and to collect further data. The questionnaires will then be collected after two weeks to be captured manually into an excel spread sheet, for analyses.

Ethical considerations in this study are of utmost important and, thus, require the necessary attention during the data-collection process. Participants are assured that no harm will transpire by participating in the study and they will not be exposed to any possibility of losing their jobs. Participants are afforded the freedom to decide whether they want to participate in the study or not, and can withdraw at any point in time. Participants will be informed and assured that their responses will be treated with great confidentiality and that the data gathered, will be reported anonymously in this paper, and future articles or conference papers presented at academic gatherings.

1.4.6 Statistical analysis

The statistical analysis will be carried out with the IBM Statistical Package for the Social Scientist (SPSS, 2015). Descriptive statistics such as means, standard deviations, skewness and kurtosis will be used to determine the distribution pattern of the collected data. To ensure the data will be normally distributed, a cut-off point of 2.00 will be set for skewness and 4.00 for kurtosis. According to Rose, Spinks and Canhoto (2015:13), a positive skewness value indicates positive (right) skew, while a negative value indicates a negative (left) skew. The higher the absolute value the greater the skew. Rose *et al.* (2015:13) further explain that a positive kurtosis value indicates positive kurtosis, whereas a negative value indicates a negative kurtosis and the higher the absolute value the greater the kurtosis.

It is important that the measuring instruments measure reliability and validity of the study. Welman *et al.* (2012:142-145) explain that reliability refers to the consistent and stable measurement of data to ensure the credibility of the findings, whereby validity is the extent to which the research findings accurately represent what is really happening in the situation. Cronbach alpha coefficients are used to measure the consistency of the measuring instrument. Maree *et al.* (2010:215) explain that by comparing two sets of scores, by means of a correlation coefficient, one can obtain a

measure of reliability. It will be decided to set the value at a 95% confidence interval level ($p < 0.05$), to specify the relationship between the variables. The parameters 0.10 (small effect), 0.30 (medium effect) and 0.50 (large effect) will be set for practical significance of the correlations

Exploratory factor analysis will be carried out to investigate the construct validity of the measuring instruments. A simple principle component analysis will be conducted on the constructs that form part of the measuring model, namely job demands and resources and the eigenvalues of 1.00 or higher and scree plot to determine the number of factors to extract.

A multiple regression analysis will be used to determine the proportion of variance in the dependant variables of intrinsic and extrinsic job satisfaction.

A cut-off point of 0,35 (large effect) will be set for the practical significance off f^2 . The value of R^2 will be used to determine the proportion of the total variance of the dependant variable which will explained by the independent variables. The f-test will be used to test whether a significant regression exists between the independent and dependent variables.

The following guidelines for effect size will be used (Visagie, M. 2007:43);

- $f^2 = 0,01$ - small effect
- $f^2 = 0,10$ - medium effect
- $f^2 = 0,35$ - large effect

1.5 Limitations of the study

Like any other empirical study, this study is not without any limitations. First, a cross-sectional survey research design will be followed, which makes it difficult to prove causal relationships. Secondly, the results will solely be taken by self-report measures which may lead to a problem commonly referred to as 'common method variance', which could potentially give rise to an overestimation of the correlations

studied. Third, if major role-players in the steel manufacturing industry do not want to participate in the study, one cannot assume that the results can be generalised to other steel manufacturing institutions.

1.6 Overview of chapter layout to follow

1.6.1 Chapter 2 – Literature review

1.6.2 Chapter 3 – Practical investigation

1.6.3 Chapter 4 – Research results

1.6.4 Chapter 5 – Conclusions and recommendations

1.7 Chapter summary

This chapter focused on the contextualisation and motivation of the specific topic actuality. The problem statement was outlined, followed by the main and specific objectives of this study. The research design approach was explained, followed by an explanation of how an in-depth literature study will be conducted to explore the various models explaining the role of the different job characteristics towards employees' job satisfaction. The literature study also aims to see how job demands and resources affect the attitudes of employees towards job satisfaction. An overview of the research participants, the measuring instruments that are used during the research process, the procedure and ethical considerations, the statistical analyses to be conducted as well as the limitations of this study are explained.

CHAPTER 2: Literature review

2.1 Introduction

The aim of this chapter is to explore previous research and literature on job satisfaction as a complex variable that is influenced by situational factors of the job environment as well as dispositional characteristics of the individual. Intrinsic and extrinsic job satisfaction will be researched as well as motivational theories enhancing employee's job satisfaction. Further literature, on job characteristics and job characteristics models, which describe the relationship between job characteristics and employees' responses to work attitudes and outcomes, will be reviewed.

2.2 Job satisfaction

2.2.1 Defining job satisfaction

Various definitions of job satisfaction are derived from literature studies. McShane and Von Glinow (2010:108) define the concept of job satisfaction as a person's evaluation of his or her job and work context. Kreitner and Kinicki (2008:170) explain that job satisfaction is an effective or emotional response towards the various facets of one's job. According to Mullins (1996:249), job satisfaction is an attitude or internal state that could be associated with, or compared to a personal feeling of achievement, and Locke (1976:1304) considers this concept as a pleasurable or positive emotional state resulting from the appraisal of one's job experiences.

Increasing employees' job satisfaction is one of the topics that has been studied extensively by managers and researchers over the years. Nieuwenhuizen and Rossouw (2008:73) explain in their simple model of motivation, that individuals react to a need by behaving in a particular goal-directed way, in order to satisfy that need. Job dissatisfaction can lead to a variety of outcomes other than lower job performance, for example, some dissatisfied employees can continue to work productively while they voice their complaints, look to exit the company by searching for another job, while other loyal employees patiently wait for the problem to be fixed (McShane & Von Glinow, 2010:110). Hirschman's (1970:1) basic concept model is

that employees will have two possible responses to organisational decline, which are either to exit the organisation or to voice their concerns. Hirschman (1970:1) further explains that if organisations can craft the means to address employees concerns and issues, they can improve their organisation.

Theron's (2014:63) research shows that "job satisfaction is a conglomeration of many dimensions, with no absolutes, which needs to be present in the correct mix, in order for an employee to be happy or satisfied and therefore only focusing on one dimension, will provide little success".

Research conducted by Peng and Mao (2014:805) reveals that a person-job fit is significantly correlated with job satisfaction. A person-job fit can improve self-efficacy, and according to social cognitive theory, individuals with high self-efficacy will pursue higher goals, obtain better work performance and get more recognition (Locke & Latham, 1990:240-246).

2.2.2 Approach to job satisfaction studies

There are two ways to approach research on job satisfaction and these are by looking at situational as well as dispositional aspects. According to Cohrs, Abele and Dette (2006:364), a *situational approach* to job satisfaction reflects the characteristics of the job; more favourable job characteristics should lead to higher job satisfaction whereby *dispositional approaches* assume that job satisfaction is a function of individual dispositions and that some individuals should have higher job satisfaction than others, regardless of the job conditions. The findings of Cohrs, *et al.* (2006:363) where they integrated the situational and dispositional determinants of job satisfaction study, revealed that, on the one hand, perceived job characteristics uniquely explained 7-22% of the variance in job satisfaction and, on the other hand, the dispositional factors uniquely explained 8-12% of the variance.

Jackson and Rothmann (2001:1) describe dispositional variables as personality characteristics, needs, attitudes, preferences and motives which have a tendency to react to situations in a predetermined manner. Jackson and Rothmann (2001:1) further explain that both situational and dispositional approaches are not mutually

exclusive and may relate to one another in several ways. In contrast to this, Cohrs *et al.* (2006:363) have found that the interaction between situational and dispositional factors were of little significance.

