

**THE RELATIONSHIPS BETWEEN INTRINSIC MOTIVATION, SOCIAL
SUPPORT AND WORK ENGAGEMENT OF SHIFT WORKERS IN A SOUTH
AFRICAN CHEMICAL COMPANY**

by

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I declare that “The relationships between intrinsic motivation, social support and work engagement of shift workers in a South African Chemical Company” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

SIGNATURE

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DATE

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ABSTRACT

The relationships between intrinsic motivation, social support and work engagement of shift workers in a South African Chemical Company.

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SUMMARY

The aim of the study was to investigate whether statistically and practically significant positive relationships exist between intrinsic motivation, social support and work engagement of shift workers in a South African Chemical Company. The expected outcome was to find statistically and practically significant positive correlations between these variables for these workers. A cross sectional survey was conducted among a sample of 207 shift workers from a South African Chemical Company. Data was collected by means of existing standardised and validated questionnaires, to measure intrinsic motivation (six-item measure) validated by Kuvaas and Dysvik, 2009, perceived social support (Work Experiences Scale, May, Gilson, & Harter, 2004), and work engagement (Utrecht Work Engagement Scale, Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009). The statistical analysis included descriptive statistics, and Pearson product-moment correlation coefficients. The results showed that there were statistically and practically significant positive relationships between these variables for this sample group.

Keywords: intrinsic motivation; social support; work engagement; shift workers; job resources; job demands; autonomy; chemical company; intrinsic and extrinsic rewards; stress; well-being

TABLE OF CONTENT

| | |
|--|--------------|
| DECLARATION | ii |
| ACKNOWLEDGEMENT | iii |
| SUMMARY | iv |
| Keywords | v |
| CHAPTER 1: SCIENTIFIC ORIENTATION TO THE RESEARCH | 1 |
| 1.1 INTRODUCTION | 1 |
| 1.2 PROBLEM STATEMENT | 2 |
| 1.3 RESEARCH QUESTIONS | 6 |
| 1.4 RESEARCH OBJECTIVES | 7 |
| 1.4.1 General objective | 7 |
| 1.4.2 Specific objectives | 7 |
| 1.4.2.1 <i>Specific theoretical objectives</i> | 7 |
| 1.4.2.2 <i>Specific empirical objectives</i> | 8 |
| 1.4.3 Hypotheses | 8 |
| 1.5. RESEARCH METHOD | 8 |
| 1.5.1 Literature review | 9 |
| 1.5.2 Empirical study | 9 |

| | |
|--|-----------|
| 1.5.2.1 <i>Research design</i> | 9 |
| 1.5.2.2 <i>Paradigm perspective</i> | 10 |
| 1.5.2.3 <i>Research variables</i> | 10 |
| 1.5.2.4 <i>Internal and external validity of the study</i> | 10 |
| 1.5.2.5 <i>Participants</i> | 11 |
| 1.5.2.6 <i>Measuring instruments</i> | 11 |
| 1.5.2.7 <i>Methods of ensuring reliability and validity</i> | 13 |
| 1.5.2.8 <i>Statistical analysis</i> | 13 |
| 1.5.2.9 <i>Research procedure and ethical consideration</i> | 13 |
| 1.6 CHAPTER DIVISION | 14 |
| 1.7 CHAPTER SUMMARY | 14 |
| | |
| CHAPTER 2: INTRINSIC MOTIVATION | 16 |
| | |
| 2.1 INTRODUCTION | 16 |
| | |
| 2.2 DEFINING INTRINSIC MOTIVATION | 17 |
| | |
| 2.3 THEORIES OF MOTIVATION | 18 |
| | |
| 2.3.1 Self-determination theory | 19 |
| | |
| 2.3.1.1 <i>Autonomy</i> | 19 |

| | |
|---|-----------|
| 2.3.1.2 Competence | 20 |
| 2.3.1.3 Relatedness | 20 |
| 2.3.2 Social exchange theory | 20 |
| 2.4 THE IMPACT OF INTRINSIC MOTIVATION | 21 |
| 2.5 CHAPTER SUMMARY | 24 |
| | |
| CHAPTER 3: SOCIAL SUPPORT | 25 |
| | |
| 3.1 INTRODUCTION | 25 |
| 3.2 CONCEPTUALISING PERCEIVED SOCIAL SUPPORT | 26 |
| 3.3 DIMENSIONS OF PERCEIVED SOCIAL SUPPORT | 28 |
| 3.4 THE ROLE OF SOCIAL SUPPORT | 28 |
| 3.5 SOCIAL SUPPORT FROM COLLEAGUES AND SUPERVISORS | 30 |
| 3.6 APPLICATION OF SOCIAL SUPPORT | 31 |
| 3.7 CHAPTER SUMMARY | 32 |
| | |
| CHAPTER 4: WORK ENGAGEMENT | 33 |
| | |
| 4.1 INTRODUCTION | 33 |
| 4.2 DEFINITION OF WORK ENGAGEMENT | 34 |

| | | |
|--------------|--|-----------|
| 4.3 | DIMENSIONS OF WORK ENGAGEMENT | 35 |
| 4.3.1 | Vigour | 35 |
| 4.3.2 | Dedication | 35 |
| 4.3.3 | Absorption | 36 |
| 4.4 | PREDICTORS OF WORK ENGAGEMENT | 36 |
| 4.5 | ANTECEDENTS OF WORK ENGAGEMENT | 36 |
| 4.5.1 | Job resources | 36 |
| 4.5.2 | Personal resources | 38 |
| 4.5.3 | Job characteristics | 38 |
| 4.5.4 | Perceived organisational and supervisor support | 39 |
| 4.5.5 | Rewards and recognition | 39 |
| 4.5.6 | Procedural and distributive justice | 40 |
| 4.5.7 | Individual and organisational antecedents of work engagement | 41 |
| 4.6 | THE IMPACT OF WORK ENGAGEMENT | 42 |
| 4.7 | APPLICATION OF WORK ENGAGEMENT | 43 |
| 4.8 | THEORETICAL RELATIONSHIP BETWEEN INTRINSIC MOTIVATION, SOCIAL SUPPORT AND WORK ENGAGEMENT | 46 |
| 4.8.1 | Relationship between intrinsic motivation and social support | 46 |

| | |
|--|-----------|
| 4.8.2 Relationship between social support and work engagement | 48 |
| 4.8.3 Relationship between intrinsic motivation and work engagement | 49 |
| 4.9 CHAPTER SUMMARY | 51 |
| | |
| CHAPTER 5: RESEARCH METHODOLOGY | 52 |
| | |
| 5.1 RESEARCH DESIGN | 52 |
| | |
| 5.2 PARADIGM PERSPECTIVE | 53 |
| | |
| 5.3 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY | 55 |
| | |
| 5.3.1 Internal validity | 55 |
| | |
| 5.3.2 External validity | 55 |
| | |
| 5.4 POPULATION AND SAMPLE | 56 |
| | |
| 5.4.1 The population | 56 |
| | |
| 5.4.2 The sample | 56 |
| | |
| 5.5 MEASURING BATTERY | 57 |
| | |
| 5.5.1 Biographical questionnaire | 58 |
| | |
| 5.5.2 Intrinsic motivation scale (IMS) | 58 |
| | |
| 5.5.2.1 <i>Development of the IMS</i> | 58 |
| | |
| 5.5.2.2 <i>Administration and scoring of the IMS</i> | 59 |

| | |
|--|-----------|
| 5.5.2.3 Interpretation of the IMS | 59 |
| 5.5.2.4 Reliability and validity of the IMS | 60 |
| 5.5.3 Work experiences scale (WES) | 60 |
| 5.5.3.1 Development of the WES | 60 |
| 5.5.3.2 Administration and scoring of the WES | 61 |
| 5.5.3.3 Interpretation of the WES | 61 |
| 5.5.3.4 Reliability and validity of the WES | 62 |
| 5.5.4 Utrecht Work Engagement Scale (UWES) | 62 |
| 5.5.4.1 Development of the UWES | 62 |
| 5.5.4.2 Administration and scoring of the UWES | 63 |
| 5.5.4.3 Interpretation of the UWES | 63 |
| 5.5.4.4 Reliability and validity of the UWES | 64 |
| 5.6 METHODS OF ENSURING RELIABILITY AND VALIDITY OF THE STUDY | 64 |
| 5.6.1 Reliability | 64 |
| 5.6.2 Validity | 65 |
| 5.7 STATISTICAL ANALYSIS | 65 |
| 5.7.1 Descriptive statistics | 65 |

| | | |
|---------------|--|-----------|
| 5.7.2 | Internal consistency reliability | 66 |
| 5.7.3 | Correlations | 66 |
| 5.7.4 | Level of statistical significance | 67 |
| 5.7.5 | Effect size | 67 |
| 5.8 | FORMULATION OF THE HYPOTHESES | 67 |
| 5.9 | RESEARCH PROCEDURE AND DATA COLLECTION | 68 |
| 5.10 | ETHICAL CONSIDERATIONS | 70 |
| 5.10.1 | Professional code of ethics | 70 |
| 5.10.2 | Internal review boards | 70 |
| 5.10.3 | Informed consent | 71 |
| 5.10.4 | Respect for the autonomy and dignity of people | 71 |
| 5.10.5 | Protection from harm and right to privacy | 71 |
| 5.11 | CHAPTER SUMMARY | 72 |
| | CHAPTER 6: RESULTS | 73 |
| 6.1 | BIOGRAPHICAL PROFILE OF THE SAMPLE | 73 |
| 6.2 | THE DESCRIPTIVE STATISTICS FOR THE PSYCHOMETRIC RESULTS | 75 |
| 6.2.1. | Descriptive statistics for IMS | 76 |

| | | |
|--------------|--|-----------|
| 6.2.2 | Descriptive statistics for WES (SS_C; SS_S) | 78 |
| 6.2.3 | Descriptive statistics for UWES | 82 |
| 6.3 | RELATIONSHIPS BETWEEN THE VARIABLES | 84 |
| 6.4 | DISCUSSION AND INTEGRATION OF RESULTS | 87 |
| 6.5 | CHAPTER SUMMARY | 90 |

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND

| | |
|------------------------|-----------|
| RECOMMENDATIONS | 91 |
|------------------------|-----------|

| | | |
|--------------|--|-----------|
| 7.1 | CONCLUSIONS | 91 |
| 7.1.1 | Conceptualising intrinsic motivation | 91 |
| 7.1.2 | Conceptualising social support | 92 |
| 7.1.3 | Conceptualising work engagement | 93 |
| 7.1.4 | Empirical results | 94 |
| 7.1.5 | Conclusions regarding the proposed hypotheses | 95 |

7.2 LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FUTURE

| | | |
|------------|------------------------|------------|
| | RESEARCH | 96 |
| 7.3 | RECOMMENDATIONS | 97 |
| 7.4 | CHAPTER SUMMARY | 100 |

| | |
|-------------------|------------|
| REFERENCES | 101 |
|-------------------|------------|

LIST OF FIGURES

| | |
|--|-----------|
| Figure 1. A model of antecedents and consequences of work engagement | 40 |
| Figure 2. The hypothesised research model | 51 |
| Figure 3. Distribution of respondents' scores on intrinsic motivation scale | 78 |
| Figure 4. Distribution of respondents' scores on SS_C | 80 |
| Figure 5. Distribution of respondents' scores on SS_S | 82 |
| Figure 6. Distribution of respondents' scores on UWES | 84 |
| Figure 7. Correlations between the variables | 88 |

LIST OF TABLES

| | |
|--|-----------|
| Table 1. Individual and organisational antecedents of work engagement | 42 |
| Table 2. Characteristics of the participants | 74 |
| Table 3. Descriptive statistics | 75 |
| Table 4. Pearson Correlation coefficients | 85 |

CHAPTER 1: SCIENTIFIC ORIENTATION OF THE RESEARCH

1.1. INTRODUCTION

In a constantly changing world of work (Basson, 2008), changes are brought about in organisations due to factors such as globalisation, diversity, a competitive advantage, and technological innovation (Basson, 2008; Meyer, 2007). Basson (2008) reported that these factors and the changes they bring about not only have an impact on the organisations themselves, but also an enormous effect on their employees. Changes in the organisation often cause employees to feel insecure and uncertain about their future in the organisation (Ferreira, 2009). According to Rothmann (2007), changes also increase levels of job strain and demand, and cause other negative health-related outcomes such as fatigue, exhaustion and burnout among employees. The results of these negative health-related outcomes are lost time, sickness, and decreased performance and productivity (Rothmann, 2007; Van Yperen & Hagedoorn, 2003).

In a study conducted by Van Yperen and Hagedoorn (2003), it was found that in order for organisations to survive and become successful in today's world of work, they need to maximise and utilise their employees' actual and potential skills. In line with the findings of Van Yperen and Hagedoorn (2003), Dysvik and Kuvaas (2013) stated that organisations are becoming increasingly dependent on employees' own initiatives. Employees are also faced with more than one role to fulfil in order to attain the overall goals of the organisation (Basson, 2008).

Rothmann (2007) reported that being under pressure and having to complete a number of tasks in a short period of time result in lower levels of well-being and work engagement of

employees. Furthermore, if job demands exceed job resources, employees are likely to experience stress, exhaustion and burnout (Rothmann, 2007). In contrast to the findings in the study conducted by Rothmann (2007), Molina, Unsworth, Hodkiewicz and Adriasola (2013) suggested that it was the motivation, energy and resourcefulness of the maintenance technicians that kept the airplanes flying, despite the limited job resources (such as tools) that they had been provided with to do their work.

1.2. PROBLEM STATEMENT

Cruzat (2014) defined shift work as an employment practice that involves different work schedules or shifts aside from the usual standard day shift from 8am to 5pm. Shift workers have been identified as the largest part of the production (Fathi, Farzan, & Asadi, 2013), which means that the organisations have to ensure that shift workers are intrinsically motivated, receive adequate social support (from colleagues and supervisors) and that they are engaged in their work. There is a rapid growth in shift working population because many organisations have adopted the shift system as part of their strategy to maximize human resources and ensuring plant sustainability (Fathi et al., 2013). Chemical industries cannot do away without shift workers, because of continuous material processing (Rasoulzadeh, Bazazan, Safaiyan, & Dianat, 2015) and the fact that the plant has to run day and night (Cruzat, 2014; Fathi et al., 2013), in order for them to reach their production targets.

It is also important to note that working shifts is reported to result in job dissatisfaction, fatigue and stress (Fathi et al., 2013). Fathi et al. (2013) reported that organisations can prevent stress by ensuring that the employees' talents and abilities equal their workload. Stress among employees can be minimised when there is consistent communication and support from colleagues and their supervisors (Cruzat, 2014). Employees are likely to stay

engaged when they are given the opportunity to participate in the decision making processes (Cruzat, 2014). Stress can also be prevented by ensuring that the job is designed in such a way that provides motivation for employees (Fathi et al., 2013). According to Chalofsky and Krishna (2009), one of the main challenges organisations are faced with is to keep their employees motivated.

Motivation is a “key to understanding many forms of behaviour in organisations” (Jex & Britt, 2008, p. 233). Although motivation cannot be felt or seen, its impact on employees can be observed (Jex & Britt, 2008). Motivation determines the type of activities an employee prefers (Molina *et al.*, 2013); the different paths employees take in pursuing their goals, and the amount of energy invested when accomplishing a desired goal (Jex & Britt, 2008). Motivation also determines the time it takes individuals to achieve their goals and those of the organisation, as well as how persistent they are likely to be, regardless of the hardships they encounter along the way (Jex & Britt, 2008).

There are two categories of motivation – extrinsic motivation and intrinsic motivation. In general, extrinsic motivation arises from an obligation to do a task and intrinsic motivation from an internal desire to do a task (Molina *et al.*, 2013). The current study focused on intrinsic motivation, mainly because of the lack of an answer to the question of whether an individual’s intrinsic motivation adds value to positive work-related outcomes beyond personality (Macsinga, Sulea, Sârbescu, Fischmann, & Dumitru, 2015), such as work engagement. According to Milyavskaya, Ma, and Koestner, Lydon, and Mclure (2011), intrinsic motivation refers to engagement in a particular behaviour for the behaviour’s own sake (p. 278).

Attention needs to be given to intrinsic motivation, as Bainbridge (2011) suggested that intrinsic motivation has to come from within an individual and that nothing – including

remuneration – can replace it. One has to have the desire to do a certain task, not because of an expected reward afterwards, but because it is something one really enjoys doing and in which one finds pleasure and meaning (Bainbridge, 2011; Dysvik & Kuvaas, 2013; How, Whipp, Dimmock, & Jackson, 2013; Milyavskaya *et al.*, 2011; Shimazu & Schaufeli, 2009). An extrinsically motivated employee would perform a task with the intention and expectation of being rewarded after its completion (Dysvik & Kuvaas, 2013).

Langford, Browsher, Manloney and Lillis (1997) referred to social support as the help and protection given to others, especially individuals. Bam (2010) referred to social support as perceived or actual resources available from one or more individuals to another, which assists individuals in dealing with stress and enhances their well-being and work engagement. Employees perceive social support as an assurance from the organisation that support and assistance will be available to them at all times when working, and in the event that their work is stressful (Chiaburu, van Dam, & Hutchins, 2010; Rhoades & Eisenberger, 2002).

Previous studies have shown that the work environment and the social support that employees receive from their employer and colleagues have a positive effect on employees' well-being and work engagement (Novak, Rogan, & Mank, 2011). May, Gilson, and Harter (2004) stated that individuals who have rewarding interpersonal interaction with their co-workers experience greater meaning in their work. The same work environment has a positive impact on employees' decision to continue to work and be more engaged, and also determines whether employees feel secured and encouraged (Chiaburu *et al.*, 2010; Higgs, 2011; Ng & Sorensen, 2008; Salanova, Agut, & Peiró, 2005). According to Molina *et al.* (2013), positive attitudes, social support and control will most likely lead to employees being more engaged and putting more effort into their work.

There has been increasing interest in the concept of work engagement in the organisational literature over the past decade (Poon, 2013), due to its beneficial implications for employees and the organisation as a whole (Bakker, Schaufeli, Leiter, & Taris, 2008; Joo & Shim, 2010; LePine, Erez, & Johnson, 2002; Macsinga *et al.*, 2015). A considerable amount of research has been done on work engagement – both internationally and locally (Henn & Barkhuizen, 2009; Rothmann & Rothmann, 2010; Schaufeli & Bakker, 2004; Van der Colff & Rothmann, 2009; Zigarmi, Nimon, Houson, Witt, & Diehl, 2009). The current research also includes a focus on work engagement that will be based on empirical evidence and that will add to knowledge and theory in the field of Industrial Psychology (Shuck & Wollard, 2010).

According to Halbesleben (2010), work engagement is powerfully linked to a range of business success and positive work outcomes, namely job satisfaction, productivity, commitment, innovation and retention. Relationships, work-life balance and values are regarded as three important environmental factors connected to engagement (Halbesleben, 2010). For the purpose of this study, the focus was on the relationships factor of social support and how it relates to the engagement of employees. Work engagement is defined as “a positive, fulfilling, work-related state of mind that is characterised vigour, dedication, and absorption” (Schaufeli & Bakker, 2004, p. 295).

