

**PSYCHOLOGICAL EMPOWERMENT, JOB SATISFACTION AND
ORGANISATIONAL COMMITMENT IN A CHEMICAL INDUSTRY**

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ABSTRACT

KEY TERMS: Psychological empowerment, employee empowerment, commitment, job satisfaction, organisational commitment.

In response to increasing global competition, companies are continuously under pressure to undergo dramatic changes. Organisations have flattened their structures to replace their traditional hierarchical management structures with empowered work teams. These are teams that have full responsibility of what they do and handle things traditionally handled by management in the past. In order to achieve this, the management challenge is to create working conditions in which individuals in these teams voluntarily choose to commit, collaborate and act towards accomplishment of organisational goals (Duvall, 1999).

Today's highly competitive environment, technological improvement, complex customer needs, corporate restructuring and continuous search for innovative ways to take organisations to new heights, affect companies throughout the world. To survive in today's difficult economic conditions, organisations demand more from employees.

This study conceptualises empowerment, dividing empowerment into three categories: structural empowerment, leadership empowerment and motivational empowerment. The study narrows to examine psychological empowerment specifically, an aspect of motivational empowerment. The theory of Spreitzer (1995) of four cognitions and the three principles of Menon (2001) is combined to conceptualise psychological empowerment. Job satisfaction is also discussed with emphasis on intrinsic and extrinsic satisfaction. Organisational commitment is examined from the three-component theory of Allen and Meyer (1991).

The objective of this study is to determine the relationship between psychological empowerment, job satisfaction and organisational commitment in a chemical industry. A

correlational design was used to determine the relationship between the constructs. Data from a sample of 61 (N=61) employees were used.

A correlational design is used to determine the relationship between psychological empowerment, job satisfaction and organisational commitment. Data were gathered and explored in terms of descriptive statistics. Cronbach alpha coefficients and factor analysis are calculated to give an indication of the validity and reliability of the measuring instruments. Pearson product moment correlation coefficients and canonical correlations were used to obtain the empirical results. A regression analysis and multiple stepwise regression analysis was carried out to determine the extent to which psychological empowerment predict job satisfaction and organisational commitment.

The results of the empirical study indicated practically significant differences between psychological empowerment as a total and two variables: Intrinsic job satisfaction and affective commitment. It was found that psychological empowerment could be used to predict job satisfaction to a certain degree, but could not predict organisational commitment as a total. However, there are indications that it could be used to predict affective commitment.

Recommendations on the research results were made.

OPSOMMING

SLEUTELTERME: Psigologiese bemagtiging, werknemers bemagtiging, verbondenheid, organisatoriese verbondenheid, werks tevredenheid.

Met hedendaagse globale kompetisie word maatskappye voortdurend onder druk geplaas as gevolg van dramatiese veranderinge. Baie organisasies het tradisionele hierargiee vervang met platter strukture waar spanne bemagtig word om take af te handel. Hierdie spanne dra volle verantwoordelikheid van wat hulle doen, en hanteer kwessies wat tradisioneel deur bestuur hanteer was. Dit bring mee dat organisasies al hoe meer moet fokus op bemagtigings strategiee van die individu om situasies te skep waar hulle 'n bydrae kan maak tot spanne wat toegewyd saamwerk tot hul doelwitte.

Die hoogs kompeterende besigheidsomgewing, tegnologiese vooruitgang, komplekse behoeftes van kliënte, korporatiewe herstrukturering en voortdurende soeke na innoverende benaderings om organisasies tot nuwe hoogtes te lei, affekteer organisasies orals oor die wêreld. Om aan hierdie vereistes te voldoen, word daar al hoe meer van werknemers verwag.

Hierdie studie konseptualiseer bemagtiging, en deel dit op in drie kategoriee: strukturele bemagtiging, leierskap bemagtiging en motiverings bemagtiging. Dit word dan nouer getrek na 'n fokus op psigologiese bemagtiging, 'n aspek van motiverings bemagtiging. Die teorie van die vier kognisies van Spreitzer (1995) en die drie beginsels van Menon (2001) word gekombineer om psigologiese bemagtiging te konseptualiseer. Werkstevredenheid word ook bespreek, met klem op intrinsieke en ekstrinsieke werkstevredenheid. Organisasie verbondeheid word ondersoek aan die hand van die drie-komponent konseptualisasie van Allen en Meyer (1991).

Die doelwit van die studie is om die vlakke van psigologiese bemagtiging, werkstevredenheid en organisasie toewyding in 'n chemiese industrie, te bepaal. 'n Data van 61 (N=61) werknemers is gebruik. 'n Korrelasionele ontwerp is gebruik om die

verband tussen psigologiese bemagtiging, werkstevredenheid en organisasie toewyding vas te stel. Data is ingesamel en ondersoek in terme van beskrywende statistiek. Cronbach alpha koëffisiënte en faktoranalises is bereken om die betroubaarheid en geldigheid van die meetinstrumente te bepaal. Pearson produk moment korrelasie koëffisiënte en kanoniese korrelasies is die statistiese metodes wat gebruik is om die empiriese resultate te kry. 'n Regressie analise en veelvoudige regressie analise is ook gedoen, om die voorspelbaarheid van psigologiese bemagtiging teenoor werkstevredenheid en organisasie toewyding, vas te stel.

Die resultate van die studie dui op 'n praktiese beduidendheid tussen psigologiese bemagtiging as a konstruk en twee veranderlikes nl. Intrinsieke werkstevredenheid en affektiewe toewyding. Daar is ook gevind dat psigologiese bemagtiging werkstevredenheid tot 'n mate kan voorspel, maar dat dit nie gebruik kan word om organisasie toewyding as 'n totaal te voorspel nie. Daar is egter goeie indikasies dat dit affektiewe toewyding kan voorspel.

Aanbevelings op die resultate word gemaak.

CONTENTS

ACKNOWLEDGEMENTS	ii
ABSTRACT	iii
OPSOMMING	v
CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER 1: PROBLEM STATEMENT	1
1.1 PROBLEM STATEMENT	1
1.2 RESEARCH OBJECTIVES	4
1.2.1 General objective	4
1.2.2 Specific objective	5
1.3 RESEARCH METHOD	5
1.3.1 Literature review	5
1.3.2 Empirical study	6
<i>1.3.2.1 Research design</i>	6
<i>1.3.2.2 Study population</i>	6
<i>1.3.2.3 Measuring instruments</i>	7
1.3.2.4 Statistical analysis	8
1.3.2.5 Research procedure	9
1.4 CHAPTER SUMMARY	9
1.5 DIVISION OF CHAPTERS	9
CHAPTER 2: PSYCHOLOGICAL EMPOWERMENT, JOB SATISFACTION AND ORGANISATIONAL COMMITMENT	10
2.1 EMPOWERMENT	10
2.1.1 Similar words and empowerment	11

2.2 MAJOR APPROACHES TO EMPOWERMENT	14
2.2.1 The structural approach	14
2.2.2 The motivational approach	15
2.2.3 The leadership approach	16
2.3 PSYCHOLOGICAL EMPOWERMENT	17
2.3.1 The four cognitions of Spreitzer (1995) and dimensions of Menon (2001)	19
2.4 JOB SATISFACTION	22
2.4.1 Conceptualisation of job satisfaction	23
2.4.2 Importance of job satisfaction	24
2.4.3 Dimensions of job satisfaction	24
2.5 ORGANISATIONAL COMMITMENT	25
2.5.1 Conceptualisation of organisational commitment	25
2.5.2 The three-component conceptualisation	26
2.5.2.1 <i>Affective commitment</i>	26
2.5.2.2 <i>Continuance commitment</i>	27
2.5.2.3 <i>Normative commitment</i>	27
2.5.3 Consequences of organisational commitment	28
2.6 CHAPTER SUMMARY	29
CHAPTER 3: EMPIRICAL RESEARCH	30
3.1 RESEARCH OBJECTIVES	30
3.1.1 General objective	30
3.1.2 Specific objectives	30
3.2 RESEARCH DESIGN	31
3.3 RESEARCH PROCEDURE	31
3.4 STUDY POPULATION	32
3.4.1 Gender	32
3.4.2 Age	33
3.4.3 Ethnical group	33

3.4.4	Qualification levels	34
3.4.5	Group	34
3.4.6	Years of service	35
3.4.7	Department	36
3.4.8	Job level	36
3.5	MEASURING BATTERY	37
3.5.1	The Measuring Empowerment Questionnaire (Spreitzer)	37
3.5.2	The Psychological Empowerment Questionnaire (Menon)	38
3.5.3	The Revised Minnesota Satisfaction Questionnaire	38
3.5.4	The Organisational Commitment Questionnaire	38
3.6	AIM OF THE STUDY	39
3.7	STATISTICAL ANALYSIS	39
3.7.1	Descriptive statistics	39
3.8	RESEARCH HYPOTHESIS	42
3.9	CHAPTER SUMMARY	43
CHAPTER 4: RESULTS OF THE EMPIRICAL STUDY		44
4.1	DESCRIPTIVE STATISTICS	44
4.1.1	Reliability	45
4.2	PEARSON PRODUCT MOMENT CORRELATIONS	
	COEFFICIENTS	48
4.2.1	The Measuring Empowerment Questionnaire (Spreitzer)	49
4.2.2	The Revised Minnesota Satisfaction Questionnaire	50
4.2.3	The Organisational Commitment Questionnaire	50
4.2.4	The Psychological Empowerment Questionnaire (Menon)	51
4.3	REGRESSION ANALYSIS	52
4.4	CANONICAL CORRELATIONS	55
4.5	CHAPTER SUMMARY	57

CHAPTER 5: RECOMMENDATIONS, CONCLUSIONS & LIMITATIONS	58
5.1 SYNOPSIS OF STUDY	58
5.2 RECOMMENDATIONS	59
5.2.1 Recommendations to management and organisation	59
5.3 LIMITATIONS OF THE RESEARCH	60
5.4 FUTURE RESEARCH	61
5.5 APPLICABILITY OF THE STUDY	61
5.6 CONCLUSION	62
REFERENCES	63

LIST OF TABLES

Table 1	<i>Descriptive statistics</i>	45
Table 2	<i>Cronbach alpha coefficients</i>	46
Table 3	<i>Factor analysis – The Measuring Empowerment Questionnaire (Spreitzer)</i>	47
Table 4	<i>Factor analysis – The Revised Minnesota Satisfaction Questionnaire</i>	47
Table 5	<i>Factor analysis – The Psychological Empowerment Questionnaire (Menon)</i>	48
Table 6	<i>Factor analysis – The Organisational Commitment Questionnaire</i>	48
Table 7	<i>Pearson product moment correlation coefficients between psychological empowerment, job satisfaction and organisational commitment</i>	49
Table 8	<i>Regression analysis of job satisfaction</i>	52
Table 9	<i>Multiple regression analysis – Normative commitment</i>	53
Table 10	<i>Multiple regression analysis – Continuance commitment</i>	54
Table 11	<i>Multiple regression analysis – Affective commitment</i>	54
Table 12	<i>Canonical Analysis summary of Organisational Commitment vs Psychological Empowerment</i>	56
Table 13	<i>Canonical Analysis summary of Job Satisfaction versus Psychological Empowerment</i>	56

LIST OF FIGURES

Figure 1	<i>Description of sample group – Gender</i>	32
Figure 2	<i>Description of sample group – Age</i>	33
Figure 3	<i>Description of sample group – Ethnical group</i>	33
Figure 4	<i>Description of sample group – Qualification levels</i>	34
Figure 5	<i>Description of sample group – Group</i>	34
Figure 6	<i>Description of sample group – Years of service</i>	35
Figure 7	<i>Description of sample group – Department</i>	36
Figure 8	<i>Description of sample group – Job level</i>	36

CHAPTER 1

PROBLEM STATEMENT, RESEARCH OBJECTIVES AND METHODOLOGY

INTRODUCTION

This mini-dissertation investigates the relationship between psychological empowerment, job satisfaction and organisational commitment in a chemical industry.

In this chapter the problem statement, research objectives, research method, statistical analysis, the research procedure and pre-liminary chapter division is given.

1.1 PROBLEM STATEMENT

In response to ever increasing global competition, companies are continuously under pressure to undergo dramatic changes. Many big organisations have devolved decision making, promoted multi-skilling, encouraged team work and introduced a range of initiatives all designed to empower employees. Organisations have flattened their structures to replace their traditional hierarchical management structures with empowered work teams. These are teams that have full responsibility of what they do and handle things traditionally handled by management in the past (Gardner & Siegall, 2000).

