

# **Situational variables and related work attitudes and outcomes in a manufacturing concern in the Gauteng Province**

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## **ABSTRACT**

The study was done to investigate the state of situational variables and how these variables affect work attitudes and subsequently intentions to quit in a manufacturing company in Gauteng Province. The study was carried out under normal business operating conditions without reinforcing any of the research variables within the period of the study. A stratified random sampling approach was used to carry out the study using a structured questionnaire developed from predictors used by other researchers. The questionnaire, based on a five-point Likert scale with situational variables such as learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security and work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation, was designed to capture the state of affairs within the organisation based on the employees' perceptions of their experiences of these variables. Data was analysed using statistical analysis tools namely correlation and regression analysis. 200 questionnaires were issued and 111 were returned of which 103 were useable. The research data showed a moderate state of unhappiness with eight of the ten situational variables scoring below the midpoint signalling a need for the organisation to reinforce these variables. Work related attitudes were moderate and almost all scoring around the midpoint but intention to quit yielded a lower score. Correlations analysis showed statistically significant and strong positive relationships between situational work variables. Correlations also showed statistically significant medium to strong positive relationships between situational variables with work related attitudes. There was a statistically significant medium to strong negative relationship between intentions to quit and work related attitudes showing that as work attitudes improve intentions to quit decrease. The regression analyses showed that key situational work-related variables did predict work related attitudes and outcomes with perceived organisational support proving to be the most important predictor for all work related attitudes and outcomes; fair leadership were only a significant predictor for organisational citizenship behaviour and work engagement, while job security were only a significant predictor of job satisfaction, work engagement and intentions to quit. Organisational climate was also a significant predictor of organisational

commitment, organisational citizenship and work engagement. Recommendations are provided for the organisation and for future research.

**Key words:** Organisational commitment, organisational citizenship, job satisfaction, job involvement, work engagement, intentions to quit

## DECLARATION

I, Steady Mukondiwa, do hereby declare that the dissertation with the title **“Situational variables and related work attitudes and outcomes in a manufacturing concern in the Gauteng province”** submitted in partial fulfilment of the requirements for the degree Master of Business Administration (MBA) is my work and has not been submitted at any other university either in whole or in part.

Signed at Potchefstroom on the 26<sup>th</sup> day of November 2012

.....

S. Mukondiwa

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## ABBREVIATIONS

|        |   |                                       |
|--------|---|---------------------------------------|
| HDM    | - | Hierarchical decision model           |
| HR     | - | Human resources                       |
| OCBs   | - | Organizational citizenship behaviours |
| POS    | - | Perceived organisation support        |
| POR    | - | Perceived opportunity for reward      |
| WRA    | - | Work related attitude                 |
| SitVar | - | Situational variable                  |
| WRO    | - | Work related outcome                  |
| OB     | - | Organisational behaviour              |

## NOMENCLATURE

$R$  - square ( $R^2$ ) – coefficient of determination

$p$  – Coefficient of significance for relationship paths ( $p < .05$ )

$r$  – Correlation coefficient

$t$  – t-statistics

$\beta$  – Regression coefficient

$\alpha$  – Cronbach's alpha for determining reliability of data

# **CHAPTER 1**

## **NATURE AND SCOPE OF THE STUDY**

### **1.1 Introduction**

In this chapter a preface to the research study is presented. Background and overview of the current state of affairs regarding work related challenges are highlighted as well the work related attitudes and outcomes. The motivation and objectives of the study are presented as guidelines of what the project scope, outline and description of the contents of this dissertation are intended to cover.

### **1.2 Background**

The South African manufacturing companies are challenged by the increasing global competition and most businesses are fighting to be globally competitive. The growth of the Asian economies' chemical manufacturing capacity, especially India and China has created excessive global chemical products which have resulted in competing products also fighting for the South African markets (Internal Company Marketing Intelligence Information, 2012). This global manufacturing scenario has prompted local businesses to be agile if they are going to be sustainable in this fast changing world. Organisations have no choice except to perfect their business processes and technologies to maintain world leadership by adapting constantly to rapidly changing customer needs.

One such company which is facing increased operational pressure simultaneously with increasing competition is a chemical catalyst manufacturer in Gauteng. Besides having the cutting edge manufacturing technology and the financial muscle of a multi-national corporation the company has faced daunting challenges to sustain a stable skills base. The human resources-related challenges for the manufacturing plant have partly been aggravated by labour protests and direct shop floor strikes across the unionised workforce. The staffing position has seen sinusoidal staff turnover phases of peaks and troughs in a key staff exodus recurring in roughly 14-month cycles. The staff exodus has mainly been observed at the key technical staff level, engineers, artisans, supervisors and machine operators.