Ferguson and Cheek's (2011:221) study found that situational constraints perceived in the work environment accounted for over twenty-seven percent of job satisfaction differences, after controlling for demographic factors that may influence job satisfaction. Their results pointed to supervision as the only significantly influential situational constraint on job satisfaction, providing the greatest potential for improving employees' job satisfaction. Their finding suggested that management interested in getting the most "bang for their buck" relative to controlling or influencing contextual organisational situations that may positively influence job satisfaction should perhaps focus on only a single dimension - supervision.

2.2.3 Intrinsic and extrinsic job satisfaction

Tsourela *et al.* (2008:251) defines intrinsic job satisfaction in relation to how people feel about the nature of the job tasks themselves, whereby extrinsic job satisfaction relates to how people feel about aspects of the work situation that are external to the job tasks of the work itself.

Intrinsic Job Satisfaction includes job characteristic factors related to job content, such as autonomy, advancement/ growth opportunities, job feedback, skills variety, task variety, task identity and task significance.

The *autonomy* job characteristic refers to the extent of freedom or independence that employees have, in which to make their own decisions without following outlined instructions from their supervisors (BusinessDictionary.com, 2015). McShane and Von Glinow (2010:178), Rosenholtz and Simpson (1990:244), and Coetsee (2002:160) refer to autonomy as the freedom, independence and direction an employee has to plan, schedule and determine the procedures needed to complete the tasks. The level of autonomy can therefore have a positive or negative outcome on an individual's level of job satisfaction.

Growth opportunities refer to having enough variety, opportunities to learn and independence in your work. The Business Dictionary.com (2015) define employee development as the encouragement of employees to acquire new skills, knowledge and view points by providing training and learning opportunities for employees. Growth opportunities are those opportunities which arise throughout an employees working career. Employees can either decide to pursue these opportunities or they can let it pass. Training and development programs of employees are widely used by organisations to improve employees' skills for their present and future jobs (Lussier, 2009:244). This premise is supported by Nieuwenhuizen and Rossouw (2008:220) who explain that skills development of employees has become a strategic objective of businesses in order to improve current performance of their employees and the organisation and by helping employees to acquire and improve their job-related skills. Employees feel valued and satisfied when the company that they work for invests in their training as well as the development of skills. It will be advantageous for organisations to provide a platform for career development especially for employees who want to grow in their careers, to ensure they are satisfied by having a chance for career development. Growth opportunities include; giving praise to employees where it is due, consistently train and develop employees to increase their skill base; promote employees from within the organisation by drawing up a future succession planning program and inform employees regarding the skills that they will need to be able to take the next step; create a higher sense of engagement and recognition by finding ways to create informal leadership roles; draw up key performance metrics to track performance in line with company goals and lastly; ensure good and proper communication processes are in place to keep employee's informed as to what is going on in the company at all times. In research conducted by Nikandrou *et al.* (2009:262), participants want to enrich their skills and knowledge and, therefore, training was considered a significant alternative for personal growth, satisfaction and an opportunity for career prospects.

According to McShane and Glinow (2010:178), *job feedback* is the degree to which employees can tell how well they are performing a specific job tasks or activity, on the basis of direct sensory information from the job itself. This characteristic can have a positive effect towards an employee's job satisfaction, as they thrive on the feeling of self-worth by accomplishing their job tasks or activities.

Skill variety essentially refers to the degree to which a particular job requires a variety of different activities for the employee to be able to use various skills and talents (Kreitner & Kinicki, 2008:232; Coetsee 2002:160). Providing a platform where employees can carry out and develop a variety of skills, will contribute to the meaningfulness and job satisfaction of the employee.

Task identity is another important component of job satisfaction. BusinessDictionary.com (2015) defines the task identity characteristic as the extent to which a job requires completion from beginning to end. McShane and Von Glinow (2010:177), Kreitner and Kinicki (2008:232) and Coetsee (2002:160) all explain that a job needs to be performed with identifiable pieces of work that have a visible outcome, as opposed to doing only a portion of the job. Employees, who can identify their contributions in completing jobs with visible outcomes, can improve their job satisfaction.

Kreitner and Kinicki (2008:232) refer to task significance as the degree to which your job impacts other people's lives; either in your immediate organisation or in the external environment. A research study by Grant (2008:108) on the significance of task significance, provided fresh insights into the effects, relational mechanisms, and boundary conditions of task significance, offering noteworthy implications for theory, research, and practice on job design, social information processing, and work motivation and performance.

Extrinsic Job Satisfaction include job characteristic factors relate to job context such as company policy, emotional load, job insecurity, relationship with co-workers, relationship with supervisors/ organisational support, remuneration, workload or overload, personal life, and status. They are not necessarily satisfying, but their absence could cause dissatisfaction.

According to De Braine (2014:100), there are jobs that are characterised by high levels of *emotional load*, which can have a negative effect on an employee's identity. This, in turn, could lead to poor execution of daily tasks. A study conducted by Yang and Chang (2008:879) on emotional labour on job satisfaction amongst clinical

nurses, it was concluded that the nursing staff expressed high emotional labour which affects their job satisfaction.

Job insecurity can be seen as the perceived risk of losing your job in the near future (Artz & Kaya, 2014:2873). Employees in the steel manufacturing industry also face continuous job security issues, due to the company's use of labour brokers, temporary positions and fixed-term contracts of employment. The Business Dictionary.com (2015) confirms that job security issues usually arise from the terms of the contract of employment; collective bargaining agreement; or labour legislation that prevents arbitrary termination, layoffs, and lockouts. Other job security issues involve unfortunate circumstances where companies have to revert to restructuring and retrenchment processes.

Relationship with co-workers refers to building good, healthy working relationships with co-workers such as trust, mutual respect, mindfulness, welcoming diversity and open communication. Employees want to experience positive interactions with their colleagues on a daily basis. According to an article by Mind Tools.com, Building good work relationships (2011), there are several characteristics that build good, healthy working relationships such as trust, mutual respect, mindfulness, welcoming diversity and open communication. The article further explains that building and maintaining good work relationships will foster more commitment to and engagement with the company goals.

Organisational support refers to relationships with your supervisor/manager, the availability of information, communication in the organisation, participation, social support by colleagues, and contact opportunities within the organisation (Rothmann *et al.*, 2006:79). Previous research findings confirmed that organisational support was related to growth opportunities (Asiwe, *et al.*, 2015; Jackson, *et al.*, 2006). A good working relationship between the supervisor and the worker should be built and maintained over time. However, this will take effort from both sides (Drury, 2008:68). According to Drury (2008:69-70), characteristics such as two-way communication, reward exchange and emotional presence can be found in most supervisor-employee relationships. Having good relationships can also lead to higher job satisfaction as the employee can feel free to engage with his or her supervisor.

Remuneration characteristic will always play a vital role in employees' job satisfaction. It is commonly known that employees always feel they are doing more than what they are being paid for. The opposite sentiments are expressed by management. Employees, who usually feel they do not earn enough, can become dissatisfied with their work. In a study conducted by Malik *et al.* (2012:6) which explores the impact of pay and promotion on job satisfaction, it was concluded that employees' pay has a significant influence on job satisfaction.

Overload refers to the amount of work, mental load and emotional load. Workload is defined by The Business Dictionary.com (2015) as the amount of work or the number of work units assigned to a particular resource over a given period. Overload, in this study, refers to the pace and amount of work, mental load and emotional load. A study conducted by Mustapha (2013:120) examined the influence of interpersonal relationships and faculty workload on job satisfaction among academicians in public universities in Malaysia has found that there was a positively significant relationship between interpersonal relationship and job satisfaction, whereas daily workload and satisfaction was inversely correlated. For this reason, an employee's workload needs to be considered, in order to achieve a reasonable satisfaction as a means to enhance employee loyalty and a promising organisational performance.