In order to achieve this, the management challenge is to create working conditions in which individuals in these teams voluntary choose to commit, collaborate and act towards accomplishment of organisational goals (Duvall, 1999).

Gardner and Siegall (2000) stated that for empowerment to work, employees must first perceive themselves as empowered. For this reason Block (1987) stated that the idea of empowerment being taught in a programme, and the prevailing attitude that someone in a

position of authority can empower an employee are simply incongruent with the conscious decision of an individual to act in an empowered way.

In the era of extreme demands for increased productivity and low cost producers, the need for multiple skills presents challenges to organisations and, especially for managers, within organisation in their roles of facilitating empowerment in individuals.

There are various approaches to empowerment (Menon, 2001). It can be seen as an act (structural approach), a psychological state of mind (motivational approach) or an energising aspect through leadership (leadership approach). These approaches will now be discussed shortly.

The structural approach to empowerment emphasise power and decision making authority, it means moving decision-making authority down the organisational hierarchy, acknowledging that the employee has the ability to affect organisational outcomes. The leadership approach focus on the leader who energises his followers to act and the leader provides the future vision (Menon, 2001). The motivational approach differs from structural empowerment in that it focuses on intrinsic motivation rather than on the managerial practices used to increase individuals' level of power (Spreitzer, 1995). Psychological empowerment is an aspect of the motivational approach (Menon, 2001).

The researcher believes that individual employees should act out of volition to express their skills and capabilities to the fullest extent and take ownership of the empowerment process. For this reason, empowerment will be studied from a psychological perspective.

Thomas and Velthouse (1990) defined empowerment from a psychological perspective stating that empowerment is intrinsic motivation manifested in four task assessments: meaningfulness, competence, choice and impact. Spreitzer (1995) built on this theory by developing a measuring instrument based on four cognitions: meaning, competence, self-determination and impact. They reflect an individuals' active orientation to shape his/her work role and context.

A few years later, Menon (2001) added to this research by developing a multi-dimensional approach to empowerment. The dimensions are perceived competence, perceived control and goal internalisation. The dimension of goal internalisation is a unique new construct in the research of empowerment (Menon, 2001).

Nortje (2001) states that due to a lack of participative climate, South Africa has a vast disempowered workforce where many employees suffer from poor self-esteem, lack of personal vision and a feeling of hopelessness. She argues that these attitudes and beliefs form inner barriers that block growth and proactive development while manifesting in the workplace in the form of a reluctance to accept responsibility, hesitance to communicate openly, lack of commitment and ownership and ultimately, below average performance.

The researcher is of the opinion that the problem explored above is a major challenge for companies in South Africa and around the world. It seems as if psychological empowerment might increase the levels of job satisfaction and organisational commitment within organisations. The following studies have been done to clarify this concept.

Liden, Sparrow and Wayne (2000) reported a positive relationship between psychological empowerment, work satisfaction and job performance. They stated that individuals who perceive their jobs to be significant and worthwhile feel higher levels of work satisfaction than those who perceive their jobs as having little value. Gardner and Siegall (2000) reported that employees who are psychologically empowered have a high sense of self-efficacy, are given authority and responsibility over their jobs; they engage in upward influence and see themselves as innovative.

Quinn and Spreitzer (1997) found a dimension of empowerment to be significantly related to work satisfaction in two organisations. It was also found that job dissatisfaction relate to absenteeism, trade union activities and psychological withdrawal. Darwish (2000) reported that affective commitment mediates the influences of satisfaction with working conditions, pay and supervision. Lawson and Syme (1996) reports that low

committed people tend to have higher stress levels, than more highly committed people. Out of these studies, the importance of psychological empowerment is clear.

Empowerment is deemed an important issue in the organisation in which the study was done, because they are in a market that demands great flexibility and excellent decision making skills. People need to take responsibility for their roles, and sometimes, even for that of other people, to make sure that they can deliver the product first. Therefore, it is extremely important to have an empowered workforce, who has the abilities to satisfy market needs in a very efficient manner.

Based on the above problem statements, the following research questions are formulated:

- How are psychological empowerment, job satisfaction and organisational commitment conceptualised in literature?
- What is the level of psychological empowerment, job satisfaction and organisational commitment in a chemical industry?
- What is the relationship between psychological empowerment, job satisfaction and organisational commitment in a chemical industry?
- Can psychological empowerment predict job satisfaction and organisational commitment in a chemical industry?

1.2 RESEARCH OBJECTIVES

1.2.1 General objective

The general objectives of this research study is to determine whether there is a relationship between psychological empowerment, job satisfaction and organisational commitment in a chemical industry and the second objective is to see if psychological empowerment can be used to predict job satisfaction and organisational commitment.

1.2.2 Specific objectives

The specific research objectives are:

- To conceptualise psychological empowerment, job satisfaction and organisational commitment from the literature.
- To determine the level of psychological empowerment, job satisfaction and commitment in a chemical industry.
- To determine the relationship between psychological empowerment, job satisfaction and organisational commitment in a chemical industry.
- To establish if psychological empowerment can predict organisational commitment and job satisfaction.

1.3 RESEARCH METHOD

The research method consists of a literature review and an empirical study.

1.3.1 Literature review

The literature review will focus on previous research that has been done on psychological empowerment, job satisfaction and organisational commitment in the workplace.

Databases that have been used to get resources from are as follows:

- Library
- Internet
- Psychlit
- Repertoire of South African and other journals
- Previous researches

1.3.2 Empirical study

1.3.2.1 Research design

The purpose of a research design is to plan and structure a research project in such a way that it enhances the ultimate validity of the research findings (Mouton & Marais, 1992). The research design can be classified as a survey design or correlational design (Huysamen, 1993). It has also to do with the study of relationships that appears without any planned intervention.

For the purpose of this study the research design called, correlational design, will be used. Correlational design allows for two or more variables to be measured at about more or less the same point in time (Huysamen, 1993). Therefore, the relationship between psychological empowerment, job satisfaction and organisational commitment will be investigated at the same point in time without any planned intervention.

A survey design will be used to reach the research objectives. The specific design is a cross-sectional design, whereby a sample is drawn from a population at one point in time (Shaughnessy & Zechmeister, 1997). Information collected is used to describe the population at that time. This design can be used to access interrelationships among variables within a population.

According to Shaughnessy and Zechmeister (1997) this design is ideally suited when the aim of the study is predictive or descriptive in nature.

1.3.2.2 Study population

The study consists of a total population of 61 employees of a chemical industry (N=61), including employees from three different companies in one group in the chemical industry. They were part of different departments and different levels. It was also done

in a head office set-up, therefore more financial and marketing people are included. An availability sample is used.

1.3.2.3 Measuring instruments

◆ The Measuring Empowerment Questionnaire

This is a theory-based measure of empowerment developed by Spreitzer (1995). It is based on the four cognitions (meaning, competence, self-determination and impact) and the questionnaire consists of twelve items that measure psychological empowerment.

The cronbach alpha coefficient for the overall empowerment construct of the industrial sample in Spreitzer's (1995) study was 0.72 and 0.62 for the insurance sample, indicating that the overall reliabilities are acceptable. Dwyer (2001) found an alpha coefficient of 0,92 for reliability.

◆ The Psychological Empowerment Questionnaire

The questionnaire of Menon (2001) will be used to measure three psychological dimensions namely perceived control, perceived competence and goal internalisation. It consists of fifteen items. Each dimension is measured by five items. The sub-scales have accepted reliability values. The cronbach alpha coefficients of the sub-scales were as follow: perceived control (0.86), perceived competence (0.78), and goal internalisation (0.86).

◆ The Revised Minnesota Satisfaction Questionnaire

The Minnesota Satisfaction Questionnaire (Weiss, Davis, England and Lofquist, 1967) will be used to measure job satisfaction. This questionnaire indicates how satisfied or dissatisfied respondents are within their jobs by asking respondents to rate themselves on 20 questions by using a five-point scale (1=very dissatisfied to 5=very satisfied).

The revised Minnesota Satisfaction Questionnaire short form measures intrinsic satisfaction (12 items) and extrinsic satisfaction (8 items). Hirschfeld (2000) found that a two-factor model (intrinsic and extrinsic) is superior to a one-factor model (total job satisfaction). This short version of twenty items offers valid measures of general job satisfaction. Alpha coefficients higher than 0.90 are reported in South African studies (Coetzee, 1998).

◆ **The Organisational Commitment Questionnaire**

The questionnaire of Allen and Meyer (1991) will be used to measure organisational commitment. Continuance, affective and normative commitment is sub-dimensions measured. The questionnaire consists of 18 items. Cronbach alpha coefficients were above 0.80, thus acceptable indicating acceptable reliability.

1.3.2.4 Statistical analysis

The statistical analysis will be carried out with the help of the SAS-program (SAS Institute, 2000). Statistical Consultation Services of the PU for CHE. Cronbach alpha coefficients and inter-item correlation coefficients were used to assess the internal consistency of the measuring instruments (Clark & Watson, 1995). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) will be used to analyse the data. Pearson product-momentum correlations coefficients were used to specify the relationships between the variables. Effect sizes were computed to assess the practical significance of relationships in this study. A cut-off point 0.30 which represents a medium effect (Cohen, 1988, Steyn, 2002), was set for the practical significance of correlation coefficients. Canonical correlations was used to determine the relationships between the dimensions of psychological empowerment, job satisfaction and organisational commitment.

1.3.2.5 Research procedure

The measuring battery was compiled and consisted of four questionnaires. A letter requesting participation and motivating the research was included. Ethical aspects regarding the research were discussed with the participants. The test battery was administered at the workplace on a suitable date. The results were analysed and feedback was given to all individuals who requested feedback.

1.4 CHAPTER SUMMARY

In this chapter, the researcher outlined the situation in businesses where global and economic changes require people to optimise their human resources. The research objective and research method was also discussed.

The focus of chapter two will be the conceptualisation of empowerment, psychological empowerment, job satisfaction and organisational commitment.

1.5 DIVISION OF CHAPTERS

Chapter 1: Introduction, problem statement and research objective

Chapter 2: Literature study: Psychological empowerment, job satisfaction and organisational commitment

Chapter 3: Empirical research

Chapter 4: Results and discussion of the empirical study

Chapter 5: Conclusions, recommendations and limitations.

CHAPTER 2

LITERATURE STUDY: PSYCHOLOGICAL EMPOWERMENT, ORGANISATIONAL COMMITMENT AND JOB SATISFACTION.

In this chapter the concept of psychological empowerment, job satisfaction and organisational commitment is conceptualised. Firstly, psychological empowerment will be addressed in terms of conceptualisation, major approaches and cognitions. Secondly, job satisfaction will be defined and explored in terms of intrinsic and extrinsic job satisfaction. Thirdly, organisational commitment will be discussed according to the three component conceptualisation of Allen et. al. (1991).

2.1 DEFINITION AND CONCEPTUALISATION OF EMPOWERMENT

In today's business circles, empowerment is often discussed as a managerial approach among business leaders (Conger & Kanungo, 1988; Koh & Lee, 2001). Workplace empowerment has been hailed as the major new industrial weapon against domestic and international threats (Mathes, 1992; Manz & Shipper, 1992).

While empowerment has been actively practised, the exact meaning does not seem to be well considered (Koh & Lee, 2001). Recent studies (Peccei & Rosenthal, 2001, Bridger, Brown, Fuller, Jones & Morrison, 1999, Koh & Lee, 2001) have tried to define empowerment to make it useful in managerial practice. Some real world case studies have also been conducted (Gardner & Siegall, 1999, Au-Yeung & Mok, 2002, Mouly & Smith, 1998, Harley, 1999).

There are also several papers analysing field data to find relationships between empowerment and other variables like gender, task interdependence, manager support and control, leadership, work teams, role ambiguity, span of control, access to resources, access to information and participative climates (Heslin, 1999, Gardner & Siegall, 2000).

Various studies have also been done to examine the effect of empowered employees on an organisations' bottom line (Murray & Thorlakson, 1996, Fleming, 1991).

In the above paragraphs, empowerment is examined. The researcher will now explore empowerment as a construct by assessing similar words and major approaches to empowerment.

2.1.1 Similar words and empowerment

A common concern in the literature is that the word "empowerment" is conceptually redundant (Menon, 2001, Koh & Lee, 2001). Menon (2001) states that if empowerment is equivalent to delegation or intrinsic motivation, the status of empowerment as an independent construct is debatable. There is enough documented research on all these constructs, without adding empowerment.

There is clearly a need for definitional and conceptual clarity. The researcher will now examine a few words that could be synonymous to empowerment. These words will be distinguished by using the model of Spreitzer (1995). She stated that empowerment is intrinsic motivation and can be measured by four cognitions: Meaning, competence, self-determination and impact. The cognitions will be discussed in depth later in this chapter.

