

Leadership, role clarity and psychological empowerment within a petrochemical organisation

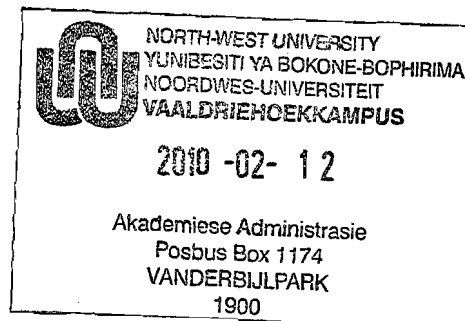
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REMARKS

The reader is reminded of the following:

- The references as well as the editorial style, as prescribed by the *Publication Manual (5th edition)* of the American Psychological Association (APA), were followed in this mini-dissertation. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University (Vaal Triangle Campus) to use the APA style in all scientific documents as from January 1999.
- The mini-dissertation is submitted in the form of a research article.

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SUMMARY

Title: Leadership, Role Clarity and Psychological Empowerment within a Petrochemical organisation.

Key words: Leadership empowerment behaviour, role clarity, psychological empowerment, petrochemical organisation.

In an era characterised by economic recessions, technological change and intensified global competition, the worldwide organisational landscape has been transformed. Organisations are positioning themselves closer to their customers and have begun adopting more cost effective practices in order to remain competitive. In addition, the ability of organisations to compete internationally is largely dependent on their ability to find, develop and retain talent by providing challenging and meaningful work, and advancement opportunities for talented people to remain at their place of work. The responsibility of leadership in talent retention is crucial. They must ensure that they exercise empowering behaviour, clarify roles and in so doing psychologically empower employees within their work contexts.

The objective of this study was to determine the relationship between leadership empowerment behaviour, role clarity, and psychological empowerment.

Employees from a business unit in a petrochemical organisation were targeted for this research. The study population included employees from managerial, non-managerial and specialist categories. A cross-sectional design was used to achieve the research objectives. The Leadership Empowerment Behaviour Questionnaire (LEBQ), Measures of Role Clarity and Role Ambiguity Questionnaire (RCAQ), Measuring Empowerment Questionnaire (MEQ) and a biographical questionnaire were administered for the study. The statistical analysis was carried out with the help of the SPSS program. The statistical method employed in the study consisted of descriptive statistics, Cronbach alpha coefficients, Pearson product-moment correlation and multiple regression analyses.

Multivariate analysis of variance (MANOVA) was used to determine the significance of differences between the experience of psychological empowerment of demographic groups.

Results indicated that when leadership empowerment behaviour increases, self determination increases. When role clarity increases, meaning will increase. Psychological empowerment is predicted by leadership empowerment behaviour and role clarity. Role clarity was found to mediate the relationship between leadership empowerment behaviour and two factors of psychological empowerment, namely meaning and competence. MANOVA analysis indicated no differences between different demographic groups in terms of levels of psychological empowerment experienced.

Recommendations were made for future research.

OPSOMMING

Titel: Leierskap, Rolduidelikheid, en Psigologiese Bemagtiging binne 'n Petrochemiese Nywerheid.

Sleutelwoorde: Leierskapbemagtiging, Rolduidelikheid, Psigologiese Bemagtiging, Petrochemiese Nywerheid.

Die wereldwye organisatoriese landskap is getransformeer in 'n era gekenmerk deur ekonomiese resessie, tegnologiese verandering en toenemende globale kompetisie, is die wêreldwye organisatoriese landskap getransformeer. Organisasies positioneer hulleself nader aan hulle klante en begin meer koste-effektiewe metodes aanwend om mededingend te bly. Boonop is die vermoë van organisasies om internasionaal te kompeteer, hoogliks afhanklik van hul vermoë om talent te vind, te ontwikkel en in diens te hou deur uitdagende en betekenisvolle werk en bevorderingsgeleenthede vir talentvolle individue te bied. Die verantwoordelikheid van leierskap in talentretensie is kritiek. Hulle moet verseker dat leierskapbemagtiging beoefen word, rolle verduidelik is en psigologiese bemagtiging van werknemers binne hulle werkskonteks plaasvind.

Die doel van hierdie studie was om die verhouding tussen leierskapbemagtiging, rolduidelikheid en psigologiese bemagtiging vas te stel.

Werknemers uit 'n besigheidseenheid van die petrochemiese nywerheid is vir hierdie navorsing gekies. Die studiegroep het werknemers op bestuurs- en nie-bestuursvlak ingesluit, asook spesialiskategorieë. 'n Dwarsdeursnee-opnamemetode is gebruik om die navorsingsdoelwitte te bereik. Die Leierskap Bemagtigingvraelys (LEBQ), die Maatstaf van Rolkonflik en Roldubbelsinnigheid (RCAQ), die Psigologiese Bemagtigingsvraelys (MEQ), en 'n biografiese vraelys is gedurende die studie toegepas. Statistiese analise is met behulp van die SPSS-program uitgevoer.

Die statistiese metodes wat gebruik was in die studie bestaan uit beskrywende statistiek, Cronbach alpha koëffisiënte, Pearson produk-moment korrelasie en meervoudige regressie-analise. Meerrigting-variasie analise (MANOVA) is gebruik om die belangrikheid van die verskille demografiese groepe ten opsigte van die vlakke van leierskapbemagtiging, rolduidelikheid en psigologiese bemagtiging uit te lig.

Resultate dui daarop dat leierskapbemagtiging toeneem, self-determinasie toeneem. Wanneer rolduidelikheid toeneem, neem betekenisvolheid toe. Psigologiese bemagtiging word voorspel deur leierskapbemagtiging en rolduidelikheid van rolle. Rolduidelikheid is bevind om die verhouding tussen leierskapbemagtiging en twee faktore van leierskapbemagtiging, naamlik betekenisvolheid en bevoegdheid te bemiddel. MANOVA analise dui aan dat geen verskille tussen verskillende demografiese groepe in terme van vlakke van leierskapbemagtiging ervaar word nie.

Aanbevelings vir verdere navorsing word gemaak.

CHAPTER 1

1. INTRODUCTION

This research focuses on the relationship between leadership empowerment behaviour, role clarity, and psychological empowerment. In addition, this study aims to determine whether leadership empowerment behaviour and role clarity contribute to psychological empowerment. Lastly, this research will explore whether role clarity has a mediating effect on the relationship between leadership empowerment behaviour and psychological empowerment. The study is conducted within a petrochemical organisation, consisting of several business units, where the business unit relevant to this research is the Laboratory within the petrochemical organisation.

This chapter contains the problem statement, research objectives, paradigm perspective of the research and research methodology employed. In addition, an overview of previous related research regarding leadership empowerment behaviour, role clarity, and psychological empowerment is linked with the objectives of this study. Following this, the research method is explained providing details regarding the empirical study, research design, participants, measuring instruments utilized, as well as, the statistical analysis. The chapter concludes with an overview of the division of chapters and a chapter summary.

1.1 PROBLEM STATEMENT

The worldwide organisational landscape is undergoing massive transformation as increasing numbers of organisations are forced to respond to competitive pressures by instituting large-scale organisational change (Ahearne, Mathieu, & Rapp, 2005; Eby, Adams, Russel & Gaby, 2000). Globalization, time compression, technological advancements and trade agreements between regions are some in a list of many factors that have brought about changing patterns in the world economy and markets (Robbins, Odendaal & Roodt, 2004). Domestic firms with solely domestic operations serving exclusively domestic client bases are becoming increasingly more difficult to find, mostly due to the inception of internet-based business, cross-border trade agreements, the ease of international travel and the like (Caliguiri & Tarique, 2009). Van Tonder (2005) states

that organisations by necessity have had to adapt to changing circumstances where adaptive responses have taken the form of strategic repositioning, reorganization, mergers, acquisitions and buy-outs.

South Africa, as the rest of the world, has undergone major changes in social, political, economic, technological and organisational environments (Stander, 2007). Robbins, Judge, Odendaal and Roodt (2009) state that South Africans view socio-political transformation, different client service delivery mechanisms, changing regulations, legislation and agreements, technological innovation and changing customer expectations and demands as the most important forces of change within the economic landscape. As a result, organisations are positioning themselves closer to their customers and have begun adopting more cost effective practices in order to remain competitive (Forrester, 2000). Boninelli and Meyer (2004) state that the ability of an organisation to compete internationally is largely dependent on their ability to find, develop and retain talent. Challenging and meaningful work, advancement opportunities, manager integrity and quality, empowerment, responsibility and new opportunities are considered the most important variables for talented people to stay at a company (Birt, Wallis & Winternitz, 2004). From the above, it may be deduced that leadership will play a major role in dealing with change through ensuring that organisations remain competitive while simultaneously nurturing their workforce.

As highlighted by Boninelli and Meyer (2004) a shift from control-and-command to coordinate-and-cultivate management, especially within the South African context, has created new pressures to attract and retain the required skills and competencies. In addition, the retention of talent within an organisation is related to the wellness of employees, based on the subjective perception of the health of the environment in which they find themselves at work. Wilson, DeJoy, Vandenberg, Richardson and McGrath (2004) are of the opinion that the core aspects in defining the health of a work organisation include organisational attributes, organisational climate, job design, job future, psychological work adjustment and employee health and well-being (Wilson et al., 2004). In explaining the key concepts of this model, employees' perception of their organisation (organizational attributes) affect their perception of the climate (organisational climate), which impacts the way people relate to their jobs (job design) and see

their future in the organisation (job future). These factors inevitably impact the work adjustment (psychological work adjustment) as well as health and well-being (employee health and well-being) of employees.

Traditionally, leadership has been defined as the ability and capacity to influence others (Yukl, 1981). Carson and King (2005) are of the opinion that empowered work environments provide the starting point from which self-leadership can result in positive organisational outcomes. By empowering employees, organisations are able to respond much quicker and timelier to environmental changes and stakeholder demands. For this reason, the traditional approach to leadership should be de-emphasised in favour of the emphasis on individual empowerment (Carson & King, 2005).

Three conceptualisations of empowerment behaviour exist in literature, namely the situational, relational and psychological approaches (Ahearne et al., 2005). The *situational* approach refers to the redistribution of authority, where decision-making authority and power is granted down the organisational hierarchy in an attempt to award employees with the ability to impact on organisational outcomes (Menon, 2001). The second approach, referred to as the relational approach, stresses environmental elements and defines empowerment as a set of managerial activities and practices that provide employees with feelings of power, control and authority (Conger & Kanungo, 1988). According to Bennis and Townshend (1997), among diverse leader behaviours that have been studied, leadership empowering behaviours have assumed special importance, as consistent with the trend toward providing increased autonomy to employees.

Srivastava, Bartol and Locke (2006) are of the opinion that in addition to providing an increased sense of autonomy, leadership empowerment behaviour focuses on leader actions, particularly sharing power as well as providing employees with more responsibility. Ahearne et al. (2005) continue this train of thought by viewing leadership empowerment behaviour as rooted in the organisational context and defined as a practice or set of approaches involving the delegation of responsibility down the hierarchy so as to give employees increased decision-making authority in the execution of their primary work tasks. Konczak, Stelly and Trusty (2000) view the dimensions of leadership empowerment behaviour as the delegation of authority, the emphasis

on accountability for outcomes, self-directed decision making, information sharing, skills development and coaching for innovative performance. In addition, Arnold, Arad, Rhoades and Drasgow (2000) cite additional dimensions of leadership as leading by example, coaching, participative decision making, informing and showing concern or interacting.

Studies building on this approach conceptualise leadership empowerment behaviour as a form of participation, increasing employees' partaking in the decision-making process and encouraging employees to participate more actively in the whole organisation (Ergeneli, Ari, & Metin, 2006). In order for employees to feel empowered, managerial behaviour should provide a positive emotional atmosphere based on encouragement in visible and personal ways. Managers should express confidence, foster initiative and responsibility, reward employees and build on success. Ergeneli et al. (2006) state the advantages of empowerment as increasing the problem solving capacity at the employee level, helping employees to realize their full potential, sharing ideas regarding organisational performance, presenting information that will affect organisational performance and direction and giving employees the power to make decisions.