Engaged employees are energetic, connected with their work activities, and they have the ability to deal with their job demands effectively (Schaufeli, Taris, & van Rhenen, 2008). Engaged employees are characterised by high levels of vigour and dedication, and elevated levels of absorption (Henn & Barkhuizen, 2009). According to Saks (2006), employees are likely to be engaged at work when their job situation offers them psychological meaningfulness and safety.

It is important for organisations to equip themselves with the necessary knowledge concerning the enhancement of intrinsic motivation, social support and work engagement of employees within the organisation (Elci, Sener, Aksoy, & Alpan, 2012). Being equipped with the information to improve and enhance social support and intrinsic motivation of employees, organisations will be able to influence their employees' work engagement (Shimazu & Schaufeli, 2009), job performance, absenteeism and presenteeism.

As far as could be determined, no research has been done regarding the relationship between intrinsic motivation, social support and work engagement, specifically in respect of shift workers within the chemical industry. Hence a need was identified to undertake a study in this work domain and to possibly make recommendations based on the results of the study.

The aim of this study was to conceptualise the variables from theory and current research results and to provide empirical results regarding the relationships between the constructs of intrinsic motivation, social support and work engagement, as well as gain a broader understanding of these relationships. The study investigated whether statistically and practically significant positive relationships exist between intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

1.3. RESEARCH QUESTIONS

From the problem statement and the information provided above, the following research questions emerged:

- How are intrinsic motivation, social support, and work engagement conceptualised in the literature?

- Do statistically significant positive relationships exist between intrinsic motivation, social support and work engagement?
- Do practically significant positive relationships exist between intrinsic motivation, social support and work engagement?

1.4. RESEARCH OBJECTIVES

The research objectives were divided into two main categories, namely a general objective and two specific objectives.

1.4.1 General objective

The general objective of this study was to investigate whether statistically significant positive relationships exist between intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

1.4.2 Specific objectives

In order to attain the general objective, the following specific objectives were set:

1.4.2.2 Specific theoretical objectives

To determine how intrinsic motivation, social support, and work engagement are conceptualised according to the literature.

1.4.2.3 Specific empirical objectives

To determine whether statistically significant positive relationships exist between intrinsic motivation, social support and work engagement, as well as whether practically significant positive relationships exist between intrinsic motivation, social support, and work engagement.

1.4.3 Hypotheses

According to Struwig and Stead (2010), a hypothesis is a statement regarding a relationship among two or more variables, and a hypothesis can be and needs to be tested.

The following hypotheses were tested in this study:

- Statistically significant positive relationships exist between intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.
- Practically significant positive relationships exist between intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

1.5. RESEARCH METHOD

The research method used involved a literature review and an empirical study.

1.5.1 Literature review

Literature was collected from relevant text books, theses and peer-reviewed scientific journal articles dealing with the research previously done regarding intrinsic motivation, social support and work engagement, as well as the relationship between these variables. The literature reviewed is presented in Chapters 2, 3 and 4, and it explains the background to intrinsic motivation, social support and work engagement and the way these concepts have been defined, conceptualised and measured. The theoretical relationship between intrinsic motivation, social support and work engagement will be presented as a summary of the literature review.

1.5.2 Empirical study

The empirical part of this study consisted of the following methodology dimensions:

1.5.2.1 Research design

According to Terre Blanche, Durrheim and Painter (2006), a research design is a plan of action that serves as the bridge between the research questions and the implementation of the research. A quantitative research design was appropriate for this study because it made use of measurements and statistical analysis (Terre Blanche *et al.*, 2006) to achieve the objectives of the study. According to Jung *et al.* (2009), a quantitative approach is expected to enhance systematisation, convenience, accuracy and large-scale administration, and it is cost effective. The current study can be described as a cross-sectional survey as it allowed for the collection

of data from the shift workers by means of questionnaires at a particular point in time (Fowler, 2009; Muijs, 2011) in order to determine whether or not statistically and practically significant positive relationships existed between intrinsic motivation, social support and work engagement.

1.5.2.2 Paradigm perspective

A paradigm is a worldview or a set of assumptions about how things work (Struwig & Stead, 2010). It consists of a proposition and a collection of mutually accepted achievements about human nature, and it offers a model for conducting research (Mouton & Marais, 1996). A positivistic paradigm was adopted in this study, and knowledge was gained by means of quantitative data and testing of hypotheses in order to attain a clearer understanding of the laws that govern human behaviour (Basson, 2008). The functionalist paradigm was followed during the application of the questionnaires (Bam, 2010) and statistical analysis of the quantitative data (Mitonga-Monga, 2010).

1.5.2.3 Research variables

The research variables applicable to this study were intrinsic motivation, social support and work engagement.

1.5.2.4 Internal and external validity of the study

Internal validity refers to whether the research design allows for the testing of the hypotheses that it was designed to test (Bordens & Abbott, 2011). The design chosen for this research

successfully allowed for the testing of the stated hypotheses and answering of the research questions. External validity concerns the extent to which the results obtained in a research study hold true outside that specific study (Gravetter & Forzano, 2012). The random sample used in the present study allowed for the results to be generalised within the particular context.

1.5.2.5 Participants

The randomly selected sample of the study consisted of N=207 shift workers from a population of approximately N=1900. According to Struwig and Stead (2010), a sample size of 200 provides an acceptable representation of this population. The participants were tested by means of questionnaires.

1.5.2.6 Measuring instruments

The measuring battery consisted of four questionnaires. The first questionnaire was a biographical questionnaire about the participants' characteristics such as age, gender, race, language, level of education, and years of service (Higgs, 2011; Jordaan, 2007).

The second questionnaire, the Intrinsic Motivation Scale (IMS), consisting of a six-item scale, validated and developed by Kuvaas and Dysvik (2009), was aimed at measuring intrinsic motivation of shift workers in the engineering industry. The following sample items were included: "My job is very exciting" and "The tasks that I do at work are enjoyable" (Kuvaas & Dysvik, 2009). The reported Cronbach alpha coefficient for this scale was 0.86

(Kuvaas & Dysvik, 2009; Yu Ru, 2012). The response options had to be indicated on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The third questionnaire, the Work Experiences Scale of May *et al.* (2004), was used to measure social support. The questionnaire consists of two sections, namely rewarding co-worker relations and supportive supervisor relations, and each section contains 10 items (May *et al.*, 2004). The following sample items were included: “My co-workers value my input” and “My supervisor helps me solve work-related problems” (May *et al.*, 2004). The reported Cronbach alpha coefficient for this scale ranges from 0.95 to 0.96 (May *et al.*, 2004; Olivier & Rothmann, 2007). The response options were indicated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The last questionnaire, the Utrecht Work Engagement Scale (UWES), was used to measure the levels of work engagement of the shift workers. The UWES aims to measure the three components of work engagement namely vigour, dedication and absorption (Beukes, 2011, Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009) and it consists of 9 items (Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009). The following sample items were included: “At my job, I feel strong and vigorous”, “I am enthusiastic about my job” and “I am immersed in my work” (Shimazu & Schaufeli, 2009). According to Beukes (2011), the reported Cronbach alpha coefficients for this scale in South African studies range from 0.78 to 0.89. The response options for the items are indicated on a 7-point Likert scale, ranging from 0 (never) to 6 (always) (Beukes, 2011, Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009).

1.5.2.7 Methods of ensuring reliability and validity

Theoretical validity of this study has been ensured through conceptualisation of the variables. Roodt (2009b) remarked that the validity of a measure concerns what the test measures and how well it does so. Cozby (2009) defined reliability as the stability or consistency of a measure of behaviour. The use of recent and relevant textbooks, theses and peer-reviewed scientific journals improved the theoretical reliability of the current study. To further ensure validity and reliability, valid and reliable questionnaires were used to collect the data.

1.5.2.8 Statistical analysis

Data collected for this study was analysed using descriptive statistics, Pearson product moment correlation and Cronbach alpha internal consistency reliability analysis. Descriptive statistics was used because it provides a quantitative summary of the data collected from the sample (McBurney & White, 2004), and frequencies and simple percentages were used to analyse the characteristics of the respondents. Pearson product moment correlations were used to determine the relationships between intrinsic motivation, social support and work engagement, while Cronbach alpha coefficients were used to measure the internal consistency reliability of the measuring battery for this sample group (Botha, 2010; Ferreira, 2009, Roodt, 2009a).

1.5.2.9 Research procedure and ethical considerations

The sample for this study was drawn from a population of shift workers employed in a South African chemical company. Permission was granted by Unisa's Ethics Review Committee

and by the company, for the study to be conducted. The selected participants voluntarily agreed to take part in the study and completed the consent forms before completing the questionnaires. The participants were also informed that they would remain anonymous and that their responses would be used for the purposes of research only. The completed questionnaires were handed over to the researcher.

Upon completion of the questionnaires and the interpretation of results, the researcher presented feedback to management and the shift workers.

1.6 CHAPTER DIVISION

Chapter 1: Scientific orientation of the research

Chapter 2: Intrinsic motivation

Chapter 3: Social support

Chapter 4: Work engagement

Chapter 5: Research method

Chapter 6: Results

Chapter 7: Conclusions, limitations and recommendations

1.6. CHAPTER SUMMARY

The purpose of this chapter was to describe the proposed study, which aimed to determine whether statistically and practically significant positive relationships exist between intrinsic

motivation, social support and work engagement of shift workers in a South African chemical company. The chapter also provided an introduction to the study, a statement of the research problem, the specific objectives of the research, the methodology used in carrying out the study, the research design and ethical considerations. Chapter 1 was concluded with an outline of chapters in the study.

CHAPTER 2: INTRINSIC MOTIVATION

2.1 INTRODUCTION

According to Willemse (2003), motivation of employees remains an on-going problem for managers because not all employees are fully motivated. Organisations need to offer their employees the opportunity to find meaning in what they do by allowing the employees to take charge of their own work and be accountable for the tasks given to them (How *et al.*, 2013; Milyavskaya *et al.*, 2011; Shimazu & Schaufeli, 2009). Randjelovic and Todorovic (2015) maintained that the social environment can encourage the natural ability of individuals to realise their full potential. Hodgins and Knee (2002) viewed people as proactive beings capable of psychological growth and development.

Intrinsic motivation has become an important phenomenon (Ryan & Deci, 2000), especially in ensuring the engagement of employees (Masvaure, Ruggunan, & Maharaj, 2014). Intrinsically motivated employees engage freely in an activity mainly because of the interest, enjoyment and excitement it brings, and not because of the rewards they will get after completing that activity (Deci & Ryan, 1985). These employees perceive themselves as being totally in control of their own behaviours (DeCharms, 1968; Taylor *et al.*, 2014). In contrast, extrinsically motivated employees do not perform a task because it is interesting or enjoyable, but because there is a reward to be received on completion of the task.

Willemse (2003) suggested that intrinsic rewards are more powerful than extrinsic rewards. In the past, organisations used money, benefits and extrinsic motivation to keep their employees motivated and engaged (Allen & Helms, 2001; Jacobs, Renard, & Snelgar, 2014). Extrinsic rewards are tangible and often financial in nature, whereas intrinsic rewards are intangible and inherent in a job (Taylor, 2008; Thomas, 2009). The use of extrinsic rewards

used to be effective in motivating employees during the 20th century, because the work done was repetitive and consisted of routine tasks (Pink, 2009; Thomas, 2009). Recently, however, business, economic and social developments have taken place that have had an impact on and have changed the nature of work and the work environment. These developments require a re-evaluation of rewards, even though the bulk of South African employees still regard extrinsic rewards as the most preferred rewards (Snelgar, Renard, & Venter, 2013). Over and above these developments, organisations need to take note of the new generation of workers who are joining the workplace, as the younger generation of employees are likely to pursue meaning, purpose and opportunities for growth and development in their jobs. According to Tsui and Wu (2005), they are more likely to leave their jobs if they do not receive these intrinsic rewards.

2.2 DEFINING INTRINSIC MOTIVATION

Hodgins and Knee (2002) referred to motivation as self-structure that is important for the manner in which individuals deal with existing as well as new experiences. Schunk, Meece and Pintrich (2013) in turn defined motivation as the process by which goal-directed activity is sustained. Deci and Ryan (1985), Lepper, Greene and Nisbett (1973), and Taylor *et al.* (2014) viewed intrinsic motivation as the prototype of autonomy. According to Armstrong (1990), intrinsic motivation refers to the self-generated factors that influence people to behave in a certain way, whereas extrinsic motivation refers to what people do to motivate themselves. Dysvik and Kuvaas (2013), and Van Yperen and Hagedoorn (2003) defined intrinsic motivation as the motivation to perform an activity for its own sake in order to experience the pleasure and satisfaction inherent in the activity.

Andrew (2008) suggested that we cannot force a person to have intrinsic motivation but we can try and ensure that employees engage more in their jobs. The self-determination theory stipulates that intrinsic motivation requires the fulfilment of the three psychological needs, namely for autonomy, competence and relatedness (Dysvik & Kuvaas, 2013). When all three psychological needs are met, employees were more likely to engage in their work because they find fulfilment and enjoyment in their work, and not because they feel they are forced to work (Dysvik & Kuvaas, 2013). Most studies support the notion that feelings of autonomy and competence are required in order for an individual to experience an activity as intrinsically motivating (Hagger, Koch, & Chatzisarantis, 2015; Koestner & McClelland, 1990; Reeve & Deci, 1996; Vallerand & Reid, 1984). This means that individuals tend to enjoy and engage in an activity for its own sake when they perceive the activity to be allowing them the opportunity to show initiative and when they also perceive themselves as having the required skills to perform the activity.

Organisations need to ensure that employees perceive their job as pleasant as possible (Milyavskaya *et al.*, 2011). By so doing, organisations provide their employees with the support needed, which has been shown to result in employees feeling worthy and valued in their organisation (Higgs, 2011).

2.3 THEORIES OF MOTIVATION

Different theories of motivation are presented below.

2.3.1 Self-determination theory

Self-determination theory (SDT), a framework used to better understand motivation, was used in this study to determine the theoretical background of intrinsic motivation. SDT is based on the assumption that individuals have an inherent desire to develop and grow (Aryee, Walumbwa, Mondejar, & Chu, 2015). With self-determination theory, a distinction is made between intrinsic and extrinsic motivation and evidence has been provided supporting the belief that intrinsic motivation predicts performance in a wide range of contexts (Deci & Ryan, 2000). The innate psychological needs of autonomy, competence and relatedness are needed to maintain on-going psychological growth, well-being and integrity (Deci & Ryan, 2000).

2.3.1.1 Autonomy

Autonomy refers to the ability to be in control of one's actions, and the need for autonomy is related to the experience of oneself as the locus of causality for one's own behaviour (DeCharms, 1968). Taylor *et al.* (2014) made a comparison between autonomous actions and controlled actions, and found that autonomous actions are triggered by a sense of choice and personal will, whereas controlled actions are regulated by internal or external pressures. DeCharms (1968) proposed that autonomous individuals have an internal locus of control, while controlled individuals have an external locus of control. According to Gagné and Deci (2005), as well as Humphrey, Nahrgang and Morgeson (2007), the need for autonomy is the most important need and it is a predictor of intrinsic motivation across domains.

2.3.1.2 Competence

Competence refers to feelings of self-efficacy in attaining one's goals (Deci & Ryan, 2002). The need for competence refers to feeling effective and efficient in one's interactions with the social environment, as well as being given the opportunity to express one's capabilities, knowledge and skills (Ryan & Deci, 2000). Findings of previous studies have shown that satisfying the need for competence is associated with intrinsic motivation (Guay, Boggiano, & Vallerand, 2001; Vallerand & Reid, 1984).

2.3.1.3 Relatedness

Relatedness refers to the quality of interpersonal relationships with significant others (Deci, Vallerand, Pelletier, & Ryan, 1991), how well you interact with others and the impact they have on your life.

SDT is a relatively comprehensive theory of motivation that is focused not only on the role of particular social, emotional or cognitive factors, but more broadly on the kinds of behaviours humans display when they interact with social environments (Evans, 2015). According to the SDT, social environments that provide opportunities for autonomy, competence and supportive interpersonal relationships are assumed to enhance motivation and performance of individuals (Deci et al., 1991).

2.3.2 Social exchange theory

According to social exchange theory and organisational support theory, individuals who receive support and are encouraged by their supervisors, feel the need to repay their

organisation by showing positive and appropriate behaviours (Blau, 1964; Eisenberger, Huntington, Hutchison, & Sowa, 1986; Kuvaas, Dysvik, & Buch, 2014).

Furthermore, and according to theories of work motivation (Christian, Garza, & Slaughter, 2011; Gagné & Deci, 2005; Hackman & Oldham, 1976; Seibert, Wang, & Courtright, 2011), discretion and autonomy enhance employees' intrinsic motivation levels and create a sense of responsibility for positive outcomes.

2.4 THE IMPACT OF INTRINSIC MOTIVATION

In a study that was conducted in the building and road research context in Ghana, Kwazi (2010) found that intrinsic motivation of employees can be enhanced by empowering them and including them in decision making. He also reported that less supervision affects employees' performance in a negative manner. The study showed that 49% of employees' level of motivation was negatively affected by the low levels of wages paid to them for the work they did (Kwazi, 2010). According to Kwazi (2010), employees were motivated to work harder and their performance levels also increased when they were paid salaries that they perceived as more equitable for the jobs they did. Quick and Nelson (2013) suggested that employees perform to the best of their ability when they know that their hard work is recognised and that they will benefit from it. Adeyeye (2014) remarked that one of the most frequent discussions in the field of intrinsic motivation has been around rewards and the impact that rewards have on employees' motivation when performing their duties.

In contrast to what was reported in the building and road research study conducted in Ghana (Kwazi, 2010), a study conducted in Europe proposed that what was important for increasing employees' performance and job satisfaction was the manner in which employers interact

with their employees and the quality of the workplace relationships, rather than remuneration and benefits (Abendboth & Dulk, 2011; Milyavskaya *et al.*, 2011).

Other studies have shown that performance-based incentive systems have been part of the currency of workplaces (Murayama, Matsumoto, Izuma, & Matsumoto, 2010). In most cases intrinsic motivation of employees is not taken into consideration because many organisations believe that all employees find meaning in receiving salaries that they perceive as equitable to their workload (Rothmann, 2007). In a study conducted by Murayama *et al.* (2010), however, it was shown that even though performance-based rewards have been part of the currency of workplaces, performance-based rewards may inevitably also undermine employees' intrinsic motivation.

Benabou and Tirole (2003) argued that even though incentives work quite effectively in many instances, one should understand when they should be used with caution. For example, intrinsically motivated employees tend to find meaning in their jobs, whereas extrinsically motivated employees tend to do the job because they will be compensated, not because they find meaning in the job itself. Employers should realise that to some employees, external rewards are just not enough, especially if they have a limited interest and find little meaning in what they are doing (Andrew, 2008; Milyavskaya *et al.*, 2011; Shimazu & Schaufeli, 2009). Hagger and Chatzisarans (2011) suggested that monetary rewards only serve to undermine intrinsic motivation of control-oriented participants, whereas autonomy-oriented participants show high levels of intrinsic motivation, whether rewards are available or absent.