2.3 Motivational theories that enhance employees' job satisfaction

2.3.1 Herzberg's two-factor theory of job satisfaction

Expectancy theory is a motivational theory that is based on a person's beliefs about whether their effort will lead to valued outcomes. According to Vroom (1964:331), the relationship between situational constraints and effect can be explained by expectancy theory. According to Theron (2014:10), Herzberg's two-factor motivational theory is the most dominant model that explains job satisfaction. This theory of motivation is based upon the deceptive simple idea that there are intrinsic factors (motivators/satisfiers) and extrinsic factors (hygiene factors) involved.

Intrinsic factors are inherent to the nature of the job and the nature of the tasks being performed. These are called motivators or satisfiers, which lead to job satisfaction, because of an employees need for growth and sense of self-achievement. Motivators or satisfiers are those factors which are directly concerned with the satisfaction gained from the job itself. Such factors include; the sense of achievement and the intrinsic value obtained from the job itself; the level of recognition by both colleagues and management for the work that you do; the level of responsibility in your job; the opportunity for advancement in your organisation and the job status provided (Kreitner & Kinicki, 2008:215).

The extrinsic factors, also referred to as hygiene factors, on the other hand lead to job dissatisfaction. Kreitner and Kinicki (2008:216) explain that hygiene factors are associated with the environment in which the work is being performed. These factors are therefore associated with the job itself, but are not directly a part of it. Factors include salary, physical working-conditions, job security, organisational policies, and relationships with other employees and management.

Lephalala (2008:67) studied intrinsic (motivators) and extrinsic (hygiene) factors to see if these factors would influence nurse employees' job satisfaction in selected private hospitals in England. Her study revealed that intrinsic and extrinsic factors did, in fact, influence nurses' levels of job satisfaction.

2.3.2 Maslow's hierarchy of needs

Maslow's hierarchy of needs is a theory that was developed in 1943 by Abraham Maslow to explain human motivation in general (McLeod, 2014:1). Despite the general nature of the hierarchy, it is directly applicable to the work setting and has been used extensively in order to explain and support the importance of job satisfaction, as a human need.

"The theory of Maslow's hierarchy of needs can be used as a framework to identify the various benefits that organisations can offer to satisfy their employees' needs and, in turn, increase revenues and reduce expenses" (Sandri, *et al.*, 2011:45).

When considering Maslow's needs hierarchy theory by satisfying a lower need, the next higher need in the hierarchy becomes the primary motivator" (McShane & Von Glinow, 2010:136).

2.4 Theoretical approaches to job satisfaction

2.4.1 Job characteristics model

The Hackman and Oldham (1976; 1980) as a prominent example of *situational approaches*, the job characteristics model describes the relationship between job characteristics and employees' responses to work, whereby enriched or complex jobs are linked with employees' positive disposition to their work and their work environment, which leads to increased job satisfaction, motivation and work performance (Asiwe, *et al.*, 2015:2). The Job Characteristics model assumes that there is a linear relationship between job characteristics, including skill variety, task identity, task significance, autonomy and feedback and finally, employee well-being (Rothmann, *et al.*, 2006:76).

Each job has unique characteristics that alter the experience for the employee executing its function. Jobs may be simple or complex in their nature, and they vary in terms of the flexibility and level of responsibility they offer the incumbent (Mayfield, 2013:40). In a study conducted by Sultan (2012:13), findings indicate that the five core job characteristics mentioned above, are effective predictors of employees' work motivation and job satisfaction. Sultan (2012:13) suggests that, on the basis of his findings, the appropriate combination of the five core job characteristics can facilitate organisations to motivate and satisfy their employees.

Results from a study by Steyn and Vawda (2014:281) indicate that job characteristics significantly affect job-specific attitudes on job satisfaction.

2.4.2 The Job Demands-Resources (JD-R) model

According to Asiwe, *et al.* (2015:2), the Job Demands–Resources (JD–R) model is a theoretical framework that tries to integrate two fairly independent research

traditions namely; the stress research tradition and the motivation research tradition.

According to Demerouti and Bakker (2011:2), the main assumption of the Job Demands–Resources (JD–R) model is that every occupation has its own specific risk factors associated with job-related stress. These factors can be classified in two general categories, i.e. job demands and job resources, which constitute an all-encompassing model that may be applied to various occupational settings, irrespective of the particular demands and resources involved. One central assumption of the JD-R model developed by Demerouti *et al.* (2001:499), is that, although every occupation (or organisation) may have its own specific work characteristics associated with well-being, it is still possible to model these characteristics in two broad categories, namely job demands and job resources.

Demerouti and Bakker (2011:2) describe job demands as those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills. These are, therefore, associated with certain physiological and/or psychological costs such as; high work pressure, an unfavourable physical environment and irregular working hours. Asiwe *et al.* (2015:2) further explains that job demands are initiators of a health impairment process and job resources are initiators of a motivational process. The model also specifies how demands and resources interact, and predict important organisational outcomes.

Job resources on the other hand refer to those physical, psychological, social or organisational aspects of the job. These reduce job demands and the associated physiological and psychological costs are functional in achieving work goals, and stimulate personal growth, learning, and development (Demerouti & Bakker, 2011:2).

2.5 Chapter Summary

This chapter focused on the relationship between job characteristics and employees' job satisfaction. It contextualises the topic of this study within the bigger framework,

by exploring and elaborating on previous research conducted which focussed on the definitions and explanations on job satisfaction, motivational theories enhancing job satisfaction, different job characteristics and the job characteristics models which describes the relationship between job characteristics and employees' responses to work attitudes and outcomes.

CHAPTER 3: Practical investigation

3.1 Introduction

The chapter focuses on the practical investigation procedure that was followed to gather the necessary information needed for the study. The chapter explains the study population, the sample that participated, the measuring instruments used, and explains the data analysis process that was followed.

3.2 Research procedure

3.2.2 Research design

The research design is the plan whereby information that is needed, in order to reach the relevant conclusion about the research problem, is obtained from participants (Welman *et al.*, 2012:52). In this study, a qualitative research approach was followed by using a cross-sectional field survey in order to include the wide range of age groups of the employees within the steel manufacturing industry. In this study, the participants consist of employees working in the steel manufacturing industry of South Africa. Questionnaires were distributed in Gauteng - 600 hard copies, as well as an electronic version, were distributed to various steel manufacturing companies and CEOs of these companies. A total of n=278 responses were received.

3.2.3 Preliminary arrangements

Questionnaires were used to gather information from the participants working in the steel manufacturing industry, with the aim to measure the relationship between the various job characteristics, more specifically job demands and resources, towards employee's attitudes such as job satisfaction.

First, an electronic version of the questionnaire was designed with a link that enabled participants, who have access to e-mails, to merely click on the link, which would direct them to the questionnaire. This link was distributed to various CEO's and senior executives of steel manufacturing entities requesting assistance and permission to distribute the questionnaire-link to all employees of their organisations. This method seemed to be ideal to reach a bigger population measurement, but

unfortunately this method brought very little success as only one CEO agreed to assist in distributing the link within his entity. The limitations of this approach was that one would not know whether the questionnaires had been distributed or when the questionnaires had been distributed to employees of these organisations, due to the lack of response from the CEO's.

Questionnaires were printed and personally delivered to various steel manufacturing organisations for participants to complete. Structured interviews were also held with senior executives and employees working in the steel manufacturing industry. The purpose for this was to explain the aim and nature of this study as well as to collect more data. The questionnaires were then collected after two weeks after which all data was captured manually into an excel spreadsheet for analyses.

3.2.4 Measuring instruments / data gathering methods

The first section of the questionnaire, **Section A**, obtained the biographical information from the participants. This included their gender, age, ethnicity, language, qualification and function area of the participant's work-group within the organisation. As explained by Maree *et al.* (2010:164), important information can be obtained from the respondents by asking biographical questions to determine the profile of the sample, to compare the sample to the population characteristics for their representation thereof, as well as to explore possible relationships between biographical variables and other variables in the study conducted.