The latter conceptualisation, namely the psychological approach to empowerment sees it as a four-dimensional psychological state based on individual employees' perceptions of meaningfulness, competence, self-determination and impact (Conger & Kanungo, 1988). A sense of self-determination refers to having freedom to choose the way in which tasks are executed, while a sense of meaning indicates that employees care about the work that they deliver. Possessing a sense of impact means that employees believe that their ideas are considered and that they can therefore influence the organisation where a sense of competence refers to confidence with regard to the ability to perform (Appelbaum, Hebert & Leroux, 1999).

Psychological empowerment refers to individual empowerment and not empowerment as experienced solely by a larger team, group, organisation or society (Spreitzer, 1995). Stander (2007) is of the view that psychological empowerment focuses on resultant intrinsic motivation experienced by an individual rather than the managerial practices used to increase an individual's level of power. In essence, psychological empowerment as conceptualised by Spreitzer, refers to a subjective phenomenon as opposed to relational empowerment through the concrete sharing of

power. Spreitzer (1995) continues by describing psychological empowerment in the workplace as not referring to empowerment related to other areas or roles and refers to it as a continuous phenomenon or variable that may be seen as a fairly stable state that can be influenced both by context-related factors as well as person-related factors. In this way, this perspective focuses on employees' response to empowerment.

Kaminski, Kaufman, Graubarth & Robins (2000) define psychological empowerment as a process that promotes an active approach to problem solving, increased political understanding, and an increasing ability to exercise control over the environment. Wilkinson (1988) refers to psychological empowerment as a form of employee involvement and focuses on task based involvement and attitudinal change. Robinson (1997) is of the opinion that the common thread found in most definitions of psychological empowerment is the concept of providing more information, more skills and more ability to make decisions regarding the way in which they perform work.

Menon (2001) states that the greater the experience of psychological empowerment, the greater the organisational commitment. This is supported by the fact that individuals who find themselves in a psychologically unsafe situation such as experiencing less empowerment or feeling insecure in their job, display signs of disengagement. In addition, the greater the empowerment, the higher the level of job satisfaction (Appelbaum and Honeggar, 1998; Pearson and Moomaw, 2005). This holds positive implications for organisations in terms of retaining their talent as an affectively committed employee has no desire to leave the organisation. Nqubane (2008) adds that a healthy work organisation that has less stressed employees who perceive the organisation as supportive, experience more role clarity, have increased job security and are more committed to the organisation.

Each position in the organisation should have a specified set of tasks or position responsibilities which allow management to hold subordinates accountable for specific performance and provide guidance and direction for subordinates (Rizzo, House & Lirtzmann, 1970). A role is defined as "the set of prescriptions defining what the behaviour of a person should be", where roles further represent the expectations of the individual and the organisation and may serve as functional or

dysfunctional (Schuler, Aldag & Brief, 1977, p 111). When dysfunctional, roles are considered to attribute to increased feelings of role conflict and role ambiguity in the form of tension, turnover, dissatisfaction, anxiety and lowered performance (Schuler et al., 1977).

Rizzo et al. (1970) developed a measure of role clarity which focuses on role conflict and role ambiguity. Role ambiguity is defined in terms of the predictability of the outcome or responses to one's behaviour, the existence or clarity of behavioural requirements which would serve to guide behaviour and provide knowledge that the behaviour is appropriate (Rizzo et al., 1970). Role conflict is described in terms of the dimensions of congruency-incongruency or compatibility-incompatibility in the requirements of the role, where congruency or compatibility is judged relative to a set of standards or conditions which impinge upon role performance (Rizzo et al., 1970).

Ivancevich and Donnelly (1974) indicate role ambiguity as a reverse of role clarity, where role ambiguity involves a direct function of the discrepancy between the information available to the person and that which is needed to adequately perform the role. It can therefore be deduced that an individual that is provided with the necessary information in order to perform a role, would experience a greater feeling of role clarity. In addition, role clarity can be defined as the extent to which the employee receives and understands information required to do the job as well as the extent to which an employee's work goals and responsibilities are clearly communicated and whether the individual understands the processes to achieve these goals (Kelly & Hise, 1980; Sawyer, 1992).

Bliese and Castro (2000) state that role ambiguity increases the probability that a person will be dissatisfied with their role, experience both physical and psychological stress, seek other opportunities for improving clarity and satisfaction, will be less innovative and will generally show a lack of job interest. Paul (2001), further indicates that role conflict, and therefore decreased role clarity, is frequently associated with violations in the classical concepts of chains of command and unity of command and that this inevitably leads to individual dissatisfaction and job related strain.

Ergeneli et al. (2006) are of the opinion that strong socio-political support from superiors, access to information, and a work climate focusing on participation as well as work units with little role ambiguity lead to empowerment. In addition, high levels of role clarity have been found to result in greater job satisfaction, organisational commitment as well as job performance (Mukherjee & Malhotra, 2006). High role clarity would only be evident when organisational support from leaders was high. Leaders also set an example and set up systems for clarifying expectations, and providing the support necessary to pursue organisational and individual ideals (Bliese & Castro, 2000).

Role theory suggests that when the behaviours expected of an individual are inconsistent, the individual will experience stress, become dissatisfied, and perform less actively than when the expectations imposed on him/her were not in conflict (Rizzo et al., 1970). For the purpose of this research and taking into consideration the above definitions, the researcher decided to conceptualize role clarity as the absence of role conflict and ambiguity.

Kirkman and Rosen (1999) found empowering leadership and team performance to be positively related where the effect was partially mediated by the psychological empowerment experienced by team members. Chen, Kirkman, Kanfer and Allen (2005) are of the opinion that there exists insufficient proof in previous research regarding how leaders enhance individual and team performance by simultaneously empowering individuals personally. In addition, research provides little information concerning the psychological effects of varying degrees of role clarity on the persons involved (Paul, 2001). According to Bliese and Castro, (2000) most studies with regard to role clarification have investigated how an individual's perceived support influences his or her well-being. A vacuum therefore exists in literature with regard to how leadership empowering behaviour and role clarification impacts on the level of psychological empowerment experienced. As no literature exists to suggest the effect of role clarity in the relationship between leadership empowering behaviour and psychological empowerment, the possible mediating effect of this construct requires further research.

The South African chemical industry is the largest of its kind on the African continent and is considered to be a complex and diversified industry which cannot be exempted from the changes

that South African organisations have gone through over the past few decades (Jordaan, 2007). The petrochemical organisation in which this study has been conducted consists of several business units, among which include a Laboratory. An employee motivational climate survey was conducted, followed by an organisational analysis in 2006. In both instances, a high intention to leave, low levels of organisational commitment, lack of communication and trust between employees and management, as well as lack of role clarity were revealed. External consultants were called upon to further assess the organisational culture within this business unit where it was found that a number of areas were identified that were considered to prevent optimal functioning (Stander, Scholtz & Verster, 2006). As a result of the findings, the Laboratory has embarked on the initial stage of a long term, transformational change process aimed at improving dissatisfaction and negativity amongst employees.

Among the findings of Stander et al. (2006) employees indicated a distance between themselves and the management team where they experience a lack of support, recognition and motivation from their managers. In addition, employees highlighted a decreased sense of belonging where lack of alignment and poor service delivery within the laboratory was further exacerbated by low retention of talented people. Based on these findings, this research was initiated to explore the relationship between leadership empowerment behaviour, role clarity and psychological empowerment. It would be of particular interest to explore whether differences exist between people in different positions, age groups, education levels, job levels, and departments with regard to psychological empowerment.

The objective of this research is to investigate the relationship between leadership empowerment behaviour, role clarity and psychological empowerment within a business unit of a petrochemical organisation. The following research questions can be formulated based on the above-mentioned description of the research problem:

- How are leadership empowerment behaviour, role clarity and psychological empowerment conceptualised in research literature?
- What is the relationship between leadership empowerment behaviour, role clarity and psychological empowerment in a business unit of a petrochemical organisation?

- To what extent can leadership empowerment behaviour and role clarity predict levels of psychological empowerment in a business unit of a petrochemical organisation?
- To what extent will role clarity play a mediating role in the relationship between leadership empowerment behaviour and psychological empowerment in a business unit of a petrochemical organisation?
- Are there differences in the level of psychological empowerment between different demographic groups (gender, racial group, age, education levels, laboratory groups and job levels) in a business unit of a petrochemical organisation?

1.2 RESEARCH OBJECTIVES

The research objectives are divided into general and specific objectives.

1.2.1 General objective

The general objective of this research is to determine whether a relationship exists between leadership empowerment behaviour, role clarity and psychological empowerment of employees in a business unit of a petrochemical organisation.

1.2.2 Specific objectives

The specific objectives of the research are:

- To conceptualise leadership empowerment behaviour, role clarity and psychological empowerment according to research literature.
- To determine the relationship between leadership empowerment behaviour, role clarity and psychological empowerment in a business unit of a petrochemical organisation.
- To determine whether leadership empowerment behaviour and role clarity predict levels of psychological empowerment in a business unit of a petrochemical organisation.

- To determine whether role clarity plays a mediating role in the relationship between leadership empowerment behaviour and psychological empowerment in a business unit of a petrochemical organisation.
- To determine whether differences exist in the level of psychological empowerment between different demographic groups (gender, age, culture and organisational levels) in a business unit of a petrochemical organisation.

1.3 PARADIGM PERSPECTIVE OF THE RESEARCH

The objective of the paradigm perspective is to define the research within the structure of the relevant research context (Mouton & Marais, 1996). The purpose of the paradigm perspective in this research is to ascertain boundaries and points of departure which direct the research.

This research falls within the boundaries of the behavioural sciences and more specifically Industrial Psychology. Where psychology refers to the scientific study of behaviour, Industrial Psychology focuses on scientific observation, evaluation, optimal utilisation and influencing of normal and, to a lesser degree, deviant behaviour in interaction with the environment as manifested in the world of work (Louw & Edwards, 1993).

Various sub-disciplines of Industrial Psychology occur, namely organisational, personnel, career and economic psychology which include such areas as tests and measurements, the study of organisations, personnel practices, the effect of work, fatigue, and pay factors to name but a few (Reber, 1985). The sub-disciplines relevant to this research include organisational psychology and psychometrics as psychometric instruments will be utilised in order to illuminate the underlying organisational culture as measured by the aforementioned constructs.

Organisational psychology aims at providing a social environment conducive to job performance and job satisfaction (Louw & Edwards, 1993). Organisational psychology can be defined as the study of organisations, the elements and systems of which they consist, as well as factors, especially the individual's interaction, that influence the effective functioning of organisations (Plug, Louw, Gouws & Meyer, 1997). Psychometrics refers to the branch of Psychology where

the measuring of any behavioural aspect requiring the use of particular procedures according to particular rules, is measured in order to allocate numerical values to that behavioural aspect (Smit, 1996).

The literature review of this study is presented from the **positive psychology** paradigm, defined as the scientific study of ordinary, positive, subjective human strengths, virtues, experiences and functioning (Seligman & Csikszentmihalyi, 2000; Sheldon & King, 2001). This research is aimed at understanding and enhancing factors that allow individuals, communities and societies to flourish while generating improvements within the organisation involved in this study.

1.4 RESEARCH METHOD

This research, pertaining to the specific objectives, consists of two phases, namely a literature review and an empirical study where the results obtained from the research will be presented in an article format.

1.4.1 Literature review

The literature study focused on previous research conducted regarding leadership empowerment behaviour, role clarity, and psychological empowerment as well as possible relationships between these constructs. An overview is therefore given of the conceptualization of these constructs in the literature.

1.4.2 Empirical study

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

1.4.3 Research design

Research design is the arrangement of conditions for collection and analysis of data in a manner that strives to combine relevance to the research purpose with economy in procedure (Mouton & Marais, 1996). The aim of the research design is to therefore align practical considerations and limitations of the project with the pursuit of the research goal. In this way, the eventual validity of the research findings is maximised.