The effectiveness of the manufacturing company as a viable business can only be attained if the level of operational reliability is predictable and controllable at the required performance level. To attain operational reliability the support systems need to be operating at optimal levels. The labour concerns signalled by the exodus of key technical staff seem to have a direct and indirect impact on the effectiveness of other key operational elements of the business. Remedial actions had been put in place to correct the possible causes of deviations leading to high staff turnovers and low productivity though this has not sustained the required levels of key employee loyalty.

The strategic focus of the business is currently to improve capacity utilisation as well reducing the loss to yield so as to give the best return on assets for the business and this need to be sustained through people who are engaged to the business. As an initiative towards improving business unit viability a more structured in-depth study to characterise and unbundle the weaker operational factors causing the observed performance shortfalls is being pursued. The focus area to be looked at includes situational elements of organisational behaviour (OB) that relate to work conditions, employee attitude and the consequential intentions to quit. There is a need to investigate the state and position with regards to situational variables and work related attitudes within the manufacturing plant and how they relate to the employee intentions to quit.

### **1.3 Motivation of study**

Voluntary turnover or quitting of valued employees is a concern for managers and administrators due to the financial costs of replacing the leaving employee and the lost productivity of a good employee. Reducing excessive levels of turnover through retention practices is an area of great interest to the employer who depends on a highly skilled workforce. The catalyst manufacturer in concern has been a casualty of unwanted high staff turnover and often recurring incidences of new employee learning cycles have cost the company hugely. The organisation has seen unprecedented annual staff turnover of up to 20% against a target of 4% over recent years. As much as this study looks at understanding the perceived high staff turnover and high intentions to quit, it is important to note that not all turnovers are bad for the organisation since it is a natural part of organisational operations; less than 5% turnover is actually considered unhealthy (Hurley, 2010). Turnover offers the opportunity to keep the organisation dynamic by introducing employees with new

ideas, new skills and personalities. It also allows an opportunity to replace marginal workers with more productive workers. When budgetary times are tight, turnover of employees can offer opportunities to reduce costs through salary savings until economic situations improve (Marcus, 2010).

The need to understand the elements of organisational behaviour that could be influencing such perceived high staff turnover are critical to solving the problem. Human resource practices are the primary means by which firms can influence and shape the skills, attitudes, and behaviour of individuals to do their work and thus achieve organisational goals and organisational outcomes such as productivity, flexibility, reasonable employee retention and financial performance (Collins & Clark, 2003). Liao, Toya, Lepak and Hong (2009) found that managerial perceptions of high performance work systems had both direct and indirect (through employee perceptions) impacts on individual employees' human capital. Nishii, Lepak and Schneider (2008) demonstrated that individuals may have different perceptions and interpretations of the same HR practices, which in turn can influence individuals' attitudes and behaviours. In a work setting, a meta-analysis involving more than 50000 people revealed that overall job attitude were positively related to performance and associated with indicators of withdrawal lateness, absenteeism and staff turnover (Harrison, Newman & Roth, 2006).

The complexity of interpreting a specific organisational behaviour or challenge is exacerbated by the specificity of the individual variables affecting each individual in an organisation. The latter factor leads to a need for closer environmental scanning of individual perceptions in order to explain behaviour in the specific organisation to determine relevant interventions.

#### **1.4 The research question**

Although much has been published on the subject of how situational work variables affect work related attitudes and outcomes, there still are limited reports in academia and in practice on the study and understanding of the work related attitudes in specialised South African manufacturing organisations. Besides generally known effects of work conditions on employee job satisfaction and retention, there have not been universally applicable findings across the different countries and in different industries and different manufacturing plants in the interactions of these variables.

The rationale of the research work was to provide answers to the following research questions:

- What is the relationship between key situational work related variables such as *learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security* and work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation?
- What is the impact of key situational work related variables such as *learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security* on work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation?
- What is the impact of work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement on intentions to quit the organisation?

## 1.5 Research objectives

The aim of the research is to assist in understanding which work related variables the business should focus on in improving the work related attitudes and propose ways to reduce intentions to quit and staff turnover. Therefore the **primary objective** of the study was to investigate key situational work related variables such as salary and monetary compensation, benefits and perks, communication, trust and relationships, working conditions and environment, job security, learning and development, prospects for promotion and aligned growth path, fair leadership, recognition, respect and appreciation, organisational climate and culture and work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation.

The **secondary objectives** of the investigations were:

- To determine the relationship between key situational work related variables such as *learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security* and work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation.
- To determine the impact of key situational work related variables such as *learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security* on work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation.
- To determine the impact of work related attitudes such as *organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement* on intentions to quit the organisation.