- **Authority delegation**

Burke (1986) emphasised the process of sharing authority, maintaining that empowering implies granting of power, and called this "delegation of authority". Conger and Kanungo (1988) proposed that empowerment is "to enable" rather than simply "to delegate". Thus, empowerment is considered both behavioural (i.e. delegating) and perceptual (i.e. enabling). Authority delegation does not address both aspects of the empowerment construct (Koh & Lee, 2001).

- Motivation

Thomas and Velthouse (1990) stated that empowerment is a paradigm shift from the traditional motivational approach because it is concerned with the self-actualisation of subordinates, as well as organisational performance, while the motivational approach is only concerned with the organisational performance (Koh & Lee, 2001).

- Self-efficacy

Self-efficacy involves an individual's belief in his/her capability to perform activities with skill (Gist, 1987). Self-efficacy is only the competence dimension of the definition of empowerment, and therefore can not substitute empowerment (Koh & Lee, 2001).

- Job enrichment

Hackman and Oldham (1980) developed a job characteristics enrichment model by increasing skill variety, task identity, task significance, autonomy and job feedback. This model suggested that three psychological states are affected: experience meaningfulness, experienced responsibility and knowledge of the results. Empowerment has common roots with job enrichment. All of Hackman and Oldman's (1980) psychological states are represented in Spreitzer's model. However, Spreitzer (1995) adds the dimension of impact, which is not represented. Thus, the workers may perceive meaningfulness, competence and self-determination but they may not perceive that they can influence strategic or operational outcomes at work.

- Employee ownership

Employee ownership can be divided into formal and psychological ownership. Psychological ownership is perceived if participative decision-making opportunities and influence are allowed. It is very close to the empowerment concept, but lacks the competence dimension of the definition (Koh & Lee, 2001).

- Self-leadership

Self-leadership is defined as the influence we exert on ourselves to achieve the self-motivation we need to perform (Manz & Sims, 1991). This term does refer to

competence, meaningfulness and self-determination. It is also formed through an interactive process between management and employees, but it lacks the dimension of impact. A self-leader does not necessarily perceive that he/she can influence strategic, administrative or operating outcomes.

- Autonomy, self-determination, self-control and self-influence

Self-relevant constructs are all related to a situation where the person can or must make his/her own decision. But this seems to cover only the self-determination part of the definition. Employees can still be incompetent, and could still not perceive their impact and meaningfulness (Koh & Lee, 2001).

- High-involvement, participative management

In high-involvement management, employees at all levels of the organisation share information, knowledge, power and rewards so that they can influence and be rewarded for organisational performance. In participative management, managers share goal-setting, information-processing and problem-solving activities with employees, as well as decision-making (Koh & Lee, 2001). This definition includes all of the aspects of Spreitzer's (1995) model.

However, Koh and Lee (2001) are of the opinion that allowing participation in organisations is drastically different from giving power. Participation does not imply receiving full-scale power and direct responsibility. Therefore, changes in the four dimensions should be limited as a result of participation. Participative techniques are also weak in the competence dimension, they are centred around fostering employees' suggestions.

As can be seen, empowerment is a truly unique concept, which could not be substituted by any of the above-mentioned words. The researcher will now examine the major approaches to empowerment, found in literature. Each will be discussed.

2.2 MAJOR APPROACHES TO EMPOWERMENT

Koh and Lee (2001) argue that there are two basically different aspects to empowerment. One aspect is empowerment as “behaviour of a supervisor” who empowers his/her subordinates. The other is the “psychological state of the subordinate” resulting from his/her supervisor’s empowering. Thus, it seems that the two aspects concern the cause and effect of empowerment.

This notion is supported in wider literature. Menon (2001) states that empowerment has been used to denote the act of empowering (others) and also to describe the internal processes of the individual being empowered (i.e. psychological empowerment). Burke (1986) equates empowerment to delegation, referring to the act of empowering, while Thomas and Velthouse (1990) allude to the internal state of the empowered individual (i.e. psychological empowerment).

Tymon (1998) suggested that empowerment be classified into three broad categories. They are the structural approach, the motivational approach and the leadership approach. These approaches will now be discussed.

2.2.1 The structural approach

From this approach, empowerment is understood as the granting of power and decision-making authority. Empowering employees would involve moving decision-making authority down the organisational hierarchy and granting employees the ability to significantly affect organisational outcomes (Menon, 2001). Kanter (1977) is of the opinion that empowerment results from decentralisation, a flattening of the hierarchy and increased employee participation. Boren (1994) defined empowerment as various skills to promote subordinates’ capabilities and potential based on trust. Harari (1994) considered empowerment as giving freedom. Rothstein (1995) defined empowerment as a superior helping employees show their abilities at work.

The above-mentioned writers see empowerment as a “behavior aspect” from a supervisor to an employee. The researcher is of the opinion that this has been the traditional approach to empowerment. It focuses on the actions of the “powerholders” who transfer some power to the less powerful. The psychological state of those being empowered is not addressed.

Next, the motivational approach, of which psychological empowerment is a key element, will be discussed.

2.2.2 The motivational approach

This approach was pioneered by Conger and Kanungo (1988) and was conceptualised as “psychological enabling”. They saw empowerment as a motivational construct, rather than a leader-member relational construct. According to them, empowerment is a process of enhancing feelings of self-efficacy among organisational members through the identification of conditions that foster powerlessness, and through their removal by both formal organisational practices and informal techniques (Conger and Kanungo, 1988). They saw a need to integrate both the management and psychology aspects to empowerment.

Thomas and Velthouse (1990) extended this approach by proposing a perceptual process arousing intrinsic task motivation. They defined empowerment as intrinsic task motivation manifested in task assessments reflecting an employee’s orientation to his/her work role. The four task assessments are meaningfulness, competence, choice and impact.

Spreitzer’s (1995) model, based on that of Thomas and Velthouse (1990), defines empowerment as increased intrinsic motivation manifested in four cognitions (called task assessments by Thomas and Velthouse): meaning, competence, self-determination and impact. As the focus of this study is psychological empowerment, these four cognitions will be discussed more broadly later in this chapter.

Menon (2001) also supports the motivational approach in proposing the definition of a psychologically empowered state as a cognitive state characterised by a sense of perceived control, perceived competence and goal internalisation. These three dimensions will also be discussed in detail later in this chapter.

2.2.3 The leadership approach

The researcher will only give a brief description of the leadership approach because it is not particularly relevant for this study, as the focus is on psychological empowerment. However, it is important to note because of the link to the dimension of Menon's (2001) subscale of goal internalisation. This will be discussed later in this chapter.

In the leadership approach, the emphasis is on the energising aspect of empowerment (Menon, 2001). Leaders energise and hence empower their followers to act by providing an exciting vision for the future. Writers such as Yukl (1989), Bennis and Nanus (1985), Burke (1986) and Block (1987) are major examples of the leadership approach.

Yukl (1989) asserts that transformational leadership empowers subordinates to take part in the process of reforming the organisation. Burke (1986) stated that leaders empower subordinates by emphasising a higher purpose or worthy cause.

The various approaches to empowerment, as outline above, are testimony to the diverse thinking of empowerment. Thomas and Velthouse (1990) described empowerment as being multifaceted and of such a nature that its essence could not be captured by a single concept.

It can be considered an act; by granting power to the person being empowered (Kanter, 1977, Boren, 1994, Harari, 1994, Rothstein, 1995). It can also be considered a psychological state of mind (Conger & Kanungo, 1988, Spreitzer, 1995, Thomas & Velthouse, 1990, Menon, 2001). And it can also be seen as an energising aspect through leadership (Yukl, 1989, Bennis & Nanus, 1985, Burke, 1986, Block, 1987).

The researcher will define empowerment by integrating all these aspects. Empowerment is the psychological state of an employee that is affected by empowering behaviors of the supervisor.

For the purpose of this study, the researcher will focus on empowerment as a psychological state of an employee. The researcher is of the opinion that psychological empowerment provides a link between empowering acts and employee outcomes such as job satisfaction and organisational commitment.

In literature, there are various studies that underline the importance of psychological empowerment in organisations. Corsun and Enz (1999) argue that psychological empowerment is essential for customer service within service organisations. Au-Yeung and Mok (2002) states that there is a positive correlation between psychological empowerment and organisational climate. Bridger et.al. (1999) found that psychological empowerment significantly enhance the positive effects of transformational leadership.

As can be seen, psychological empowerment is a key element to improving performance within organisations (Corsun and Enz, 1999, Au-Yeung & Mok, 2002, Bridger et.al., 1999). Therefore, it will now be discussed in depth.

2.3 PSYCHOLOGICAL EMPOWERMENT

Psychological empowerment is part of the motivational approach towards empowerment (Koh & Lee, 2001). In this approach empowerment is defined more broadly as increased intrinsic task motivation manifested in a set of four task assessments reflecting an individual's orientation to his or her work role (Thomas & Velthouse, 1990). Elements of the work environment affected these task assessments, which in turn affected whether the individual acted in an empowered manner. The four task assessments of Thomas and Velthouse (1990) were meaningfulness, competence, choice and impact. They defined impact as the degree to which behavior is seen as making a difference in terms of

accomplishing the purpose of the task. Competence was the degree to which a person can perform task activities skilfully when he or she tries. Meaningfulness involves the individual's intrinsic caring about a given task and choice involves causal responsibility for a person's action (Thomas & Velthouse, 1990).

Spreitzer (1995) built on the work of Thomas and Velthouse (1990) by validating a measure of empowerment. She identified four cognitions: meaning, competence, self-determination and impact. These cognitions will be fully defined and discussed later in this chapter.

She identified impact as the degree to which an individual can influence strategic, administrative or operating outcomes at work. Self-determination (referred to as "choice" by Thomas & Velthouse) is reflected in autonomy in the initiation and continuation of work behaviors and processes.

In her studies, Spreitzer (1995) found that these components all contributed to a person's sense of empowerment, which was related to managerial effectiveness and innovative behaviors. These cognitions reflect an active, rather than passive, orientation to a work role (Spreitzer, 1995). In another study, she found that no one dimension was associated with the outcomes studied (effectiveness, satisfaction and low job-related strain) (Spreitzer, 1996). The absence of any one of these cognitions, will deflate the overall degree of felt empowerment.

Menon's (2001) research followed a few years after that of Spreitzer (1995). His view stemmed from integrating the various streams of research from the perspective of the individual employee and by focusing on the effects of various empowering practices on the psychological state of the employee. His research was based on the premise that the psychological experience of power underlies feelings of empowerment. This research extends existing perspectives on empowerment by incorporating the empowering effect of valued goals, such as those provided by transformational leadership (Menon, 2001).

According to Menon (2001) the three main dimensions of the experience of power underlying the empowerment process are power as perceived control, power as perceived competence and power as being energised toward achieving valued goals. Goal internalisation was identified as a major component of the psychological experience of empowerment, in addition to the two traditional facets of perceptions of control over the work environment and perceptions of self-efficacy or competence.

The researcher chose to examine both of these theories, as it gives a broader picture of psychological empowerment as a construct. The four cognitions of Spreitzer (1995) will now be discussed in detail. The researcher will combine the term “competence” of Spreitzer (1995) and “perceived competence” of Menon (2001) as they are related. “Perceived control” and “impact” will also be combined, for the same reason. Goal internalisation (Menon, 2001) is a new construct based on the leadership approach and will be discussed separately.

2.3.1 The four cognitions of Spreitzer (1995) and dimensions of Menon (2001).

- **Meaning**

Meaning is the value of a work goal or purpose, judged in relation to an individual’s own ideals or standards (Thomas & Velthouse, 1990). Meaning involves a fit between the requirements of a work role and beliefs, values and behaviours (Spreitzer, 1995).

Meaningfulness is the feeling that people are on a path that is worth their time and energy – that they are on a valuable mission where their purpose matters on a large scheme of things (Malan, 2002). In order to build feelings of meaningfulness, the following should be in place: non-cynical climate, clear values, an exciting vision, relevant task purposes and whole tasks (Dwyer, 2001).

- **Competence / Perceived competence**

According to Thomas and Velthouse (1990) competence is the degree to which a person can perform task activities skillfully when he or she tries. Spreitzer (1995) defined it as an individual's belief in his or her capacity to perform activities with skill. Perceived competence is also one of the dimensions of Menon (2001). Menon (2001) states that his term has parallels in the Conger and Kanungo (1988), Thomas and Velthouse (1990) and Spreitzer (1995) models. Therefore these two aspects is combined in this study.