The research can be classified both as descriptive and explorative. Exploratory research involves the exploration of a relatively unknown research area with the aim of gaining new insights into the phenomenon as well as elucidates the central concepts and constructs (Mouton & Marais, 1996). The method by which this will be undertaken will be by way of reviewing related literature as well as surveying the people who possess practical experience of the problem to be studied. Descriptive research also presents as being relevant to this study as the variables within the study are being described, as well as the individuals involved.

The specific design that will be used involves a cross-sectional or synchronic study as the phenomena of leadership empowering behaviour, role clarity and psychological empowerment are measured at a specific point in time.

1.4.4 Participants

The study population consists of laboratory workers within the petrochemical industry, who availed themselves voluntarily, at a given time to act as participants in the study. These participants were encouraged to participate in the study, in order to gain deeper understanding of aspects that can be improved within their immediate working environment. The study population will comprise mostly skilled workers, in the form of scientists, analysts and analysers. All employees were targeted during the study, comprising a population size of 240.

1.4.5 Measuring Battery

Three questionnaires will be distributed for the empirical study, namely: the Leader Empowering Behaviour Questionnaire (Konczak et al., 2000), the Role Clarity Questionnaire (Rizzo et al., 1970), and the Measuring Empowerment Questionnaire (Spreitzer, 1995).

The *Leader Empowering Behaviour Questionnaire* was introduced by Konczak et al. (2000) as a measure of leadership empowering behaviour within an organisation. This six-factor model, that identifies leader behaviours associated with employee empowerment, was developed to prescribe strategies and behaviours for managers trying to develop their empowerment. Consisting of 17 items, the items in the Questionnaire are rated on a 7-point Likert scale ranging from with 1 indicating, “strongly disagree” to 7 “strongly agree”, with a high score signifying high leadership empowering behaviour. An example of a test item is “my manager tries to help me arrive at my own solutions when problems arise, rather than telling me what he/she would do” (Konczak et al., 2000, p. 307-308). Alpha reliability coefficients computed for the data within a consumer products company (Konczak et al., 2000) ranged from 0,82 to 0,88. In a South African study, Stander and Rugg (2001) reported an alpha coefficient of 0,95 to 0,97.

The *Measures of Role Conflict and Ambiguity Questionnaire* developed by Rizzo et al. (1970) was developed in order to measure the role clarity of employees within organisations. This two factor instrument consists of 30 items, 15 of which dealing with role ambiguity and the remaining 15 exploring role conflict. The items in the questionnaire are rated on a 7-point scale ranging from 1 “very false” to 7 “very true”. A typical item involves a statement being made such as “I do not know if my work is acceptable to my boss” (reversed) where a high score indicates a high score level of role conflict. A typical statement related to role ambiguity would be “I know what my responsibilities are” (Rizzo et al., 1970, p. 156). In a study conducted on 342 call centre employees by Mukherjee and Malhotra (2006), a Cronbach alpha coefficient of 0,85 was obtained, where Ivancevich and Donnelly (1975) reported a coefficient alpha of between 0,76 to 0,93 in their study conducted on a group of salesmen.

The *Measuring Empowerment Questionnaire* developed by Spreitzer (1995) will be utilised to measure the level of psychological empowerment experienced by employees. This scale contains three items for each of the four sub-dimensions viewed as meaning, competence, self-determination and impact. Respondents indicate the extent to which they agree with each statement on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Examples of items include “the work I do is meaningful to me” (meaning), “I have mastered the skills necessary for my job” (competence), “I have significant autonomy in determining how to do my job” (self-determination) and “I have a great deal of control over what happens in my department) (Spreitzer, 1995, p. 1464-1465). Sauer (2003) reported alpha coefficients for the subscales as 0,92 for meaning, 0,90 for competence, 0,85 for self-determination and 0,84 for impact with an overall Cronbach alpha coefficient of 0,92. Stander and Rugg (2001) further reported an overall Cronbach alpha of 0,84.

1.4.6 Statistical Analysis

The statistical analysis of the data will be carried out with the help of the SPSS computer programme (SPSS Inc., 2007). Reliability and construct validity of the measuring instruments will be determined by way of factor analyses, Cronbach’s alpha coefficients and inter-item correlation coefficients. Data will be analysed by way of the descriptive statistics in the form of means, standard deviations, skewness and kurtosis.

Relationships between variables will be determined by Pearson product-moment coefficients. The level of statistical significance is set as $p \leq 0,05$. Steyn (2002) recommends that effect sizes be established to determine the importance of a statistically significant relationship. Values larger than 0,30 will be regarded as practically significant, to a medium effect, while 0,50 will be regarded as a large effect (Cohen, 1988).

Multiple regression analysis will be used to determine the relationship between the constructs (Cohen, 1988). By determining R squared, a correlation can be better understood by indicating the proportion of variance in any two variables, which is predicted by the variance in the other. The possible mediating effect of role clarity on the relationship between leadership empowering

behaviour and psychological empowerment will be determined by the principles of Baron and Kenny (1986) by investigating the prevalence of several conditions. These conditions include (1) leadership empowering behaviour is related to role clarity, (2) role clarity is related to psychological empowerment, (3) leadership empowering behaviour is related to psychological empowerment, and (4) the strength of the relationship between leadership empowering behaviour and psychological empowerment is reduced when role clarity is added to the model as a mediator. MANOVA and ANOVA (as well as Tukey's HSD test in the instance of significant differences) will be used to determine differences in the levels of psychological empowerment of various demographic groups.

1.5 OVERVIEW OF CHAPTERS

Chapter 1 comprises an introduction to the research study. The problem statement briefly outlines the constructs and reasons for this research and the research objectives provide detail regarding the general and specific objectives of the research. Finally the research methods will be discussed.

Chapter 2 provides a literature overview and the findings of this study. This chapter concludes with a discussion of limitations and recommendations.

Chapter 3 focuses on the conclusion of this study. Research limitations and recommendations are also provided.

1.6 CHAPTER SUMMARY

Chapter 1 provided the discussion of the problem statement and the objectives of the research. The research method, measuring instruments, as well as an overview of the chapters to follow were provided.

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CHAPTER 2

RESEARCH ARTICLE

The workplace has undergone widescale change from a relatively stable, simple, ordered, predictable and local entity to one being characterised by discontinuous change, complexity, chaos, ambiguity and globalisation, and where success is measured in terms of relentless responsiveness, innovation, speed, flexibility and cost-effectiveness (Veldsman, 2003). Economic recessions, technological change and intensified global competition have meant that organisations have had to engage in downsizing and restructuring in order to remain competitive in these harsh conditions (Marais & Schepers, 1996). In instances where the rationalisation of jobs have taken place, employees no longer feel secure in their jobs, given that organisations can only afford employing workers as long as they can make a contribution and their skills and knowledge are needed (Roux, 2002).

South African organisations, have, in turn, also been exposed to the effects of the world economy, technology advancement and international competition which has resulted in organisations focusing more on their profitability and sustainability (Marais & Schepers, 1996). Hartley, Jacobson, Klandermans and Van Vuuren (1991) note that the possible resulting unemployment due to profitability measures being put in place may only be the beginning of a chain of adverse organisational events and that there may also be pressure from the organisation to force employees to accept modified jobs, alternative employment conditions, or to relocate. However, short-term fixes through negative reinforcement may result in behaviour that helps the organisation financially in the short-term but may narrow the ownership and creativity of employees, thereby reducing long-term benefits to the organisation (Harter, Schmidt & Keyes, 2002).

While businesses are forced to optimise resources in order to remain competitive within the economic climate, corporations have come to the realisation that economic and social sustainability cannot be achieved through technology interventions alone and that specific attention should be given to human needs (Van Schalkwyk, 2007). Krawitz (2000) proposes that if people are key to a competitive advantage, then the way in which employers treat people becomes critical to business success. In addition, Harter et al. (2002) are of the opinion that behaviours that increase the frequency of positive emotions lead to increased clarity of expectations, understanding and use of resources that are congruent with company goals,

individual fulfilment in work, ownership for the altruistic and tangible impact of the company, and learning that is in line with this shared mission.

High quality work that offers employees autonomy, in conjunction with transformational leadership in a team-based context, is likely to result in greater trust in management, organisational commitment, perceptions of fairness, perceived control, and belongingness as well as contributing to the development of flexible employee role orientations (Snyder & Lopez, 2002). As people issues are becoming more central to business success, the roles and responsibilities of leaders have changed (Jordaan, 2007). Moreover, it is the responsibility of management to design the organisation in a way that allows employees to do meaningful work in a healthy way, where healthy work can contribute to a more positive organisational experience (Snyder & Lopez, 2002).

Wilson, Deljoy, Vandenberg, Richardson and McGrath (2004) state that the structure and fabric of an organisation, and how it functions, can have a wide-ranging impact on the health and well-being of employees, and ultimately the effectiveness of the organisation. In applying this viewpoint, a healthy organisation is characterised by intentional, systematic and collaborative efforts to maximise employee well-being and productivity by providing well-designed and meaningful jobs, a supportive social-organisational environment, and accessible and equitable opportunities for career and work-life enhancement.

The actions undertaken by the management of an organisation remain central to creating or maintaining a healthy work organisation (Wilson et al., 2004). Martin and Bush (2006) state that the psychological climate and level of psychological empowerment experienced within organisations is influenced by the leadership of a subordinate's direct superior and can be characterised by the delegation and passing of power from higher organisational levels to lower levels. In this way, interventions applied within organisations that foster broad-based participation of employees have a greater chance of promoting organisational effectiveness. Through the empowerment of employees, organisations are able to respond much quicker and timelier to environmental changes and stakeholder demands (Carson & King, 2005).

Conger and Kanungo (1988) initially defined empowerment as 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 of providing efficacy information. As a relational concept, empowerment is concerned with issues related to management style and employee participation whereas, as a motivational construct, empowerment is focused on the individual and personal aspects of the individual, including autonomy, power, discretion and control (Smith & Mouly, 1998).

Thomas and Velthouse (1990) displayed relative disagreement with the afore-mentioned views in that they were of the opinion that empowerment could not be viewed as a single concept but that it was, in essence, multifaceted. According to their viewpoint, empowerment is defined as increased intrinsic motivation manifested in a set of cognitions reflecting an individual's orientation to his or her role. According to this model, empowerment therefore focuses on intra-personal cognitive processes that begin with the self and its belief systems.

Based on the underlying thrust and emphasis of the various streams of research, empowerment has been classified into three categories, namely situational (structural), motivational (psychological) and leadership empowerment (Menon, 2001). The *situational* approach refers to the redistribution of authority, where decision-making authority and power is granted down the organisational hierarchy in an attempt to award employees with the ability to impact on organisational outcomes. The *leadership* approach focuses on the leader who energises his followers to act with him in providing future vision by way of such practices as the delegation of authority, self-directed and participative decision-making, information sharing, and coaching as well as the development of people while ensuring accountability for outcomes (Arnold, Arad, Rhoades & Drasgow, 2000). Lastly, *psychological* empowerment, refers to an individualised perspective based on the internal process or cognitions of the employee (Menon, 2001). For the purposes of this research, leadership and psychological empowerment will be explored in more detail.

Widespread agreement exists that successful organisations have one major attribute that sets them apart from unsuccessful organisations, namely, dynamic and effective leadership (Sauer,

2003). For leaders to successfully react to unprecedented challenges in the business context environment, they need to create environments in which employees trust each other and in so doing will allow employees to feel comfortable about experimenting with new ideas and take reasonable risks. Essentially, employees need to know that their leaders listen to them and offer support while simultaneously removing barriers to their ideas. Empowerment results in both positive managerial and organisational outcomes due to employees' resultant experiences of a heightened sense of personal control as well as a heightened motivation to engage in work (Siegall and Gardner, 2000).

Cunningham, Hyman & Baldry (1996) purport that leadership empowerment entails broadening the range of employee activities and increasing the degree of discretion that is attached to their jobs. The process of leadership empowerment is viewed as representing a shift in the locus of control from externally imposed directive control to internally imposed self-control (Klidas, van den Berg and Wilderom, 2006). Work environments that empower employees to perceive greater meaning, competence, self determination and impact in their work, result in positive outcomes for the organisation (Thomas & Velthouse, 1990). When employees perceive their organisational climate as supportive and caring for them, it could lead the organisation towards becoming a healthy organisation.