The biographical characteristics of the participants are presented in Table 1. The biographic results showed that 76 percent of the respondents were from the Engineering sector, 10 percent from the construction sector and only 5 percent from the automotive sector. The results also showed that 74 percent of participants were between the age of 18 and 39 years old, 80 percent have 1 to 20 years of work experience, 85 percent were male and 15 percent female, 51 percent white and 47 percent were black. 74 percent of all participants indicated that they had matric and higher education. Due to the convenience sampling method used in this study, it reflects the 97 percent of participation from the Gauteng province.

Table 1: Characteristics of the Participants

Biographic Feature	Category	Percentage
Age	< 18	0.7%
	18 - 29	35%
	30 - 39	39%
	40 - 49	19%
	50 - 59	5%
	> 60	2%
Gender	Male	85%
	Female	15%
Ethnic Group	Black	47%
	White	51%
	Coloured	0.4%
	Indian	0.7%
	Other	0.7%
Highest academic qualification	Lower than matric	26%
	Matric	37%
	Certificate	21%
	Diploma	16%
	University degree	0.7%
	Post graduate degree	0.0%
Years work experience	Less than 1 year	6%
	1 - 10 Years	55%
	11 - 20 Years	25%
	21 - 30 Years	8%
	31 - 40 Years	5%
	More than 40 Years	1%
Industry sector	Automotive	5%
	Engineering	76%
	Construction	10%
	Mining	4%
	Other	4%
Province	Gauteng	97%
	Western Cape	2%
	Eastern Cape	0.4%
	North West	0.7%

Section B of the questionnaire includes the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England, & Lofquist, 1967:2) which was used to measure

employees' job satisfaction. This section includes two dimensions namely intrinsic and extrinsic satisfaction. A 5 point Likert scale is used ranging from 1 (strongly dissatisfied) to 5 (strongly satisfied). This scale allowed participants to indicate the degree to which they are satisfied or dissatisfied with the topic of the question that was posed. According to Welman *et al.* (2012:157), an attitude scale should contain approximately the same number of positive formulated items as the negative formulated items, to counteract the acquiescent response style. According to Marea *et al.* (2010:167), the Likert scale is probably the most widely used scale and is particularly suited for when a researcher wants to measure a construct.

The third section of the questionnaire, **Section C**, includes the Job Demand-Resource Scale (JDRS) which was originally developed by Jackson and Rothmann (2005:112) for the measurement of job demands and resources for educators. The JDRS questionnaire consists of 48 questions some of which were adjusted and checked for validity in order to suit the relevance of this study. The dimension used for this study included; autonomy, career opportunities, emotional load, job feedback, job security, relationship with colleagues, relationship with immediate supervisor, remuneration, task identity, task significance and work load. As in Section B, a five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), is used. Participants were expected to follow the same strategy for answering the questions in this section, as explained for Section B of the questionnaire.

3.2.5 Study population

A fairly large sample was selected for this study by distributing 600 hard copies of the questionnaire, as well as e-mailing an electronic version of the questionnaire to the CEOs of various steel manufacturing companies in and around Gauteng. A total of n=278 responses were received. The questionnaires took approximately 15 to 20 minutes of the participant's time to read and, subsequently answer the questions thoroughly. The participants were afforded two weeks in which to complete the questionnaire before the collection thereof. This ensured that sufficient time was given for participants to participate. The number of participants in this study allowed for a reliable estimation of the relationship between the variables of this study, and also assured that the relationship is less likely to be biased.

3.2.6 Research Objectives

The primary objective of this study was to investigate job characteristics and employees' job satisfaction with a specific focus on employees working in the steel manufacturing industry.

The specific objectives were to determine the relationship between job characteristics and job satisfaction; to determine whether job resources and job demands as independent variables are significant predictors of intrinsic job satisfaction and; to determine whether job resources and job demands as independent variables are significant predictors of extrinsic job satisfaction.

3.2.7 Statistical analysis

Basic descriptive statistics were used to analyse and interpret all data obtained from the questionnaires. All of the data was sent to the statistical consultation service at the North-West University Potchefstroom campus, in order to obtain the necessary descriptive statistic summaries of the data, by means of IBM SPSS Statistics Version 22 statistical package.

Descriptive statistics such as means, standard deviations, skewness and kurtosis was used to determine the distribution pattern of the data collected. To ensure the data was normally distributed, a cut-off point of 2.00 was set for skewness and 4.00 for kurtosis. According to Rose, *et al.* (2015:293) a positive skewness value indicates positive (right) skew, while a negative value indicates a negative (left) skew and the higher the absolute value, the greater the skew. Rose *et al.* (2015:293) further explain that a positive kurtosis value indicates positive kurtosis, whereas a negative value indicates a negative kurtosis. In addition, the higher the absolute value the greater the kurtosis.

It is important that the measuring instruments measure reliability and validity of the study. Welman *et al.* (2012:142;145) explain that reliability refers to the consistency and the stable measurement of data to ensure the credibility of the findings, whereby validity is the extent to which the research findings accurately represent what is really happening in the situation. Cronbach alpha coefficients were used to measure

the consistency of the measuring instrument. Maree *et al.* (2010:215) explain that by comparing two sets of scores, by means of a correlation coefficient, one can obtain a measure of reliability. It was decided to set the value at a 95% confidence interval level ($p < 0.05$) to specify the relationship between the variables. The parameters of 0.10 (small effect), 0.30 (medium effect) and 0.50 (large effect) were set for practical significance of the correlations.

Exploratory factor analysis was executed to investigate the construct validity of the measuring instruments. A simple principle component analysis was conducted on the constructs that form part of the measuring model, namely job demands and resources and the eigenvalues of 1.00 or higher and scree plot to determine the number of factors to extract.

A multiple regression analysis was used to determine the proportion of variance in the dependant variables of intrinsic and extrinsic job satisfaction. The aforementioned was predicted by the independent variables namely organisational support, growth opportunities, relationship with co-workers, overload and job insecurity. Higgins (2005:2) explains that a multiple regression is a statistical tool that allows you to examine how multiple independent variables are related to a dependent variable. Once you have identified how these multiple variables relate to your dependent variable, you can take information about all of the independent variables and use it to make much more powerful and accurate predictions about why things are the way they are. The effect size in the case of multiple regressions is given in the following formula, which was used in Table 4;

$$f^2 = \frac{R^2}{1 - R^2}$$

A cut-off point of 0,35 (large effect) was set for the practical significance off f^2 . The value of R^2 , was used to determine the proportion of the total variance of the dependant variable that was explained by the independent variables. The F-test was used to determine whether a significant regression exists between the independent and dependent variables. According to Steyn (cited by Visagie, 2007:42-43), it was suggested that effect size was used in combination with multiple regressions,

especially when working with a total population. Cohen (cited by Visagie, 2007:43) suggested the following guidelines for effect size:

- $f^2 = 0,01$ - small effect
- $f^2 = 0,10$ - medium effect
- $f^2 = 0,35$ - large effect

3.2.8 Ethical aspects

Ethical research behaviour is just as important as in standard ethics in business situations, activities and decision where issues of right and wrong are addressed. Ethical considerations in this study are therefore of extreme importance and require the necessary attention during the data-collection process.

Participants were assured that no harm would transpire from participating in the study. Participation would not expose the participants to any possibility of job loss. Care was taken to encourage potential participants to take part in the study. Participants could freely decide whether they wanted to participate in the study or not and could have withdrawn at any point in time. Participants were informed and assured that their responses would be treated with great confidentiality and that the data gathered will be reported anonymously in this paper, and future articles or conference papers presented at academic gatherings.

3.3 Summary

In this chapter, the research procedure was explained by looking at the research design that was followed, the preliminary arrangements followed as well as the ethical aspects considered for the research. The study population was discussed as well as the primary and secondary objectives. An outline of the statistical analyses that were conducted was also provided and discussed.