Spreitzer (1995) also noted that this concept was synonymous with the terms self-efficacy, agency beliefs, personal mastery or effort-performance expectancy. Bandura (1989) refer to self-efficacy as beliefs in one's capabilities to mobilise the motivation, cognitive resources and courses of actions needed to meet given situational demands. Conger and Kanungo (1988) defined empowerment as the process of psychological enabling, primarily through the enhancement of self-efficacy beliefs.

Bandura (1977) is of the opinion that self-efficacy affects the choice of behavioural settings and initiation of effort. People tend to avoid situations that they believe would exceed their coping skills. On the other hand, they get involved in activities that they believe to be within their power to handle. It follows that a sense of competence is essential for psychological enabling (Menon, 2001).

This dimension is labelled competence rather than self-efficacy because the focus is on efficacy specifically to a work role, rather than on global efficacy (Spreitzer, 1995).

- **Self-determination**

Where competency is mastery of behaviour, self-determination is an individual's sense of having choice in initiating and regulating actions. Perceived self-determination produces greater flexibility, creativity, initiative and self-regulation (Deci & Ryan, 1988).

Spreitzer (1995) states that self-determination reflects autonomy in the initiation and continuation of work behaviours and processes for example, making decisions about work methods, pace and effort (Spector, 1986). Thomas and Velthouse (1990) terms this task assessment as “choice”.

- **Impact / Perceived control**

Spreitzer (1995) defines impact as the degree to which an individual can influence strategic, administrative, or operating outcomes at work. Impact differs from locus of control whereas impact is influenced by the work context and internal locus of control is a global personality characteristic that endures across situations.

Menon (2001) states that the dimension of perceived control roughly corresponds to the task assessments of impact and choice or self-determination in the Thomas and Velthouse (1990) and Spreitzer (1995) models. Therefore it is being combined in this study.

Perceived control captures the effects of traditional empowering techniques such as delegation, increased employee autonomy, etc., advocated by the structuralist approach (Menon, 2001). Empowering strategies such as delegation, increased participation, and providing information and resources (Kanter, 1983) can lead to a sense of perceived control. Empowered employees feel confident and in control of their environments.

Thus, it can be said that employees feel that they can influence the environment, when they have a sense of perceived control.

- **Goal Internalisation**

The dimension of goal internalisation represents the energising aspect of empowerment, which in turn is the main thrust of the leadership approaches to empowerment. Menon (2001) is of the opinion that the word power can also be used to denote energy and strength. At a psychological level, an important energising element is a goal, particularly

a valued goal. Burke (1986) stated that leaders empower subordinates by emphasising a higher purpose or worthy cause. It is the task of organisational leadership practices to transform the beliefs and attitudes of employees in line with the organisation's mission and objectives. Goal internalisation is a measure of the ownership of the organisational goal, while perceived control is a measure of ownership (or control) of the means (e.g. decision-making authority) to achieve that goal (Menon, 2001).

Goal internalisation is a unique feature of the conceptualisation of psychological empowerment. It is designed to capture the energising effect of ideas, such as inspirational goals. Menon (2001) criticises Spreitzer's model by stating that viewing psychological empowerment explicitly as intrinsic task motivation excludes extra-task or super-task dimensions of empowerment from the effect of transformational leadership.

For this reason, the researcher has decided to include both measurements in this study, for a broader picture of psychological empowerment.

In summary, psychological empowerment is the internal process of the individual being empowered. It is influenced and therefore measured on different levels. For this study the levels are meaning, competence/perceived competence, self-determination, impact/perceived control and goal internalisation.

The next construct, job satisfaction, will now be discussed, by means of conceptualisation of job satisfaction, intrinsic satisfaction and extrinsic satisfaction. The researcher will also focus on previous studies showing the important influence job satisfaction has in the workplace.

2.4 JOB SATISFACTION

In the following section, job satisfaction will be discussed.

2.4.1 Conceptualisation of job satisfaction

Meyer and Tett (1993) are of the opinion that job satisfaction is an affective (emotional) attachment to the job viewed either in its entirety (global satisfaction) or with regard to particular aspects (facet satisfaction e.g. supervision).

Job satisfaction results when a job helps attain an individual's values, expectations, and standards. Dissatisfaction occurs when the employee perceives that the job blocks their attainment. Researchers and practitioners have paid attention to job satisfaction because they believe it affects workers' commitment and performance. The achievement of specific work values leads to a pleasurable emotional state, known as job satisfaction.

The researcher concludes that job satisfaction is an affective reaction to work, originating from the perception of an employee's comparison between real work outputs and that which he/she expected it to be.

Weiss, et.al, (2000) identified the 20-item short form of the Minnesota Satisfaction Questionnaire (MSQ) as a popular facet measure that is frequently used in job satisfaction research. As previously indicated, this questionnaire was used in this study, to measure two distinct components: intrinsic job satisfaction and extrinsic job satisfaction.

Intrinsic job satisfaction is how people feel about the nature of the job tasks themselves, whereas extrinsic job satisfaction is how people feel about the aspects of the work situation that are external to the job tasks or work itself (Spector, 1997). It was found that intrinsic job satisfaction is more strongly related to job involvement than is extrinsic job satisfaction (Brown, 1996). Moorman (1993) also found that intrinsic job satisfaction has an affective basis, whereas extrinsic job satisfaction does not. The researcher will be examining job satisfaction with both these components. The importance of job satisfaction will now be discussed.

2.4.2. Importance of job satisfaction

Among managers, job satisfaction is often considered an important influence on employee behaviour and ultimately, organisational effectiveness (Spector, 1997). The individual who perceives his/her job to be significant, feels higher levels of work satisfaction than those who think that their work adds little value. (Coetsee, 1996).

Radice (1994) found that the level of job satisfaction is positively related to the level of nurse empowerment. Appelbaum, Hebert and Leroux (1999) stated that a review of the literature suggests that empowerment leads to increased job satisfaction. In a study by Dwyer (2001) she found a strong correlation between psychological empowerment and job satisfaction. Menon (2001) found that the greater the empowerment, the higher the job satisfaction. Out of these studies, it can be seen that job satisfaction could very well be positively correlated to psychological empowerment.

2.4.3 Dimensions of job satisfaction

Researchers at the University of Minnesota concluded that there are twenty different dimensions underlying job satisfaction. From their research five dominant areas of job satisfaction were identified (Furnham, 1997). Furnham (1997) simplified each one of these dominant areas in terms of the following description:

- ◆ **Need satisfaction:** This area indicates the extent to which opportunities at work satisfy an employee's needs.
- ◆ **Value attainment:** This area can be regarded as the opportunity to the employee to work according to his values.
- ◆ **Generic component:** In this area, job satisfaction is the function of both personal and generic factors. Robbin (1998) refers to this model as consisting of self-image and the ability to handle stress.
- ◆ **Challenging work:** Employees choose challenging work and tasks that give them the opportunity to expand their skills.

The researcher will now examine the construct of organisational commitment from the theory of Allen et.al. (1991).

2.5 ORGANISATIONAL COMMITMENT

2.5.1 Conceptualisation of organisational commitment

It has become increasingly apparent that commitment is a complex and multifaceted construct (Allen, Meyer & Smith, 1993). It is now acknowledged that commitment take different forms. It can be looked at from behavioural or attitudinal perspectives. The behavioural perspective has its roots in the work of Becker (1960) who believed commitment was an outcome of inducement of contribution exchanges between employees and their organisations. The criticism for this approach is for its exclusive emphasis on the instrumental considerations of organisational commitment (Akhtar & Tan, 1994).

The attitudinal perspective focuses more on the affective attachment an employee might have in an organisation. Some authors (Buchanan, 1974, Etzioni, 1961, Kanter, 1968) proposed the concept of moral commitment based on an individual's internalisation of norms and identification with the authority.

Porter and Smith (1970) characterised organisational commitment by three factors of a strong belief in and acceptance of the organisation's goals and values, a willingness to exert considerable effort on behalf of the organisation and a strong desire to maintain membership in the organisation. According to Akhtar and Tan (1994) this conceptualisation has important features, as it sums up the attitudinal and behavioural definitions. First, it appears to be an eclectic synthesis of many other definitions. Second, it conceives commitment in terms of individual's active rather than passive relationships with the organisation. Thirdly, it recognises the value that the notion of

exchange has in understanding the formation of individual's attitudinal orientations towards and organisation.

Allen et.al., (1991) further attempted an integration of behavioural and attitudinal perspectives. They proposed a three-component conceptualisation, which will be discussed in detail later in the chapter. The researcher also decided to use this model for the study, as it measures the three recent components of organisational commitment.

2.5.2 The three-component conceptualisation

Allen et.al., (1991) articulated three forms of organisational commitment. Affective commitment denotes the strength of an individual's identification with and involvement in a particular organisation. Continuance or perceived cost commitment arises from the recognition that one would lose valued "side bets" (e.g. pension) upon leaving the organisation, and normative commitment denotes a willingness to remain with an organisation due to a sense of moral obligation.

Common to the three approaches is the view that commitment is a psychological state that characterises the employee's relationship with the organisation and has implications for the decision to continue or discontinue membership in the organisation.

2.5.2.1 Affective commitment

The most prevalent approach to organisational commitment is affective commitment, where commitment is considered an emotional attachment to the organisation that the strongly committed individual identifies with, is involved in, and enjoys membership of, the organisation (Kanter, 1968, Buchanan, 1974). The affective commitment is best represented, however, by the work of Porter and his colleagues (Mowday, Porter & Steers, 1979). According to Mowday, Porter and Steers, (1982) antecedents of affective commitment lies in four categories: personal characteristics, job characteristics, work experiences and structural characteristics. The strongest evidence, however, lies in work

experience antecedents. They are those experiences that fulfil employees' psychological needs to feel comfortable within the organisation and competent in their work role (Allen et.al., 1991).

2.5.2.2 Continuance commitment

According to other authors, affect plays a minimal role in organisational commitment. Instead continuance commitment, which is based on the individual's recognition of the costs associated with discontinuing the activity, plays a bigger role (Becker, 1960). Kanter (1968) defined cognitive continuance commitment as that which occurs where there is a profit associated with continued participation and a cost associated with leaving. It is also perceived that continuance commitment develop on the basis of two factors: the magnitude and/or the number of investments and a perceived lack of alternatives.

According to Becker (1960) the likelihood that employees will stay with the organisation will be positively related to the magnitude and number of side-bets they recognise. Also, the fewer alternatives employees believe are available, the longer will be their continuance commitment to their current employer.

2.5.2.3 Normative commitment

Thirdly, a less common but equally viable approach has been to view commitment as a belief about one's responsibility to the organisation. This commitment will be influenced by the individual's experiences both prior to (familial/cultural/socialisation) and following (organisational socialisation) entry to the organisation. For example, an employee would have strong normative commitment, if significant others were long-term employees of an organisation or where the importance of company loyalty was stressed.

Although all three forms of commitment should be negatively associated with turnover, (Allen et.al., 1991) suggested that there might be differences in the on-the-job behaviour and performance associated with affective, continuance and normative commitment.

Specifically, they suggested that affective commitment and normative commitment could be positively related to job performance, whereas continuance commitment could be unrelated or negatively related to job performance. Therefore, caution should be taken to retain employees by increasing commitment. Careful consideration should be given to the nature of the commitment instilled. Randall (1987) is of the opinion that high or low commitment levels might have severe negative consequences for individual and organisations. She emphasises the advantages of moderate commitment levels.

Gaertner (1999) found that three structural determinants (distributive justice, promotional chances and supervisory support) are directly related to organisational commitment, over and above their impact on job satisfaction. Also, consistent with previous studies, job satisfaction and organisational commitment were found to be crucial elements of nurse empowerment (Katajisto, Kuokkanen & Leino-Kilpi, 2003).

2.5.3 Consequences of organisational commitment

According to Suliman and Iles (2000) the following are important aspects of organisational commitment:

- ◆ It improves employees' performance
- ◆ It foster better superior-subordinate relationships
- ◆ It enhance organisational development, growth and survival
- ◆ It improves the work environment
- ◆ It counteracts withdrawal behavior such as turnover, tardiness and absenteeism
- ◆ It has positive impacts on employees' readiness to innovate and create.

Organisational commitment can be summarised as a three-component construct. Affective commitment refers to employees' emotional attachment to the organisation. Continuance commitment involves an employee's awareness of the costs associated with leaving. Normative commitment refers to employees' sense of obligation for remaining in the organisation. These three levels of commitment will be measured in this study.