The definition of leadership empowerment by Konczak, Stelly and Trusty (2000) are of particular importance to this study and refers to the ability of leaders to delegate authority to employees, inspire accountability for outcomes, encourage self-directed decision making, share, enhance skills development and coach employees to perform in an innovative manner. *Delegation of authority* involves a manager sharing power with subordinates through the delegation of decisions to employees, thereby increasing intrinsic motivation by influencing task assessments (Malone, 1997; Conger and Kanungo, 1988). *Accountability for outcomes* are achieved when management ensure that responsibility for attaining results are transferred to employees. Where subordinates are involved and are able to participate in problem solving processes, *self-directed and participative decision-making* is made possible (Konczak, Stelly & Trusty, 2000). *Information sharing* occurs when leaders share information and knowledge with employees thereby creating a feeling of ownership while improving understanding of work roles

and behaviours (Frey, 1993). In terms of *skills development* and *coaching for innovative performance*, managers play a vital role in facilitating opportunities for training and the enhancement of skills as well as developing subordinates to assist in them becoming self-reliant (Arnold et al., 2000).

Following on aforementioned schools of thought by Conger and Kanungo (1988) and Thomas and Velthouse (1990) regarding the conceptualisation of empowerment, Spreitzer (1995) is of the opinion that empowerment exists when employees perceive that they exercise some form of control over their work life which has great potential in contributing towards organisations reaching their objectives. Effectively, according to this model, empowerment refers to a motivational construct, reflected as an active rather than passive orientation to work role, manifested in four conditions, namely, meaning, competence, self-determination and impact. *Meaning* refers to the subjective assessment of importance of the job and reflects a sense of purpose or personal connection to work. *Competence* referring to a personal sense of efficacy would imply that individuals believe that they possess the skills and ability necessary to perform their work well. *Self-determination* refers to one's sense of control and autonomy and freedom of choice while relating to the opportunity to select activities that make sense and to perform in ways that seem appropriate (Quinn & Spreitzer, 1997). Lastly, *impact* describes a belief that individuals possess the ability to influence the environment and therefore outcomes at work

Menon (2001) views motivational (psychological) empowerment as embodying a cognitive state characterised by a sense of perceived control, competence and goal internalisation represented by the above-mentioned four dimensions. Here, psychological empowerment is viewed as a continuous variable where an individual can be viewed as either more or less empowered, as opposed to empowered or not empowered. Building on the views of Conger and Kanungo (1988), the relational perspective of psychological empowerment represents the social structural perspective of empowerment where organisational structure, support, resources and culture as well as access to strategic information can be identified as antecedents of employee empowerment (Spreitzer, 1995). Innovation, upward influence, self and managerial effectiveness are identified as the behavioural outcomes of the empowerment process.

Empowerment is considered a phenomenon that occurs at an individual, organisational and community level (Zimmerman, 1995). The organisation is said to affect the individual by offering freedom to act and by providing a power base, while empowered individuals, through their proactive behaviour, can affect the organization. Spreitzer (1995) purports that a feeling of psychological empowerment in the workplace is related to a climate of participation, strong socio-political support and little role ambiguity, where empowerment is positively related to delegation and negatively related to centralization within the organisation. Similarly, employees who consider themselves empowered display reduced role conflict and role ambiguity, as they have a greater sense of the ability to control their own environment (Reynders, 2005).

Each position in the organisation should have a specified set of tasks or position responsibilities which allow management to hold subordinates accountable for specific performance and provide guidance and direction for subordinates (Rizzo, House & Lirtzman, 1970). As Wilson et al. (2004) state that job design emphasises employees' individual perceptions of their immediate work tasks, role clarity can be viewed as a component of this dimension. According to Rizzo et al. (1970) role theory states that when the behaviours expected of an individual are inconsistent, the individual will experience stress, become dissatisfied, and perform less actively than when the expectations imposed on him/her were not in conflict.

According to Whitaker, Dahling, and Levy, (2007), a role is defined as a set of expectations or norms applied to the incumbent by others in the organisation, and employees with high role clarity therefore possess a clearer understanding of their requirements. Put simply, role clarity refers to the degree to which required information is provided about how the employee is expected to perform his job as well as the extent to which an individual receives and understands information required to do the job (Teas, Wacker and Hughes, 1979).

Rizzo et al. (1970) developed a measure of role clarity which focuses on role conflict and role ambiguity where role conflict is defined in terms of the dimensions of congruency-incongruence or compatibility-incompatibility in the requirements of the role, where congruency or compatibility is judged relative to a set of standards or conditions which impinge upon role performance. Role ambiguity is viewed in terms of the predictability of the outcome or responses

to one's behaviour, and the existence or clarity of behaviour requirements which would serve to guide behaviour and provide knowledge that the behaviour is appropriate (Rizzo et al., 1970). For the purposes of this research study, the researcher has decided to conceptualize role clarity as the absence of role conflict and ambiguity.

According to Hunt and Lichtman (1970) role clarity has been shown to be a factor associated with levels of tension in the organisation and that role clarity may have important implications for understanding the consequences of conflict. Role conflict and role ambiguity have also been shown to have significant effects on personal and organisational outcomes. Low levels of role clarity may potentially result in negative effects on job satisfaction, organisational commitment and service quality (Korczynski, 2002). Managers experience high levels of role stress from not participating in decision-making and a feeling that their opinions are not valued by the organisation, which is reflected in low levels of empowerment and perceived organisational support (Patrick & Laschinger, 2006).

Employees that experience role ambiguity and role conflict feel disempowered from utilising initiative in the decision making process. Frontline employees are more likely to exercise empowered behaviour when they have the encouragement, support, trust and confidence of their superiors (Patrick & Laschinger, 2006). Such empowering behaviours also provide, directly and indirectly, signals to employees about what is valued in the organisation and what management expects from them, therefore reducing role ambiguity and conflict (Klidas et al., 2006).

The above discussion focused on conceptualising leadership empowering behaviour, role clarity and psychological empowerment. The background of the organisation in which the study was conducted will be outlined below.

The petrochemical organisation in which this study will be conducted consists of several business units. Among these business units, the laboratory environment in particular has, over a period of time, been characterised by problematic organisational dynamics as diagnosed in two previous motivational climate surveys in 2004 and 2006 respectively. Results of these surveys have alluded to lack of communication between management and employees, lack of role clarity,

and low levels of organisational commitment. The afore-mentioned factors have resulted in poor customer focus and where the business unit as a function is largely responsible for service delivery, this has resulted in poor attainment of organisational outcomes. In addition, it has become evident that a high intention to leave has resulted in an increased turnover of employees, regardless of the talent management initiatives currently in place.

More recently, employees have more specifically referred to a lack of support, recognition and motivation by management where leaders appear to be uninvolved and disinterested in employee well-being as well as employee contributions. Work is experienced as tedious where a low sense of belonging and poor opportunities for employee development exist. Management is perceived as unavailable and not being open to suggestions resulting in an increased need on the part of employees for involvement in decision making. Based on the factors highlighted above, leadership empowering behaviour, role clarity and psychological empowerment have become significant issues for further investigation and exploration.

AIM OF THE STUDY

The aim of this research is to establish whether a relationship exists between leadership empowerment behaviour, role clarity and psychological empowerment.

HYPOTHESES

Based on the discussion above, the following hypotheses are formulated :

- H1: Practically and statistically significant relationships exist between leadership empowerment behaviour, role clarity and psychological empowerment in a business unit of a petrochemical organisation.
- H2: Leadership empowerment behaviour and role clarity predict psychological empowerment in a business unit of a petrochemical organisation.

- H3: Role clarity has a mediating effect on the relationship between leadership empowerment behaviour and psychological empowerment in a business unit of a petrochemical organisation.
- H4: Differences exist between demographic groups of employees regarding levels of psychological empowerment in a business unit of a petrochemical organisation.

METHOD

Research design

The research method utilized in this study relies on measurements to compare and analyze various variables and can therefore be classified as quantitative. In an attempt to collect information to describe the population at a certain point in time, (Burns & Grove, 1993) a cross-sectional design was used. According to Bless and Higson-Smith (2000) and Shaughnessy and Zechmeister (1997), this design is best suited to addressing the descriptive and predictive functions associated with the correlational design, whereby interrelationships between variables are examined. In addition, a survey was used as the data collection technique to achieve the research objectives, in which questionnaires provided the data about the identified population.

Participants

The participants could be defined as an availability sample of employees working in a business unit of an organisation in the petro-chemical industry. A total population of 240 employees was targeted. A response rate of 75% was achieved, of which 177 responses (98%) could be utilised. Descriptive information of the sample is given in Table 1.

Table 1

Characteristics of the Participants

Item	Category	Frequency	Percentage
Gender	Male	107	60,50
	Female	70	39,50
Age	24 years and younger	29	16,40
	25 to 35 years	84	47,50
	36 to 45 years	33	18,60
	46 to 55 years	24	13,60
	56 years and older	7	4,00
	Missing Values		
Race	African	92	52,00
	White	76	42,90
	Indian	3	1,70
	Coloured	1	0,60
	Other	1	0,60
	Missing Values	4	2,30
Education levels	Up to Grade 12	3	1,70
	Grade 12	88	49,70
	Diploma	62	35,00
	Degree	13	7,30
	Postgraduate degree	10	5,60
	Missing Values	1	0,60
Laboratory Groups	Routine Section	61	34,50
	P & T	38	21,50
	Analysers	28	15,80
	Administration and Support	14	7,90
	Shift Supervisor / Courier / Administrator	23	13,00
	Management	4	2,30
	Satellite Laboratory	4	2,30
	Missing Values	5	2,80
Job Level	Level 10 and 11	47	26,60
	Level 8 and 9	58	32,80
	Level 6 and 7	47	26,60
	Level 6C	6	3,40
	Level 4, 5A and 5B	13	7,30
	Missing Values	6	3,40

Table 1 (continued)

Characteristics of the Participants

Item	Category	Frequency	Percentage
Years of Service in Laboratory	Less than 1 year	36	20,30
	2 to 5 years	52	29,40
	6 to 10 years	35	19,80
	11 to 20 years	24	13,60
	More than 20 years	29	16,40
	Missing Values	1	0,60
Years of service in current organization	Less than 1 year	31	17,50
	2 to 5 years	52	29,40
	6 to 10 years	31	17,50
	11 to 20 years	33	18,60
	More than 20 years	30	16,90

The study population consisted mainly of male (60,50%) African (52,00%) employees between the ages of 25 and 35 (47,50%). The majority of the sample had a grade 12 (49,70%) qualification, and 34,50% of the participants worked in the routine section of the laboratory. The majority of the participants were on a non-management level with between 2 and 5 years (29,4 %) working experience in the laboratory.

Measuring battery

The following measurement instruments were used in the empirical study:

A *biographical questionnaire* was developed to gather information about the demographical characteristics of the participants. Information gathered included age, gender, race, education, and years employed in the Laboratory.

The *Leader Empowering Behaviour Questionnaire (LEBQ)* (Konczak et al., 2000) was used to measure leadership empowerment behaviour. This six-factor model, that identifies leader behaviours associated with employee empowerment, was developed to prescribe strategies and behaviours for managers trying to develop their empowerment skills. According to Konczak et al. (2000) it provides managers with very prescriptive and useful feedback concerning the types

of behaviour necessary to empower subordinates. It consists of 19 items that are arranged along a 7-point Likert-type scale with 1 indicating, “strongly disagree” to 7 “strongly agree”. The LEBQ has shown internal consistency ratings ranging from 0,85 to 0,90 (Konczak et al., 2000; Laramore, 1997). A typical example of a test item includes “my manager tries to help me arrive at my own solutions when problems arise, rather than telling me what he/she would do” (Konczak et al, 2000, p. 307-308). The original questionnaire consists of 17 items. Two items from Arnold, Arad, Rhoades & Drasgow (2000) (“My manager explains his/her decisions and actions to my work group” and “My manager explains company goals to my work group”) have been added to improve the ‘information sharing’ dimension as these are only measured by two items in the original questionnaire (Stander, 2007). Konczak et al. (2000) recommended that for future investigation, additional items should be explored to further assess the dimensions of empowering leader behaviour. In a South African sample of 388 employees in the gold mining industry, Maré (2007) found alpha coefficients ranging from 0,57 to 0,78. A study of a South African steel manufacturing organisation obtained an alpha coefficient of 0,92 (Tjeku, 2006).