The research conducted by Dysvik and Kuvaas (2013) showed that a positive relationship existed between variable pay and performance quantity, but not quality of work. Furthermore, a strong positive relationship was also identified between extrinsic motivators and performance, in the case of less interesting tasks (Dysvik & Kuvaas, 2013). Benabou and

Tirole (2003) found that external rewards had a limited impact on current performance, and that external rewards were likely to decrease the employee's motivation to partake in similar tasks in the future. In contrast to the study conducted by Benabou and Tirole (2003), findings of the research conducted by Pierce, Cameron, Banko and So (2003) have shown that rewarding employees for meeting the required performance level increased their intrinsic motivation.

Employees with higher intrinsic motivation were found to love their jobs and were more likely to find meaning from their jobs (Coelho, Augusto, & Lages, 2011; Shimazu & Schaufeli, 2009). Van Yperen and Hagedoorn (2003) found that employees who were intrinsically motivated expected autonomy in their workplace, in other words the opportunity to do their work in their own and unique way (Coelho *et al.*, 2011; Molina *et al.*, 2013; Shimazu & Schaufeli, 2009), rather than being told what to do, under supervision, and being motivated by financial incentives (Andrew, 2008; Jex & Britt, 2008; Milyavskaya *et al.*, 2011; Molina *et al.*, 2013). Intrinsically motivated employees were also more likely to go the extra mile by taking risks to help others and to get their jobs done (Coelho *et al.*, 2011; Shimazu & Schaufeli, 2009).

Despite the above, research has shown that in the central theme of economics, incentives promoted effort and performance, which meant that rewards served as positive 'reinforcers' of the desired behaviour (Benabou & Tirole, 2003). In the field of psychology, it is argued that rewards might impair performance in the long run, which in turn implies that rewards will be seen as negative reinforcers (Benabou & Tirole, 2003). This argument is supported by the research that was conducted with regard to the self-determination theory, which showed that when extrinsic controls are present, they are likely to reduce the effects of any intrinsic motivation that the person originally started with (Molina *et al.*, 2013). According to Molina

et al. (2013), employees felt as if they were no longer performing and engaging in a certain task based on their own interest and choice, but because they were forced and obliged to.

In the study that was conducted by Hagger and Chatzisarantis (2011), individuals who were promised extrinsic rewards for completing their tasks were found to have lower levels of intrinsic motivation, compared to those individuals who were not promised any rewards. Their study found that autonomous individuals had higher levels of intrinsic motivation, and that extrinsic rewards appeared to undermine intrinsic motivation (Hagger & Chatzisarantis, 2011).

2.5 CHAPTER SUMMARY

The purpose of this chapter was to conceptualise intrinsic motivation. A review of the literature on intrinsic motivation was presented by providing background on the concept and its relevance to other theories, and highlighting the impact of intrinsic motivation.

CHAPTER 3: SOCIAL SUPPORT

3.1 INTRODUCTION

Ducharme and Martin (2000) reported that an increasing number of organisations rely on diversity in the workplace and teamwork to achieve organisational objectives (Hodson, 1997). Employees are under great pressure to perform better, work faster and smarter and to be more efficient (van Wyk, 2011), and the organisation's high expectations of its workforce can create stress and depression, which will affect employees' performance. The onus is on the organisation to create a safe and healthy working environment by caring for the health and well-being of employees (van Wyk, 2011). The efficiency, effectiveness and success of the organisation depend on the manner in which managers carry out their management function and how they manage the individuals who report directly to them (Willemse, 2003). According to Du Plessis (1993), ideal managers should be good examples to those they manage and be able to constantly encourage them to co-operate voluntarily.

Workplace relationships are still considered as a central component of workplaces worldwide (van Schalkwyk, Els, & Rothmann, 2011), and social support is regarded as one of the factors that strengthen an employee's overall wellness (Kinman, Wray, & Strange, 2011). Against this background, a need was identified for research on social support, which is also the reason for including it in the current research.

According to Zimet, Dahlem, Zimet, and Farley (1988), support resources refer to social support by co-workers or supervisor (Mede, 2009) or support by family and friends which is outside of the organisation (Galek, Flannelly, Greene, & Kudler, 2011). In this study, the focus will be on perceived social support from co-workers and supervisor.

3.2 CONCEPTUALISING PERCEIVED SOCIAL SUPPORT

Bam (2010) and McIntosh (1991) referred to social support as perceived or actual resources available from one or more individuals to another, which assist individuals in dealing with stress and enhancing their well-being and work engagement. Schwarzer and Knoll (2007) defined social support as the feeling of being supported and the perceived availability of support or actual support received. Social support refers to the exchange of resources or any resource provided by others, including positive interactions, intimacy and emotional support (House, 1981; Schwarzer, Knoll, & Rieckmann, 2004; Shumanker, & Brownell, 1984; van Wyk, 2011). Although it is derived from a variety of resources such as supervisors, colleagues, family and friends (Brough & Frame, 2004; Ismail, Coetzee, Du Toit, Rudolph, & Joubert, 2013), several studies (Beehr, 1985; House, 1981; LaRocco, House, & French, 1980) have concluded that the most important source of social support for mitigating occupational strain is the support received from people at work (Lindorff, 2001).

The results of the studies referred to above have shown that social support can help employees to stay physically and mentally healthy in stressful situations. It can also protect employees from various pathological states by reducing the stress response and subjective distress experience (Cobb, 1976; Leff & Vaughn, 1985; van Wyk, 2011). Social support at work is defined as the degree to which employees perceive that their well-being is being valued by their supervisor and the organisation they work for, and also the perception that the available resources will assist in supporting their well-being (Ford, Heinen, & Langkamer 2007; Ismail *et al.*, 2013). Beehr and McGrath (1992) remarked that social support is an important resource associated with positive organisational and individual outcomes, especially with regard to the occupational stressor-strain relationship. In line with this, Young

(2004) confirmed that social support minimises stress by acting as a buffer in the stressor-strain relationship experienced in the workplace.

Employees are more likely to be satisfied with their jobs and to feel a sense of accomplishment when stress levels are minimal, which also helps to prevent the occurrence of burnout (Kinman *et al.*, 2011). Results of previous studies have shown that low levels of social support can increase the risk of health-related problems (Paterniti, Niedhammer, Lang, & Consoli, 2002; Stansfeld, Fuhrer, Shipley, & Marmot, 1999). Takizawa *et al.* (2006) argued that low levels of social support may enhance the risk of death, while Van Schalkwyk *et al.* (2011) considered social support to be a valuable resource that assists individuals in coping with a wide range of extant stressors.

Ismail *et al.* (2013) stated that social support can be perceived as an employee's belief that s/he is loved, valued and cared for. Earlier research has shown that having a supportive work environment does help to create a competitive advantage (Pfeffer, 2005). According to Bateman (2009), research in the area of social support has recently received an increasing amount of attention due to the positive effects it has in the workplace. Over the past 20 years there has been a great deal of interest in the role of social support as a mechanism for the maintenance of psychological well-being under conditions of stress (Tonsing, Zimet, & Tse, 2012).

Findings of past studies (Brough & Frame, 2004; Perrewe & Carlson, 2002) have shown that supervisor support is strongly associated with job satisfaction and turnover intentions, while colleague social support is somewhat less strongly associated with job satisfaction and turnover intentions (Brough & Frame, 2004). However, there were no associations identified between family social support and job satisfaction or turnover intentions (Brough & Frame, 2004). Eisenberger, Stinglahamber, Vandenberghe, Sucharski and Rhoades (2002) found that

supervisor support was negatively associated with turnover in that lower levels of supervisor support were related to higher levels of turnover intentions.

3.3 DIMENSIONS OF PERCEIVED SOCIAL SUPPORT

Rhoades and Eisenberger (2002) defined perceived organisational support as the assumptions employees have regarding the extent to which an organisation cares about their health and well-being, and the extent to which the organisation values their contributions. Participation in decision making (Allen, Shore, & Griffeth, 2003), job information (Schat & Kelloway, 2003), role clarity (Eisenberger, Rhoades, & Cameron, 1999; Zapf, Knorz & Kulla, 1996), support from co-workers (Albar-Marin & Garcia-Ramirez, 2005; Djurkovic, McCormick, & Casimir, 2004) and support from the supervisor (Brough & Frame, 2004; Perrewe & Carlson, 2002; Settoon, Bennett, & Liden, 1996), which all lead to high levels of job satisfaction (Eisenberger, Cummings, Armeli, & Lynch, 1997), commitment (Hochwarter, Kacmar, Perrewe, & Johnson, 2003), performance (Shanock & Eisenberger, 2006) and reduced turnover (Allen *et al.*, 2003; Rhoades & Eisenberger, 2002), are identified as dimensions of perceived organisational support (van Schalkwyk *et al.*, 2011).

3.4 THE ROLE OF SOCIAL SUPPORT

Social support at work has been noted as an important moderator in the translation of work stress into individual outcomes (Kirmeyer & Dougherty, 1988). According to Kossek, Pichler, Bodner and Hammer (2011), social support assists employees to experience and deal with demanding work roles more positively. Findings of previous research have shown that job resources such as autonomy and social support from supervisors and colleagues are

positively associated with work engagement (Bakker & Demerouti, 2007; Schaufeli & Salanova, 2007). McGuire and McLaren (2009) maintained that support from both colleagues and supervisor will affect the employee's well-being positively, and it will increase the employee's commitment and performance. Bateman (2009) stressed that organisations need to be aware of the importance of co-worker support, because the latter was found to have a significant relationship with job satisfaction and intention to quit, although according to Brough and Frame (2004) less so than supervisor support. According to Albar-Marín and García-Ramírez (2005), co-worker support is an effective source of support, especially when the work is emotionally exhausting.

Findings from South African studies published in 2006 and 2007 showed that employees were motivated when there was a balance between job demands and job resources (Jackson, Rothmann, & van de Vijver, 2006; Mostert & Rothmann, 2006; Rothmann, 2007; Rothmann & Jordaan, 2006; Rothmann, Mostert, & Strydom, 2006). This equilibrium was found to reduce ill-health and increase levels of work engagement of employees, which also resulted in lower levels of absenteeism, presenteeism and turnover. The employees were more likely to commit to and engage in their work and to the organisation at large when they experienced support from their colleagues and supervisors (Jackson *et al.*, 2006; Mostert & Rothmann, 2006; Rothmann, 2007; Rothmann & Jordaan, 2006).

In a study conducted by Kinman *et al.* (2011) on teachers in the United Kingdom, social support was found to be related to job satisfaction, while it also protected teachers from developing burnout. According to Pretorius (1996) and Skok, Harvey and Reddihough (2006), social support decreases the experience of stress and provides a reappraisal of the stressor by reducing the psychological, affective and cognitive reactions that cause the

experience of stress. Oginska-Bulik (2005) and Plaisier *et al.* (2007) suggested that social support reduces work-related stress and the occurrence of depressive and anxiety disorders.

In a study conducted by Brown, Bhrolchain and Harris (1975) it was found that talking to someone about life stress tends to decrease the experience of stress and also increases the experience of well-being. This means that employees who have someone to talk to whenever they are stressed, are likely to experience stress less than those who do not have someone to talk to. According to House (1981), social support has been found to reduce the levels of job-related stress and to have a positive effect on employees' health. Vermaas (2010) observed social support as a significant factor in the maintenance of well-being. In his study on social support as a moderator between stress and psychological well-being, Vermaas (2010) also found that receiving social support from various sources moderated the relationship between the experience of stress and the emotional markers of psychological well-being.

3.5 SOCIAL SUPPORT FROM COLLEAGUES AND SUPERVISORS

Employees who experienced high levels of social support from both their colleagues and supervisors perceived their work to be less stressful, and their levels of work engagement were higher than those who experienced lower levels of social support (Fenlason & Beehr, 1994; McCalister, Dolbier, Webster, Mallon, & Steinhardt, 2006). Previous studies (Shanock & Eisenberger, 2006; Susskind, Kacmar, & Borchgrevink, 2003) showed that employees who had high perceptions of co-worker support were found to have high levels of commitment, performance (Joiner, 2007) and satisfaction (Levy, 2006), and that they were more attentive at work and more courteous when dealing with clients.

However, since accepting support from co-workers might suggest incompetence of the person accepting the support (Bateman, 2009) – specifically because peers are usually viewed as

equals – support from co-workers might suggest a lack of independence or ability (Ng & Sorenson, 2008). Despite this, Babins and Boles (1996) emphasised that there is overwhelming evidence that co-worker support has positive effects in the workplace. The findings of previous studies have shown that social support (both supervisor and co-worker support) have been demonstrated to moderate the effects of variables such as organisational commitment, job satisfaction and stress (Baron & Kenny, 1986; Bateman, 2009).

3.6 APPLICATION OF SOCIAL SUPPORT

According to Eisenberger *et al.* (1986), material rewards such as rank, pay and influence over the status quo would increase perceived support. Employees who were found to have a high level of social support (regardless of how much support they received) were found to experience high levels of well-being (Kahn, Hessling, & Russell, 2003). In contrast to employees with low levels of social support, employees with high levels of social support were able to come up with suggestions and discuss ideas honestly and openly (Fass, Bishop, & Glissmeyer, 2007). A positive relationship between social support and job satisfaction was also reported (Fass *et al.*, 2007). From the research conducted by Zapf (2002), it was evident that social support has a direct positive effect on health and an indirect effect on health via the reduction of job stressors. According to Karademas (2006), employees who experienced high levels of social support viewed themselves as capable to do their work and viewed the world of work as being friendly, allowing them to perform better under less stressful conditions.

3.7 CHAPTER SUMMARY

The purpose of this chapter was to conceptualise perceived social support. The available literature on social support was reviewed, providing the background, dimensions and role of social support for employees.

CHAPTER 4: WORK ENGAGEMENT

4.1 INTRODUCTION

The field of industrial and organisational psychology has experienced a gradual shift away from a negative focus and the study of stress, dissatisfaction, insecurity and burnout (Pillay, 2008) to a more positive focus and the study of job satisfaction, organisational commitment, motivation, optimal functioning, happiness (Storm & Rothmann, 2003) and work engagement. This has brought a shift in focus from the early pathogenic paradigm (Mitonga-Monga, 2010) to a holistic paradigm (Rothmann, 2007) of studying and understanding behaviour when it comes to psychological well-being and work engagement (Antonovsky, 1996; Coetzee & Cilliers, 2001; Strümpfer, 1990).

Due to the constantly changing world of work and its competitive environment, organisations need to maximise the inputs of their employees by ensuring that employees are emotionally and cognitively committed to their work and to the company (Rothmann & Rothmann, 2010). There is an emerging and on-going focus on employees being engaged in their organisations (AbuKhalifeh & Som, 2013). Organisations are now realising that it is important to have engaged employees if the organisation is to survive in the competitive world of work (Coetzee & De Villiers, 2010; Schabracq & Cooper, 2000). According to Saks (2006), organisations will face challenges in terms of implementation and execution of strategy and change management if their employees are not engaged and committed.

Due to expectations from the modern organisation to have committed, proactive and engaged employees (Rothmann & Rothmann, 2010), there is a need for research on work engagement and how it relates to intrinsic motivation and social support. The aim of this study was to add to the existing body of knowledge on work engagement, help organisations to better

understand work engagement, and to support their employees to be motivated and take full responsibility for their own development.

4.2 DEFINITION OF WORK ENGAGEMENT

One of the first researchers to conceptualise work engagement was Kahn (1990), who found engaged employees to be physically, cognitively and emotionally connected with their work roles. There are several definitions of work engagement. To name a few, Schaufeli and Bakker (2004, p. 295) defined work engagement as “a positive, fulfilling, work-related state of mind that is characterised by: (a) vigour (high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and the ability of being persistent even in the face of difficulties); (b) dedication (sense of significance, enthusiasm, inspiration, pride and challenge); and (c) absorption (being totally and happily immersed in one’s work, to the extent that it is difficult to detach oneself from it)”. According to Harter, Schmidt and Hayes (2003), employee engagement refers to a person’s satisfaction with, involvement in and enthusiasm for work. Schaufeli *et al.* (2002) defined engagement as a persistent and positive affective-motivational state of fulfilment, whereas Coetzer and Rothmann (2007) proposed that work engagement is characterised by energy, involvement and efficacy. Macey, Schneider, Barbera and Young (2009) in turn defined engagement as focused energy that is directed toward organisational goals. For the purposes of this study, the definition of work engagement formulated by Schaufeli and Bakker (2004) was used.

Maslach and Leiter (1997) suggested that engagement is a direct opposite of burnout. Schaufeli, Salanova, González-Roma and Bakker (2002) considered work engagement as different from burnout, mainly because individuals who may have low levels of burnout might not have high levels of work engagement and vice versa. Schaufeli and Taris (2005)

regarded vigour and dedication as directly opposite to the two core symptoms of burnout, namely exhaustion and cynicism. According to Bakker *et al.* (2008), work engagement is negatively linked to burnout but it is an independent concept that is characterised by high levels of energy and strong identification. Energy represents the link between vigour (engagement) and exhaustion (burnout), whereas identification represents the link between dedication (engagement) and cynicism (burnout) (Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006).

4.3 DIMENSIONS OF WORK ENGAGEMENT

According to Schaufeli and Bakker (2004), work engagement comprises three dimensions namely vigour, dedication and absorption.

4.3.1 Vigour

The first dimension of work engagement is vigour, which refers to the individual's willingness to invest effort in his/her work, the high level of mental resilience and energy experienced by the individual while working, and his/her ability and motivation to persevere when faced with challenges (Bakker, Demerouti, & Schaufeli, 2005; Schaufeli & Salanova, 2007).

4.3.2 Dedication

The second work engagement dimension is dedication, which refers to a strong involvement in one's work, and experiencing a sense of pride, meaning, enthusiasm, significance and inspiration (Bakker *et al.*, 2005).

4.3.3 Absorption

Absorption is the third dimension of work engagement and it refers to complete engrossment in one's work, experiencing that time passes quickly when at work and finding it difficult to detach oneself from work (Schaufeli *et al.*, 2002).

4.4 PREDICTORS OF WORK ENGAGEMENT

Stander and Rothmann (2010) identified competence, impact, meaning and self-determination as predictors of work engagement. In other words, employees report higher levels of work engagement when they have the necessary skills to perform their work, feel that the work they do add value to the organisation, find meaning in their work, and have the freedom to work on their own (Macsinga *et al.*, 2015).

4.5 ANTECEDENTS OF WORK ENGAGEMENT

According to Harter *et al.* (2003), employees need to have clear expectations set out to them and be given the necessary equipment to perform their work effectively. They also need to be given the opportunity to learn and grow, to feel worthwhile and valued, to experience the impact of their contribution, and to find fulfilment in the workplace.