2.6 CHAPTER SUMMARY

This chapter focused on the literature regarding empowerment, psychological empowerment, job satisfaction and organisational commitment. The researcher examined two theories of psychological empowerment in depth. Definitions were also given of job satisfaction and intrinsic and extrinsic job satisfaction was explained. The researcher also focused on the evolvement of organisational commitment. Details were given of the three-component conceptualisation of organisational commitment of Allen et.al. (1991).

The specific literature objective, to conceptualise and define the constructs has been achieved.

Chapter 3 will focus on the empirical research in detail by providing reference to the research design, study population, measuring battery, statistical analysis and research objectives.

CHAPTER 3

EMPIRICAL RESEARCH

INTRODUCTION

In the previous chapter, a literature study was undertaken with regards to the definition and conceptualisation of psychological empowerment, job satisfaction and organisational commitment. In this chapter, the research process and the empirical research will be discussed. The population group, measuring battery and methodology regarding the interpretation of the instruments as well as the relevant statistical analysis will be discussed.

The reliability and validity of the different questionnaires will be analysed. The statistical analysis will then receive attention and the chapter will conclude with the formulation of the hypotheses.

3.1 RESEARCH OBJECTIVES

3.1.1 General objectives

The primary objective of this research study is to determine whether there is a relationship between psychological empowerment, organisational commitment and job satisfaction in a chemical industry and if psychological empowerment can be used to predict job satisfaction and organisational commitment.

3.1.2 Specific empirical objectives

The specific research objectives are:

- To conceptualise psychological empowerment, job satisfaction and organisational commitment from the literature.
- To determine the level of psychological empowerment, job satisfaction and commitment in a chemical industry.
- To determine the relationship between psychological empowerment, job satisfaction and organisational commitment in a chemical industry.
- To determine if psychological empowerment could be used to predict organisational commitment and job satisfaction.

3.2 RESEARCH DESIGN

The purpose of a research design is to plan and structure a research project in such a way that it enhances the validity of the research findings (Montan & Marais, 1992). The research design can be classified as a survey design or correlational design (Huysamen, 1993).

For the purpose of this study a correlational design will be used. Correlational design allows for two or more variables to be measured at about more or less the same point in time (Huysamen, 1993). Therefore, the relationship between psychological empowerment, job satisfaction and organisational commitment will be investigated at the same point in time without any planned intervention.

3.3 RESEARCH PROCEDURE

The measuring battery was compiled and consisted of four questionnaires. A letter requesting participation and motivating the research was included. Ethical aspects regarding the research were discussed with the participants. The test battery was administered at the workplace on a suitable date. The results were analysed and feedback would be given to all individuals who requested feedback.

3.4 STUDY POPULATION

The study population consisted of 61 workers in the chemical industry. Salaried personnel on different levels were included. The levels are clerical, supervisory, middle management and top management. They were also in different companies, departments, etc..

The demographical data will now be discussed and presented graphically. Please note that all the figures in the diagrams are based on the actual total responses for that specific item. The researcher will mention the amount of missing items at every data point.

3.4.1 Gender

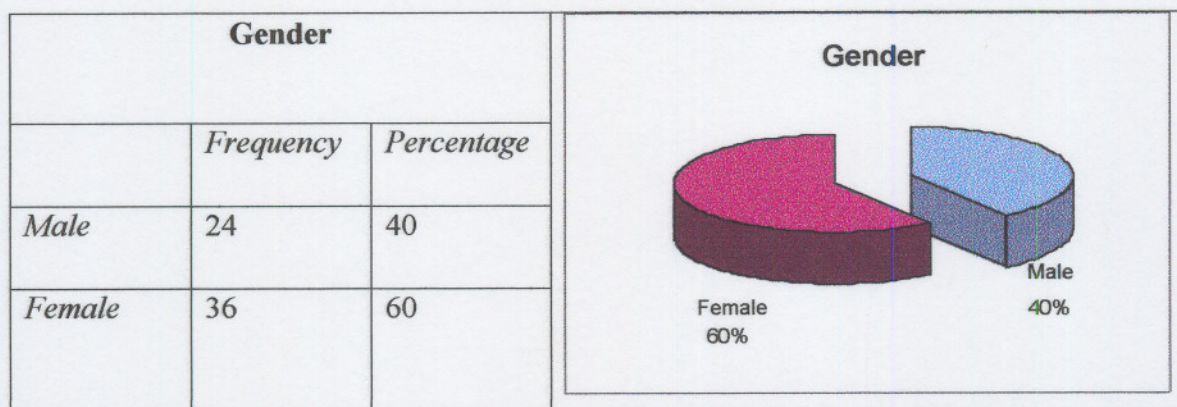


Figure 1 *Description of the sample group – Gender*

Out of the 61 responses, 1 gender item was missing. Therefore the representation above is based on 60 responses. As can be seen, 60% were from females, and 40% from males.

3.4.2 Age

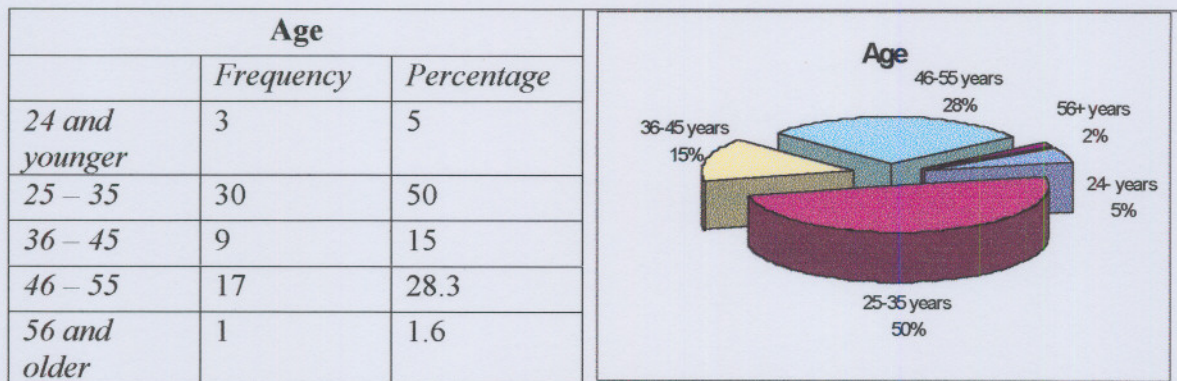


Figure 2 Description of sample group - Age

Out of the population of 61, 1 item was missing, only 60 responses are represented in the figure. As can be seen, the biggest part of the population was between 25 – 35 years old (50%). This probably means that these people are at the beginning of their careers.

3.4.3 Ethnical group

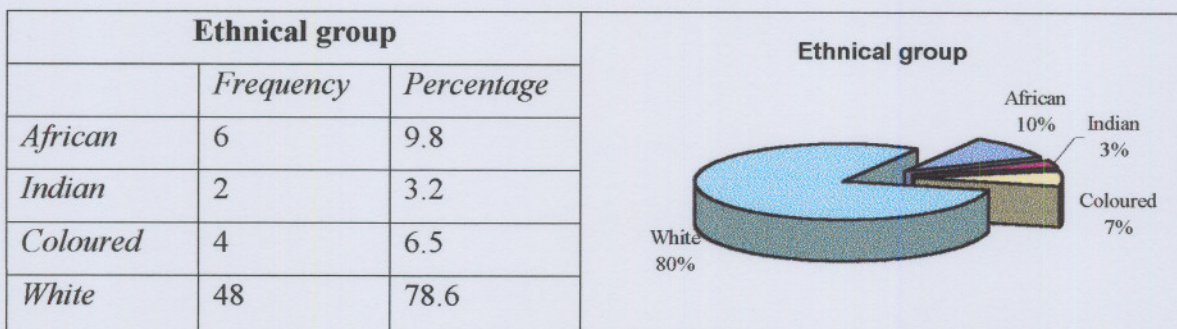


Figure 3 Description of sample group – Ethnical group

One ethnical group item was not filled in, thus the representation is applicable to 60 responses. The majority of the group appears to be from the white ethnical group (80%).

3.4.4 Qualification levels

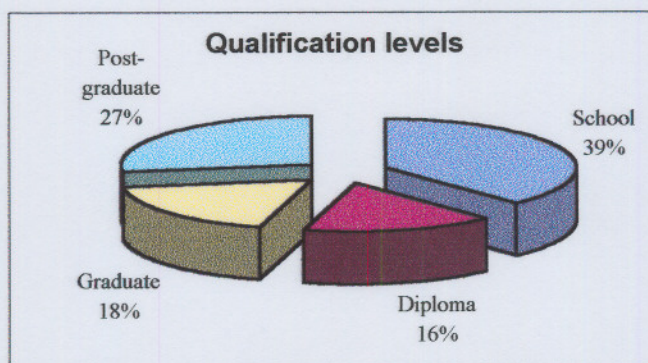


Figure 4 Description of sample group – Qualification

Out of the 61 responses, 6 of the qualification items were missing. The figure is representing 55 responses. The researcher chose to present it in the following levels: School, diploma, graduate and post-graduate. The school level comprises of Gr. 10 – Gr. 12, which accounts for 39% of the population. 16% were diplomated. 18% were graduated with degrees such as BA, B.Comm, B.Compt and B.Sc. The post-graduate level comprises of the following qualifications: BA Honns, B.Comm Honns, B.Sc Honns, M.Comm, CA (SA), MBA, MBL and PhD. This information indicates high levels of education within this company, especially on a post-graduate level.

3.4.5 Group

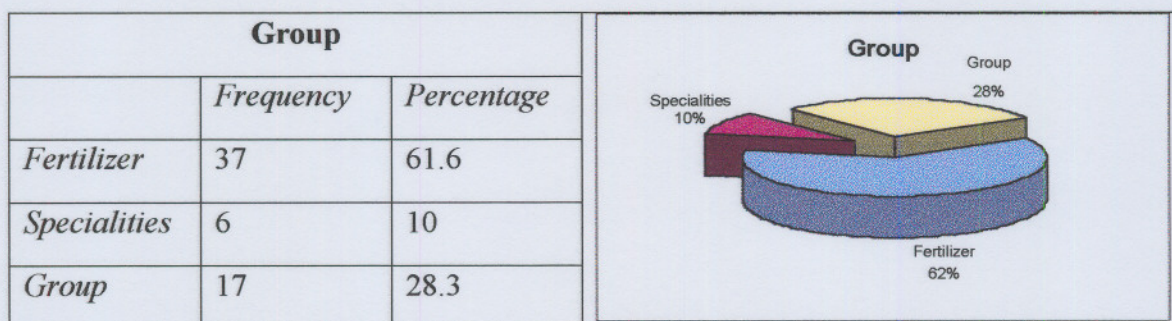


Figure 5 Description of sample group – Group

The group item measures the company that the participants work for within the Group. One of the responses was missing, therefore the above figures are based on 60 responses. As can be seen, Omnia Fertilizer represents the majority of the group. It is also the biggest part of the company within Omnia Group. They sell granular and liquid fertilizer in SA and export some of it abroad.

3.4.6 Years of service

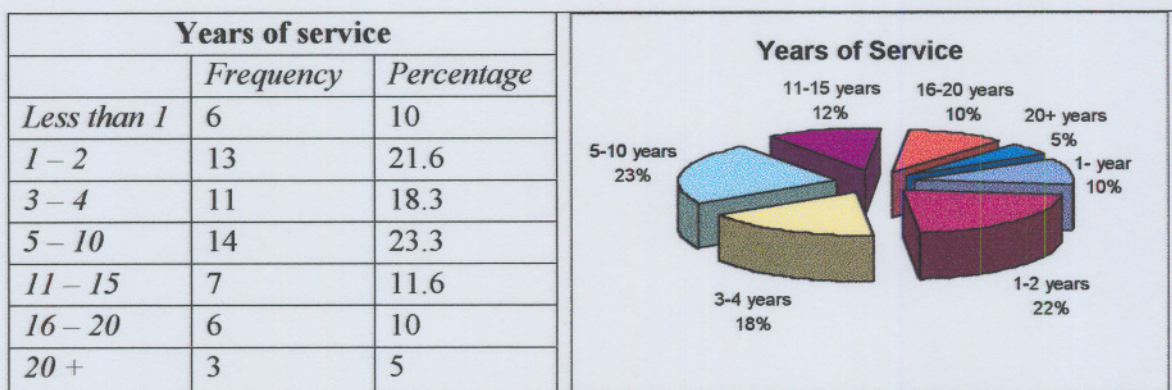


Figure 6 *Description of sample group – Years of service*

One of the items was missing, therefore representing 60 responses. There is a fair distribution of years of service within the population, with people having 5 – 10 years of service at the highest percentage (23%). The Omnia Group is a very small group, as it has only administrative functions. Omnia Specialities is also small, because they use the sales team of Omnia Fertilizer to distribute their products. They are mainly a marketing business, with strong emphasis on research and development.