The *Measures of Role Conflict and Ambiguity Questionnaire* (RCAQ) (Rizzo et al., 1970) was used to measure role clarity of employees. Rizzo et al. (1970) indicated that the questionnaire consists of 30 items, 15 of which deal with role ambiguity (even numbers) and 15 with role conflict (odd numbers). The items on the questionnaire are rated on a 7-point scale with 1 being “very false” and 7 being “very true”. A typical item involves a statement being made such as “I do not know if my work is acceptable to my boss” (reversed) where a high score indicates a high score level of role conflict. A typical statement related to role ambiguity would be “I know what my responsibilities are” (Rizzo et al., 1970, p. 156). According to Quah & Campbell (1994), scores for role conflict could range from 8 to 56 with higher scores representing role conflict. Scores for role ambiguity range from 6 to 42 with higher scores representing role ambiguity. In a study conducted on 342 call centre employees by Mukherjee & Malhotra (2006), a Cronbach alpha coefficient of 0,85 were obtained. According to a study conducted on a group of salesmen, a coefficient alpha measure of reliability ranged from 0,76 to 0,93 (Ivancevich & Donnelly, 1975). Ivancevich and Donnelly (1975) also mention that this indicates acceptable levels of reliability for research of this type. In a study of physical education teachers in Greece, Cronbach

alpha coefficients of 0,85 for role ambiguity and 0,86 for role conflict was obtained (Koustelios, Theodorakis & Goulimaris, 2004).

The *Measuring Empowerment Questionnaire (MEQ)* (Spreitzer, 1995) was used to measure psychological empowerment. This scale contains three items for each of the sub dimensions measuring meaning, competence, self-determination and impact of psychological empowerment. Items are arranged along a 7-point frequency scale, ranging from 1 “strongly disagree” to 7 “strongly agree”. Examples of items include “the work I do is meaningful to me”(meaning), “I have mastered the skills necessary for my job” (competence), “I have significant autonomy in determining how to do my job” (self-determination) and “I have a great deal of control over what happens in my department) (Spreitzer, 1995, p. 1464-1465). The items in the Measuring Empowerment Questionnaire in the Spreitzer (1995) study revealed a Cronbach alpha coefficient of 0,72 for the industrial sample and 0,62 for the insurance sample. In a study by Buckle (2003) within a chemical industry, Cronbach alpha coefficients of 0,89 for total psychological empowerment, 0,91 for meaning, 0,79 for competence, 0,83 for self-determination and 0,91 for impact were reported. In a study within a packaging environment, Moeletsi (2003) reported overall internal consistency of 0,93 and Cronbach alpha coefficients of 0,88 (meaning), 0,85 (competence), 0,91 (self-determination) and 0,92 (impact).

Convergent and discriminate validity of the empowerment measures in the industrial sample indicated an excellent fit (AGFI) (adjusted goodness-of-fit index) with the value of 0,93, RMSR (Root-Mean-Square-Residual) with a value of 0,04 and NCFI (Non-Centralised Normal Fit Index) with a value of 0,98. Spreitzer (1995) suggested the need for continued work on discriminant validity.

Statistical analysis

The statistical analysis was carried out with the SPSS programme (SPSS Inc., 2007). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) were used to analyse the data. A principal component factor analysis was performed on each of the constructs to determine the factor loadings as well as communalities and percentage of variance. Cronbach alpha coefficients

were used to determine the internal consistency, homogeneity and unidimensionality of the measuring instruments (Clark & Watson, 1995). Coefficient alpha contains important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale.

Pearson product-moment correlation coefficients were used to specify the relationships between the variables. In terms of statistical significance, it was decided to set the value at a 95% confidence interval level ($p \leq 0,05$). Effect sizes (Steyn, 1999) were used to determine the practical significance of the findings. A cut-off point of 0,30 medium effect (Cohen, 1988) was set for the practical significance of correlation coefficients.

Multiple regression analyses were conducted to determine the percentage variance in the dependent variables (i.e. psychological empowerment) that were predicted by the independent variables (i.e. leader empowering behaviour and role clarity). The value of R^2 was used to determine the proportion of the total variance of the dependent variable that is explained by the independent variable (Steyn, 1999).

A multiple regression analysis was conducted to determine the mediating effect of role clarity on the relationship between leader empowering behaviour and psychological empowerment. The procedures as described by Baron and Kenny (1986) were followed. Mediation can be illustrated by regressing the mediator on the independent variable and showing it to have an effect, then by showing the dependent variable to have an effect on the independent variable in the second regression, and finally by regressing the dependent variable on both the proposed mediator and the independent variable, and finding that the mediator affects the dependent variable (Baron & Kenny, 1986).

Multivariate analysis of variance (MANOVA) was used to determine the significance of differences between the experiences of psychological empowerment of demographic groups. MANOVA tests whether or not mean differences among groups in a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). In MANOVA, a new dependent variable that maximises group differences is created from the set of dependent

variables. Wilk's Lambda was used to test the likelihood of the data, on the assumption of equal population mean vectors for all groups, against the likelihood on the assumption that the population mean vectors are identical to those of the sample mean vectors for the different groups. When an effect was significant in MANOVA, one-way analysis of variance (ANOVA) was used to discover which dependent variables had been affected. Seeing that multiple ANOVAs were used, a Bonferroni-type adjustment is made for inflated Type I error. Tukey tests were done to indicate which groups differed significantly when ANOVA's were performed.

RESULTS

A principal component factor analysis was performed on the adapted 19 items of the LEBQ on the total sample of employees working in a business unit of an organisation in the petro-chemical industry. Analysis of the Eigen values (larger than 1) and the scree plot indicated that one factor could be extracted, explaining 53,70% of the total variance. Next a simple principle axis factoring analysis was performed on the 19 items of the LEBQ.

The results of the factor analysis on the LEBQ are indicated in Table 2. The loading of variables on factors, as well as communalities and percentage of variance, is indicated. Variables are ordered and grouped by size of loading to facilitate interpretation.

Table 2 indicates that the principal analysis resulted in one factor. Items loading on this factor were related to Leader Empowering Behaviour. Maré (2007) also found in her study among a sample of employees in the gold mining industry that the LEBQ can consist out of either a one-factor structure or a six-factor structure, supporting the one-factor structure found in the current study. A study within selected organisations by Stander (2007) further supports the use of a one factor structure.

Table 2

Principal Factor Loadings on the LEBQ Items

Item	Leader Empowering Behaviour	h^2
My manager holds people in the department accountable for customer satisfaction	0,36	0,13
I am held accountable for performance and results	0,44	0,19
My manager holds me accountable for the work I am assigned	0,54	0,29
My manager relies on me to make my own decisions about issues that affect how work gets done	0,62	0,38
My manager is willing to risk mistakes on my part if, over the long term, I will learn and develop as a result of experience	0,71	0,50
My manager explains company goals to my work group	0,72	0,53
My manager focuses on corrective action rather than placing blame when I make a mistake	0,72	0,53
My manager gives me the authority to make changes necessary to improve things	0,73	0,54
My manager explains his/her decisions and actions to my work group	0,76	0,57
My manager encourages me to develop my own solutions to problems I encounter in my work	0,79	0,62
My manager delegates authority to me that is equal to the level of responsibility that I am assigned to	0,79	0,62
My manager provides me with frequent opportunities to develop new skills	0,80	0,64
I am encouraged to try out new ideas even if there is a chance they may not succeed	0,80	0,64
My manager ensure that continuous learning and skill development are priorities in our department	0,80	0,64
My manager encourages me to use systematic problem-solving methods	0,81	0,65
My manager shares information that I need to ensure high quality results	0,81	0,65
My manager encourages me to use systematic problem-solving methods	0,81	0,65
My manager provides me with the information I need to meet customers' needs	0,82	0,67
My manager tries to help me arrive at my own solutions when problems arise, rather than telling me what he/she would do	0,84	0,71
My manager gives me the authority I need to make decisions that improve work processes and procedures	0,84	0,71
Percentage Variance Explained	53,70	

A principal component factor analysis was performed on the shortened 14 items of the Measures of Role Conflict and Ambiguity Questionnaire (RCAQ). Analysis of the Eigen values (larger than 1) and the scree plot indicated that two factors could be extracted, explaining 41,65% of the total variance. Next a simple principle axis factoring analysis was performed on the 14 items of the RCAQ. These two factors were labelled Role Conflict and Role Ambiguity.

The results of the factor analysis on the RCAQ are indicated in Table 3. The loading of variables on factors, as well as communalities and percentage of variance, is indicated. Variables are ordered and grouped by size of loading to facilitate interpretation. Nqubane (2008) also found in her study that two factors in the Role Clarity Questionnaire (shortened version) (RCAQ) could be extracted by using Confirmatory Factor Analysis (Arbuckle, 2007). The goodness-of-fit

indices obtained by Nqubane (2008) showed an acceptable fit for the shorten two-factor model by reaching the recommended critical values – except for PGFI (Parsimony Goodness-of-Fit Index), which was lower than 0,80, and NFI (Normed Fit Index), which was lower than 0,90. The two factors were labelled Role Conflict and Role Clarity.

Rizzo et al. (1970) further states that the role ambiguity items are more in the direction of role clarity and not role ambiguity as initially conceptualised due to their positive nature. With this in mind, the researcher has decided to use the role ambiguity scale (unreversed) as a positive scale and has therefore renamed it as **role clarity**. This viewpoint is further supported by Mukherjee and Malhotra (2006) who are of the opinion that role ambiguity items should be renamed as role clarity. The two factors will be referred to as Role Clarity and Role Conflict for the purposes of the rest of this research.

Table 3

Principal Factor Loadings on the RCAQ Items

Item	Role Clarity	Role Conflict	h^2
I know what my responsibilities are	0,83	0,00	0,65
I know exactly what is expected of me	0,82	0,00	0,64
Explanation is clear of what has to be done	0,66	0,00	0,45
Clear, planned goals and objectives for my job	0,63	0,00	0,40
I know that I have divided my time properly	0,49	0,00	0,30
I feel certain about how much authority I have	0,49	0,00	0,30
I receive incompatible requests from two people	0,00	0,73	0,50
I work with two or more groups who operate quite differently	0,00	0,63	0,38
I receive an assignment without the manpower to complete it	0,00	0,61	0,43
I receive an assignment without adequate resources and materials	0,00	0,54	0,42
I do things that are apt to be accepted by one person and not accepted by others	0,00	0,53	0,39
I have to do things that should be done differently	0,00	0,50	0,24
I work on unnecessary things	0,00	0,47	0,47
I have to buck a rule or policy in order to carry out an assignment	0,00	0,44	0,28
Percentage Variance Explained	27,29	14,36	

A principal component factor analysis was performed on the 12 items of the Measuring Empowerment Questionnaire (MEQ). Analysis of the Eigen values (larger than 1) and the scree plot indicated that four factors could be extracted, explaining 76,32% of the total variance. Item 2, “I have a great deal of control over what happens in my department” (Spreitzer, 1995, p.1464-

1465) was however found to be problematic by loading on the self determination instead of impact and was therefore left out of the further analysis. A principal component factor analysis was therefore performed on the remainder 11 items of the Measuring Empowerment Questionnaire (MEQ). Analysis of the Eigen values (larger than 1) and the scree plot indicated that four factors could be extracted, explaining 78,54% of the total variance. Next a simple principle axis factoring analysis was performed on the remainder 11 items of the MEQ on the total sample of employees working in a business unit of an organisation in the petro-chemical industry. These factors were labelled Meaning, Competence, Self-Determination and Impact.