CHAPTER 4: Research results

The results of the study consist of, the exploratory factor analysis, followed by descriptive statistics, and correlation analyses of all the measures in the study; and lastly the regression analyses, testing for the effect of independent variables, namely organisational support, growth opportunities, relationship with co-workers, overload and job insecurity on the dependent variables of intrinsic and extrinsic satisfaction.

A second-order factor analysis, which was conducted using the five observed factors, resulted in a two-factor structure. The first factor represented job demands which are overload and job insecurity. The second factor represented job resources which are growth opportunities, organisational support, and relationship with co-workers.

4.1 Exploratory factor analyses

A simple principal component analysis was conducted on the items of the Job Demands-Resources Scale (JDRS) to assess the number of factors. An analysis of the eigenvalues showed that 12 factors could be extracted. However, the scree plot showed that five factors could be extracted, which explained 45,43% of the total variance. The eigenvalues of these factors were as follows: Factor 1 = 9,88; Factor 2 = 4,68; Factor 3 = 2,91; Factor 4 = 2,33; and Factor 5 = 2,01. A principal component analysis was conducted on the pooled solution (i.e. all the participants were included in the same analysis). **Factor 1** was labelled *Organisational support*. This factor (16 items) refers to relationship with immediate supervisor, ambiguities about work, and information and participation. **Factor 2** was labelled *Growth opportunity*. The aforementioned, consisting of 10 items, refers to variety in work, opportunities to learn, independence in work, relationships with colleagues and contact possibilities. **Factor 3** was labelled *Co-workers* and consists of 4 items. This refers to the relationship with co-workers, building and maintaining good working relationships to foster more commitment and engagement with the company goals through teamwork. **Factor 4** was labelled *Overload*. This factor (10 items) refers to pace and amount of work, mental load and emotional load. **Factor 5**, labelled *Job insecurity*, consists of 3 items and refers to uncertainty about your job in the future. The results

of the principal component analysis with a varimax rotation for the JDRS, are illustrated in Table 2.

Table 2: Principal component analysis with a varimax rotation on the pooled solution for the JDRS

		Factor				
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
C1	Do you have too much work to do?	0.01	-0.20	0.08	0.20	0.09
C2	Do you work under time pressure?	0.03	-0.04	0.19	0.45	-0.11
C3	Do you find that you do not have enough work?	0.04	0.19	-0.48	0.03	0.17
C4	Do you have to be attentive to many things at the same time?	0.01	-0.11	0.08	0.68	-0.20
C5	Do you have to give continuous attention to your work?	-0.11	0.10	0.21	0.56	-0.15
C6	Do you have to remember many things in your work?	0.11	-0.17	0.18	0.60	-0.19
C7	Are you confronted in your work with things that affect you personally?	-0.05	-0.06	-0.23	0.65	0.11
C8	Do you have contact with difficult employees in your work?	0.05	-0.16	-0.12	0.66	0.04
C9	Does your work put you in emotionally upsetting situations?	-0.24	-0.17	-0.15	0.52	-0.01
C10	In your work, do you repeatedly have to do the same things?	-0.13	-0.27	0.37	0.37	0.04
C11	Does your work make sufficient demands on all your skills and capacities?	0.17	0.30	0.02	0.31	-0.31
C12	Do you have enough variety in your work?	0.40	0.32	0.03	0.14	-0.22
C13	Does your job offer you opportunities for personal growth and development?	0.30	0.60	-0.18	-0.03	-0.21
C14	Does your work give you the feeling that you can achieve something?	0.32	0.65	0.05	-0.01	-0.15
C15	Does your job offer you the possibility of independent thought and action?	0.34	0.47	0.17	-0.09	-0.28
C16	Do you have freedom in carrying out your work activities?	0.50	0.32	0.15	0.01	-0.17
C17	Do you have influence in the planning of your work activities?	0.38	0.28	0.11	0.08	-0.41
C18	Can you participate in the decision about when a piece of work must be completed?	0.24	0.29	0.27	-0.02	-0.13
C19	Can you count on your colleagues when you come across difficulties in your work?	0.17	0.28	0.66	-0.01	-0.02
C20	If necessary, can you ask your colleagues for help?	0.21	0.11	0.71	0.12	-0.06
C21	Do you get on well with your colleagues?	0.32	0.08	0.60	0.05	0.06
C22	Can you count on your supervisor when you come across difficulties in your work?	0.61	0.04	0.21	0.02	0.06
C23	Do you get on well with your supervisor?	0.70	0.01	0.15	-0.07	0.10
C24	In your work, do you feel appreciated by your supervisor?	0.76	0.12	0.14	-0.03	0.21
C25	Do you know exactly what other people expect of you in your work?	0.45	0.09	0.45	0.08	0.04

C26	Do you know exactly for what you are responsible and which areas are not your responsibility?	0.49	-0.04	0.41	0.03	-0.16
C27	Do you know exactly what your direct supervisor thinks of your performance?	0.67	0.10	-0.06	0.00	0.05
C28	Do you receive sufficient information on the purpose of your work?	0.66	0.08	0.15	0.11	-0.05
C29	Do you receive sufficient information on the results of your work?	0.64	0.19	0.00	-0.04	-0.07
C30	Does your direct supervisor inform you about how well you are doing your work?	0.58	0.21	-0.07	-0.07	0.30
C31	Are you kept adequately up-to-date about important issues within the Steel Manufacturing Industry?	0.43	0.36	0.22	-0.11	0.23
C32	Is your company decision-making process clear to you?	0.32	0.49	0.05	-0.12	0.14
C33	Is it clear to you whom you should address within your company for specific problems?	0.36	0.35	0.37	0.11	0.09
C34	Can you discuss work problems with your direct supervisor?	0.74	0.08	0.19	0.04	0.06
C35	Can you participate in decisions about the nature of your work?	0.57	0.22	0.21	-0.02	0.03
C36	Do you have a direct influence on your company's decisions?	0.39	0.28	0.03	0.04	0.20
C37	Do you have contact with colleagues as part of your work?	0.21	-0.08	0.61	0.23	0.21
C38	Can you have a chat with colleagues during working hours?	0.29	0.15	0.21	0.44	0.06
C39	Do you find that you have enough contact with colleagues during working hours?	0.25	0.16	0.37	0.43	0.21
C40	Do you need to be more secure that you will still be working in one year's time?	0.20	0.16	0.02	-0.04	0.68
C41	Do you need to be more secure that you will keep your current job in the next year?	0.04	0.09	0.01	-0.16	0.77
C42	Do you need to be more secure that next year you will keep the same function level as currently?	0.18	0.10	-0.01	0.01	0.73
C43	Do you think that the Steel Manufacturing Industry pays good salaries?	0.06	0.67	0.16	-0.09	0.17
C44	Can you live comfortably on your pay?	0.09	0.75	-0.11	-0.01	0.12
C45	Do you think you are paid enough for the work that you do?	0.05	0.77	0.07	0.01	0.13
C46	Does your job offer you the possibility to progress financially?	0.17	0.75	-0.05	-0.07	0.08
C47	Does your organisation give you opportunities to follow training courses?	0.09	0.58	0.12	-0.25	0.03
C48	Does your job give you the opportunity to be promoted?	0.04	0.76	0.06	-0.13	0.12

4.2 Descriptive statistics and correlational analyses

Next, the descriptive statistics and correlation results for the variables in the study are presented in Table 3.