4.5.1 Job resources

Results of previous studies have shown that job resources such as autonomy, performance feedback, learning opportunities, social support from colleagues and skills variety are positively associated with work engagement (Albrecht, 2010; Bakker & Demerouti, 2008). Job resources refer to “those physical, social, or organisational aspects of the job that (a)

reduce job demands and the associated physiological and psychological costs; (b) are functional in achieving work goals; or (c) stimulate personal growth, learning, and development” (Schaufeli & Bakker, 2004, p. 296). Bakker, Demerouti and Verbeke (2004) maintained that resources may be situated at the level of the task (i.e. autonomy, performance feedback and skills variety) or at the level of the organisation (i.e. career opportunities, job security and salary). Hence, job resources are important for employees to perform their work effectively and not only necessarily to deal with high job demands (Bakker, 2011). A study by Schaufeli and Bakker (2004) showed that work engagement was strongly predicted by job resources.

According to Bakker (2011), job resources can either play an intrinsic motivational role by fostering employees’ learning, growth and development, or an extrinsic motivational role in that they are instrumental in achieving desired work goals. Deci and Ryan (1985) proposed that job resources fulfil basic human needs, such as the needs for autonomy, relatedness and competence. Social support satisfies the need to belong and the need for autonomy, whereas proper feedback satisfies the need for competence in that employees are awarded the opportunity to learn, grow and develop the necessary skills to perform their work.

Job resources may also play an extrinsic motivational role in that employees willingly dedicate their efforts to the work task because they have all the resources needed to successfully perform their work (Bakker, 2011). Employees who have supportive colleagues and who receive performance feedback are likely to be successful in achieving their work goals and they are also likely to be engaged in their work (Bakker, 2011; Schaufeli & Bakker, 2004). Several studies supporting this have shown that a positive relationship exists between job resources and work engagement (Bakker, 2011; Bakker, Demerouti, & Verbeke, 2004; Schaufeli & Bakker, 2004).

4.5.2 Personal resources

Personal resources are positive self-evaluations that are linked to the individual's ability to be resilient and have control over his/her environment (Hobfoll, Johnson, Ennis, & Jackson, 2003). According to Bakker (2011), these positive self-evaluations predict performance, goal setting, motivation, and job and life satisfaction.

Xanthopoulou, Bakker, Demerouti and Schaufeli (2007) argued that personal resources are positively related to work engagement, while Bakker (2011) reported that self-esteem, locus of control, self-efficacy and the ability to regulate and perceive emotions are positive predictors of work engagement. Engaged employees have positive views of life and they expect good outcomes; they also believe that participating in organisational roles can help them satisfy their own needs and boost their self-esteem (Bakker, 2011).

A study conducted by Naudé and Rothmann (2006) revealed that the availability of job and personal resources enhances levels of work engagement. Results of the study conducted by Mostert and Rothmann (2006) showed that emotional stability, conscientiousness and low levels of stress due to job demands predict work engagement. Several other studies have shown that people with a strong sense of coherence were more likely to experience high levels of work engagement (Basson & Rothmann, 2002; Naudé & Rothmann, 2006; Schaufeli & Bakker, 2004; van der Colff & Rothmann, 2009; Wissing, De Waal, & De Beer, 1992).

4.5.3 Job characteristics

Based on the work of Kahn (1990) and Maslach, Schaufeli and Leiter (2001), Saks (2006) identified a number of antecedents of work engagement, namely job characteristics,

perceived organisational and supervisor support, rewards and recognition, and procedural and distributive justice.

Job characteristics such as skills variety, performance feedback, autonomy, task identification and task significance allow employees the opportunity to be more engaged in their job and more motivated in their workplace (Kahn, 1992).

4.5.4 Perceived organisational and supervisor support

Saks (2006) found that perceived organisational and supervisor support is important if the organisation is to have a successful workforce. Employees who perceive their supervisors and organisation as supportive tend to engage in their jobs, and they also do not have a problem with approaching their supervisors whenever they have difficulties in their jobs.

4.5.5 Rewards and recognition

Kahn (1990) suggested that employees tend to differ in their engagement levels based on their perception of the benefits that they gain from their roles, while Saks (2006) proposed that employees, who receive large amounts of rewards and recognition for the work they do, tend to be more engaged. A finding from a study conducted by Remo (2012) has shown that remuneration and reward systems drive work engagement. Bhattacharya and Mukherjee (2009) also maintained that employees are more likely to engage in their work and the organisation when they have been rewarded fairly.

4.5.6 Procedural and distributive justice

According to Saks (2006), employees tend to withdraw and disengage whenever they perceive low levels of fairness in their organisation. Employees would tend to be more engaged at work when they perceive fairness and justice in their organisation, and if they have to take accountability for their actions. Figure 1 below depicts a model of antecedents and consequences of work engagement.

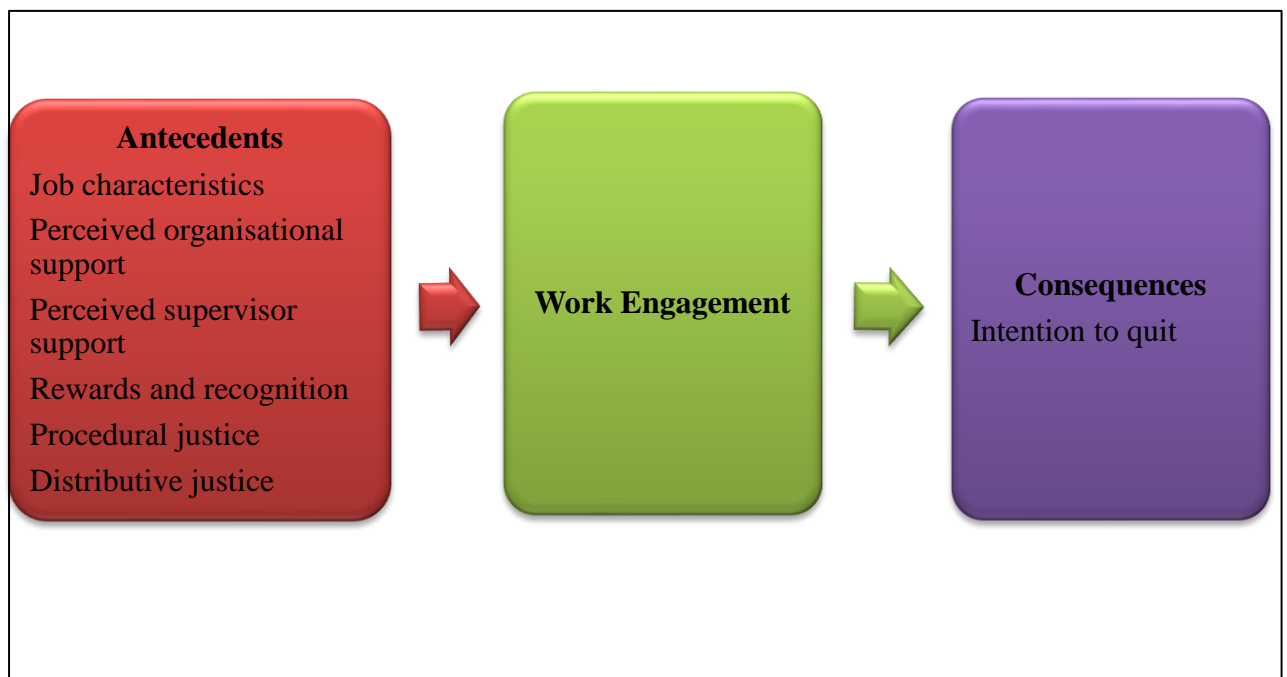


Figure 1. A model of antecedents and consequences of work engagement. Note. Adapted from “Antecedents and consequences of employee engagement.” by A. Saks, 2006, *Journal of Managerial Psychology*, 21(7), 600-619. Copyright 2006 by the Emerald Group Publishing Limited

4.5.7 Individual and organisational antecedents of work engagement

Wollard and Shuck (2011) identified individual and organisational antecedents to work engagement. They outlined individual antecedents as constructs, conditions and strategies that are foundational to the development of employee engagement and that apply directly to individuals (Wollard & Shuck, 2011). Organisational antecedents were defined as constructs, conditions and strategies that are foundational to the development of work engagement at a structural level and that are applied directly across the organisation (Wollard & Shuck, 2011). In Table 1 below the empirically and theoretically driven individual and organisational antecedents of work engagement are indicated.

According to Alarcorn, Lyons, and Tartaglia (2010), employees may have aspirations to engage in their work but if they do not have a clear understanding of their roles and expectations, they may fail to engage. Employees who have a clear understanding of what is expected of them have the ability to carry out their tasks effectively and efficiently, in contrast to those whose roles and expectations are not clarified (Alarcorn *et al.*, 2010).

Table 1

Individual and organisational antecedents to work engagement

| Individual antecedents | Organisational antecedents |
|---|------------------------------------|
| Absorption* | Authentic corporate culture* |
| Availability to engage | Clear expectations* |
| Coping style | Corporate social responsibility* |
| Curiosity | Encouragement |
| Dedication* | Feedback |
| Emotional fit | Hygiene factors |
| Employee motivation | Job characteristics* |
| Employee/work/family status | Job control |
| Feeling of choice and control | Job fit* |
| Higher levels of corporate citizenship* | Leadership |
| Involvement in meaningful work* | Level of task challenges* |
| Link between individual and organisational goals* | Manager expectations* |
| Optimism | Manager self-efficacy* |
| Perceived organisational support* | Mission and vision |
| Self-esteem, self-efficacy | Opportunities for learning |
| Vigour* | Perception of workplace safety |
| Willingness to direct personal energies | Positive workplace climate* |
| Work-life balance* | Rewards* |
| Core self-evaluation* | Supportive organisational culture* |
| Value congruence* | Talent management |
| | Use of strengths* |

Note. Adapted from “Antecedents to employee engagement: A structured review of the literature.” by K.K. Wollard, & B. Shuck, 2011, *Advances in Developing Human Resources*, 13(6), 429-446. Copyright 2011 by Academy of Human Resource Development.

*antecedents with empirical evidence

4.6 THE IMPACT OF WORK ENGAGEMENT

Wildermuth and Pauken (2009) reported that the combination of high levels of challenges and skills can make some employees happy and such employees are likely to strive for achievement. On the other hand, some employees may prefer routine and comfortable tasks (Mitonga-Monga, 2010). It is important to note that different studies have shown that engagement levels vary within individuals from one day to the next, and some employees

show higher or lower levels of engagement in their work activities, depending on what happens during the day (Bakker, 2011).

Bakker (2011) highlighted four reasons as to why engaged employees outperform disengaged employees. Firstly, engaged employees cope with stress better and therefore experience a healthy lifestyle. They focus all their energy, skills and knowledge on their work. Secondly, they often experience positive emotions such as happiness, enthusiasm and appreciation. Fredrickson (2001) also remarked that engaged employees focus on working on their personal resources, due to the positive emotions that they experience in their workplace. Thirdly, they find a way to create their own job and personal resources. Lastly, engaged employees tend to transfer their engagement to their colleagues (Bakker & Xanthopoulou, 2009), which in turn ensures that team-work is effective and efficient, and that organisational goals are reached at an increased performance level.

4.7 APPLICATION OF WORK ENGAGEMENT

Rich, LePine and Crawford (2010) proposed that work engagement is an important determinant of individual and organisational performance outcomes. Work engagement is associated not only with positive organisational outcomes (Halbesleben, 2010) such as increased job satisfaction, organisational commitment and motivation, but also with the well-being of employees (Bakker, Demerouti, & Schaufeli, 2003; Chughtai & Buckley, 2008; Schaufeli & Bakker, 2004).

However, according to Masvaure *et al.* (2014) work engagement has been found to be different from other psychological constructs such as job satisfaction, organisational commitment and work-related flow. Job satisfaction is a form of employee well-being, whereas work engagement is a combination of the willingness to work (dedication and

involvement) and the capability to work (vigour, energy and absorption) (Bakker, 2011; Bakker, Albrecht, & Leiter, 2011).

With engagement, the focus is on the work itself, whereas with organisational commitment, the focus is on the employee's loyalty to the organisation (Masvaure *et al.*, 2014). In addition to the distinction between work engagement and organisation commitment made by Masvaure *et al.* (2014), Naicker (2013) maintained that organisational commitment refers to employees' attitude to work, whereas work engagement reflects the level of attentiveness to work and work performance of employees. Bakker (2011) suggested that work-related flow refers to a peak experience that may last for a short time, whereas work engagement involves a much longer performance period.

According to Kahn (1990) and Rothbard (2001), engagement is more than just a physical feeling, it is a psychological construct that involves attention (cognitive ability and time invested for one to think about a role) and absorption (being focused and engrossed in a role). Rothmann and Rothmann (2010) suggested that engagement is a component of happiness and that engaged employees enjoy applying their strengths and capabilities in performing their daily duties. Engagement positively affects the mind-set of employees and fosters personal development, learning and initiative taking (Sonnetag, 2003), as well as flexible efforts and quality work (Salanova, Llorens, Cifre, Martinez, & Schaufeli, 2003).

In a study conducted by Rothmann and Rothmann (2010), engaged employees were found to have an effective connection with their work activities, they were energetic, perceived themselves to be in control of their work and they put in more effort. They were able to face and deal better with their job demands (Coetzer & Rothmann, 2007; Schaufeli *et al.*, 2002). Findings of a study done by Schaufeli and Bakker (2001) have shown that some employees

enjoy dealing with job demands and they work hard without developing or experiencing burnout due to long hours of work.

Several studies have shown that high levels of work engagement is associated with improved performance (Bakker & Bal, 2010), better individual performance (Kahn, 1990), commitment (Halbesleben, 2010; Saks, 2006), proactive behaviour (Salanova & Schaufeli, 2008), improved inter-role and extra-role behaviour (Saks, 2006), financial profit (Harter, *et al.*, 2003), and greater managerial effectiveness (Luthans & Petersen, 2002). According to Saks (2006), engaged employees were more likely to be committed to the organisation compared to disengaged employees.

Markos and Sridevi (2010) found that engaged employees were involved, passionate and enthusiastic, and their main aim was the success of their organisation (Ologbo & Sofian, 2013). According to Coetzee and De Villiers (2010), engaged employees were physically involved in their tasks, cognitively alert and emotionally connected to others when performing their job. Engaged employees felt that they shared a common identity with their organisation (Naicker, 2013), whereas disengaged employees were found to be disconnected from their job and hid their true feelings, thoughts and identity during role performances (Coetzee & De Villiers, 2010). Kahn (1990) reported in his study that disengaged employees withdrew and defended themselves physically, cognitively and emotionally during role performances.

Chughtai and Buckley (2008) found that investing in conditions that foster work engagement among employees was vital for the growth and profitability of the organisation. Markos and Sridevi (2010), as well as AbuKhalifeh and Som (2013) noticed that engaged employees were aware of the business context, and worked collectively with their colleagues to improve job

performance for the organisation's sake. According to Markos and Sridevi (2010), employees who had close friendships at work were more engaged compared to others.

Previous research has shown that although most of the drivers that lead to work engagement are not monetary in nature, it does not mean that the impact of the monetary aspect on employees should be ignored and not considered (Saks, 2006). Findings of the research done by Soieb, Othman and D'Silva (2013) showed that when employees were engaged, there was less conflict within the organisation.

4.8 THEORETICAL RELATIONSHIP BETWEEN INTRINSIC MOTIVATION, SOCIAL SUPPORT AND WORK ENGAGEMENT

Jex and Britt (2008) stated that it is important to make a thorough study of all factors that contribute to occupational stress, because occupational stress not only has an impact on the specific individual's well-being and work, but also on society as a whole. Individuals may well experience occupational stress due to limited interest in the jobs they do (Elci *et al.*, 2012; Jex & Britt, 2008). When the characteristics of persons and those of the situation in which they find themselves are in conflict, their levels of motivation are found to be low and result in occupational stress as well as low levels of work engagement (Elci *et al.*, 2012; Jex & Britt, 2008).

4.8.1 Relationship between intrinsic motivation and social support

According to Jex and Britt (2008), employees may have low levels of intrinsic motivation simply because their skills and abilities do not match the inherent requirements of their jobs. Furthermore, employees may have low levels of intrinsic motivation because their interests and personalities do not fit with the characteristics of their jobs (Jex & Britt, 2008; Shimazu & Schaufeli, 2009). If employees perceive job requirements to be beyond their capabilities

and if they do not receive adequate social support from colleagues, supervisors, family and friends, they are more likely to find it hard to perform work at their level best (Mostert & Rothmann, 2006; Rothmann, 2007), and their jobs may frustrate and exhaust them (Jex & Britt, 2008; Rothmann, 2007).

Results of a study conducted by Coelho *et al.* (2011) showed that organisations that found out how to keep their employees intrinsically motivated, understood that high levels of intrinsic motivation might be enhanced by allowing employees to take control of their work and determine the manner in which they prefer to do their work. Subsequently those organisations gave their employees the authority to be in control of their work and thus to be more engaged (Milyavskaya *et al.*, 2011; Shimazu & Schaufeli, 2009; Van Yperen & Hagedoorn, 2003).

In a study by Shadare and Hammed (2009) in Ibadan in Nigeria, it was found that performance was enhanced when employees were intrinsically motivated, and the emphasis was also on the quality of relationships the employees had with their colleagues and employers, and with the organisation itself. Based on the empirical results of this study, those employees who had positive workplace relationships with their colleagues and employers (Shadare & Hammed, 2009) were reported as being more intrinsically motivated (Shadare & Hammed, 2009; Shimazu & Schaufeli, 2009).

Previous research has shown that employees who have jobs with high demands, low control and low social support often report higher incidences of heart disease, fatigue, headaches and stress-related symptoms (Mostert & Rothmann, 2006; Van Yperen & Hagedoorn, 2003). Based on his Holistic Model of Work Wellness, Rothmann (2007) suggested that as soon as individuals reach the ill-health stage they are no longer committed to and engaged in their work; they are often absent from work or if they are present, they are there ‘in the flesh’, but their minds are elsewhere. Such employees are more likely to quit their jobs, and they are

also at risk of being injured while doing their jobs, due to their inability to focus and concentrate on the tasks given to them (Coelho *et al.*, 2011; Rothmann, 2007).

Job resources were found to satisfy the basic psychological need for autonomy, competence and relatedness (Baumeister & Leary, 1995; Dysvik & Kuvaas, 2013), which in turn enhanced intrinsic motivation (Ryan & Frederick, 1997). Previous research also showed that the presence of job resources and personal resources enhanced work engagement levels (Naudé & Rothmann, 2006).

4.8.2 Relationship between social support and work engagement

Karasek and Theorell (1990) argued that even though employees perceive their jobs to have high demands and low control, employees are more likely to prevent and eliminate ill-health when they receive social support from their colleagues and their employer (Schaufeli & Bakker, 2004). Bakker, Hakanen, Demerouti and Xanthopoulou (2007) conducted a study on job resources that boost work engagement, particularly when job demands are high, and they found that supervisor support, appreciation and organisational climate correlated positively with work engagement.