3.4.7 Department

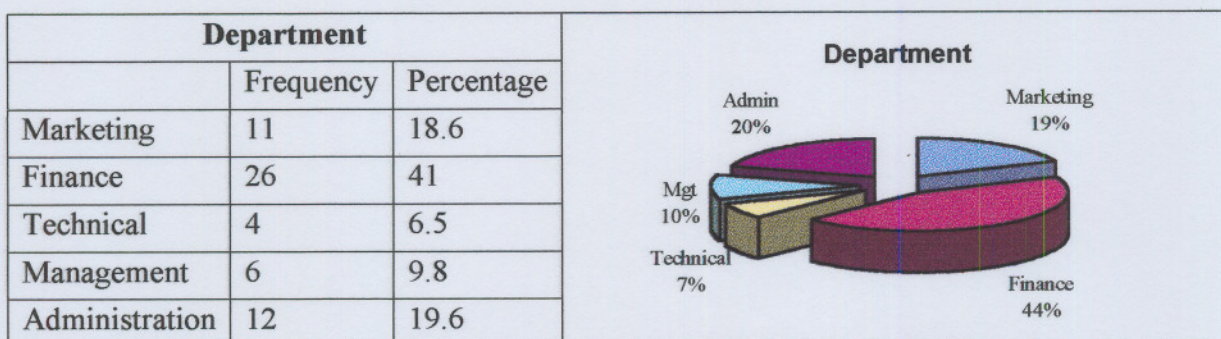


Figure 7 Description of sample group – Department

Three of the responses on this item were missing, thus 59 responses are represented. The majority of the group came from the Finance department (44%). Since the study is conducted in a head office set up, it is to be expected for the finance and admin departments to be the biggest part of the population, as it is normally these people that is situated at a head office. The majority of the marketing and production people are either on sites on in the marketing field, selling fertiliser.

3.4.8 Job level

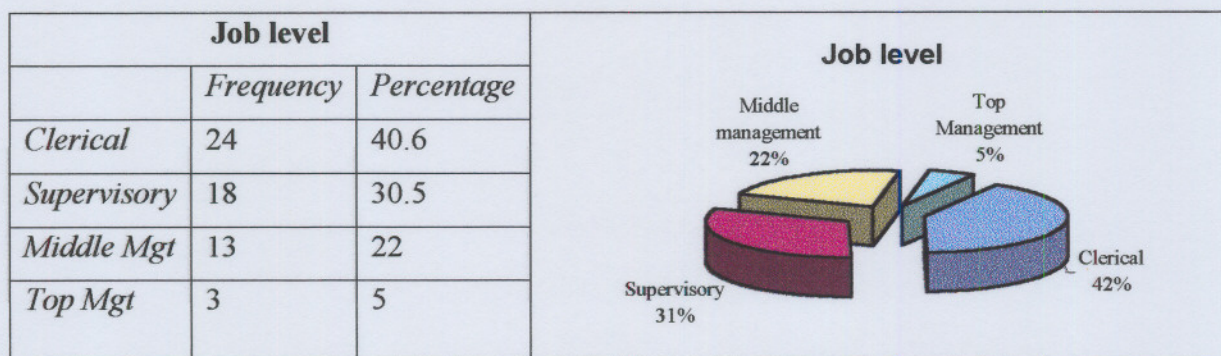


Figure 8 Description of sample group – Job level

3 items were missing in the job level fields. The information in the figure, is based on 59 responses. As can be seen, the majority of the population (42%) were clerical. Again, because of the head office set-up, it is to be expected.

In summary, the majority demographical spread of the population seems to be 60% female, 50% in the age group of 25 – 35 years and 80% white. The qualification levels and years of service was more or less evenly spread. The majority of the participants (62%) worked for Omnia Fertilizer, and the majority of the population fell in the finance department (44%). 42% were also on the job level of clerical workers.

3.5 MEASURING BATTERY

In this section the different measuring instruments used in this study will be discussed. Four questionnaires were used: The Measuring Empowerment Questionnaire of Spreitzer (1995), the Psychological Empowerment Questionnaire (Menon, 2001), the Revised Minnesota Satisfaction Questionnaire (Weiss, et.al., 2000), and the Organisational Commitment questionnaire of Allen et.al., (1991). The researcher decided on two psychological empowerment questionnaires because the Psychological Empowerment Questionnaire (Menon, 2001) differs with one construct, and is more recent.

3.5.1 The Measuring Empowerment Questionnaire

This is a theory-based measure of empowerment developed by Spreitzer (1995). It is based on four cognitions (meaning, competence, self-determination and impact) and the questionnaire consists of twelve items. Each construct is measured by three items.

The cronbach alpha coefficient for the overall empowerment construct of the industrial sample in Spreitzer's (1995) study was 0.72 and 0.62 for the insurance sample, indicating that the overall reliabilities are acceptable. Dwyer (2001) found an alpha coefficient of 0,92 for reliability.

3.5.2 The Psychological Empowerment Questionnaire

This questionnaire of Menon (2001) will be used to measure the three psychological dimensions namely perceived control, perceived competence and goal internalisation. It consists of fifteen items. Each dimension is measured by five items. The sub-scales have accepted reliability values. The cronbach alpha coefficients of the sub-scales were as follows: perceived control (0.86), perceived competence (0.78), and goal internalisation (0.86), indicating high levels of reliability (Menon, 2001).

3.5.3 The Revised Minnesota Satisfaction Questionnaire

The Revised Minnesota Satisfaction Questionnaire of Weiss, et.al. (2000) will be used to measure job satisfaction. One advantage of the Revised Minnesota Satisfaction Questionnaire is that it can be used to measure two distinct components: intrinsic job satisfaction and extrinsic job satisfaction (Hirschfield, 2000).

The Revised Minnesota Satisfaction Questionnaire reported reliability coefficients of the short version varying from 0.87 to 0.92 (Hirschfield, 2000). Alpha coefficients higher than 0.90 are reported in South African studies (Coetzee, 1998).

3.5.4 The Organisational Commitment Questionnaire

This questionnaire of Allen et.al. (1991) will be used to measure organisational commitment. Continuance, affective and normative commitment is sub-dimensions measured. The questionnaire consists of 18 items. Affective commitment, continuance commitment and normative commitment are respectively each measured by six items.

The results of Iles and Sulliman (2000) indicated that cronbach alpha coefficients were above 0.80.

3.6 AIM OF THE STUDY

The primary objective of this study is to assess psychological empowerment, job satisfaction and organisational commitment in a chemical industry. The second objective is to determine whether psychological empowerment could be used to predict job satisfaction and organisational commitment.

3.7 STATISTICAL ANALYSIS

The statistical analysis has been carried out with the help of the SAS-programme (SAS Institute, 2000) and the Statistica programme. Descriptive statistics was used.

3.7.1 Descriptive statistics

- **Arithmetic mean**

The description of results was done with arithmetic means and standard deviations, skewness and kurtosis. The arithmetic mean according to Shaughnessy & Zechmeister (1997) describes the typical score in a group of scores and it is an important summary measure of group performance. The arithmetic mean is the best-known measurement of locality (Steyn, 1999). It is used to indicate the mean (average) score of the study population on each questionnaire. The standard deviation approximates the average distance of a score from the mean. The higher the standard deviation, the greater the distance is, on average, from the arithmetic mean (Steyn, 1999).

- **Skewness and kurtosis**

Skewness is a descriptive indication of symmetry, which gives an indication of the level of skewness (positive or negative) of a population, whereas kurtosis indicates the level of pointedness of a distribution of scores (Steyn, 1999). Skewness (this term was first used

by Pearson) measure the deviation of the distribution from symmetry. If the skewness is clearly different from 0, then the distribution is asymmetrical, while normal distributions are perfectly symmetrical. If the kurtosis is clearly different from 0, then the distribution is either flatter or more peaked than normal.

- **Reliability**

The Cronbach Alpha coefficient was used to determine the internal consistency of each of the items of the questionnaires used in this study. This index is indicative of the extent to which all the items are measuring the same characteristics (Huysamen, 1993).

- **Validity**

Construct validity was used in this study. Construct validity can be defined as the extent to which the test measure the theoretical construct it is intended to measure (Shaughnessy & Zechmeister, 1997). Factor analysis was done on the data. According to Steyn (1999) the three indicators for construct validity are:

- ◆ Commonalities which is the proportion of the variance of each item, which is accounted for by the common factors, has to be high.
- ◆ Few common factors explain a large percentage of the total variance, ideally only one factor for each supposed construct has to be extracted.
- ◆ Allocation of each factor to the items of the supported constructs.
- ◆ The p-value indicates between which categories significant differences occur with the support of ANNOVA.

- **Statistical significance**

The independent samples t-test is based on the difference between the two sample means, so the expected value of t when the independent variable has had no effect is zero. If the independent variable has had an effect, however, the t will differ from zero. The obtained

t must be compared with a critical value from the appropriate t-distribution to determine if it is statistically significant (Shaughnessy & Zechmeister, 1997). Significant differences were indicated with p-values smaller than 0.05.

- **Practical significance**

Practical significance is only calculated for statistical significant differences. According to Cohen (1988) valid cut-off points for practical significance are the following:

$d > 0.3$ (small effect)

$d > 0.5$ (medium effect)

$d > 0.8$ (large effect and of practical importance)

- **Pearson Correlations Coefficients**

Pearson correlations were used to determine the relationship between constructs. According to Steyn (1999) the cut-off points for practical significance is as follows (r-Pearson correlation):

$r = 0.1$ (small effect)

$r = 0.3$ (medium effect)

$r = 0.5$ (large effect and of practical importance)

- **Regression Analysis**

Regression analysis was used to describe the relationship between variables (Wisniewski, 1997). A regression analysis was done with competence, self-determination, impact, meaning, goal internalisation, perceived control and perceived competence as independent variables and job satisfaction as dependent variable. A stepwise multiple regression analysis was also done on competence, self-determination, impact, meaning, goal internalisation, perceived control and perceived competence as independent

variables and affective commitment, continuance commitment and normative commitment as dependent variables.

According to Cohen (1993) a correlation (r) can only be understood by determining its square (r^2). A regression analysis is used to determine the proportion of the total variance of one variable that is explained by another variable (Moore, 1995). In this study, a multiple regression analysis is conducted to determine the proportion of the total variance of psychological empowerment (dependent variable) explained by job satisfaction, affective commitment, continuance commitment and normative commitment (independent variables).

◆ **Canonical correlations**

Canonical correlations was also conducted. This analysis is useful to compare two constructs as a total, without looking at the different subscales. Canonical correlations were done on psychological empowerment vs organisational commitment and psychological empowerment vs job satisfaction. The goal of canonical correlation is to analyse the relationship between two sets of variables (Tabachnick & Fidell, 2001). Canonical correlation is considered as a descriptive technique rather than a hypothesis-testing procedure.

3.8 RESEARCH HYPOTHESIS

According to Shaughnessy and Zechmeister, 1997) a hypothesis is a tentative explanation for something. It frequently attempts to answer the question “how” and “why”. A hypothesis may offer a reason for the way in which particular variables are related.

H₀₁ There is no relationship between psychological empowerment, job satisfaction and organisational commitment in a chemical industry

Ho2 Psychological empowerment can be used to predict job satisfaction and organisational commitment.

3.9 CHAPTER SUMMARY

This chapter examined the methodology that has been followed to complete the empirical research study. The following aspects were discussed: research design and procedure, demographical data, measuring battery, research hypotheses and statistical analysis.

Chapter 4 will focus on the research results obtained from the empirical study.

CHAPTER 4

RESULTS OF THE EMPIRICAL STUDY

INTRODUCTION

In Chapter 3 the empirical study was discussed with regard to the general and specific objectives. Chapter 3 focused on the study population, aim of the study and a discussion on statistical analysis used in this research. In this chapter the research results of the empirical study will be reported and discussed. Descriptive statistics, cronbach alpha coefficients, pearson correlations, regression analysis, stepwise multiple regression analysis and canonical correlations will be reported.

4.1 DESCRIPTIVE STATISTICS

The mean (\bar{X}), standard deviation, skewness and kurtosis were determined for the questionnaires and the subscales. The mean values for psychological empowerment, job satisfaction and organisational commitment and their subscales are indicated in Table 1.