Table 3: *Descriptive Statistics (N= 278) and correlation analysis*

Variable	α	Mean	SD	Skewness	Kurtosis	1	2	3	4	5	6
1 Organisational support (JR)	0.89	3.33	0.66	-0.74	1.06						
2 Growth (JR)	0.88	2.75	0.81	0.15	-0.15	.49**					
3 Coworkers (JR)	0.74	3.73	0.72	-0.77	1.44	.56**	.35**				
4 Overload (JD)	0.73	3.49	0.58	-0.24	0.24	0.4	-.17**	.16**			
5 Insecurity (JD)	0.84	3.36	1.02	-0.64	0.11	.19**	.17**	.14*	-.16**		
6 Intrinsic	0.80	3.57	0.74	-0.67	0.54	.46**	.24**	.28**	.14*	0.1	
7 Extrinsic	0.89	3.21	0.77	-0.18	-0.16	.64**	.46**	.38**	-.07	.17**	.58**

** Correlation is significant at the 0.01 level (2-tailed)

Field (2005:668) explains that the Cronbach alpha coefficient is determined in order to establish whether the subscales and total scales are sufficiently reliable with $\alpha > 0.7$ indicative of sufficient reliability. Field (2005:668) further states that should the value be $\alpha < 0.7$, when studying social science concerned with people's opinion and attitudes, it can be acceptable. According to this standard, acceptable levels of internal consistency were obtained in the current study. Table 3 indicates that all the scores on the subscales are normally distributed. **Organisational support** reflects statistically, significantly positive related to growth opportunities (medium effect), relationship with co-workers (medium effect), insecurity (small effect), intrinsic job satisfaction (medium effect) and extrinsic job satisfaction (large effect). **Growth opportunities** appears to be statistically, significantly positive related to relationship with co-workers (medium effect), insecurity (medium effect) intrinsic- and extrinsic job satisfaction (medium effect), while being negative related to overload (small effect). **Relationship with co-workers** seems statistically, significantly positive related to overload (medium effect), insecurity (medium effect), intrinsic- and extrinsic job satisfaction (medium effect). **Overload** looks as though it is statistically significant and positive related to intrinsic job satisfaction (small effect), while being negative related to insecurity (medium effect). **Job insecurity** seems to be statistically significant and positive related to extrinsic job satisfaction (medium

effect). In general, organisational support, growth opportunities and relationship with co-workers (job resources) are all positively related to intrinsic- as well as extrinsic job satisfaction. Job insecurity is only positively related to extrinsic job satisfaction, while growth opportunities are negatively related to overload and subsequently, overload is negatively related to job insecurity.

4.3 Regression analysis

The effect of independent variables, namely organisational support, growth opportunities, relationship with co-workers, overload and job insecurity, on the dependent variables of intrinsic- and extrinsic job satisfaction was analysed. Multiple regression analyses were used to assist in the understanding of the relative influence that each of the five independent variables had on the dependent variables. In the first step of the regression analysis, only job resources (JR) as independent variables were entered into the regression model to determine their predictive ability on the dependent variables of subjective experiences of intrinsic- and extrinsic job satisfaction. In the second step of the regression analysis, all five independent variables job resources (JR) and job demands (JD) were entered simultaneously into the regression model, to determine their predictive ability on the dependent variables of subjective experiences of intrinsic and extrinsic job satisfaction. The aim was to determine the contribution of job resources and demands separately, and to identify the most significant predictors in each model. The results of the regression analyses are presented in Table 4 below.

Table 4: Regression with subjective Intrinsic job satisfaction and extrinsic job satisfaction as dependent variables (N=278)

Predictors/ Independent Variables		Intrinsic Job Satisfaction				Extrinsic Job Satisfaction			
		Step 1		Step2		Step 1		Step 2	
		Stand.β	p-value	Stand.β	p-value	Stand.β	p-value	Stand.β	p-value
1	Organisational support (JR)	0.43**	0.00	0.42**	0.00	0.55**	0.00	0.55**	0.00
2	Growth (JR)	0.02	0.80	0.05	0.43	0.19**	0.00	0.17**	0.00
3	Coworkers (JR)	0.04	0.58	0.00	0.96	0.00	0.98	0.01	0.81
4	Overload (JD)			0.14*	0.02			-0.06	0.24
5	Insecurity (JD)			0.04	0.49			0.02	0.62
R		0.46		0.48		0.67		0.67	
R ²		0.21		0.23		0.44		0.45	
f ²		0.27		0.30		0.80		0.81	

** Coefficient is significant at the .01 level (2-tailed); *Coefficient is significant at the .05 level (2-tailed)/ The parameters for f²: .01 (small effect), .09 (medium effect) and .35 (large effect).

Inspection of Table 4 revealed that job demands and resources explained 23% (medium effect), and 45% of the variance through intrinsic- and extrinsic job satisfaction. Organisational support ($\beta = .43$; $t = 6.17$) proved to be the only statistically significant predictor of subjective experiences of intrinsic job satisfaction in the first step (only job resources as predictors). In addition, the only statistically significant predictors of subjective experiences of intrinsic job satisfaction in the second step (job resources and demands as predictors), were organisational support ($\beta = .42$; $t = 6.02$) and overload ($\beta = 0.14$; $t = 2.42$).

Organisational support ($\beta = .55$; $t = 9.35$) and growth opportunity ($\beta = .19$; $t = 3.65$), were the only statistically significant predictors of subjective experiences of extrinsic job satisfaction in the first step (only job resources as predictors). Compared to organisational support ($\beta = .55$; $t = 9.29$) and growth opportunity ($\beta = .17$; $t = 3.20$), which proved to be the only statistically significant predictors of extrinsic job satisfaction in the second step (job resources and demands as predictors).

CHAPTER 5: Conclusions and recommendations

5.1 Conclusion

The primary objective of this study was to investigate job characteristics and employee's job satisfaction with a specific focus on employees working in the steel manufacturing industry. The results showed that the JDRS is valid and reliable with regard to the construct (factorial) validity.

This is supported by a study conducted by Rothmann *et al.* (2006:76-86) in which they investigated the construct validity, construct equivalence and reliability of a measuring instrument of job demands and resources. This was done by assessing the differences between the job demands and resources in different organisations in South Africa. Five reliable factors, namely; overload, growth opportunities, organisational support, advancement, and job insecurity, were extracted using principal component analyses with a varimax rotation. All factors, with the exception of organisational support, showed acceptable equivalence for different organisations. Statistically significant differences were found between the perceptions of job demands and resources in different organisations.

The aim of Rothmann and Jordaan's (2006:87-96) study was to investigate the work engagement of academics in selected South African higher-education institutions as well as the impact of job demands and job resources on their work engagement. The results from their study confirmed a two-factor structure of work engagement, consisting of vigour and dedication. Six reliable factors were extracted on the JDRS. These are as follows: organisational support, growth opportunities, social support, overload, advancement and job insecurity. Job resources (which are organisational support and growth opportunities) predicted 26% of the variance in vigour and 38% of the variance in dedication. Job demands (overload) impacted on dedication of academics at low and moderate levels of organisational support.

The first specific objective was to determine the relationship between job characteristics and job satisfaction;

- The regression analyses, with subjective intrinsic job satisfaction and extrinsic job satisfaction as dependent variable, revealed that job demands

and resources explained 23% (medium effect), and 45% of the variance through intrinsic and extrinsic job satisfaction.

The second specific objective was to determine whether job resources and job demands, as independent variables, were significant predictors of intrinsic job satisfaction.

- Organisational support proved to be the only statistically significant predictor of subjective experiences of intrinsic job satisfaction in the *first step* (only job resources as predictors). Organisational support and overload proved to be the only statistically significant predictors of subjective experiences of intrinsic job satisfaction in the *second step* (job resources and demands as predictors).

The third specific objective was to determine whether job resources and job demands, as independent variables, were significant predictors of extrinsic job satisfaction;

- Organisational support and growth opportunity proved to be the only statistically significant predictors of subjective experiences of extrinsic job satisfaction in both the *first step* (only job resources as predictors) and the *second step* (job resources and demands as predictors).