Albrecht (2010), Bakker and Demerouti (2008) and Rothmann (2007) found that job resources such as organisational support and social support were positively related to work engagement. Abendboth and Dulk (2011) observed that social support does not only advance job satisfaction and engagement, but also reduces high levels of turnover, absenteeism and burnout. Employees with high levels of social support manage to cope better and are more likely to overcome ill-health quickly, compared to those employees who have low levels of perceived job social support (Mostert & Rothmann, 2006; Rothmann, 2007). Several studies (Mostert & Rothmann, 2006; Van Yperen & Hagedoorn, 2003) concluded that social support can only prevent ill-health if it matches the stressful event at hand – for example if a teacher

experiences stress due to a lack of textbooks at school to perform the job, support by the school could involve providing the relevant resources for the teacher to continue with lessons (Van Yperen & Hagedoorn, 2003).

The findings of the study conducted by Halbesleben (2010) have shown that work engagement is positively linked to social support, performance feedback, autonomy, self-efficacy and organisational climate. From this and other studies it was evident that employees tend to have higher levels of work engagement when they experience a supportive organisational culture (Naidoo, 2014). Surprisingly, the study conducted by Remo (2012) found no relationship between work engagement and a supportive and innovative organisational culture, whereas job characteristics were found to have a direct impact on work engagement.

4.8.3 Relationship between intrinsic motivation and work engagement

According to the Holistic Model of Work Wellness (Rothmann, 2007), there is a link between intrinsic motivation, social support and engagement. This model was designed to provide evidence that employees who are motivated and who receive support from others are engaged and committed, and they experience low levels of stress in comparison to those employees who have low levels of motivation and social support (Jackson *et al.*, 2006; Mostert & Rothmann, 2006; Rothmann, 2007).

In a study that was conducted in a mining company in Zimbabwe, it was found that a positive relationship existed between job satisfaction, work engagement and the intrinsic motivation of workers (Masvaure *et al.*, 2014). Supervisors often play a crucial role in terms of employee engagement, and Nel (2013) found that a positive relationship with the supervisor had a significant and positive effect on engagement of employees.

In a study that was conducted by Saks (2006), work engagement was found to relate significantly to the three psychological conditions – availability, meaningfulness and safety. Psychological availability refers to the ability to engage emotionally, physically and psychologically at work. Employees experienced meaningfulness when they felt that their inputs were valued and that their contributions were worthwhile and useful (Kahn, 1990). Employees experienced psychological safety at work when they felt comfortable to freely voice their opinions and could challenge the status quo without fearing that they might dent their reputation at work. Kahn (1990) identified four elements that influence psychological safety, namely management style, interpersonal relationships, group and intergroup dynamics, and process and organisational norms.

The proposed model as seen in Figure 2 depicts the theoretically based and anticipated relationship between intrinsic motivation, social support and work engagement. Figure 2 illustrates that high levels of intrinsic motivation are associated with high levels of social support and high levels of work engagement.

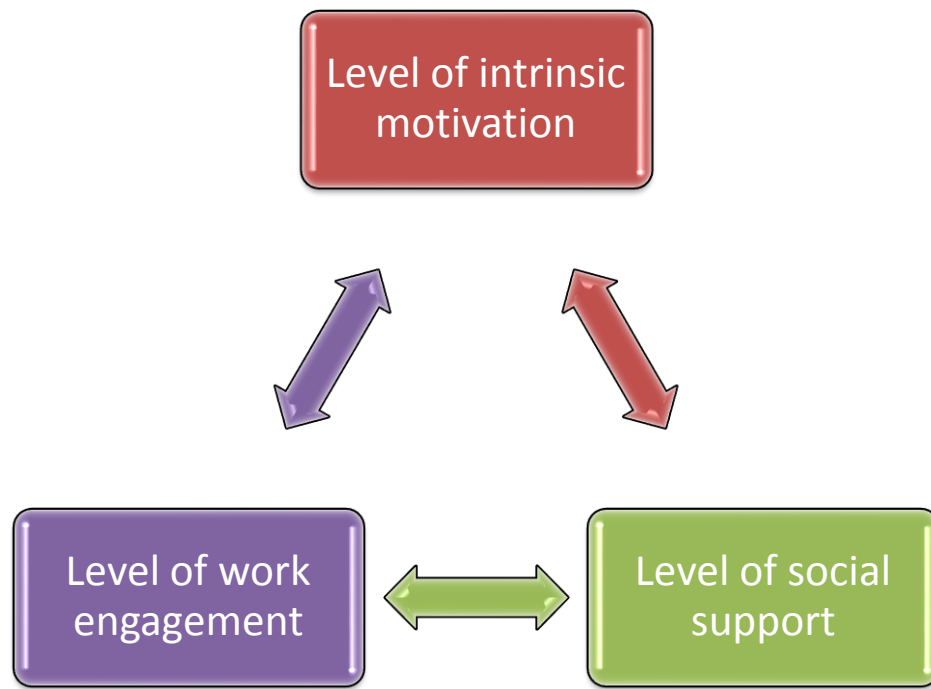


Figure 2. The hypothesised research model

4.9 CHAPTER SUMMARY

The purpose of this chapter was to conceptualise work engagement and to determine the theoretical relationships that exist between intrinsic motivation, social support and work engagement. At the beginning of the chapter, work engagement was conceptualised and the findings of previous studies relating to this study were presented. This was followed by a discussion of the literature that supports the existence of positive relationships between intrinsic motivation, social support and work engagement.

CHAPTER 5: RESEARCH METHODOLOGY

The research methodology used in the study is discussed in this chapter. The research design, paradigmatic perspective, internal and external validity, participants, measuring instruments, methods of ensuring reliability and validity, statistical analysis, formulation of the hypotheses, the research procedure, data collection, and ethical considerations are described.

5.1 RESEARCH DESIGN

This study was of a non-experimental quantitative nature. Quantitative research is defined as a form of conclusive research involving a large representative sample and fairly structured data collection procedures, and its primary role is to test hypotheses (Struwig & Stead, 2010). Non-experimental methods are used for describing data and examining relationships, and they also allow for the measurement of variables (Picardi & Masick, 2014). One of the non-experimental research methods is survey research (Muijs, 2011).

A cross-sectional survey is used when the study is of a once-off nature and does not require the examination of results over time (Fowler, 2009; Muijs, 2011). Survey research has the advantage that relationships between variables can be studied and survey research can also describe a situation at a particular point in time (Botha, 2010; Fowler, 2009). A cross-sectional survey design was chosen to achieve the objectives of this study and also to answer the posed research questions based on empirical research. Survey research methods include self-report measures such as questionnaires (Fowler, 2009; Muijs, 2011) by means of which data can be collected from a representative sample of a population (Picardi & Masick, 2014). Survey research is used to collect large amounts of data in a more cost-effective and time-effective manner than when other methods such as observation or face-to-face interviews are

used (Fowler, 2009; Muijs, 2011). Respondents tend to be honest when answering the survey questions because they remain anonymous, which is not the case with telephonic or face-to-face interviews (Fowler, 2009; Muijs, 2011). If the sample is representative, the results found can be generalised, because the research is conducted in a real-world environment (Bordens & Abbott, 2011; Fowler, 2009; Muijs, 2011). In the present study, the use of a random sample of 200 is considered to be reasonably representative of the target population (Struwig & Stead, 2010).

In line with the chosen non-experimental quantitative research design, questionnaires that were used in this study consisted of closed (multiple-choice) questions. Closed questions are easy to answer because the respondents choose from the options presented to them (Muijs, 2011) and do not have to take more time explaining their responses. Closed questions are not time consuming for either the respondent or the researcher, and the results of closed questions are easy to analyse, compared to those of open-ended questions (Fowler, 2009). Data needed to achieve the research objectives was collected by means of questionnaires that would provide data on the variables of interest in the present study.

A disadvantage of a closed question might be that the researcher has not provided all possible options for the respondent to choose from. This may result in the respondent not providing an answer that is really accurate, due to limited options (Picardi & Masick, 2014). One of the advantages, however, is that one can gather much information from a large number of people in a short period of time by using questionnaires (Bateman, 2009; Matveev, 2002).

5.2 PARADIGMATIC PERSPECTIVE

A positivist approach is followed when data is collected by means of questionnaires and the responses are numerically quantified (Welman, Kruger, & Mitchell, 2005). Positivists hold

the belief that the researcher can be objective and that it is also possible for the researcher to detach from the reality being studied and not to become involved in the study (Krauss, 2005; Welman *et al.*, 2005). Naturalists on the other hand believe the researcher cannot be completely excluded from the study and he/she has to be subjective in order to understand and interpret the findings (Krauss, 2005). Positivism assumes an objective world which scientific methods can more or less readily measure and represent (Gephart, 1999; Krauss, 2005). The positivist paradigm was adopted in this study so as to draw objective conclusions by minimising errors through statistical analysis (Welman *et al.*, 2005).

The primary aim of this study was to investigate the relationships between intrinsic motivation, social support and work engagement of shift workers based on data obtained from questionnaires and testing of hypotheses. Positivism often seeks for facts conceived in terms of specified relationships and associations among variables (Gephart, 1999). The functionalist paradigm was followed during the application of tests and questionnaires, and the statistical analysis of the empirical data (Welman *et al.*, 2005). The functionalist paradigm is based on the assumption that society is concrete and real, as well as systematic and orderly (Mitonga-Monga, 2010; Welman *et al.*, 2005). Based on the functionalistic paradigm a belief is held that objective observations and measurements can be made and conclusions can be drawn (Welman *et al.*, 2005). In the functionalistic paradigm the emphasis is on units of psychological phenomena that can be explained in terms of relationships that enhance human adaptation and survival (Welman *et al.*, 2005).

5.3 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY

The internal and external validity of the study can be considered as indicators of the logical coherence and generalisability of the research.

5.3.1 Internal validity

Internal validity refers to the research design allowing for the testing of the hypotheses that it was designed to test (Bordens & Abbott, 2011). The non-experimental quantitative cross-sectional survey design chosen for the current research allowed for the testing of the stated hypotheses and answering of the posed research questions about the relationships between intrinsic motivation, social support and work engagement.

5.3.2 External validity

External validity focuses on any unique characteristics of the study that may question whether similar results would be obtained under different conditions and for different samples. According to Gravetter and Forzano (2012), a threat to external validity is any characteristic of a study that limits the ability to generalise the results to the relevant domain. External validity of the study in hand was promoted due to a random selection of participants (Welman *et al.*, 2005). The findings of this study could therefore be generalised to all shift workers in the particular South African company, because the participants were selected randomly.

5.4 POPULATION AND SAMPLE

A description of the population and the sample of the present study are presented next.

5.4.1 The population

The participants used in this study were shift workers employed by a South African chemical company. The target population consisted of a total number of approximately 1900 shift workers who play a crucial role as first-level employees in the company. Due to time and money constraints it was not possible to include all the shift work employees of the company in this study.

5.4.2 The sample

A random probability sampling procedure was used in this study, because it gave everyone in the target population an equal chance of being selected and being part of the sample (Bordens & Abbott, 2011; Picardi & Masick, 2014; Salkind, 2012). The list of all the shift workers (approximately 1900) in the different business units was obtained from the HR department, allowing the researcher to randomly select the sample population for the study. According to Struwig and Stead (2010), random sampling is subject to error, therefore stratified random sampling was further used to minimise sampling errors. Stratified random sampling is a probability sampling technique which allows the researcher to divide the total population into different strata (Saunders, Lewis, & Thornhill, 2009) and continue to then have a predetermined number of items randomly chosen from each stratum (Struwig & Stead, 2010). Stratified random sample was obtained by dividing the population of shift workers into strata

according to the different business units, therefore drawing the same percentage of participants from each stratum.

A sample of approximately 200 was regarded as large enough to ensure useful data and to be an acceptable representation of the population (Struwig & Stead, 2010). Altogether 220 shift workers were eventually selected on a random basis and requested to participate in the research study. Questionnaires were distributed to these 220 shift workers, as well as consent letters in which their voluntary and anonymous participation in the study was requested and in which the protection of their anonymity and the confidentiality and security of their data were guaranteed. Only 207 questionnaires were completed without errors. This constituted a response rate of 94%. The final sample (N=207) consisted of African, Indian, Coloured and white respondents and included males and females. The questionnaires were administered in English.

5.5 MEASURING BATTERY

The measuring battery consisted of a consent form explaining the purpose of the study as well as informing participants that participation was voluntary (i.e. there would not be any consequences for not participating). It also comprised a biographical questionnaire and three measurements with Likert-type scales, where participants had to rate how frequently a condition happened or how a statement best related to them on the particular measure's rating scale. Below follows a brief description of each of the four questionnaires included in the measuring battery, as well as details of each one's development, administration and scoring, interpretation and reliability, and the validity of the particular questionnaire.

5.5.1 Biographical questionnaire

A biographical questionnaire was used to obtain the personal information that was needed for the statistical analysis of data. This information included the participants' age, gender, race, level of education, and years of experience (Higgs, 2011; Jordaan, 2007). This biographical information added a layer of basic detail to the responses obtained (Picardi & Masick, 2014).

5.5.2 Intrinsic Motivation Scale (IMS)

The Intrinsic Motivation Scale (IMS) is next discussed in terms of the development of the instrument, how it is administered and interpreted. The reliability and validity of the instrument is also discussed.

5.5.2.1 Development of the IMS

The IMS, which consists of six items, was developed and validated by Kuvaas and Dysvik (2009), and is aimed at measuring intrinsic motivation levels. The following sample items were included in the scale: "My job is very exciting" and "The tasks that I do at work are enjoyable" (Kuvaas & Dysvik, 2009). The response options were placed on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The respondents were required to rate how they felt about their jobs (1 or 2 if they never experienced the stated feeling, and 4 or 5 if they often experienced the stated feeling about their jobs).

5.5.2.2 Administration and scoring of the IMS

The IMS is self-reporting and easy to complete. It can be administered individually or in a group, takes approximately five minutes to complete and no time limits are set. The mean score is calculated by adding all values from the responses to the six items, and then dividing the total value by 6. The highest obtainable mean score is 5.

5.5.2.3 Interpretation of the IMS

A mean score closer to 5 reflects high intrinsic motivation levels, while a mean score closer to 1 reflects low intrinsic motivation levels. The respondents with mean scores of 1 to 2.4 are considered to have lower levels of intrinsic motivation, respondents with mean scores of 2.5 and up to 3.4 have average levels of intrinsic motivation, and those with mean scores of 3.5 up to 5 have high levels of intrinsic motivation.

Employees with high levels of intrinsic motivation would be more likely to be motivated to perform an activity for its own sake in order to experience the pleasure and satisfaction inherent in the activity (Dysvik & Kuvaas, 2013; Van Yperen & Hagedoorn, 2003). Such employees are more likely to enjoy the tasks at work and to find their jobs exciting. Employees with low levels of intrinsic motivation are less likely to be inspired by their jobs and they are less likely to find meaning in their jobs. According to Van Yperen and Hagedoorn (2003), as well as Hagger and Chatzisarantis (2011), intrinsically motivated employees enjoy working in an autonomous environment with less supervision.

5.5.2.4 Reliability and validity of the IMS

The IMS has been demonstrated to be a valid and a reliable measure of intrinsic motivation (Kuvaas & Dysvik, 2009). The reported Cronbach alpha coefficient for the IMS was 0.86 (Kuvaas & Dysvik, 2009; Yu Ru, 2012).

5.5.3 Work Experiences Scale (WES)

The Work Experiences Scale (WES) is also discussed in terms of the development of the instrument, how it is administered and interpreted. Finally, the reliability and validity of the instrument is presented.

5.5.3.1 Development of the WES

The Work Experiences Scale of May *et al.* (2004) was used to measure social support. The scale consists of two sections, namely rewarding co-worker relations and supportive supervisor relations, which comprises 10 items each (May *et al.*, 2004). Two sample items include: “My co-workers value my input” and “My supervisor helps me solve work-related problems” (May *et al.*, 2004). The response options were placed on a 5-point Likert-type scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The respondents were required to rate how they felt about their jobs. They had to select 1 or 2 if they never experienced the stated feeling, and 4 or 5 if they often experienced the stated feeling about their jobs.

5.5.3.2 Administration and scoring of the WES

The WES is self-reporting, easy to complete, and can be administered individually or in a group. It takes approximately 10 minutes to complete and no time limits are set. The mean score for each section is calculated by adding all values from the responses to the 10 items and then dividing the value by 10. The minimum obtainable mean score on each section is 1 and the maximum mean score is 5.

5.5.3.3 Interpretation of the WES

A mean score closer to 5 reflects high levels of social support from colleagues and the supervisor, while a mean score closer to 1 reflects low levels of perceived social support from colleagues and supervisor. (As indicated above, the highest obtainable mean score is around 5 on each section). Respondents with mean scores of around 1 to 2.4 are considered to have lower perceived levels of social support, respondents with mean scores of around 2.5 up to 3.4 have average levels in terms of their perceived social support and those who obtain mean scores of around 3.5 up to 5 have high perceived levels of social support.

Social support has positive effects in the workplace (Bateman, 2009) in the sense that employees who perceive social support from colleagues and supervisors tend to work well under stressful work conditions (McCallister *et al.*, 2006; Tonsing *et al.*, 2012). Employees with high levels of perceived social support are likely to engage in and commit to their work (Mostert & Rothmann, 2006; Rothmann, 2007) and they perform better than the employees with low levels of perceived social support (Karademas, 2006).

5.5.3.4 Reliability and validity of the WES

The WES has been demonstrated to be a valid and a reliable measure of social support (May *et al.*, 2004; Olivier & Rothmann, 2007). The reported Cronbach alpha coefficient for this scale ranged from 0.95 to 0.96 (May *et al.*, 2004; Olivier & Rothmann, 2007).

5.5.4 Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES) is discussed in terms of the development of the instrument, how it is administered and interpreted. The reliability of the instrument is also presented.

5.5.4.1 Development of the UWES

The UWES was developed by Schaufeli *et al.* (2002) with the intention of moving the focus away from employee weaknesses, malfunctioning and illness-perpetuating results (Mitonga-Monga, 2010). The scale focuses on employees' optimal functioning, happiness and strengths. Both international and South African studies have shown that the UWES can be used to measure engagement in a valid and reliable way (Bakker *et al.*, 2008; Barkhuizen & Rothmann, 2006; Schaufeli *et al.*, 2002; Storm & Rothmann, 2003).

The UWES was used to measure the levels of work engagement of the shift workers based on the three components of work engagement, namely vigour, dedication and absorption (Beukes, 2011, Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009). The measure consists of 9 items (Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009), and the following sample items were included: "At my job, I feel strong and vigorous", "I am

enthusiastic about my job” and “I am immersed in my work” (Shimazu & Schaufeli, 2009). The response options for the items were placed on a 7-point Likert scale that ranged from 0 (never) to 6 (always) (Beukes, 2011, Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009).

5.5.4.2 Administration and scoring of the UWES

As in the case of the other scales, the UWES is self-reporting, easy to complete, and suitable for administration to an individual or a group. It takes approximately five minutes to complete and no time limits are set. The mean score is calculated by adding all values from the responses to the nine items and then dividing the total value by 9. The highest obtainable mean score is 6.