Table 1: *Descriptive statistics*

Instruments	N	X	Median	Min	Max	Std dev	Skewness	Kurtosis
<i>Psychological empowerment (Spreitzer)</i>								
Meaning	60	5.6222	6.0000	2.0000	7.0000	1.3452	-0.919	-0.0541
Competence	60	6.1278	6.3000	1.0000	7.0000	0.9821	-2.6031	11.4724
Impact	60	4.8167	5.0000	1.6667	7.0000	1.476	-0.3958	-0.8172
Self-Determination	60	5.5167	5.8333	2.3333	7.0000	1.1922	-0.9695	0.3898
Total	60	5.5208	5.7083	2.3333	7.0000	1.0255	-0.8522	0.4616
<i>Psychological empowerment (Menon)</i>								
Intrinsic	60	4.1556	4.2500	2.8333	5.0000	0.5464	-0.4093	-0.5088
Extrinsic	60	3.7792	3.8750	2.2500	4.8750	0.5958	-0.3673	-0.3036
Job satisfaction total	60	4.005	4.0250	2.7500	4.9500	0.4978	-0.3612	-0.1681
<i>Organisational commitment</i>								
Affective commitment	60	3.6833	3.8333	1.0000	5.0000	0.7645	-0.8557	1.8064
Continuance commitment	60	3.0361	3.0000	1.3333	5.0000	0.7901	0.3083	-0.302
Normative commitment	60	3.2972	3.3333	1.0000	5.0000	0.8381	-0.0723	0.3834
Total	60	3.3389	3.3889	1.6667	4.7778	0.6141	-0.0799	0.4921

The values for skewness and kurtosis must be between 3 and -3 for normal distribution. Ideally the values must be as close as possible to zero. The values, except for the subscale of competence (11.472), in this study as indicated above are of normal distribution and therefore acceptable. The reliability and validity will be discussed next.

4.1.1 Reliability

The reliability of each questionnaire is determined by Cronbach alpha coefficients. The cronbach alpha coefficients for each questionnaire were as follows:

Table 2: *Cronbach alpha coefficients*

Instruments	α
<i>Psychological empowerment (Spreitzer)</i>	
Meaning	0.9230
Competence	0.8846
Impact	0.8804
Self-Determination	0.7996
Total	0.9187
Intrinsic	0.8443
Extrinsic	0.7861
<i>Job satisfaction total</i>	0.8741
<i>Psychological empowerment (Menon)</i>	
Goal Internalisation	0.9066
Perceived control	0.7998
Perceived Competence	0.8022
Total	0.9103
<i>Organisational commitment</i>	
Affective commitment	0.8141
Continuance commitment	0.6544
Normative commitment	0.8105
Total	0.8405

A cronbach alpha coefficient of 0.7 is an adequate indication of reliability of the instrument. As can be seen, all the coefficients are above 0.7, except the subscale of continuance commitment on the Organisational Commitment questionnaire. This is due to question nr. 17. When question nr. 17 is not taken into account, the reliability of continuance commitment is 0.7082. It can be said that all the questionnaires are deemed reliable.

Validity studies are done by conducting factor analyses. The researcher will now discuss validity in each of the questionnaires.

◆ The Measuring Empowerment Questionnaire (Spreitzer)

The factor analysis can be seen in Table 3. Four factors were extracted by using factor analysis. These findings explained a high percentage (83%) of the total variance. These findings indicate that the results are valid and reliable, as can be seen above.

Tabel 3: *Factor analysis - Measuring empowerment questionnaire*

Eigenvalues Extraction: Principal components				
Value	Eigenvalue	% Total variance	Cum. Eigenvalue	Cum %
1	6.4499	53.749	6.4490	53.749
2	1.7313	14.428	8.1813	68.177
3	1.0247	8.539	9.2060	76.717
4	0.8128	6.773	10.0180	83.491

Due to the fact that the variance and commonalities are moderate to high, the conclusion confirms that the questionnaire has construct validity. These are supported by Spreitzer (1995) and Dwyer (2001).

◆ The Revised Minnesota Satisfaction Questionnaire

Four factors were extracted. These findings explained 57% of the variance. This is not expected, as the questionnaire measures 2 factors; intrinsic job satisfaction and extrinsic job satisfaction. Malan (2002) extracted two factors, explaining 48% of the variance. In this study the first two factors had eigen values larger than 1 and explained 41%, which is a high percentage. Thus, the results are valid and reliable.

Tabel 4: *Factor analysis - Revised Minnesota Satisfaction Questionnaire*

Eigenvalues Extraction: Principal components				
Value	Eigenvalue	% Total variance	Cum. Eigenvalue	Cum %
1	6.2106	31.053	6.2106	31.053
2	2.0585	10.292	8.2692	41.345
3	1.6556	8.278	9.9248	49.624
4	1.5568	7.784	11.4816	57.408

◆ **Psychological Empowerment Questionnaire (Menon, 2001)**

Three factors were extracted which explained 71% of the variance. Malan (2002) found 5 factors larger than 1, but the first 3 explained 60% of the variation. It is concluded that the questionnaire is valid.

Table 5: *Psychological Empowerment Questionnaire*

Eigenvalues Extraction: Principal components				
Value	Eigenvalue	% Total variance	Cum. Eigenvalue	Cum %
1	7.1199	47.466	7.1199	47.466
2	1.9409	12.939	9.0609	60.406
3	1.6253	10.835	10.6862	71.241

◆ **Organisational Commitment Questionnaire**

Four factors were extracted by factor analysis. They explained 63% of the total variance. Malan (2002) found five factors to be extracted, which explained 66% of the variance. This questionnaire is deemed valid.

Table 6: *Factor analysis - Organisational Commitment Questionnaire*

Eigenvalues Extraction: Principal components				
Value	Eigenvalue	% Total variance	Cum. Eigenvalue	Cum %
1	6.4158	32.643	6.4158	35.643
2	2.6121	14.511	9.0279	50.155
3	1.3717	7.62	10.3997	57.776
4	1.04	5.777	11.4397	63.554

4.2 PEARSON PRODUCT-MOMENT RELATIONS

Pearson product-moment correlations (r) are calculated to provide evidence of the strength of the linear relationship between the constructs and variables. The correlations

between the different constructs and variables are shown in Table 7 and medium and large correlations between the constructs and variables will be discussed.

Table 7: *Pearson correlations between psychological empowerment, job satisfaction and organisational commitment.*

Variable	Correlations															
	Marked correlations are significant at $p < 0.05$															
N=61																
	ME_M	ME_C	ME_I	ME_S	ME_T	JS_In	JS_Ex	JS_T	OC_A	OC_C	OC_N	OC_T	M_GI	M_PC	M_PCP	M_T
ME_M	-	0.57	0.55	0.64	0.85	0.51	0.25	0.46	0.37	-0.04	0.32	0.28	0.40	0.40	0.35	0.45
ME_C	0.57	-	0.37	0.46	0.69	0.36	0.22	0.34	0.26	-0.06	0.11	0.14	0.39	0.31	0.56	0.47
ME_I	0.55	0.37	-	0.72	0.84	0.53	0.34	0.51	0.61	0.03	0.42	0.46	0.50	0.74	0.32	0.63
ME_S	0.64	0.46	0.72	-	0.87	0.60	0.41	0.59	0.41	0.07	0.43	0.39	0.53	0.61	0.45	0.62
ME_T	0.85	0.69	0.84	0.87	-	0.62	0.38	0.59	0.52	0.01	0.41	0.41	0.56	0.65	0.49	0.67
JS_In	0.51	0.36	0.53	0.60	0.62	-	0.53	0.91	0.40	-0.03	0.26	0.27	0.57	0.66	0.35	0.63
JS_Ex	0.25	0.22	0.34	0.41	0.38	0.53	-	0.83	0.26	-0.07	0.24	0.19	0.49	0.44	0.43	0.53
JS_T	0.46	0.34	0.51	0.59	0.59	0.91	0.83	-	0.39	-0.05	0.28	0.27	0.61	0.65	0.44	0.67
OC_A	0.37	0.26	0.61	0.41	0.52	0.40	0.26	0.39	-	0.09	0.69	0.77	0.62	0.58	0.28	0.59
OC_C	-0.04	-0.06	0.03	0.07	0.01	-0.03	-0.07	-0.05	0.09	-	0.37	0.64	-0.09	-0.12	-0.14	-0.13
OC_N	0.32	0.11	0.42	0.43	0.41	0.26	0.24	0.28	0.69	0.37	-	0.90	0.43	0.34	0.24	0.40
OC_T	0.28	0.14	0.46	0.39	0.41	0.27	0.19	0.27	0.77	0.64	0.90	-	0.42	0.35	0.16	0.37
M_GI	0.40	0.39	0.50	0.53	0.56	0.57	0.49	0.61	0.62	-0.09	0.43	0.42	-	0.66	0.68	0.91
M_PC	0.40	0.31	0.74	0.61	0.65	0.66	0.44	0.65	0.58	-0.12	0.34	0.35	0.66	-	0.49	0.86
M_PCP	0.35	0.56	0.32	0.45	0.49	0.35	0.43	0.44	0.28	-0.14	0.24	0.16	0.68	0.49	-	0.81
M_T	0.45	0.47	0.63	0.62	0.67	0.63	0.53	0.67	0.59	-0.13	0.40	0.37	0.91	0.86	0.81	-

$r=0.3$ medium effect (green), $r=0.5$ large effect and practically important (red)

4.2.1 The Measuring Empowerment Questionnaire (Spreitzer)

The findings indicate that there are practically significant correlations between the subscales of meaning, competence, impact and self-determination. This could be expected as it is all part of one questionnaire. There is also a practically significant correlation between the totals of the two psychological empowerment questionnaires, which is also to be expected, as it measures the same construct. This notion is supported by Malan (2002).

The Measuring Empowerment Questionnaire also correlates with practical significance to the intrinsic factor of the Job Satisfaction Questionnaire and the affective commitment subscale on the Organisational Commitment Questionnaire. That indicates that people who are psychologically empowerment feel positively about the nature of the job tasks. The correlation with affective commitment shows that they feel emotionally attached to the organisation. Malan (2002) found high correlations between job satisfaction as a total and the subscales of meaning and self-determination.

4.2.2 The Revised Minnesota Satisfaction Questionnaire

Job satisfaction as a total correlates practically significant to both of the empowerment questionnaires as well as to impact, self-determination, goal Internalisation and perceived control. The Intrinsic factor also has practically significant correlations with both empowerment questionnaires as a total, as well as with the subscales of meaning, impact, self-determination and perceived control. The extrinsic factor has only medium correlations with all of the other totals and subscales. It seems as if job satisfaction correlates with psychological empowerment as a total, but not to organisational commitment.

Malan (2002) indicated a practical significance between job satisfaction and perceived control, self-determination and meaning, which correlates very well with the results of this study.

4.2.3 Organisational Commitment Questionnaire

Organisational Commitment as a total shows only medium correlations with the subscales of the other questionnaires. The normative commitment subscale also has only medium correlations with the other questionnaires, including the continuance commitment scale on the same questionnaire. The continuance commitment scale of the questionnaire has no correlation with any of the scales, except with normative commitment and commitment as a total. It is clear that the information on the

continuance commitment scale can not be used in this study. That means that the population was not measured in terms of their perceived cost/benefit associated with staying with the organisation. No conclusions can be made in terms of continuance commitment. Affective commitment has practically significant correlations with impact, goal internalisation, perceived control, as well as with the totals of both the empowerment questionnaires. This is indicative of the population being very strongly emotionally attached to this organisation. Allen et.al. (1991) suggested that these peoples' work experiences fulfill their psychological needs to feel comfortable within the organisation and competent in their work role.

Malan (2001) found that there is only a high correlation between affective and normative commitment, and a small correlation with either of these to continuance commitment. It seems as if the continuance commitment subscale needs further study.

4.2.4 Psychological Empowerment Questionnaire

The total of the Menon empowerment correlates with practical significance to intrinsic and extrinsic job satisfaction, affective commitment, impact, self-determination and the total of the questionnaire of Spreitzer (1995). For the subscale of goal internalisation and perceived control, the correlations was the same, except no correlation with extrinsic job satisfaction. The perceived competence subscale has large correlations with competence, self-determination, intrinsic job satisfaction as well as to the total of job satisfaction.

Malan's (2001) results correlates with these findings, as she documented high correlations between Menon's subscales and goal internalisation, affective commitment, perceived control, perceived competence and competence.

The significant correlations with a large effect were found to exist between the following variables:

- ◆ Psychological empowerment (as a total on both questionnaires) and intrinsic job satisfaction
- ◆ Psychological empowerment (as a total on both questionnaires) and affective commitment.

From the above discussions, the following hypothesis can be concluded:

Ho3 There is no significant relationship between psychological empowerment, job satisfaction and organisational commitment.