5.2 Recommendations

Factor 1 was labelled *Organisational support*. This factor refers to relationship with immediate supervisor, ambiguities about work, and information and participation.

The findings of this study showed that;

Organisational support is statistically, significantly positive related to growth opportunities (medium effect), relationship with co-workers (medium effect), insecurity (small effect), intrinsic job satisfaction (medium effect) and extrinsic job satisfaction (large effect).

- It is therefore recommended that management initiate practices that build good relationships between employees and supervisor/manager, improve participation in organisational dealings, improve the practices of social

support by colleagues, as well as practices that improve contact opportunities within the organisation.

Factor 2 was labelled *Growth opportunity*. This factor refers to variety in work, opportunities to learn, independence in work, relationships with colleagues and contact possibilities.

The findings of this study showed that;

Growth opportunities are statistically significant and positive related to relationships with co-workers (medium effect), insecurity (medium effect) intrinsic- and extrinsic job satisfaction (medium effect), while being negatively related to overload (small effect).

- It is, therefore, recommended that organisations help employees to acquire and improve their job-related skills, by implement training and development programmes to improve employees' skills for their present and future jobs. Growth opportunities include: giving praise to employees where it is due; consistently train and develop employees to increase their skill-base; promote employees from within the organisation, by drawing up a future succession planning program and inform employees regarding what skills they require to be able to take the next step; create a higher sense of engagement and recognition, by finding ways to create informal leadership roles, and finally; draw up key performance metrics to track performance in line with company goals.

Factor 3 was labelled *Co-workers*. This factor refers to the relationship with co-workers, building and maintaining good working relationships in order to foster more commitment and engagement with the company goals through teamwork.

The findings of this study showed that;

Relationships with co-workers are statistically and significant and positive related to overload (medium effect), insecurity (medium effect), and intrinsic- and extrinsic job satisfaction (medium effect).

- It is recommended that management build good, healthy working relationships with co-workers to ensure that there is mutual trust, respect, mindfulness, welcoming diversity and open communication between management and employees.

Factor 4 was labelled *Overload*. This factor refers to pace and amount of work, mental load and emotional load.

The findings of this study showed that;

Overload are statistically significant and positive related to intrinsic job satisfaction (small effect), while being negatively related to insecurity (medium effect).

- Based on the findings of the study, it is recommended that management considers and assesses employees' workload and makes the necessary resources available to employees to ensure they can meet the expected targets or performance outcomes.

Factor 5 was labelled *Job insecurity*. This factor refers to uncertainty about your job in the future.

The findings of this study showed that;

Job insecurity is statistically significant and positive related to extrinsic job satisfaction (medium effect).

- The recommendation here is that management employs employees directly, in order to eliminate labour brokers and set fixed-term contracts with employees. It is also recommended that management sets up regular communication sessions to inform employees of the well-being of the organisation, to ensure that employees feel more secure in their jobs

The overall findings of the study showed that organisational support, growth opportunities and relationship with co-workers (job resources) are all positively related to intrinsic and extrinsic job satisfaction. Job insecurity, however, is only positively related to extrinsic job satisfaction while growth opportunities are negatively related to overload and overload are negatively related to job insecurity.

Malka and Chatman's (2003:737-746) study explored intrinsic and extrinsic work orientations as potential moderators of the effects of financial compensation on subjective well-being. The findings predicted that individuals high in extrinsic orientation, experienced higher subjective well-being and job satisfaction to the degree that they earned more money. In contrast, those individuals high in intrinsic orientation experienced lower subjective well-being at higher income levels.

A study conducted by Artz and Kaya (2014:2873-2890) relating to the impact that job security has on job satisfaction, recognises that job security is a very important and highly valued attribute for a worker, but not all job security can be treated in the same way. Their results indicated that workers, who perceive that they have a secure job, are statistically and significantly more likely to report higher job satisfaction than those who perceive their jobs is not secure (Artz & Kaya, 2014:2873-2890).

Colakoglu Culha and Atay (2010:125-150) analysed the effects of organisational support on job satisfaction and subsequently found that perceived organisational support had a significantly positive effect on job satisfaction and dimensions of organisational commitment. In agreement to the aforementioned, Jackson *et al.* (2006:263-274) confirmed that organisational support was related to growth opportunities.

A research study identified that the levels of work engagement in a manufacturing organisation and investigated the relationships between job demands, job resources and work engagement job resources, such as organisational support, growth opportunities, social support and advancement opportunities. These were found to be related to work engagement of individuals (Coetzer & Rothmann, 2007:17-32). Job demands did not play a significant role in the work engagement of employees. Organisational support and growth opportunities were the best predictors of work engagement.

5.3 Limitations of the study

As in any empirical study, this study was not without any limitations. First, a cross-sectional survey research design was followed, which made it difficult to prove causal relationships. Second, the results were taken by self-report measures which lead to a problem commonly referred to as 'common method variance' which could have caused an overestimation of the correlations studied. Third, not all major role-players in the steel manufacturing industry participated in the study thus skewing the generalisability of findings to other steel manufacturing institutions.

6. REFERENCES

Artz, B. & Kaya, I. 2014. The impact of job security on job satisfaction in economic contractions versus expansions. *Applied economics*, 46(24):2873-2890.

Asiwe, D.N., Hill, C. & Jorgensen, L.I. 2015. Job demands and resources of workers in a South African agricultural organisation. *South African journal of human resource management*, 13(1):1-16.

Bakker, A.B. & Demerouti, E. 2007. The job demands-resources model: state of the art. *Journal of managerial psychology*, 22(3):309-328.

BusinessDictionary.com. 2015. Employee development.
<http://www.businessdictionary.com/definition/employee-development.html>

BusinessDictionary.com. 2015. Job autonomy.
<http://www.businessdictionary.com/definition/job-autonomy.html>. Date of access: 3 Feb. 2015.

BusinessDictionary.com. 2015. Job security.
<http://www.businessdictionary.com/definition/job-security.html>. Date of access: 6 Feb. 2015.

BusinessDictionary.com. 2015. Overload.
<http://www.businessdictionary.com/definition/overload.html>. Date of access: 12 Feb 2016.

BusinessDictionary.com. 2015. Task identity.
<http://www.businessdictionary.com/definition/task-identity.html> Date of access, 2 Feb. 2015.

Coetsee, L.D. 2002. *Peak performance and productivity: a practical guide for the creation of a motivating climate*. 2nd ed. Vanderbijlpark: Ons Drukkers.

Coetzer, C.F. & Rothmann, S. 2007. Job demands, job resources and work engagement of employees in a manufacturing organisation. *South African business review*, 11(3):17-32.

Cohrs, J.C., Abele, A.E. & Dette, D.E. 2006. Integrating situational and dispositional determinants of job satisfaction: findings from three samples of professionals. *The journal of psychology*, 140(4):363-395.

Colakoglu, U., Culha, O. & Atay, H. 2010. The effects of perceived organisational support on employees affective outcomes: evidence from the hotel industry. *Tourism and hospitality management*, 16(2):125-150.

De Braine, R.T. 2014. Predictors of work-based identity. Johannesburg: University of Johannesburg. (Thesis – Dphil).

Demerouti, E. & Bakker, A.B. 2011. The job demands– resources model: challenges for future research. *South African journal of industrial psychology*, 37(2):1-9.

Demerouti, E. Bakker, A.B., Nachreiner, F. & Schaufeli, W.B. 2001. The job demands-resources model of burnout. *Journal of applied psychology*, 86:499-512.

Drury, D. 2008. The supervisor-employee relationship.
<http://wps.prenhall.com/wps/media/objects/6280/6430931/11e/C05.pdf>. Date of access: 14 Sept. 2015.

Ferguson, T.D. & Cheek, R. 2011. How important are situational constraints in understanding job satisfaction. *International journal of business and social science*, 2(22):221-227.