The results of the factor analysis of the MEQ are indicated in Table 4. The loading of variables on factors, as well as communalities and percentage of variance, is indicated. Variables are ordered and grouped by size of loading to facilitate interpretation.

Table 4

Principal Factor Loadings on the MEQ Items

Item	Meaning	Competence	Self-Determination	Impact	h^2
My job activities are personally meaningful to me	0,98	0,00	0,00	0,00	0,90
The work I do is meaningful to me	0,73	0,00	0,00	0,00	0,73
The work I do is very important to me	0,71	0,00	0,00	0,00	0,64
I have mastered the skills necessary for my job	0,00	0,81	0,00	0,00	0,61
I am self-assured about my capabilities to perform my work activities	0,00	0,70	0,00	0,00	0,63
I am confident about my ability to do my job	0,00	0,63	0,00	0,00	0,48
I have significant autonomy in determining how I do my job	0,00	0,00	0,89	0,00	0,76
I have considerable opportunity for independence and freedom in how I do my job	0,00	0,00	0,85	0,00	0,77
I can decide on my own how to go about doing my work	0,00	0,00	0,42	0,00	0,41
I have significant influence over what happens in my department	0,00	0,00	0,00	0,73	0,78
My impact on what happens in my department is large	0,00	0,00	0,00	0,66	0,69
Percentage Variance Explained	43,63	14,97	12,91	7,02	

Table 4 indicates that the principal analysis resulted in four factors. Items loading on the first factor were related to Meaning, and items loading on the second factor were related to Competence. Items loading on the third factor were related to Self-Determination and items loading on the fourth factor were related to Impact.

The descriptive statistics and alpha coefficients of the one factor of the LEBQ, two factors of the RCAQ, and four factors of the MEQ are indicated in Table 5.

Table 5

Descriptive Statistics and Alpha Coefficients of the LEBQ, RCAQ, and MEQ

Item	Mean	SD	Skewness	Kurtosis	α
LEBQ					
Leader Empowering Behaviour	94,01	23,56	-0,65	-0,01	0,95
RCAQ					
Role Conflict	29,27	8,51	0,07	-0,37	0,73
Role Clarity	32,04	6,22	-0,60	0,25	0,75
MEQ					
Meaning	16,73	4,12	-1,18	1,22	0,89
Competence	18,34	2,74	-1,32	2,31	0,77
Self-Determination	20,87	5,00	-0,80	0,22	0,81

Table 5 indicates that acceptable Cronbach alpha coefficients varying from 0,73 to 0,95 were obtained. These alpha coefficients compare reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large portion of the variance is explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994). The Cronbach alpha value for Impact has not been reported as two items cannot be considered an accurate reflection of reliability. In reporting skewness and kurtosis, skewness refers to the tilt in a distribution where kurtosis refers to the peakedness of a distribution where these should fall within the +2 to -2 range when the data is normally distributed (Baron & Kenny, 1986). It is evident from Table 4 that most of the scales of the measuring instruments have relatively normal distributions, with low skewness and kurtosis, except for Meaning and Competence which was negatively skewed with a high kurtosis.

A Cronbach alpha coefficient of 0,95 was obtained for Leadership Empowerment Behaviour. This result is in line with other South African studies by Sauer (2003), Tjeku (2006) and Stander (2007) who reported alpha coefficients of 0,96, 0,92 and 0,97 respectively. The Cronbach alpha coefficients obtained for role clarity were 0,73 for role conflict and 0,75 for role clarity. The Cronbach alpha coefficients obtained for psychological empowerment reflected 0,89 for meaning, 0,77 for competence and 0,82 for self-determination, where Reynders (2005), reported

similar outcomes of 0,79 (meaning), 0,67 (competence), 0,74 (self-determination) and 0,73 (impact). In a study undertaken by Siegall and Gardner (2000) surveying 203 employees within the manufacturing industry, comparable results were obtained in terms of 0,87 (meaning), 0,77 (competence), 0,72 (self-determination) and 0,86 (impact). The above results indicate high reliability for the subscales of the instrument.

The product-moment correlation coefficients between leader empowering behaviour, role conflict, role clarity, meaning, competence, self-determination and impact are given in Table 6.

Table 6

Product-Moment Correlation Coefficients between the LEBQ, RCAQ, and MEQ

Item	1	2	3	4	5	6
1. Leader Empowering Behaviour	.	.	.	.	.	.
2. Role Conflict	-0,27*	.	.	.	.	.
3. Role Clarity	0,45**	-0,35**	.	.	.	.
4. Meaning	0,34**	-0,19*	0,51***	.	.	.
5. Competence	0,25*	-0,18*	0,38**	0,37**	.	.
6. Self-Determination	0,57***	-0,20*	0,41**	0,39**	0,36**	.
7. Impact	0,44**	-0,07	0,45**	0,61***	0,24*	0,52***

* $p \leq 0,05$ – statistically significant

+ $r > 0,30$ – practically significant (medium effect)

++ $r > 0,50$ – practically significant (large effect)

Table 6 shows that leader empowering behaviour has statistically significant positive correlations (practically significant, large effect) with self-determination. This indicates that increased leader empowering behaviour should result in increased self-determination. In addition, leader empowering behaviour also has statistically significant positive correlations (practically significant, medium effect) with role clarity, meaning, and impact suggesting that increased leader empowering behaviour should result in increased role clarity, meaning, and impact. Konczak et al. (2000) as well as Sauer (2003) provides support for the above finding in that leader empowering behaviour is significantly correlated to the degree of psychological empowerment that subordinates experience. Regarding the effect of leader empowering behaviour on role clarity, previous research by Mukherjee and Malhotra (2006) cite similar findings in that participation in decision-making by employees as well as continuous constructive

feedback from superiors contribute to role clarity. In addition, leader empowering behaviour has statistically significant negative correlations with role conflict implying that increased leader empowering behaviour should result in decreased role conflict.

Role conflict is statistically significant, negatively correlated (practically significant, medium effect) with role clarity meaning that increased role conflict results in decreased role clarity. Role clarity has statistically significant, positive correlations (practically significant, large effect) with meaning and statistically significant positive correlations (practically significant, medium effect) with competence, self-determination and impact. This suggests that increased role clarity results in an increased sense of purpose or personal connection to work (meaning). In addition, increased role clarity causes individuals to believe that they possess the skills and ability necessary to perform their work well (competence), that they possess a sense of control in selecting activities that make sense and are able to perform in ways that seem appropriate (self-determination) and a belief that they possess the ability to influence outcomes at work (impact). Sub-dimensions of the psychological empowerment construct namely meaning, competence, self-determination, and impact are positively correlated with one another.

Hypothesis One is therefore accepted in that practically and statistically significant relationships exist between leadership empowerment behaviour, role clarity and psychological empowerment.

The results of a multiple regression analysis with psychological empowerment (i.e. meaning, self-determination, competence and impact) as dependent variable and leader empowering behaviour, role clarity and role conflict as independent variables are reported in Table 7.

Table 7

Multiple regression analyses with psychological empowerment (i.e. meaning, self-determination, competence and impact) as dependent variable

Model		Unstandardised		Standardised	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
		Coefficients		Coefficients						
		B	SE	Beta						
Dependent Variable: Meaning										
1	(Constant)	11,15	1,20		9,26	0,00*	22,83*	0,34	0,12	0,12
	Leader Empowering Behaviour	0,06	0,01	0,34	4,78	0,00*				
2	(Constant)	4,915	2,17		2,26	0,03*	21,84*	0,52	0,28	0,16
	Leader Empowering Behaviour	0,03	0,01	0,41	1,93	0,06				
	Role Conflict	0,00	0,03	0,00	0,04	0,97				
	Role Clarity	0,30	0,05	0,45	5,95	0,00*				
Dependent Variable: Self-Determination										
1	(Constant)	7,25	0,99		7,36	0,00*	84,53*	0,57	0,33	0,33
	Leader Empowering Behaviour	0,09	0,01	0,57	9,19	0,00*				
2	(Constant)	4,63	1,91		2,43	0,02*	32,02*	0,60	0,36	0,03
	Leader Empowering Behaviour	0,08	0,01	0,48	7,02	0,00*				
	Role Conflict	0,00	0,03	0,00	0,04	0,97				
	Role Clarity	0,12	0,04	0,20	2,81	0,01*				
Dependent Variable: Competence										
1	(Constant)	15,62	0,83		18,90	0,00*	11,49*	0,25	0,06	0,06
	Leader Empowering Behaviour	0,03	0,01	0,25	3,39	0,00*				
2	(Constant)	13,27	1,56		8,50	0,00*	10,30*	0,39	0,15	0,09
	Leader Empowering Behaviour	0,01	0,01	0,09	1,18	0,24				
	Role Conflict	-0,02	0,02	-0,05	-0,63	0,53				
	Role Clarity	0,14	0,04	0,32	3,91	0,00*				
Dependent Variable: Impact										
1	(Constant)	4,14	0,87		4,74	0,00*	42,60*	0,44	0,20	0,20
	Leader Empowering Behaviour	0,06	0,01	0,44	6,53	0,00*				
2	(Constant)	-1,63	1,62		-1,01	0,32	24,08*	0,54	0,30	0,10
	Leader Empowering Behaviour	0,04	0,01	0,32	4,43	0,00*				
	Role Conflict	0,05	0,03	0,14	2,04	0,04*				
	Role Clarity	0,18	0,04	0,36	4,86	0,00*				

* $p < 0,05$

Table 7 shows that 12 percent of the variance explained in meaning was predicted by leader empowering behaviour ($F = 22,83$, $p \leq 0,05$). Leader empowering behaviour was a significant predictor of meaning. When role conflict and role clarity was added into the multiple regression analysis, the statistical significance of R^2 increased ($\Delta R^2 = 0,16$). Table 7 shows that 28 percent of the variance explained in meaning was predicted by leader empowering behaviour, role

conflict and role clarity ($F = 21,84, p \leq 0,05$). The only significant predictor of meaning was leader empowering behaviour and role clarity.

Table 7 shows 33 percent of the variance explained in self-determination was predicted by leader empowering behaviour ($F = 84,53, p \leq 0,05$). Leader empowering behaviour was a significant predictor of self-determination. When role conflict and role clarity was added into the multiple regression analysis, the statistical significance of R^2 increased ($\Delta R^2 = 0,03$). Table 7 shows that 36 percent of the variance explained in self-determination was predicted by leader empowering behaviour, role conflict and role clarity ($F = 32,02, p \leq 0,05$). The only significant predictors of self-determination were leader empowering behaviour and role clarity.

Table 7 shows that 6 percent of the variance explained in competence was predicted by leader empowering behaviour ($F = 11,49, p \leq 0,05$). Leader empowering behaviour was a significant predictor of competence. When role conflict and role clarity was added into the multiple regression analysis, the statistical significance of R^2 increased ($\Delta R^2 = 0,09$). Table 7 shows that 15 percent of the variance explained in competence was predicted by leader empowering behaviour, role conflict and role clarity ($F = 10,30, p \leq 0,05$). The only significant predictor of competence was role clarity.

Table 7 shows that 20 percent of the variance explained in impact was predicted by leader empowering behaviour ($F = 42,60, p \leq 0,05$). Leader empowering behaviour was a significant predictor of impact. When role conflict and role clarity was added into the multiple regression analysis, the statistical significance of R^2 increased ($\Delta R^2 = 0,10$). Table 7 shows that 30 percent of the variance explained in impact was predicted by leader empowering behaviour, role conflict and role clarity ($F = 24,08, p \leq 0,05$). This prediction was however not statistical significant and no further analysis was done.

Hypotheses Two is therefore accepted as leadership empowerment behaviour and role clarity predict psychological empowerment where leadership empowerment behaviour predicts meaning, self determination and impact and role clarity predicts meaning, self determination and competence.