4.3 REGRESSION ANALYSIS

Regression analysis was done to determine whether psychological empowerment can be used to predict job satisfaction and organisational commitment. A regression analysis was conducted on job satisfaction and a stepwise multiple regression analysis was conducted on the subscales of organisational commitment. Table 8 shows the regression analysis of job satisfaction.

Table 8 *Regression analysis of job satisfaction*

Regression Summary for Dependent Variable: JS_T R=0.73203117 R ² = 0.53586963 Adjusted R ² =0.47339054 F(5,54)=4.4871 p,0.00172 Std. Error of Estimate: 0.73640						
N=60	Beta	Std. Error of Beta	B	Std. Error of B	t(52)	p-level
Intercept			1.7370	0.4088	4.2488	0.0000
M_M	0.1202	0.1382	0.0445	0.0511	0.8703	0.3880
ME_C	0.0273	0.1331	0.0138	0.0674	0.2052	0.8381
ME_I	-0.1767	0.1732	-0.0596	0.0584	-1.0198	0.3125
ME_S	0.2615	0.1570	0.1092	0.0655	1.6658	0.1017
M_GI	0.2904	0.1528	0.2120	0.1116	1.8999	0.0629
M_PC	0.4089	0.1682	0.2675	0.1100	2.4304	0.0185
M_PCP	-0.0811	0.1509	-0.0752	0.1399	-0.5379	0.5929

The regression analysis of job satisfaction shows that $r^2=0.535$. That means that 53,5% of the variance of job satisfaction is explained by psychological empowerment. Steyn (1999) explains that for something to be significant means that it must be different from zero and practically important means that r^2 is not only different from zero, but large enough to establish a good enough linear relationship between x and y.

Malan (2001) found 66% of the variance of job satisfaction to be explained by psychological empowerment and leader empowering behavior. In this study, perceived control was the better predictor of job satisfaction than the other sub-scales. That indicates that people who feel that they can influence strategic, administrative or operating outcomes, experience a higher degree of job satisfaction. In the study of Malan (2001) goal-internalisation, self-determination, meaning and perceived competence were better indicators.

A stepwise multiple regression analysis was done on the subscales of normative, continuance and affective commitment. It will now be discussed:

- **Normative commitment**

Table 9 *Multiple regression analysis – Normative commitment*

Regression Summary for Dependent Variable: OC_N R=0.54177620 R ² = 0.29352145 Adjusted R ² =0.22810677 F(5,54)=4.4871 p<0.00172 Std. Error of Estimate: 0.73640						
N=60	Beta	Std. Error of Beta	B	Std. Error of B	t(54)	p-level
Intercept			1.4289	0.7597	1.8808	0.0653
M_GI	0.3750	0.1604	0.4611	0.1973	2.3371	0.0231
ME_I	0.2945	0.1997	0.1672	0.1134	1.4744	0.1461
ME_C	-0.1830	0.1319	-0.1562	0.1125	-1.3876	0.1709
ME_S	0.2316	0.1778	0.1628	0.1250	1.3020	0.1982
M_PC	-0.2116	0.1992	-0.2331	0.2194	-1.0622	0.2928

The multiple regression analysis of normative commitment shows that $r^2=0.293$. That means that 29.3% of the variance of normative commitment is explained by psychological empowerment. Malan (2001) found 30% of the variance of normative

commitment to be explained by psychological empowerment and leader empowering behavior. In this study, goal internalisation was the better predictor of normative commitment. People who feel obligated to stay with the organisation, are more psychologically empowered.

These findings are very low and suggest that psychological empowerment can not be used to predict normative commitment.

- **Continuance commitment**

Table 10 *Multiple regression analysis – Continuance commitment*

Regression Summary for Dependent Variable: OC_C R=0.25545981 R ² = 0.06525972 Adjusted R ² =0.01518434 F(3,56)=1.3032 p<0.28243 Std. Error of Estimate: 0.78416						
N=60	Beta	Std. Error of Beta	B	Std. Error of B	t(54)	p-level
Intercept			3.8896	0.8164	4.5154	0.0000
M_PCP	-0.1527	0.1517	-0.2248	0.2233	-1.0064	0.3185
ME_S	0.2680	0.1671	0.1776	0.1107	1.6041	0.1142
ME_PC	-0.2093	0.1717	-0.2173	0.1783	-1.2185	0.2281

These findings show that $r^2=0.065$. That means that 6,5% of the variance of continuance commitment is explained by psychological empowerment. Malan (2001) found 23%. It is clear that these results can not be used in this study, as was also mentioned earlier.

- **Affective commitment**

Table 11 *Multiple regression analysis – Affective commitment*

Regression Summary for Dependent Variable: OC_A R=0.74723156 R ² = 0.55835501 Adjusted R ² =0.52623537 F(4,55)=17.384 p<0.00000 Std. Error of Estimate: 0.52621						
N=60	Beta	Std. Error of Beta	B	Std. Error of B	t(54)	p-level
Intercept			1.4623	0.5785	2.5279	0.0143
M_GI	0.6222	0.1351	0.6977	0.1514	4.0657	0.0000
ME_I	0.5055	0.1339	0.2618	0.0693	3.7752	0.0003
M_PCP	-0.2266	0.1256	-0.3227	0.1789	-1.8032	0.0768
ME_S	-0.1846	0.1377	-0.1184	0.0883	-1.3403	0.1856

As can be seen, $r^2=0.558$. Thus, 55,8% of the variance in affective commitment can be explained by psychological empowerment. This is a reasonable number and can be used to state that psychological empowerment can predict affective commitment. Malan's (2001) studies found a variance of 45%, which is also a high indicator. Goal internalisation, impact and perceived competence are the better indicators of affective commitment.

In summary, organisational commitment does not seem to be predicted by psychological empowerment, as a total. The sub-scale of affective commitment however, has high indications of predictability by psychological empowerment. This concludes the fourth hypothesis:

Ho4 Psychological empowerment can not predict job satisfaction and organisational commitment.

4.4 CANONICAL CORRELATIONS

Canonical analyses were conducted to establish the relationship between the following constructs as a whole. Job satisfaction (intrinsic and extrinsic) vs Psychological Empowerment (Spreitzer and Menon) and Organisational commitment vs Psychological empowerment (Spreitzer and Menon). Table 12 and 13 shows the results of the canonical correlations.

Table 12 *Canonical Analysis Summary of Organisational Commitment vs Psychological Empowerment*

Canonical Analysis Summary		
Canonical R: .76529		
CHI2 (21)=61.934 p=.00001		
N=60	Left set	Right set
No. of variables	3	7
Variance extracted	100.0000%	57.0358%
Total redundancy	31.6823%	24.8359%
Variables:	1 OC_A	ME_M
	2 OC_C	ME_C
	3 OC_N	ME_I
	4	ME_S
	5	M_GI
	6	M_PC
	7	M_PCP

The canonical analysis summary of Organisational Commitment vs Psychological empowerment shows that 57% of the variance in Psychological Empowerment can be explained by organisational commitment.

Table 13 *Canonical Analysis Summary of Job Satisfaction versus Psychological Empowerment*

Canonical Analysis Summary		
Canonical R: .76131		
CHI2 (14)=54.004 p=.00000		
N=60	Left set	Right set
No. of variables	3	7
Variance extracted	100.0000%	60.1572%
Total redundancy	43.6570%	29.7976%
Variables:	1 JS_In	ME_M
	2 JS_Ex	ME_C
	3	ME_I
	4	ME_S
	5	M_GI
	6	M_PC
	7	M_PCP

The canonical analysis summary of Job satisfaction vs Psychological Empowerment shows that 60% of the variance in psychological empowerment can be explained by job satisfaction.

4.5 CHAPTER SUMMARY

In chapter four, descriptive statistics were given. Reliability and validity of the measuring instruments were tested with the Cronbach Alpha coefficients and factor analyses method. Pearson correlations were done to examine the relationship between the different subscales and constructs. Regression analysis was done on job satisfaction to determine whether psychological empowerment can predict job satisfaction. Multiple regression analysis were done on the subscales of organisational commitment, for the same reason. Canonical analyses are also included, to measure the constructs, as group and not in different subscales.

Chapter five will discuss the conclusions and recommendations from this study.

CHAPTER 5

RECOMMENDATIONS, CONCLUSIONS & LIMITATIONS

INTRODUCTION

In this chapter, a synopsis of the study will be presented. Recommendations to assist the organisation to progress towards an empowering environment will be provided. Limitations of the study and future research will also be presented before reaching a final conclusion for this study.

5.1 SYNOPSIS OF STUDY

In chapter one the problem statement was discussed and research objectives were outlined as well as research methods to be followed in the study. The research methodology including the measuring instruments and statistical process were outlined.

In chapter two, the literature objective of the study was achieved. It provided a framework for conceptualisation of psychological empowerment, job satisfaction and organisational commitment.

In chapter three, the empirical research methods were discussed. The research sample was presented and a discussion presenting the development and motivation for using the measuring instruments was included. Hypothesis statements were postulated and a statistical analysis to obtain the empirical results, were provided.

In chapter four, the empirical results were described in details and illustrated in tables to ensure that the reader of this research are informed about the statistical findings obtained in this research. Discussions on the findings obtained were presented and the significant differences in terms of psychological empowerment, job satisfaction and organisational commitment were discussed.

Correlations between variables were determined and discussed. In this regard, the empirical objective as stated in Chapter 1 & 3 were achieved and statistically verified.

In view of the findings of the specific empirical objectives, it is concluded that the significant correlations with a large effect were found to exist between the following variables:

- ◆ Psychological empowerment (as a total on both questionnaires) and intrinsic job satisfaction
- ◆ Psychological empowerment (as a total on both questionnaires) and affective commitment.

It is concluded that psychological empowerment can predict job satisfaction to a certain degree ($r^2=0.538$), but psychological empowerment can not predict organisational commitment as a whole ($r^2=0.298$). It does, however, have predictability over the sub-scale of affective commitment ($r^2=0.558$).

5.2 RECOMMENDATIONS

Recommendations forthcoming from the study, will be provided.

A psychological empowered workforce can be created by developing employees to their fullest potential. For this to happen, management has to ensure that all employees are aligned towards one goal.

5.2.1 Recommendations to management and the organisation

- ◆ Provide development opportunities for employees
- ◆ Provide a career development program that focus on individual strengths and competencies.

- ◆ Highlight the importance of empowerment by giving employees responsibility down to the lowest level.
- ◆ The business strategy must be explained as well as long- and short term plans of the organisation.
- ◆ The employees must be involved in the development of a clear vision for the organisation.
- ◆ Management must set the tone by creating an organisational culture that value the contributions of employees at all levels, regardless of qualifications, age or years of service.

This concludes the recommendations for the organisation. Next the limitations as experienced by the researcher, will be discussed.

5.3 LIMITATIONS OF THE RESEARCH

The researcher has found the following limitations in this study:

- Literature about empowerment within a chemical industry is limited.
- The researcher worked with a small group of 61 employees. It was also not representative of the whole organisation, only the head office. The results can be used in a general study, but not a specific study to this organisation as a whole.
- The questionnaires used for this study are objective and measure perceptions only.
- The method for data collections primarily focused on questionnaires, interviews could have enhanced the study.
- The principle of empowerment is not new to employees, therefore they have preconceived ideas about the meaning thereof.
- The continuance commitment sub-scale on the Organisational Commitment Questionnaire's results were completely invalid and can not be used.

This concludes the researcher's limitations pertaining to this research and next, future research possibilities will be discussed.

5.4 FUTURE RESEARCH

- ◆ The results of this study point to many avenues that can be used for further studies, however this study contributes to the relatively unexplored area of employee empowerment within a chemical industry.
- ◆ Further study on the sub-scale of Continuance Commitment in the Organisational Commitment questionnaire, as it could give vital information in retaining employees.
- ◆ A follow-up study after a period of time to measure improvements or changes in psychological empowerment, organisational commitment and job satisfaction.
- ◆ A similar study on the whole of the organisation, to use the information generally over the total organisation.
- ◆ It is recommended that research into the actual performance appraisal ratings should be done to see whether empowerment increases performance.

The applicability of the findings obtained in this study will be discussed next.

5.5 THE APPLICABILITY OF THE FINDINGS

The researcher finds the applicability from the findings in this study to be:

- ◆ A handy tool for management to integrate findings obtained in this research into their strategic focus areas.
- ◆ The practical significant differences obtained during this research are an indication that there is definitely a need to explore further the results obtained from top management.

5.6 CONCLUSION

The purpose of this study was to conceptualise, define and explore psychological empowerment, job satisfaction and organisational commitment in a chemical industry. The study also determined whether psychological empowerment can predict job satisfaction and organisational commitment.

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