Field, A. 2005. Factor analysis on SPSS. Factor Analysis 2.
<http://www.statisticshell.com/docs/factor.pdf> Date of access: 8 Oct. 2015.

Grant, A.M., 2008. The significance of task significance: job performance effects, relational mechanisms, and boundary conditions. *Journal of applied psychology*, 93(1):108-124.

Grant, A.M., Fried, Y., Parker, S.K. & Frese, M. 2010. Putting job design in context: Introduction to the special issue. *Journal of organisational behavior*, 31:145-157.

Hackman, J. R. & Oldham, G. R. 1980. *Work redesign and motivation*, 11(3):445-455.

Hackman, J.R. & Oldham, G.R. 1976. Motivation through the design of work: test of theory. *Organisational behavior and human performance*, 16: 250-279.

Higgins, J. 2005. *The radical statistician: a beginners guide to unleashing the power of applied statistics in the real world*. 5th ed. California: Jim Higgins Publishing.

Hirschman, A.O. 1970. *Exit, voice, and loyalty: responses to decline in firms, organizations, and states*. Cambridge, MA: Harvard University Press. ISBN 0-674-27660-4:1-62.

Jackson, L.T.B. & Rothmann, S. 2005. Work-related well-being of educators in a district of the North-West Province. *Perspectives in education*, 23(3):107-122.

Jackson, L.T.B. & Rothmann, S. 2001. Sense of coherence, self-efficacy, locus of control and as predictors of job satisfaction. Program in industrial and personnel psychology, PU for CHE, Potchefstroom. 1-17.

Jackson, L.T.B., Rothmann, S. & Van de Vijver, A.J.R. 2006. A model of work-related wellbeing for educators in the North West province. *Stress and health*, 22:263-274.

Kreitner, R. & Kinicki, A. 2008. *Organizational behavior*. New York: McGraw Hill.

Lephalala, R.P. 2008. *Factors influencing nurses job satisfaction in selected private hospitals in England*. Department of Health Studies: University of South Africa.

Locke, E.A. 1976. The nature and causes of job satisfaction. (*In* Dunnette, M.D., ed. *Handbook of industrial and organizational psychology*. Chicago: Rand-McNally).

Locke, E.A. & Latham, G.P. 1990. Work motivation and satisfaction: light at the end of the tunnel. *Psychological science*, 1(4):240-246.

Lussier, R.N. 2009. *Management fundamentals*. 4th ed. Mason: Cengage Learning.

Malik, M.E., Danish, R.Q. & Munir, Y. 2012. The impact of pay and promotion on job satisfaction: evidence from higher education institutes of Pakistan. *American journal of economics*, 6(9):6-9.

Malka, A. & Chatman, J.A. 2003. Intrinsic and extrinsic work orientations as moderators of the effect of annual income on subjective well-being: a longitudinal study. *The society for personality and social psychology, inc.* 29(6):737-746.

Maree, K., Creswell, J.W., Ebersöhn, L., Eloff, I., Ferreira R., Ivankova, N.V., Jansen, J.D., Nieuwenhuis, J., Pietersen, J., Clark, P. & Van der Westhuizen, C. 2010. *First steps in research*. 7th ed. Pretoria: Van Schaik Publishers.

Mayfield, C.O. 2013. Promoting organizational citizenship behavior through job design: job characteristics versus job satisfaction. *Journal of business disciplines*. 11(1):36-64.

McLeod, S.A. 2014. Maslow's hierarchy of needs. www.simplypsychology.org/maslow.html Date of access: 12 Feb. 2016.

McShane, S.L. & Von Glinow, M. 2010. *Organizational behaviour: emerging knowledge and practice for the real world*. 5th ed. New York: McGraw-Hill.

MindTools.com. 2011. Building good work relationships: making work enjoyable and productive. <http://www.mindtools.com/full-URL>. Date of access: 2 Dec. 2015.

- Morgeson, F.P. & Campion, M.A. 2002. Minimizing tradeoffs when redesigning work: evidence from a longitudinal quasi-experiment. *Personal psychology*, 55:589-612.
- Mullins, L. 1996. Hospitality management: a human resource approach. New York: Prentice-Hall.
- Mustapha, N. 2013. Measuring job satisfaction from the perspective of interpersonal relationship and faculty workload among academic staff at public universities in Kelantan, Malaysia. *International journal of business and social science*. 4(15):120-124.
- Nieuwenhuizen, C. & Rossouw, D. 2008. Business management: a contemporary approach. Cape Town: Juta & Co.
- Nikandrou, I., Brinia, V. & Bereni, E. 2009. Perspective on practice: trainee perceptions of training transfer: an empirical analysis. *Journal of European industrial*. 33(3):255-270.
- Peng, Y. & Mao, C. 2014. The impact of person-job fit on job satisfaction: the mediator role of self-efficacy. *School of business, Hunan normal university, Changsha China*. 121:805-813.
- Rose, S., Spinks, N. & Canhoto, A.I. 2015. Management research: applying the principles. Routledge, New York.
- Rose, S., Spinks, N. & Canhoto, A.I. 2015. Management research. Applying the principles. by Florence production ltd, Stoodleigh, Devon, UK.
- Rosenholtz, S. J. & Simpson, C. 1990. Workplace conditions and the rise and fall of teachers' commitment. *Sociology of Education*, 63:241–257.
- Rothmann, S. & Jordaan, G.M.E. 2006. Job demands, job resources and work engagement of academic staff in South African higher education institutions. *South African journal on industrial psychology*, 32(4):87-96.

Rothmann, S., Mostert, K. & Strydom, M. 2006. The psychometric evaluation of the Job Demands Resources Scale in South Africa. *South African journal of industrial psychology*, 32(4):76-86.

Sandri, G., Clarke, R. & Bowen, R. 2011. Industrial engineer. Engineering and management solutions at work. *The member magazine of the institute of industrial and engineers*. 43(10):45-47.

SouthAfrica.info. 2015. *Manufacturing in South Africa*.
<http://www.southafrica.info/business/economy/sectors/manufacturing.htm#.Vlhm6jahdOw>. Date of access: 01 Oct. 2015.

SPSS Inc. 2015. IBM SPSS Statistics Version 22, Release 22.0.0, Copyright© IBM Corporation and its licensors. <http://www-01.ibm.com/software/analytics/spss/>

Steyn, R. & Vawda, N. 2014. Job characteristics: their relationship to job satisfaction, stress and depression. *Journal of psychology in Africa*, 24(3):281-284.

Sultan, S. 2012. Examining the job characteristics: a matter of employees' work motivation and job satisfaction. *Journal of behavioral sciences*, 22(2):13-25.

Theron, H.M. 2014. Job satisfaction in a chemical industry production unit. Potchefstroom: NWU. (Dissertation – MBA).

Tsourela, M., Mouza, A-M. & Paschaloudis, D. 2008. Extrinsic job satisfaction of employees, regarding their intention to leave work position: a survey in small and medium enterprises. *Department of business administration technological educational institute of serres*:249-261.

Um Jwali Market Research. 2012. Research on the performance of the manufacturing sector. Small enterprise development agency: a member of the dti group.

Visagie, M. 2007. Job characteristics, emotional labour and work related flow in an insurance industry call centre. Potchefstroom Campus of the North-West University (Mini-dissertation – MCIP).

Vroom, V.H. 1964. Work and motivation. Yale School of organisation and management, New Haven. Carnegie Institute of Technology: Pittsburgh.

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 Centre.

Welman, C., Kruger, F. & Mitchell, B. 2012. Research methodology. 3rd ed. South Africa: Oxford University Press.

Yang, F.H. & Chang, C.C. 2008. Emotional labour, job satisfaction and organisational commitment amongst clinical nurses: a questionnaire survey. *International journal of nursing studies*, 45(6):879-887.