5.5.4.3 Interpretation of the UWES

A mean score closer to 6 reflects high work engagement levels, while a mean score closer to 1 reflects low work engagement levels. The respondents with mean scores around 0 to 2.4 are considered to have lower levels of work engagement, while those with mean scores around 2.5 to 3.4 show average levels of engagement and those with mean scores of around 3.5 to 6 have high levels of work engagement.

Employees with high levels of work engagement are also more likely to have high levels of mental resilience and energy (Henn & Barkhuizen, 2009).

5.5.4.4 Reliability and validity of the UWES

The UWES has been demonstrated to be a valid and a reliable measure of work engagement (Bakker *et al.*, 2008; Barkhuizen & Rothmann, 2006; Schaufeli *et al.*, 2002; Storm & Rothmann, 2003). The reported Cronbach alpha coefficients for this scale in the South African study ranged from 0.78 to 0.89 (Beukes, 2011).

5.6 METHODS OF ENSURING THE RELIABILITY AND VALIDITY OF THE STUDY

It is important for the reliability and validity of the study to also be considered.

5.6.1 Reliability

In the current study, the reliability of the literature review was ensured by using relevant and recent text-books, theses and peer-reviewed scientific journal articles. Roodt (2009a) argued that it is not possible in an empirical study to test participants twice to confirm test-retest reliability when conducting a cross-sectional study. However, the data gathered in the present study was used to evaluate the internal consistency reliability for the measures used for this sample group (Roodt, 2009a). By so doing, the reliability of the research was improved (Mouton & Marais, 1990) and the use of reliable measures also contributed to the reliability of the study.

5.6.2 Validity

During conceptualisation of the variables, an attempt was made to ensure theoretical validity through clarifying the concepts used in the literature review (Roodt, 2009a). During operationalisation, the researcher made use of existing standardised and validated questionnaires to ensure validity (Roodt, 2009b). Validity is concerned with whether a test measures what it is supposed to measure and how well it does so (Roodt, 2009b; Saunders *et al.*, 2009). The questionnaires used were found to be valid because they measured what they were supposed to measure – intrinsic motivation, social support and work engagement in terms of face validity and content validity of items used in the measures and based on empirical research evidence as referenced in the literature review.

5.7 STATISTICAL ANALYSIS

The Statistical Analysis System (SAS) program was used to carry out statistical analysis of the quantitative data gathered for this study (SAS Institute Inc, 2014). Before commencing with the statistical analysis, the data obtained from the IMS, WES and UWES measures was transformed into scores for the various dimensions and sub-dimensions involved, according to the respective scoring instructions.

5.7.1 Descriptive statistics

Descriptive statistics was used to analyse the data by determining the means, standard deviations, and Cronbach alpha coefficient for the different variables (Beukes, 2011; Botha, 2010; Buys, 2008; Fowler, 2009; Higgs, 2011; Muijs, 2011; Struwig & Stead, 2010). The three main measures of central tendency are mean, median and mode (Cohen, Manion, &

Morrison, 2007; Gravetter & Wallnau, 2007). Means and standard deviations were used to describe and compare results.

5.7.2 Internal consistency reliability

To determine the internal consistency reliability of the measures for the different constructs, Cronbach alpha coefficients were used (Botha, 2010; Ferreira, 2009; Roodt, 2009a) and computed to assess the internal consistency reliability of each of the questionnaires and scales (Cohen *et al.*, 2007). Inter-item correlation coefficients were used to ensure that internal consistency reliability of measuring instruments were at acceptable levels (Mitchell & Jolley, 2010). According to Clark and Watson (1995), an acceptable individual inter-item correlation ranges between 0.15 and 0.50.

5.7.3 Correlations

The aim of the research was to investigate whether statistically significant positive relationships exist between intrinsic motivation, social support and the work engagement of shift workers in a South African chemical company. Correlations were used to describe the strength and direction of the relationship between variables of intrinsic motivation, social support and work engagement by means of Pearson product-moment correlations (Welman *et al.*, 2005). According to Clark and Watson (1995), when a relationship exists between variables in which an increase in one variable is associated with an increase in the other variable (and vice versa), then it is called a positive relationship. A negative relationship is said to exist when an increase in the measurement of one variable is associated with a decrease in the other variable (Cohen *et al.*, 2007). Relationships between variables are

interpreted in terms of their direction (positive or negative), as well as their statistical and practical significance (Leedy & Ormrod, 2005).

5.7.4 Level of statistical significance

Statistical significance refers to the probability that the observed results could have occurred randomly provided there are no true underlying effect (Leedy & Ormrod, 2005; Welman *et al.*, 2005). The significance level is the criterion mostly used for rejecting the null hypothesis (Leedy & Ormrod, 2005). The null hypothesis is rejected based on a comparison of the empirical results with a critical value associated with the significance level, and it will be rejected if the results exceed the associated critical value (Welman *et al.*, 2005). The level of statistical significance was set at $p \leq 0.05$ (Botha, 2010; Muijs, 2011; Struwig & Stead, 2010).

5.7.5 Effect size

Effect size was used to decide on the practical significance of the findings (Botha, 2010; Muijs, 2011; Struwig & Stead, 2010). The practical significance of correlation coefficients is set, with $r \geq 0.30$ representing a medium effect size (Ferreira, 2009) and $r \geq 0.50$ representing a large effect size (Botha, 2010).

5.8 FORMULATION OF THE HYPOTHESES

The following hypotheses were based on the theoretical integration of results and were tested in the empirical study:

- H1₀: There are no statistically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.
- H1₁: There are statistically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.
- H2₀: There are no practically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.
- H2₁: There are practically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

These hypotheses were tested by analysing the relationship between all relevant variables for shift workers in the South African chemical company.

5.9 RESEARCH PROCEDURE AND DATA COLLECTION

The research procedure and data collection process give an insight into how the researcher went about collecting and analysing data (Watkins, 2006). Random sampling allows for the research findings to be generalised to the population (Bordens & Abbott, 2011). The sample for this study was drawn randomly from shift workers in a South African chemical company using the stratified random sampling technique. The researcher obtained permission from the Unisa Ethics Review Committee to conduct the study and the required ethical clearance was issued. The researcher also obtained the necessary permission from the management and the psychology forum of the company to conduct the study. Management was asked to sign the

permission letter as a form of proof of having granted permission to the employees to participate in the study, and the researcher subsequently invited the randomly selected participants to voluntarily participate in this study.

The researcher arranged sessions with the participants to complete the questionnaires. As indicated earlier, data was collected from the shift workers through their completion of selected questionnaires on intrinsic motivation, social support and work engagement. Consent forms were first issued and the participants were asked to sign these forms as a proof of voluntarily agreeing to participate in the study. The researcher informed the participants of the purpose, objectives and potential contribution of the study and confirmed that participation was voluntary and that they would remain anonymous. Ethical considerations were also explained.

In order to reduce the presence of response falsification, the participants were assured that their responses would be treated confidentially. The researcher read out the questions to the participants and the latter were able to ask the researcher any questions that arose from their completion of the questionnaires. The researcher collected the questionnaires once completed and thanked the participants for their time. In order to improve the response rate, the researcher arranged follow-up sessions where selected participants who could not complete the questionnaires during the first session were given another opportunity to complete the questionnaires. Upon completion of the questionnaires and interpretation of the results, a copy of the researcher's report was sent to management and shared with the shift workers during follow-up sessions.

5.10 ETHICAL CONSIDERATIONS

Ethics is concerned with what is considered acceptable in human behaviour (Naidoo, 2014) – i.e. what is wrong or right, good or bad in human conduct – in order to achieve goals and objectives. According to Levin and Buckett (2011), professional ethics is concerned with moral issues that arise due to the specialist knowledge that professionals obtain, and ways in which the use of this knowledge should be governed when providing a service to the public.

5.10.1 Professional code of ethics

The professional activities of psychologists are controlled by law and various controlling bodies in South Africa. The Health Professions Council of South Africa (HPCSA), through the Professional Board for Psychology, stipulates clear ethical guidelines for psychology professionals and for the publication of research findings (Bergh & Theron, 2005). These ethical guidelines were followed in the present study.

5.10.2 Internal review boards

The researcher obtained permission to conduct the study from the Unisa Research Ethics Committee. The researcher also asked for permission from the management of the chemical company and obtained written informed consent from all shift workers who took part in the study. The researcher made an appointment with the members of the psychology forum as well as the management of the company, during which the purpose and objectives of the study were explained. The researcher provided the consent form to the management, requesting their permission to conduct the study within the company.

5.10.3 Informed consent

Informed consent is concerned with the individual's autonomy and freedom of choice in terms of the actions taking place, as well as the individual's right to be informed of the processes (Bergh & Theron, 2005). Informed consent also means that participants are aware of the nature of the study (Langdridge & Hagger-Johnson, 2013) and willing to participate. The researcher informed the participants of the purpose and potential contribution of the study, as well as what the results would be used for.

The randomly selected shift workers received consent forms from the researcher and they were asked to sign the form prior to the distribution of questionnaires to confirm that they voluntarily agreed to participate in the study.

5.10.4 Respect for the autonomy and dignity of people

The participants were treated with respect and dignity, irrespective of their age, race, gender or status. According to Nicholson (2011), respect for the dignity of persons and a focus on moral rights should be given priority when dealing with ethical challenges – the focus should not be on the convenience of the researcher or psychologist.

5.10.5 Protection from harm and right to privacy

Participants were not subjected to any physical or mental discomfort. The researcher informed the participants as to the extent to which confidentiality would be ensured, other parties who would have access to the results, and that the results would be stored in a safe place (Foxcroft, Roodt, & Abrahams, 2009). She also informed them that they would remain

anonymous (Foxcroft *et al.*, 2009), and that the results would be used for nothing other than the stated research purpose.

Upon completion of the questionnaires and interpretation of the results, the results report compiled by the researcher was shared with the participants during follow-up sessions. The results were reported in aggregated form to protect the identity of respondents. The results are also presented in this academic dissertation and may in time be submitted for publication in a peer-reviewed scientific journal.

5.11 CHAPTER SUMMARY

The purpose of this chapter was to provide an outline of the research methodology adopted in the study. The chapter began with a discussion of the research design, paradigm perspective, internal and external validity, participants and measuring instruments. Methods of ensuring reliability and validity were presented; followed by a discussion of the statistical analysis, formulation of hypotheses, research procedure and data collection. Lastly, ethical considerations were also attended to.

CHAPTER 6: RESULTS

In this chapter the results obtained from the empirical study are presented and discussed, starting with the biographical profile of the sample, the descriptive statistics for the psychometric results, and the relationship between variables, followed by a discussion and integration of results.

6.1 BIOGRAPHICAL PROFILE OF THE SAMPLE

The biographical information is reported for individual characteristics such as gender, age, race, educational level, and years of service in the organisation. A sample of 220 shift workers out of the entire population of 1895 (N=1895), were randomly selected and requested to participate voluntarily in the research study. Altogether 207 questionnaires were completed without errors, which constituted a response rate of 94%. In Table 2 below an overview is presented of the characteristics of the participants.

As indicated in Table 2, 83% of the sample consisted of males. The sample could therefore be described as male-dominated, containing only 17% females, which generally represented the company's profile in respect of the gender representation of the shift workers. A total of 76% of the workers in the sample were Africans with only 2% being Asians. In terms of qualifications, 54% of the respondents were found to be in possession of a Grade 12 certificate. With regard to years of service, the majority of respondents (82%) had 0 to 10 years of service. Only 3% of the sample reported to have worked 31 and more years for the company. In terms of age, and as could be expected of a sample of working adults (Grogan, 2008), the vast majority (95%) of the sample were workers between the ages of 18 and 50 years. The largest components (83%) were in the age group 18 to 35 years and only 5% of the

respondents were between 51 and 65 years old, which is reasonably comparable to the target population.

Table 2

Characteristics of the participants

| Item | Category | Sample (N= 207) | | Population (N=1895) | |
|-------------------------|------------------------|-----------------|------------|---------------------|------------|
| | | Frequency | Percentage | Frequency | Percentage |
| Gender | Male | 172 | 83% | 1726 | 91% |
| | Female | 35 | 17% | 169 | 9% |
| Age | 18-35 years | 172 | 83% | 832 | 44% |
| | 36-50 years | 25 | 12% | 653 | 34% |
| | 51-65 years | 10 | 5% | 410 | 22% |
| Race | African | 158 | 76% | 1284 | 68% |
| | Asian | 5 | 2% | 11 | 1% |
| | White | 34 | 17% | 579 | 30% |
| | Coloured | 10 | 5% | 21 | 1% |
| Education | Grade 10 or 11 | 10 | 5% | 375 | 20% |
| | Grade 12 | 111 | 54% | 1036 | 55% |
| | Tertiary qualification | 86 | 41% | 484 | 25% |
| Years of service | 0-10 years | 153 | 82% | 1023 | 54% |
| | 11-20 years | 18 | 9% | 414 | 22% |
| | 21-30 years | 11 | 6% | 285 | 15% |
| | 31 years and more | 5 | 3% | 173 | 9% |

From Table 2 it is evident that the sample could generally be considered as reasonably representative of the target population.

6.2 DESCRIPTIVE STATISTICS FOR THE PSYCHOMETRIC RESULTS

The three measures used in this study had been validated and tested in previous studies (Henn & Barkhuizen, 2009; Kuvaas & Dysvik, 2009; May *et al.*, 2004; Shimazu & Schaufeli, 2009). Cronbach's alpha internal consistency reliability values were calculated for the total scores of the IMS, WES and UWES as presented in Table 3 below. For the purpose of this research a Cronbach alpha coefficient of 0.7 was considered acceptable in terms of the low stakes assessment context (Nunnally & Bernstein, 1994; Nunnally & Bernstein, 2010). Referring to Table 3, the Cronbach alpha coefficient of the measures that were used in this study ranged from 0.7 to 0.8, which means that they showed reliability at an acceptable level. In Table 3 the descriptive statistics and Cronbach coefficient alpha values, means and standard deviations on the three variables are presented.

Table 3

Descriptive statistics

| Variables | N | Minimum | Maximum | Mean | SD | Alpha |
|--------------------------------|----------|----------------|----------------|-------------|-----------|--------------|
| Intrinsic motivation | 6 | 1 | 5 | 3.83 | 0.77 | 0.71 |
| Social support from colleagues | 10 | 1 | 5 | 3.91 | 0.66 | 0.80 |
| Social support from supervisor | 10 | 1 | 5 | 4.00 | 0.82 | 0.79 |
| Work engagement | 9 | 0 | 6 | 4.51 | 1.32 | 0.72 |

N, number of items; SD, standard deviation.

6.2.1 Descriptive statistics for the IMS

The IMS comprises six questions (Kuvaas & Dysvik, 2009) rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scale was used to measure the levels of intrinsic motivation of employees and how they felt about their jobs.

According to the general guidelines for interpreting this measure and for the purposes of this study, the cut-offs used for the interpretation of the IMS is given below:

- Mean scores of around 1 to 2.4 are regarded as Below Average
- Mean scores of around 2.5 to 3.4 are regarded as Average
- Mean scores of around 3.5 up to 5 are regarded as Above Average

The highest possible mean score that could be obtained on this measurement was 5, which means that any score close to this maximum represented an employee who had high levels of intrinsic motivation. Table 3 indicates that the IMS scores of the participants ranged from around 1 to 5, with a mean score of 3.83. Mean scores of around 1 to 2.4 were considered below average and would be associated with employees who did not find their jobs to be exciting or did not feel strongly attached at work. A mean score of around 2.5 to 3.4 could be considered average and mean scores of around 3.5 to 5 were considered above average. Such high scores were associated with employees who found the tasks they did at work to represent a driving power and who considered their jobs to be meaningful. The mean score for this sample group ($M=3.83$; $SD=0.77$) thus indicates an above average level of internal motivation.

This mean IMS score can be compared with the research results provided by previous studies. In 2008, Dysvik and Kuvaas (2008) reported a mean score of 3.83 and standard deviation of

0.79, while in 2011 they reported a mean intrinsic motivation score of 3.77 and standard deviation of 0.69 based on a study conducted on intrinsic motivation as a moderator of the relationship between perceived job autonomy and work performance (Dysvik & Kuvaas, 2011). Yu Ru (2012) conducted a study on the mediating roles of intrinsic motivation and self-efficacy and reported a mean intrinsic motivation score of 3.95 and standard deviation of 0.68. Yousaf, Abbas and Satti (2013) reported a mean intrinsic motivation score of 3.8 and standard deviation of 0.81. The results found in the current study were similar to the results of these previous studies and showed reasonably high levels of intrinsic motivation for the sample group of shift workers.

Figure 3 shows that 16% of the participants had average levels of intrinsic motivation, 77% had high and only 6% had low levels of intrinsic motivation. This implies that most of the participants had average to high levels of intrinsic motivation. It also means that the participants were more likely to be motivated to perform an activity for its own sake in order to experience pleasure and satisfaction inherent in the activity (Dysvik & Kuvaas, 2013; Van Yperen & Hagedoorn, 2003). Employees with high levels of intrinsic motivation were found to enjoy the tasks at work and they found their jobs to be exciting (Dysvik & Kuvaas, 2011). Employees with high levels of intrinsic motivation were also more likely to be so inspired by their jobs that they almost forgot everything else around them (Adeyeye, 2014; Saks, 2006).