Next, the mediating effect of role clarity on the relationship between leader empowering behaviour and psychological empowerment (meaning, competence, self-determination and impact) was investigated. According to Baron and Kenny (1986), this mediating effect can be illustrated by first regressing leader empowering behaviour on role clarity, secondly by showing role clarity to have an effect in predicting psychological empowerment (meaning, competence, self-determination and impact), and thirdly by showing that psychological empowerment is affected by both leader empowering behaviour and role clarity. Results of these regression analyses are given in Table 8 below.

Table 8

Regression analyses estimating the mediating effect of role clarity on the relationship between leader empowering behaviour and predicting psychological empowerment

Model		Unstandardised		Standardized Coefficients	T	P	F
		Coefficients					
		B	Std Error	Beta			
Dependent Variable: Role Clarity							
1	(Constant)	20,95	1,73		12,12	0,00*	43,71
	Leader Empowering Behaviour	0,12	0,02	0,45	6,61	0,00*	
Dependent Variable: Meaning							
2	(Constant)	11,15	1,20		9,26	0,00*	22,83
	Leader Empowering Behaviour	0,06	0,01	0,34	4,79	0,00*	
3	(Constant)	4,96	1,48		3,35	0,00*	32,95
	Leader Empowering Behaviour	0,02	0,01	0,14	1,94	0,05	
	Role Clarity	0,30	0,05	0,45	6,18	0,00*	
Dependent Variable: Competence							
4	(Constant)	15,62	0,83		18,90	0,00*	11,49
	Leader Empowering Behaviour	0,03	0,01	0,25	3,39	0,00*	
5	(Constant)	12,55	1,07		11,73	0,00*	15,30
	Leader Empowering Behaviour	0,01	0,01	0,10	1,28	0,20	
	Role Clarity	0,15	0,04	0,33	4,24	0,00*	
Dependent Variable: Self-Determination							
6	(Constant)	7,25	0,99		7,03	0,00*	84,53
	Leader Empowering Behaviour	0,09	0,01	0,57	9,19	0,00*	
7	(Constant)	4,68	1,31		3,58	0,00*	48,30
	Leader Empowering Behaviour	0,08	0,01	0,48	7,10	0,00*	
	Role Clarity	0,12	0,04	0,20	2,91	0,00*	
Dependent Variable: Impact							
8	(Constant)	4,14	0,87		4,74	0,00*	42,60
	Leader Empowering Behaviour	0,06	0,01	0,44	6,53	0,00*	
9	(Constant)	0,77	1,13		0,68	0,50	33,44
	Leader Empowering Behaviour	0,04	0,01	0,30	4,16	0,00*	
	Role Clarity	0,16	0,04	0,32	4,44	0,00*	

Table 8 indicated that leader empowering behaviour is a statistically significant predictor of role clarity (Model 1). Leader empowering behaviour also statistically significant predicts psychological empowerment (meaning, competence, self-determination and impact) (Models 2, 4, 6 and 8). When role clarity is added to the model, the significant predictive value of leader empowering behaviour on two psychological empowerment factors disappear, namely meaning and competence (Models 3, and 5). This is an indication that role clarity mediates the impact of the relationship between leader empowering behaviour on meaning and competence as factors of psychological empowerment. The significant predictive value of leader empowering behaviour on self-determination and impact (Model 7, and 9) does not appear, thus indicating that role clarity does not have a mediating effect on the impact of leader empowering behaviour on these two factors.

Hypothesis Three is therefore only partially accepted. Role clarity does not mediate the relationship between leadership empowering behaviour and psychological empowerment. Role clarity only mediates the relationship between leadership empowering behaviour and two factors of psychological empowerment namely meaning and competence.

MANOVA analysis was conducted to determine differences between demographic groups (such as gender, racial groups, age, education levels, laboratory group and job level) in their experience of psychological empowerment (i.e. competence, meaning, self-determination and impact). Results were first analysed for statistical significance using Wilk's Lambda statistics. ANOVA was used to determine specific difference whenever statistical differences were found. The results of the MANOVA and ANOVA analysis are given in Table 9 to 10.

Table 9

MANOVA – Differences in Psychological Empowerment (competence, meaning, self-determination and impact)

Variable	Value	F	Df	P	Partial Eta squared
Gender	0,96	1,62	4,00	0,17	0,04
Racial Groups	0,89	1,19	16,00	0,27	0,03
Age	0,90	1,09	16,00	0,36	0,03
Education levels	0,83	2,04	16,00	0,01*	0,05
Laboratory Groups	0,82	1,36	24,00	0,12	0,05
Job Level	0,88	1,32	16,00	0,18	0,03

* $p < 0,05$

In analysis of Wilk's Lambda values, no statistically significant differences ($p \leq 0,05$) regarding psychological empowerment (i.e. competence, meaning, self-determination and impact) could be found between gender, racial, age and laboratory groups and job levels. However, statistically significant differences ($p \leq 0,05$) were found for educational levels.

The relationship between psychological empowerment (i.e. competence, meaning, self-determination and impact) and educational levels was further analysed using ANOVA. The Games-Howell procedure was used to determine whether there were any statistical differences between the groups. The results of the ANOVA based on educational levels are given in Table 10.

Table 10

Differences in psychological empowerment (i.e. competence, meaning, self-determination and impact) based on education levels

Item	Up to Grade12	Grade 12	Diploma	Degree	Postgraduate Degree	p	Partial Eta Squared
Competence	16,67	18,38	18,68	17,38	18,00	0,44	0,02
Meaning	15,00	17,12	16,92	16,31	13,40	0,09	0,05
Self-Determination	22,00	21,41	19,55	22,54	21,90	0,18	0,04
Impact	11,00	9,77	9,56	9,15	9,60	0,90	0,01

* Statistically significant difference: $p < 0,05$

^a Group differs statistically significantly from type (in row) where ^b is indicated

Table 10 shows that there are no statistically significant differences between levels of psychological empowerment based on educational levels. A possible explanation for this finding may be the fact that the number of individuals falling within an education level of up to grade twelve is particularly low in comparison to the distribution of individuals with an education level of grade twelve or higher. Hypothesis Four is therefore rejected as no differences exist between demographic groups of employees regarding levels of psychological empowerment.

DISCUSSION

The aim of this study was to determine the relationship between leadership empowerment behaviour, role clarity and psychological empowerment in a petrochemical organisation. The results showed that statistically significant relationships exist between leadership empowerment behaviour, role clarity and psychological empowerment.

Results of the regression analysis showed that leader empowering behaviour has statistically significant positive correlations (practically significant, large effect) with self-determination. This indicates that increased leader empowering behaviour should result in increased self-determination. If leaders exercise more empowering behaviour, individuals will therefore feel that they have a greater sense of autonomy and control over their work environment (Spreitzer, 1995) resulting in greater flexibility, creativity, initiative, resilience and self-regulation (Sauer, 2003). Baruch (1998) states that self-determination comes to the foreground when individuals jobs are enriched, they are provided with real power to exercise control and they are in a position to influence their work processes.

In addition, leader empowering behaviour also has statistically significant positive correlations (practically significant, medium effect) with role clarity, meaning, and impact suggesting that increased leader empowering behaviour should result in increased role clarity, meaning, and impact. Konczak et al. (2000) as well as Sauer (2003) provides support for the above finding in that leader empowering behaviour is significantly correlated to the degree of psychological empowerment that subordinates experience. In essence, individuals act in a manner that displays a degree of self-worth and self-satisfaction (Bandura, 1997) and believe that their actions will

have an impact on organisational outcomes (Zimmerman, 1995) when leaders implement empowering behaviour. Regarding the effect of leader empowering behaviour on role clarity, previous research by Mukherjee and Malhotra (2006) cite similar findings in that participation in decision-making by employees as well as continuous constructive feedback from superiors contribute to role clarity. In addition, leader empowering behaviour has statistically significant negative correlations with role conflict implying that increased leader empowering behaviour should result in decreased role conflict.

Role conflict is statistically significant, negatively correlated (practically significant, medium effect) with role clarity meaning that increased role conflict results in decreased role clarity. Role clarity has statistically significant, positive correlations (practically significant, large effect) with meaning and statistically significant positive correlations (practically significant, medium effect) with competence, self-determination and impact. This suggests that increased role clarity results in an increased sense of purpose or personal connection to work (meaning). In addition, increased role clarity causes individuals to believe that they possess the skills and ability necessary to perform their work well (competence), that they possess a sense of control in selecting activities that make sense and are able to perform in ways that seem appropriate (self-determination) and a belief that they possess the ability to influence outcomes at work (impact). Sub-dimensions of the psychological empowerment construct namely meaning, competence, self-determination, and impact are positively correlated with one another.

The results of the multiple regression analysis indicated that psychological empowerment was predicted by leadership empowering behaviour and role clarity. Therefore when employees experience their managers as supportive and where information is shared and authority delegated they know and understand exactly what is expected of them and will experience more meaning. Where leaders emphasize accountability for outcomes, as well as self-directed and participative decision making, employees possess self-determination and are able to exercise the correct choices while being able to respond to the demands of the situations they find themselves in. Similarly, when expectations and goals of work tasks are clearly defined, individuals experience a greater sense of self-determination by employing work-related actions that they deem appropriate.

In addition, individuals believe that they possess the ability to perform tasks with the necessary level of skill and competence when their roles are clarified (Bandura, 1997) which result in initiating new ideas and persistence in the face of obstacles faced. When employees experience conflicting role requirements, their sense of impact on outcomes within the work environment decreases.

Leadership empowering behavior and role clarity each make a strong contribution to psychological empowerment. Managers should therefore focus on the development of people through the employment of skills development and coaching. In this way, where employees experience a level of fulfillment in their work, they are more likely to stay with an organisation and therefore talent may be retained.

The mediating effect of role clarity on the relationship between leader empowering behavior and psychological empowerment (meaning, competence, self-determination and impact) was investigated. Findings indicated that role clarity only mediates the relationship between leadership empowering behaviour and two factors of psychological empowerment namely meaning and competence. Role conflict does not mediate the relationship between leadership empowering behaviour and psychological empowerment.

Lastly, possible differences between demographic groups of employees regarding levels of psychological empowerment was investigated where no differences were found in terms of gender, racial groups, age education levels, division and job levels.

RECOMMENDATIONS

It becomes evident from the results presented and discussions provided that the management team need to gain a thorough knowledge of the determinants of psychological empowerment as outlined in the study. In so doing, retention of talent and attainment of organisational goals may be possible. Leadership empowerment behaviour was found to increase the sub-dimensions of psychological empowerment where increased role clarity caused individuals to believe that they

possess the skills and ability necessary to perform their work well (competence), that they possess a sense of control in selecting activities that make sense and are able to perform in ways that seem appropriate (self-determination) and a belief that they possess the ability to influence outcomes at work (impact).

Leaders within the organization will benefit greatly from incorporating empowerment behaviour into their management style where particular attention should be given to the delegation of authority, emphasis on accountability for outcomes, self-directed decision-making, skill development and coaching for innovative performance (Konczak et al., 2000). In addition, particular emphasis should be placed on ensuring that employees' roles are clarified in that required information is provided about how the employee is expected to perform his job as well as the extent to which an individual receives and understands information required to do the job (Teas et al., 1979).

Larger sample groups may possibly also allow for further analysis into the mediating role of role clarity of the relationship between leadership empowerment behaviour and psychological empowerment while rendering more statistically significant differences in levels of psychological empowerment between different demographic groups. Larger samples with a greater variety of sampling methods may also be used to enable generalisation of the findings to other similar groups.

Lastly, leadership empowerment should be further explored within business contexts in the South African context while additional research into the validity of LEBQ as measurement instrument will need to be undertaken.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to provide an analysis and discussion of the literature and empirical results of the study. Conclusions with regard to the research objectives are drawn. The limitations and shortcomings of the research will be discussed and recommendations for organisations and further research will be provided.

3.1 Conclusions

The general objective of this research was to determine the relationship between leadership empowerment behaviour, role clarity and psychological empowerment within a business unit of a petrochemical organisation.

The first objective of this study was to conceptualise leadership empowerment behaviour, role clarity and psychological empowerment to the literature.