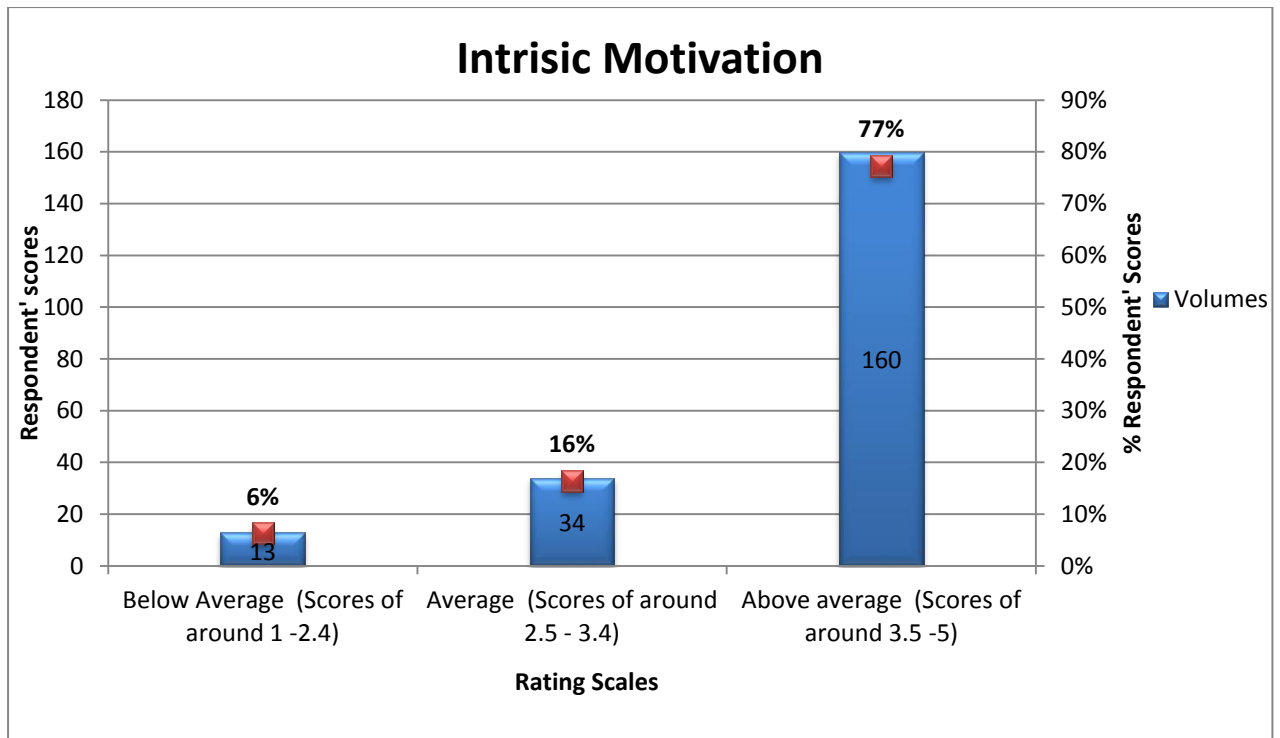


Figure 3. Distribution of respondents' scores on the IMS

6.2.2 Descriptive statistics for the WES (SS_C; SS_S)

The Work Experiences Scale (May *et al.*, 2004) was used to measure the perceived social support levels of both colleagues (SS_C) and supervisors (SS_S). The 10-item scales for social support from colleagues and social support from supervisors respectively were rated on a 5-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree).

According to the general guidelines for interpreting this measure and for the purposes of this study, the cut-offs used for the interpretation of the SS_C and SS_S scales respectively are given below:

- Mean scores of around 1 to 2.4 are regarded as Below Average
- Mean scores of around 2.5 to 3.4 are regarded as Average
- Mean scores of around 3.5 up to 5 are regarded as Above Average

The highest possible mean score that could be obtained on the SS_C was 5, which means that any mean score close to this maximum represented an employee with high levels of social support from colleagues. Table 3 indicates that the scores of the participants ranged from around 1 to 5 for the SS_C, with a mean group score of 3.91 and a standard deviation of 0.66. The mean score for this sample group thus indicates an above average level of perceived social support from colleagues. This is comparable to the study that was conducted by May *et al.* (2004) and that reported a mean score of 3.32 and standard deviation of 0.74.

Results of the respondents with mean scores around 1 to 2.4 were considered below average and were associated with employees who did not find their interactions with their co-workers to be rewarding and also did not feel that their co-workers valued their inputs. Mean scores of around 2.5 to 3.4 could be considered average and employees who scored at these levels had average levels of perceived social support from colleagues. Employees with mean scores of around 3.5 to 5 were considered to have high levels of perceived social support from colleagues. Mean scores of around 2.5 to 5 were associated with employees who felt worthwhile when they were around their co-workers, who had a sense of team work and who also shared high levels of trust with their co-workers.

Figure 4 below shows that 18% of the participants experienced average levels of social support from colleagues, 79% experienced high levels of social support from colleagues, and only 2% of the participants had lower levels of social support from colleagues. This means that most of the participants perceived their colleagues to be supportive and felt that they could turn to their colleagues whenever they experienced emotional exhaustion and work-related stress (Albar-Marin & Garcia-Ramirez, 2005). Employees with high levels of social support from colleagues were found to have high levels of commitment and satisfaction, and they dealt with their clients at work in an attentive and courteous manner (Shanock &

Eisenberger, 2006; Susskind *et al.*, 2003). Employees who experienced high levels of social support from their colleagues were more likely to sense a real connection with their colleagues and were more likely to believe that their colleagues appreciated them.

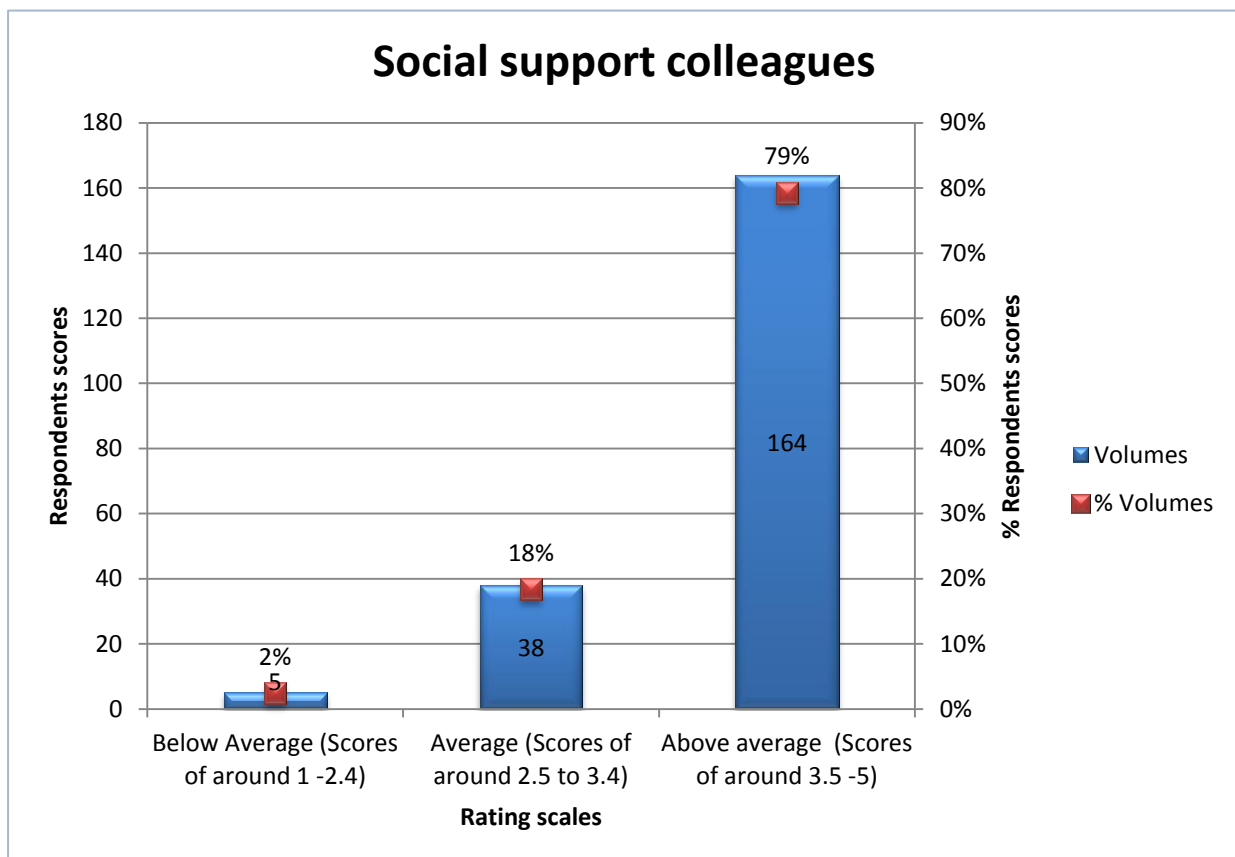


Figure 4. Distribution of respondents' scores on SS_C

The highest possible mean score that could be obtained on the supervisor social support scale (SS_S) was 5, which means that any mean score close to this maximum, represented an employee with high levels of social support from supervisors. Table 3 indicates that the scores of the participants ranged from around 1 to 5 for the SS_S, with a mean score of 4.0 and a standard deviation of 0.82. The mean score for this sample group thus indicates an above average level of perceived social support from supervisors. The reported group mean

scores ($M = 4.00$; $SD = 0.82$) were regarded as comparable to the research results provided by previous studies. For instance, Bam (2010) reported a group mean score of 3.98 and standard deviation of 1.15, whereas May *et al.* (2004) reported a lower group mean score of 2.94 and standard deviation of 0.99.

The results for the SS_S were measured on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Mean scores of around 1 to 2.4 were considered below average, and according to Figure 5, only 4% of the participants perceived that they were receiving lower levels of social support from their supervisors. These employees were likely to feel that their supervisors did not treat everyone fairly and were not taking due accountability. Mean scores of around 2.5 to 3.4 were considered average, and employees who obtained mean scores of around 3.5 to 5 were likely to feel that their supervisors encouraged team members to take part in important decisions. These employees were also likely to feel that their supervisors recognised good work openly.

According to Figure 5, 80% of the participants were considered above average in terms of the high levels of perceived social support from their supervisors. These employees were also likely to feel that their supervisors were committed to protecting their work interests. Only 16% of the participants had average scores and were more likely to enjoy reasonably high levels of trust from their supervisors. This means that the majority of participants indicated that they received adequate support from their supervisors. Employees with high levels of perceived social support from their supervisors generally experience job satisfaction and were generally more committed to and more engaged at work (Beyneveltdt, 2009). They are also likely to experience less stress compared to those employees who have lower levels of social support (Baron & Kenny, 1986; Bateman, 2009).

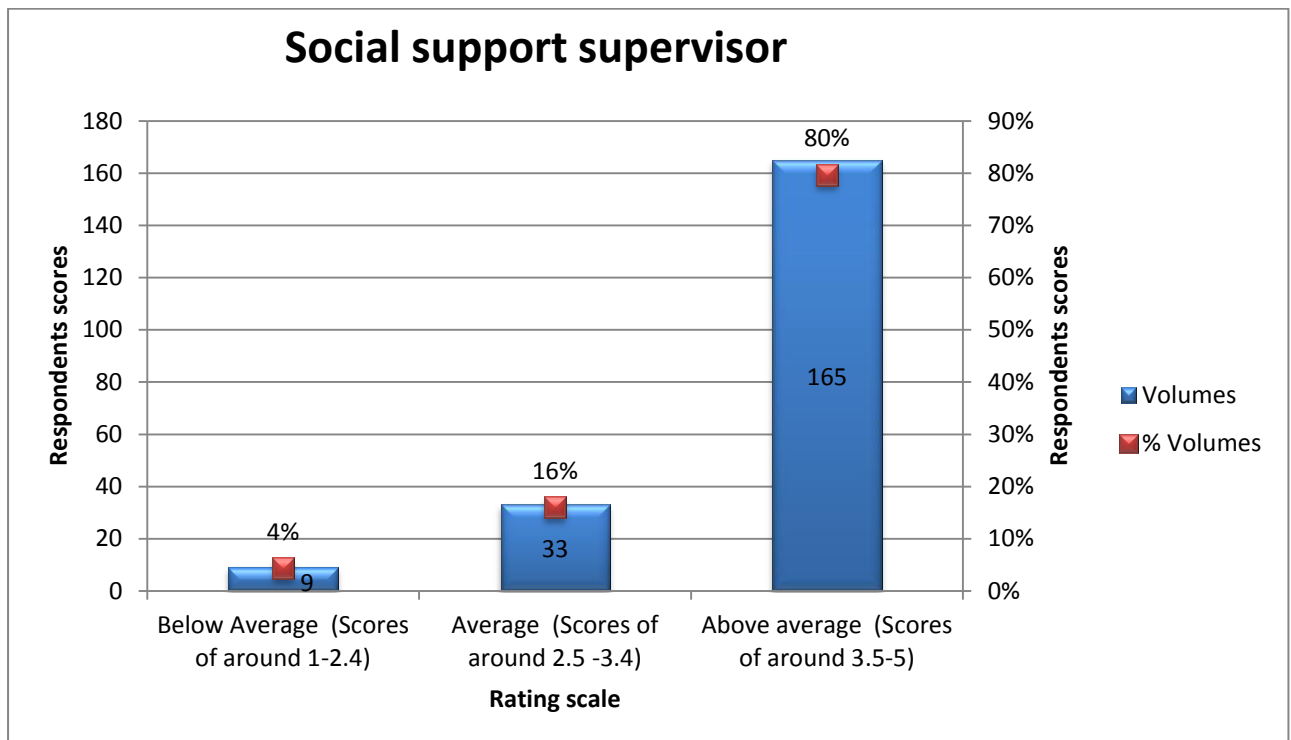


Figure 5. Distribution of respondents' scores on SS_S

6.2.3 Descriptive statistics for the UWES

The UWES comprises nine items (Beukes, 2011, Henn & Barkhuizen, 2009; Shimazu & Schaufeli, 2009), rated on a 7-point Likert scale ranging from 0 (never) to 6 (every day). The UWES was used to measure the levels of work engagement of employees and how they felt at work. The highest possible mean score that could be obtained on this measurement was 6, which means that any mean score close to this maximum represented an employee who was characterised by energy, involvement and efficacy in their work. Table 3 indicates that the mean scores of the participants ranged from 0 to 6, with a group mean score of 4.61 and a standard deviation of 1.32. The mean scores for this sample group thus indicate an above average level of work engagement. These scores are comparable to those in a study

conducted by Coetzee and De Villiers (2010) who reported a mean score of 4.47 and a standard deviation of 1.00.

According to the general guidelines for interpreting this measure and for the purposes of this study, the cut-offs used for the interpretation of the UWES is given below:

- Mean scores of around 0 to 2.4 are regarded as Below Average
- Mean scores of around 2.5 to 3.4 are regarded as Average
- Mean scores of around 3.5 to 6 are regarded as Above Average

Figure 6 shows that 81% of the participants experienced high levels of work engagement, while only 8% experienced average levels of work engagement. Employees with average to high levels of work engagement would be more likely to burst with energy at their work, feel inspired and enthusiastic, and also pride themselves on their work. Altogether 11% of the participants experienced lower levels of work engagement and were less likely to feel strong about and attached to their job. Employees with high levels of work engagement are more likely to have high levels of mental resilience and energy, more likely to be happy and enthusiastic, more willing to put effort into their work, and more likely to find it difficult to detach themselves from their work (Henn & Barkhuizen, 2009; Schaufeli *et al.*, 2002; Schaufeli, Bakker, & Salanova, 2006; Schaufeli *et al.*, 2008).

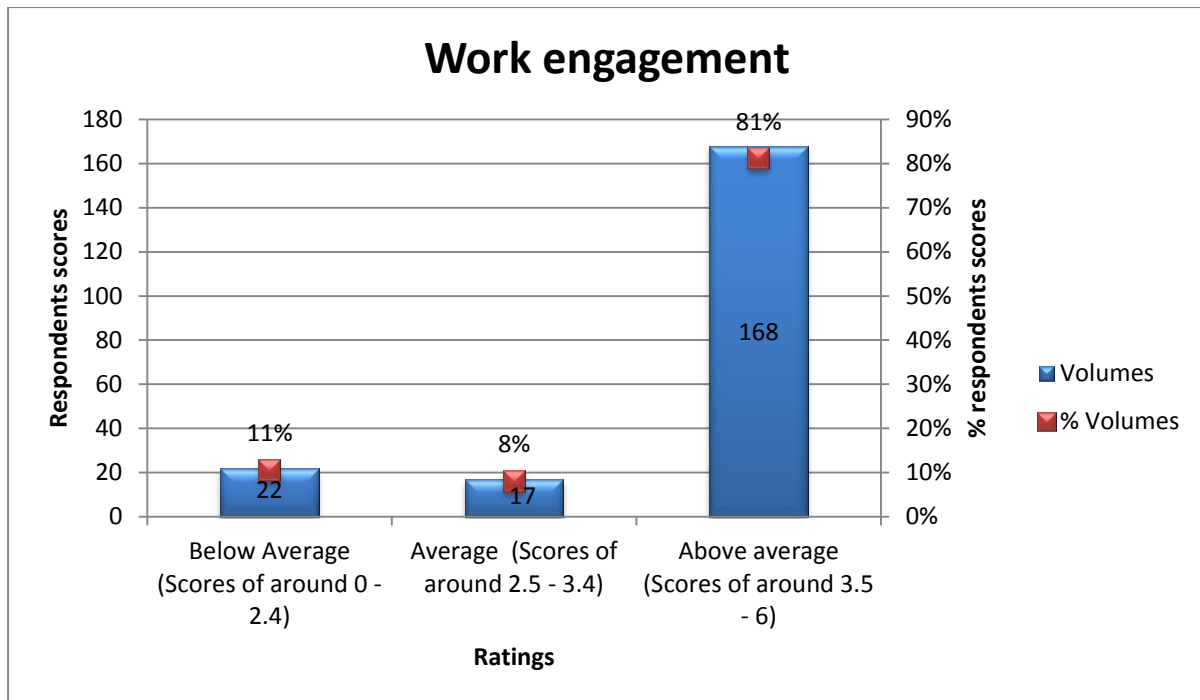


Figure 6. Distribution of respondents' scores on UWES

6.3 RELATIONSHIPS BETWEEN THE VARIABLES

The results of the Pearson product-moment correlation show the strength of the relationships between variables (Pienaar, Sieberhagen, & Mostert, 2007). The r value indicates the strength of the correlation. A positive correlation exists when r is greater than 0, a negative correlation exists when r is smaller than 0, and there is no correlation when r is equal to 0 (Swanepoel *et al.*, 2006). A perfect negative correlation exists when r is equal to -1, and a perfect positive correlation exists when r is equal to +1. The p value indicates whether the correlation is statistically significant. The generally accepted p value cut-off of $p \leq 0.05$ is used for most behavioural sciences research (Christensen & Stoup, 1991; Pienaar *et al.*, 2007). Below are the accepted cut-off points for practical significance of correlations (Christensen & Stoup, 1991; Pienaar *et al.*, 2007):

- If $r \geq 0.30$, then the correlation is considered moderately practically significant (medium effect size).

- If $r \geq 0.50$, then the correlation is considered highly practically significant (large effect size).

Pearson product-moment correlation coefficients in Table 3 below are reported to better understand the relationship between variables. If we assume the underlying data is normal, we can make use of the p-values to test the hypothesis that the true population correlation between two variables is zero (Swanepoel *et al.*, 2006).

Table 4

Pearson product moment correlation coefficients

| Variable | | 1 | 2 | 3 | 4 |
|----------------------------------|---|---------|--------|---------|-------|
| 1 Intrinsic motivation | r | 1.000 | | | |
| | p | 0.000 | | | |
| 2 Social support from colleagues | r | 0.50*++ | 1.000 | | |
| | p | 0.000 | 0.000 | | |
| 3 Social support from supervisor | r | 0.47*+ | 0.40*+ | 1.000 | |
| | p | 0.000 | 0.000 | 0.000 | |
| 4 Work engagement | r | 0.72*++ | 0.43*+ | 0.52*++ | 1.000 |
| | p | 0.000 | 0.000 | 0.000 | 0.000 |

*, $p \leq 0.01$ = statistically significant; +, $r \geq 0.30$ = medium effect size (practically significant)

++, $r \geq 0.50$ = large effect size (practically significant)

There is a positive statistically significant correlation between intrinsic motivation and social support from colleagues ($p = 0.000$). In addition, the correlation is practically significant with a large effect size ($r = 0.50$). This implies that employees who have high levels of intrinsic

motivation are more likely to experience high levels of social support, and also to perceive their colleagues to be supportive at work. The correlation between intrinsic motivation and perceived social support from the supervisor is also positive and statistically significant ($p = 0.000$). This correlation is furthermore of practical significance, with a medium effect size ($r = 0.47$). This means that the employees with high levels of intrinsic motivation are more likely to have higher levels of perceived social support from supervisors. It is interesting to note that intrinsic motivation also correlates positively with work engagement ($r=0.72$; $p = 0.000$). This correlation is also practically significant, with a large effect size. It implies that employees who show higher levels of intrinsic motivation are more likely to find their jobs to be exciting and enjoyable.