Leadership empowerment behaviour has been conceptualised from the literature as rooted in the organisational context and defined as a practice or set of approaches involving the delegation of responsibility down the hierarchy so as to give employees increased decision-making authority in the execution of their primary work tasks. (Ahearne, Mathieu & Rapp 2005; Carson & King, 2005). Leadership empowerment is viewed as a form of participation, increasing employees' partaking in the decision-making process and encouraging employees to participate more actively in the whole organisation (Ergeneli, Ari & Metin, 2006). The dimensions of leadership empowerment behaviour include the delegation of authority, the emphasis on accountability for outcomes, self-directed decision making, information sharing, skills development and coaching for innovative performance (Konczak, Stelly & Trusty, 2000).

Managers should express confidence, foster initiative and responsibility, reward employees and build on success. The advantages of empowerment include increasing problem solving capacity at the employee level, helping employees to realise their full potential, sharing ideas regarding organisational performance, presenting information that will affect organisational performance and direction and giving employees the power to make decisions (Ergeneli et al., 2006). Leadership empowering behaviours also provide, directly and indirectly, signals to employees about what is valued in the organisation and what management expects from them, therefore reducing role ambiguity and conflict (Klidas, van den Berg & Wilderom, 2006).

Role clarity has been defined as the degree to which required information is provided about how the employee is expected to perform his job as well as the extent to which an individual receives and understands information required to do the job (Teas, Wacker & Hughes, 1979). In this research role clarity has been conceptualised as the absence of role conflict and role ambiguity. Role ambiguity is defined in terms of the predictability of the outcome or responses to one's behaviour, the existence or clarity of behaviour requirements which would serve to guide behaviour and provide knowledge that the behaviour is appropriate (Rizzo, House & Lirtzman, 1970). Role conflict is described in terms of the dimensions of congruency-incongruency or compatibility-incompatibility in the requirements of the role, where congruency or compatibility is judged relative to a set of standards or conditions which impinge upon role performance (Rizzo et al., 1970).

Psychological empowerment has been conceptualized by Robinson (1997) as the concept of providing more information, more skills and more ability to make decisions regarding the way in which they perform work. Psychological empowerment has been described in terms of individual empowerment and not empowerment as experienced solely by a larger team, group, organisation or society (Spreitzer, 1995). Stander (2007) referred to psychological empowerment as focusing on resultant intrinsic motivation experienced by an individual rather than the managerial practices used to increase an individual's level of power. The dimensions of psychological empowerment were viewed by Conger and Kanungo (1988) as a four-dimensional psychological state based on

individual employees' perceptions of meaningfulness, competence, self-determination and impact.

Menon (2001) stated that the greater the experience of psychological empowerment, the greater the organisational commitment, where Appelbaum and Honeggar (1998) found that the greater the empowerment, the higher the level of job satisfaction. Kaminski, Kauffman, Graubarth and Robins (2000) identified psychological empowerment as promoting an active approach to problem solving, increased political understanding, and an increasing ability to exercise control over the environment, thereby resulting in positive implications for organisations in terms of retaining their talent.

Based on the above discussion, it is concluded that the first objective of the study has been reached.

The second objective was to determine the relationship between leadership empowerment behaviour, role clarity and psychological empowerment.

A statistically significant positive correlation was found between leadership empowerment behaviour and self-determination. This indicates that increased leader empowering behaviour should result in increased self-determination. In addition, leader empowering behaviour also has statistically significant positive correlations with role clarity, meaning, and impact, suggesting that increased leader empowering behaviour should result in increased role clarity, meaning, and impact. Leadership empowerment behaviour is negatively correlated to role conflict meaning that increased leader empowering behaviour should result in decreased role conflict. When leaders utilise approaches that incite employee participation in decision making while encouraging their employees to participate more actively in attaining goals, they experience lower levels of confusion regarding what is expected of them.

Role conflict is negatively correlated to role clarity implying that increased role conflict results in decreased role clarity. Role

competence, self-determination, and impact. This suggests that increased role clarity results in an increased sense of purpose or personal connection to work (meaning). In addition, increased role clarity causes individuals to believe that they possess the skills and ability necessary to perform their work well (competence), that they possess a sense of control in selecting activities that make sense and are able to perform in ways that seem appropriate (self-determination) and a belief that they possess the ability to influence outcomes at work (impact). Sub-dimensions of the psychological empowerment construct namely meaning, competence, self-determination, and impact are positively correlated with one another.

The third objective was to determine whether leadership empowerment behaviour and role clarity predict levels of psychological empowerment.

The results indicated that leadership empowerment behaviour as well as role clarity predicted the level of psychological empowerment experienced. Meaning, self-determination, competence and impact as experienced by employees are determined by the level of empowering behaviour as exercised by leaders. In addition role clarity is a significant predictor of the level of competence experienced by employees. Based on the discussion, the third objective was reached.

The fourth objective was to determine whether role clarity plays a mediating role in the relationship between leadership empowerment behaviour and psychological empowerment.

The results indicated that role conflict does not mediate the relationship between leadership empowerment behaviour and psychological empowerment. It was however found that role clarity mediated the relationship between leadership empowerment behaviour and two factors of psychological empowerment, namely meaning and competence. Based on the above findings, the fourth objective was reached.

The fifth and the last objective was to determine the differences in the levels of psychological empowerment between different demographic groups (gender, racial group, age, education levels, laboratory groups and job levels)

The results indicated that no statistically significant differences regarding psychological empowerment could be found between gender, age, racial group, departments, education levels and job levels. However, statistically significant differences were found for education levels in utilizing MANOVA but not when utilizing ANOVA. A possible reason may include the number of individuals within a particular level of education being too low to bring about a statistical significance.

3.2 Limitations

The generalisability of findings within a study are greatly reduced when sample size is considered as relatively small. The sample size for this research within the laboratory of a petrochemical organisation in South Africa was rather small where a larger sample size would have produced a more sufficient opportunity to generalise results obtained for this research. In addition, the measurements utilized in gathering the applicable data for this study involved self-reporting which have several limitations.

Avolio, Zhu, Koh and Bhatia (2004) are of the opinion that the use of a cross-sectional design does not allow for an adequate assessment of the impact of cause of effect. This has posed a limitation in the current research as the attitudes, beliefs and values of the target population are only being measured at one point in time. To ensure a better understanding of the nature of leadership empowerment, role clarity and psychological empowerment, it may be of greater value to embark on a longitudinal study with the results of this research as the starting point for future studies.

The one-factor structure of the LEBQ presented a further limitation to the study in contrast to the six-factor structure obtained by Konczak et al. (2000) namely delegation

of authority, accountability for outcomes, self-directed decision making, information sharing, skills development and coaching for innovative performance.

3.3 Recommendations

3.3.1 Recommendations for the Organisation

The business unit of the petrochemical organisation in which this study was conducted has over a period of time, been characterised by problematic organisational dynamics as diagnosed in two previous motivational climate surveys in 2004 and 2006 respectively. Overriding themes evident in the results of these surveys allude to issues experienced by the employees regarding their perception of management, perception of their work and work climate, and the resultant negative effect on the employer's bottom line. The results of this research indicate that within the business unit in question in the petrochemical organisation, leadership empowerment behaviour will increase the level of psychological empowerment experienced and that coupled with role clarity, employees may experience higher levels of empowerment.

Spreitzer (1995) is of the opinion that empowerment exists when employees perceive that they exercise some form of control over their work life which has great potential in contributing towards organisations reaching their objectives. For management within the organisation to empower their employees effectively, it will be necessary to give attention to improving employees' sense of meaning, competence, self-determination and impact by :

- Affording employees opportunities to possess a sense of purpose and personal connection to their work. This may be achieved by way of departmental strategy sessions where employees are able to set team targets and in so doing understand how their own work goals link with the organisational objectives. In this way, not only will employees display a higher level of accountability, but a greater sense of identity and personal ownership of the work they produce.

- A personal sense of efficacy would imply that individuals believe that they possess the skills and ability necessary to perform their work well. This may be enhanced through the institution of a reward and recognition programme that focuses on celebrating success through acknowledging employees for their contributions. On a more informal note, the value of regular individual and team feedback sessions and therefore open communication channels should not be disregarded.
- Employees should be given more opportunities for delivering their opinions on how best to conduct tasks. This may be enhanced through idea generation sessions within the various departments which hold positive implications for getting work done more efficiently and with a greater sense of autonomy. In addition, this provides an opportunity for managers to provide support where performance gaps are identified as well as to motivate individuals into action.
- The degree to which employees feel that they possess the ability to influence the environment and therefore outcomes at work may be increased by initiating suggestion sessions where team key performance indicators are reviewed. Here, action plans for attaining goals are discussed where the impact of individual inputs may be scrutinised. In so doing, employees may experience a sense of greater involvement in decision making

High quality work, that offers employees autonomy, in conjunction with transformational leadership in a team-based context, is likely to result in greater trust in management, organisational commitment, perceptions of fairness, perceived control, belongingness and contribution to the development of flexible employee role orientations (Snyder & Lopez, 2002). It is suggested that managers receive training as well as coaching regarding the impact of their management style, not only on the attainment of results, but more so on the morale and motivation of the workforce. In essence, managers need to learn to become leaders. This may be enhanced through exercising leadership empowering behaviours in the following manner (Konczak et al., 2000) :

- Delegation of authority, whereby managers offer employees the resources and support to conduct tasks more independently and with a greater sense of autonomy.

- Emphasis on accountability for outcomes where employees are given a greater sense of responsibility for attaining goals.
- Self-directed decision making. Managers need to “tell” less and allow for employees to provide inputs and make more independent decisions.
- Information sharing where not only managers share information with employees but employees also share information with one another.
- Skill development where employees are offered the necessary training, exposure and development opportunities to become more competent at what they do within a learning supportive environment.
- Coaching for innovative performance and the optimisation of potential where employees may receive specific developmental attention in an attempt to encourage them to take more risks, generate innovative ideas and learn continually.

In addition, as the petrochemical organisation wants to retain their talented employees, several broader organisational issues will need to receive attention. These include :

- The alignment of individual values to those of the organisation by possibly embarking on a “rebranding” exercise.
- Ensuring that job profiles exist for each position in the various departments. The technical, experiential and more specifically behavioural components should then be shared with employees so as to clarify role expectations.
- Career pathing should be finalised and communicated to employees to create a sense of working toward the attainment of a higher goal, with specific actions in place for attaining these goals.
- People development techniques may need to be reviewed. It may be possible that these are currently in place yet not communicated efficiently. Mentors and coaches should be allocated to individuals that possess high potential in order to accelerate their development and ensure a talent pipeline of specialists and successors.
- Employee morale will need to be addressed, possibly through team breakaway sessions where a sense of identity may be created while instilling a sense of fun back into the workplace.

3.3.2 Recommendations for future research

Regardless of the limitations of the present study, the findings of this research offer valuable suggestions for future research.

It is suggested that in the future, further research be conducted on leadership empowerment behaviour and in particular, role clarity within the South African context. Future research should also focus on the reliability, validity and norms of the LEBQ, RCQ and MEQ within different occupational settings within the South African organisational setting. Within a culturally diverse South Africa, it may prove valuable to translate abovementioned questionnaires into additional languages while keeping culture fairness in mind.

Larger samples with a greater variety of sampling methods may also be used to enable generalisation of the findings to other similar groups. Larger sample groups may also allow for further analysis into the mediating role of role clarity of the relationship between leadership empowerment behaviour and psychological empowerment. In addition, a larger sample group may render more statistically significant differences in levels of psychological empowerment between different demographic groups. In addition, more longitudinal studies should be conducted on leadership empowerment behaviour, role clarity and psychological empowerment in other South African industries to allow a broader picture to be established of how these constructs are perceived across organisations in different settings.

It would be interesting to investigate the effect further that leadership empowerment behaviour, role clarity and psychological empowerment has on the outcomes such as turnover intentions, absenteeism, general health, and employee wellness as these factors are central toward the retention of talent and the reaching of organisational outcomes.

3.4 Chapter summary

In this chapter, the conclusions regarding the theoretical and empirical objectives were drawn. The limitations of the research were discussed and recommendations were made for the current organisation as well as for future research.

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