A positive practically significant correlation (of a medium effect size) was found between perceived social support from colleagues and perceived social support from supervisor ($r = 0.40$; $p = 0.000$). A positive practically significant correlation (of a medium effect size) was found between work engagement and perceived social support from colleagues ($r = 0.43$; $p = 0.000$). The relationship between work engagement and perceived social support from supervisors ($r = 0.52$; $p = 0.000$) is statistically highly significant and also practically significant with large effect size. These results imply that employees who feel that their supervisors recognise the good work and treat everyone fairly are more likely to feel strong about and attached to their work. Indications are also that employees who feel that their supervisors assume due responsibility and who experience a sense of team work with their colleagues are more likely to feel enthusiastic about their job.

6.4 DISCUSSION AND INTEGRATION OF RESULTS

The theoretical aim of this study was to determine how intrinsic motivation, social support and work engagement are conceptualised according to the available literature. This objective was achieved in Chapter 2, Chapter 3 and Chapter 4. A further objective was to conduct an empirical investigation into the relationships between intrinsic motivation, social support and work engagement. The results showed that all measuring instruments used in this study were reliable. These instruments have been used and are applicable both internationally and in the South African context (Beukes, 2011; Kuvaas & Dysvik, 2009; Rothmann & Rothmann, 2010).

The results of this study as presented in Figure 7 show that there are statistically and practically significant positive relationships between intrinsic motivation, social support and work engagement. There is a statistically significant positive correlation, as well as a practically significant positive correlation between intrinsic motivation and work engagement (in the latter instance, with a large effect size ($r = 0.72$)). The correlation between intrinsic motivation and social support from colleagues is also positively and practically significant, with a large effect size ($r = 0.50$, $p = 0.000$) while intrinsic motivation and perceived social support from colleagues show a relationship that is statistically significant and practically significant ($r = 0.47$, $p = 0.000$). Lastly, there is a statistically and practically significant positive correlation with large effect size ($r = 0.52$, $p = 0.000$) between work engagement and social support from supervisor. These results imply that employees with higher levels of intrinsic motivation are more likely to experience higher levels of work engagement and higher levels of perceived social support.

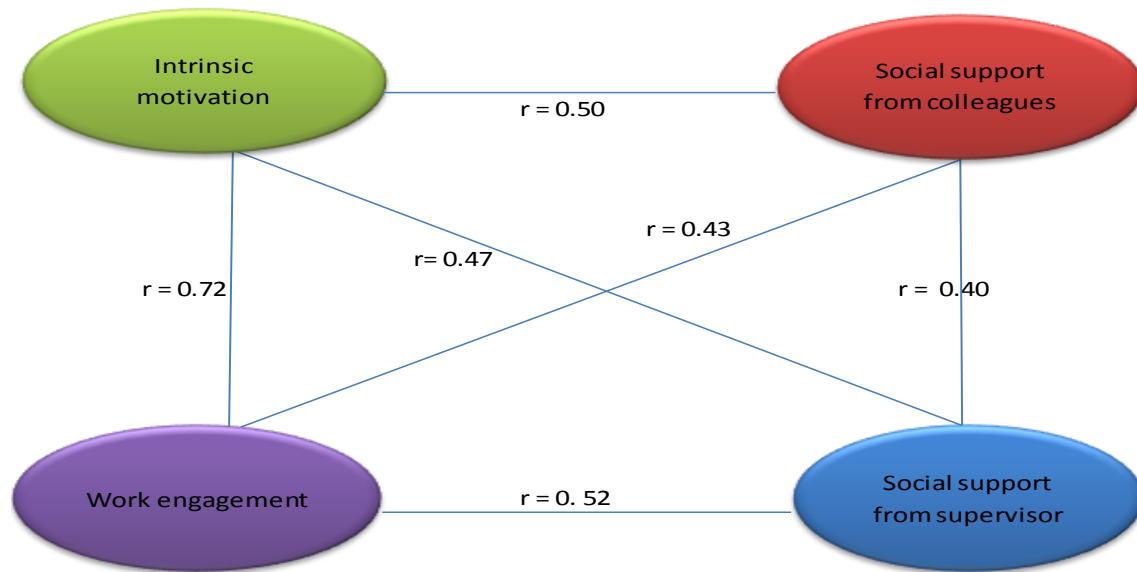


Figure 7. Correlations between the variables

Employees with high levels of intrinsic motivation are likely to love their jobs and find meaning in performing their work (Coelho *et al.*, 2011; Shimazu & Schaufeli, 2009). According to Dysvik and Kuvaas (2013), employees with high levels of intrinsic motivation are more likely to engage in their work because of the enjoyment and fulfilment they experience in their work, and not because they feel forced to be engaged. In contrast, employees with low levels of intrinsic motivation are more likely to lack meaning and purpose in their jobs and they are also more likely to lack the engagement needed to do work out of their own will and independently (Dysvik & Kuvaas, 2011).

Employees with higher levels of intrinsic motivation are likely to prefer to work autonomously (Ryan & Deci, 2000; Yousaf *et al.*, 2013), whereas those with lower levels of intrinsic motivation are more likely to need assistance from supervisors and from external motivators to engage and perform well in their jobs (Kuvaas, 2006; Dysvik & Kuvaas, 2011).

The results of this study also show that employees with high levels of perceived social support from both colleagues and supervisors are more likely to have high levels of intrinsic motivation and of work engagement.

It was also found that there was a statistically and practically significant positive relationship between perceived social support and work engagement. This implies that the employees with higher levels of perceived social support were more likely to have higher levels of work engagement and were more likely to feel happy whenever they identified themselves with their jobs. The results of the current study support the findings of Bakker and Demeroti (2007), May *et al.* (2004), Rothmann and Rothmann (2010), and Schaufeli and Salanova (2007), which also showed that perceived social support from supervisors and colleagues was positively associated with work engagement. Employees with higher levels of perceived social support were more likely to also have high levels of work engagement and were less likely to find their work stressful (Fenlason & Beehr, 1994; McCalister *et al.*, 2006).

It is important for organisations to enhance the work engagement of their employees, because findings of previous studies have shown that engaged employees are passionate, enthusiastic and involved in their organisations, which contributes to the success of the organisation (Markos & Sridevi, 2010; Ologbo & Sofian, 2013). According to Coetzee and De Villiers (2010), engaged employees tend to connect emotionally with others when performing their work, whereas disengaged employees tend to disconnect themselves cognitively, physically and emotionally during work role performances. In conclusion, organisations need to enhance social support and try to promote employees' intrinsic motivation as higher levels of intrinsic motivation and perceived social support are significantly associated with higher levels of engagement (Van Yperen & Hagedoorn, 2003).

6.5 CHAPTER SUMMARY

In this chapter the results of the empirical study were presented, namely the biographical profile of the sample, the psychometric characteristics of instruments used, relationships between the variables, and lastly a discussion and integration of the results obtained. Both statistically and practically significant positive relationships were shown between intrinsic motivation, social support and work engagement.

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The aim of this study was to investigate whether statistically and practically significant positive relationships exist between intrinsic motivation, social support, and work engagement. In this last chapter, conclusions are drawn based on the literature review and results of the empirical study. The limitations of the current study are also highlighted and possible recommendations for the organisation and future research are presented.

7.1 CONCLUSIONS

Conclusions are drawn with regard to intrinsic motivation, social support and work engagement. The general aim of this study was to firstly conceptualise intrinsic motivation, social support and work engagement by means of a literature review. Secondly, the aim of the study was to investigate the statistical and practical significance of the relationships between intrinsic motivation, social support and work engagement. The first objective of the study was achieved through the literature review and the second objective was achieved through the empirical findings that confirmed the hypotheses of the study.

7.1.1 Conceptualising intrinsic motivation

Intrinsic motivation was conceptualised in Chapter 2 and defined as the motivation that comes from within an individual – nothing, including remuneration and benefits, can replace it (Bainbridge, 2011). Intrinsic motivation also refers to the engagement in a particular behaviour for the behaviour's own sake (Milyavskaya *et al.*, 2011). Intrinsically motivated employees freely engage in their jobs because of the interest stimulation and enjoyment that

comes with the job. Employees who are given the opportunity to be in control of their work and take responsibility for their work are likely to have high levels of intrinsic motivation (Coelho *et al.*, 2011) as well as high levels of work engagement (Shimazu & Schaufeli, 2009; Van Yperen & Hagedoorn, 2003). According to the holistic model of work wellness there is a positive relationship between intrinsic motivation and perceived social support (Rothmann, 2007).

7.1.2 Conceptualising social support

Social support was conceptualised in Chapter 3 and was defined as perceived or actual resources made available from one or more individuals to another, which assist individuals in dealing with stress and enhancing their well-being and work engagement (Bam, 2010). Social support was also defined as the help and protection given to others, especially individuals (Langford *et al.*, 1997). According to Ismail *et al.* (2013), social support indicates the amount of support an employee perceives to be receiving from friends, family, supervisor(s) and colleagues. Social support is important in that employees who have high levels of perceived social support from both their supervisors and colleagues are likely to have high levels of intrinsic motivation (Shadare & Hammed, 2009). According to Mostert and Rothmann (2006), as well as Rothmann (2007), employees with high levels of perceived social support are likely to cope better with work-related stress than employees with low levels of perceived social support.

7.1.3 Conceptualising work engagement

Work engagement, conceptualised in Chapter 4, has been recognised as a desired and important organisational asset in the ever-changing world of work (Pati & Kumar, 2011). From the literature review it was concluded that there existed more than one definition for work engagement and that different measurements could be used to measure work engagement. From the theoretical conceptualisation and from published research there seems to be agreement that work engagement is characterised by high levels of energy and strong identification (Bakker *et al.*, 2008), and is defined as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption (Henn & Barkhuizen, 2009; Schaufeli *et al.*, 2006; Schaufeli *et al.*, 2008).

Work engagement can be described in terms of three dimensions, namely vigour, absorption and dedication (Schaufeli *et al.*, 2006). The UWES was used to measure work engagement in this study, mainly because it has been used worldwide and previous studies have shown it to be a valid and reliable scale (Bakker *et al.*, 2008; Barkhuizen & Rothmann, 2006; Schaufeli *et al.*, 2002; Storm & Rothmann, 2003). Different studies have found that work engagement is positively associated with perceived social support (Albrecht, 2010; Bakker & Demerouti, 2008; Rothmann, 2007). It was also evident from the empirical results of the current study that work engagement is positively correlated to intrinsic motivation as well as to social support (Masvaure *et al.*, 2014; Nel, 2013). To summarise, the findings from the present study correspond to the findings of previous studies, namely that there is a positive relationship between intrinsic motivation, perceived social support and work engagement.

7.1.4 Empirical results

The second objective, namely to empirically investigate whether there are statistically and practically significant positive relationships between intrinsic motivation, social support and work engagement, was also achieved. The empirical findings confirmed the hypotheses of the study, namely that there were statistically and practically significant positive relationships between intrinsic motivation, social support and work engagement. The results of the study showed that those employees with high levels of work engagement were more likely to perceive high levels of social support from both colleagues and supervisors, as well as have high levels of intrinsic motivation. On the other hand, participants with low levels of work engagement were more likely to experience low levels of intrinsic motivation and perceive low levels of social support. The results of the current study support the findings of earlier research conducted by Shuck, Zigarmi and Owen (2015), which reported that employees with high levels of autonomy, relatedness and competence were more likely to have high levels of work engagement. According to Greenidge (2010), employees tend to be more engaged in organisations that encourage a positive style of communication between them and their supervisors.

Employees who feel that their input is valued by their supervisors and colleagues are more likely to be engaged in their jobs and to feel proud of the work that they do. According to Guthrie and Shayo (2005), engaged employees demonstrate a sense of integrity, passion, confidence and pride. Experiencing one's job as meaningful certainly serves as a motivation to perform an activity for its own sake and to also experience one's tasks as both pleasurable and satisfactory (Dysvik & Kuvaas, 2011). Naidoo (2014) reported that actively engaged employees are satisfied, enthusiastic and involved in their work.

The results of the current study regarding the positive relationship between perceived social support and work engagement are similar to the results of the study conducted by Beynevelde (2009), who found that work engagement is positively related, with a medium effect size, to perceived social support from both supervisor and colleagues.

7.1.5 Conclusions regarding the proposed hypotheses

Based on the findings of this study, both research hypotheses formulated at the outset have been accepted and the null hypotheses are rejected:

H1₀: There are no statistically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

H2₀: There are no practically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

The null hypotheses (H1₀, H2₀) were rejected because the results of this study showed that there are statistically and practically significant positive correlations between intrinsic motivation, social support and work engagement of shift workers in a South African Company.

H1₁: There are statistically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

- H2₁: There are practically significant positive relationships between the intrinsic motivation, social support and work engagement of shift workers in a South African chemical company.

The alternative hypotheses (H1₁, H2₁) were accepted because the results of this study showed that there are statistically and practically significant positive correlations between intrinsic motivation, social support and work engagement of shift workers in a South African Company. The results obtained through the present empirical study provided the necessary evidence to confirm these hypotheses.

7.2 LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FUTURE RESEARCH

The present study, like any other study (Shuck *et al.*, 2015), had several limitations – a fact that also highlights opportunities for future research. Firstly, due to money and time constraints, the study was limited as it focused only on shift workers employed at a South African chemical company. Future studies could include other employees in the same South African chemical company and not only shift workers.

Secondly, the sample size of the current study was 207. Future studies could include a larger sample size to substantiate and confirm the findings of the present study. However, according to Song, Tsui and Law (2009), a small sample provides a more conservative test of the true correlations between variables.

A third limitation is that the research design for the current study was cross sectional. This implied that the relationship between intrinsic motivation, social support, and the work engagement of shift workers in a South African chemical company over time was not

assessed and monitored. Longitudinal studies could be conducted in future to draw causal inferences based on the relationships examined in the present study.

Fourthly, data was collected from only one company, which limits the generalisability of the findings. Future research should be conducted in different companies.

The fifth limitation is that only a quantitative method was used in this study to conduct the research. A combination of quantitative and qualitative methods could be used in future to provide a better understanding of the three constructs under research. According to Johnson and Onwuegbuzie (2004), the attraction of mixed-method approaches lies in their methodological pluralism, which often results in superior research compared to mono-method design.

Lastly, the current study only tested for correlations among the three constructs. Linear regressions and multicollinearity of intrinsic motivation and work engagement were not tested. Work engagement was also not discussed as a theory of motivation. Future studies can test for regressions among the three construct under research, to further understand the impact of each construct on the other.

7.3 RECOMMENDATIONS

Findings of the current study confirmed that statistically and practically significant positive relationships exist between intrinsic motivation, social support and work engagement of shift workers, which imply that the chemical company needs to take all three variables into account when designing jobs. Organisation can help minimise stress relating to working shifts by designing jobs that provide motivation for shift workers (Fathi et al., 2013). During its recruitment and selection process, the organisation may consider attracting employees who

have the ability to find their jobs interesting, meaningful and enjoyable (Dysvik & Kuvaas, 2011; Pfeffer, 1998).

It is evident from the results of the current study that intrinsic motivation is highly correlated to work engagement. Employees who are intrinsically motivated will also engage in their jobs. It is recommended that the organisation enhance their employees' intrinsic motivation levels which will result in employees engaging in their work and reporting lower stress levels (Fathi et al., 2013). Employees are likely to stay engaged when they are given the opportunity to participate in the decision making processes (Cruzat, 2014). Engaged employees are reported to cope with stress better and experience a healthy lifestyle (Bakker, 2011).

In terms of its organisational structure, the company needs to cater for employees with higher as well as lower levels of intrinsic motivation. Hence it should ensure that sufficient supervision and external motivators are provided for employees with lower levels of intrinsic motivation to perform well and engage in their jobs (Dysvik & Kuvaas, 2011). In contrast, the organisation will have to ensure that employees with higher levels of intrinsic motivation are given the opportunity to work independently and with less supervision. The organisation should also enhance intrinsic motivation by providing training and conducive working conditions for its employees (Yousaf *et al.*, 2013).

Organisations also need to cater for employees with higher and lower levels of perceived social support by being supportive (May *et al.*, 2004) and by treating all employees fairly. Supervisors who show concern for employees' needs, who are committed to protecting employees' work interests and who encourage team members to speak up when they disagree with a decision, are deemed supportive and foster a safe working environment that relates positively with work engagement (Diedricks & Rothmann, 2013; Griffin, Patterson, & West,

2001; Harter *et al.*, 2003). Organisations need to encourage team work and recognise good work, while managers also have to assume due accountability and enhance the trust relationships between employees. Employees will perceive high levels of social support when they are included in the decision-making process.

The quality of relationships and of supervisor support needs to be included in the performance appraisals of supervisors, in order to emphasise behaviours (i.e. autonomy, competence, trust, concern and transparency) that are deemed important in enhancing the work engagement levels of employees.

Seeing that organisations are constantly on the lookout for ways to improve work engagement (Naidoo, 2014), the information provided in this study will assist the company under study to promote and improve work engagement. Organisations need to enhance and focus on work engagement in order to build more effective organisations (Bezuidenhout & Cilliers, 2010). Organisations need to find ways to influence the manner in which employees develop a personal sense of autonomy, relatedness and competence (Shuck *et al.*, 2015) that enhances their personal levels of work engagement. Employees who receive support from their colleagues and supervisors are more likely to be engaged at work (Sarti, 2014; Shuck *et al.*, 2015). The results of the study conducted by Nel (2013) have shown that a positive relationship with the supervisor had a significantly positive effect on engagement levels of employees. Engaged employees are more likely to be inspired by their jobs, to feel like going to work every morning and to be deeply immersed in their work.

Organisations may also need to look into their rewards systems and consider how fair they reward their employees in order to keep the latter engaged. According to Bhattacharya and Mukherjee (2009), employees consider rewards to play an important role in keeping them engaged at work. According to Sardar, Rehman, Yousaf and Aijaz (2011), there is a

significant relationship between reward strategies, performance reward systems, decision making, employee involvement and work engagement.

7.4 CHAPTER SUMMARY

Conclusions based on intrinsic motivation, social support and work engagement were drawn and reported in this chapter. Limitations based on the literature review and empirical study, were highlighted. Options for future research were suggested, and lastly, recommendations based on the empirical study were made. Seeing that the research objectives of this study were achieved, the research was concluded.

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