## **1.6 Research method**

Research method covers the literature study as well as the empirical study which were applied as key steps in paving a way for structuring this study.

### **1.6.1 Literature study**

The literature study covers mainly peer-reviewed journals from databases and search engines such as Academic Search Premier, EbscoHost, Science Direct, and websites such as Google Scholar from the university library. Proprietary company information was used to a limited extent to formulate the research by identifying an existing business challenge to focus on. The key themes looked at in the literature study were work related situational variables, work related attitudes and work related outcome particularly intentions to quit.

## **1.6.2 Empirical study**

The empirical study covers the research approach, research design, participants, sampling, measuring instruments and statistical analysis.

### **1.6.2.1 Research approach**

The two main methodologies namely the quantitative approach which involves evaluating objectives consisting of numbers and the qualitative approach which involves evaluating subjective data produced by the minds of the respondents were evaluated. The quantitative approach was selected based on the nature of the data. Cross section design using questionnaires was selected as the most applicable method in obtaining data for this study. The advantages of the quantitative method over the qualitative method were the ability to control investigations and the structure of the research situation in order to identify and isolate the study variables using a specific measuring instrument rather than the holistic approach used in qualitative research.

### **1.6.2.2 Research procedure**

After the research focus was identified a request was sent to company management to conduct the study in the company. Permission was granted to focus on the employees only and exclude non shop floor management by the Chief Operating Officer. This was followed with a formal meeting with the assigned leaders, Human Resources Manager and Manufacturing Managers to discuss how the study was to be conducted to avoid violating any business policies as well as keeping to the required academic rules. Issues of ethics were discussed and anonymity in terms of how the data was to be collected. Participants were informed in scheduled meetings and questionnaires were distributed in sealed envelopes immediately after the meetings. A locked (access controlled) collection drop box was stationed at the security check point where responding participants would drop their completed questionnaires in sealed envelopes.

### 1.6.2.3 Measuring instrument

Work related variables and work related attitudes and outcomes were measured using scales with sound psychometric properties used in previous studies (Cammann, Fichman, Henkins and Klesh, 1979; Eisenberger, Huntington, Hutchison and Sowa, 1986; Kanungo's, 1982; Kennedy & Daim, 2010; McCook, 2002; Meyer, Allen and Smith, 1993; Moore, 2002; Podsakoff, Mackenzie, Moorman and Fetter, 1990; Schaufeli & Baker, 2003; Sims & Szilagyis, 1975) using a five-point Likert scale to assess perceived importance: strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5).

- ***Salary and Monetary Compensation Survey*** developed by Kennedy and Daim (2010) measuring the employees' view of the salary practices in the company. A sample item includes "I feel I am being paid a fair amount for the work that I do".
- ***Benefits and Perks Survey*** developed by Kennedy and Daim (2010) measuring employees' perception of the benefits system in the organisation. A sample item includes "The reward procedures in my organisation are fair".
- ***Communication, Trust and Relationships Survey*** developed by Kennedy and Daim (2010) measuring employees' perception of the communication and transparency in the work relationships. A sample item includes "The norms of performance in my organisation are well understood and communicated."
- ***Working Conditions and Environment Survey*** developed by McCook (2002) measuring employees' view of the work conditions. A sample item includes "I feel a sense of pride in doing my job."
- ***Job Security Survey*** developed by Kennedy and Daim (2010) measuring employees' perception of the level of security in their jobs. A sample item includes "I feel very secure in my job".
- ***Learning and Development Survey*** developed by Kennedy and Daim (2010) measuring the employees' view of the learning and skills development in the company. A sample item includes "My Company is providing me with job specific training".
- ***Prospects for Promotion and Aligned Growth Path Survey*** developed by McCook (2002) measuring the employees' perception of how the organisation aligns and treats promotion and employee growth. A sample item includes "Those who do well on the job stand a fair chance of being promoted".
- ***Fair Leadership Survey*** developed by McCook (2002) measuring employees' view of the level of fairness in how they are treated by their superiors at work. A

sample item includes “My manager is supportive of my ideas and ways of getting things done”.

- **Recognition, Respect and Appreciation Survey** developed by McCook (2002) measuring the employees’ view of the performance recognition systems used. A sample item includes “The organisation recognises the significance of the contribution I make”.
- **Organisational Climate and Culture Survey** developed by Kennedy and Daim (2010) measuring the employees’ view of general organisational climate in the company. A sample item includes “I feel that my personal values are a good fit with my organisation”.
- Perceived organisational was measured using the **Survey of Perceived Organisational Support (SPOS)** developed by Eisenberger *et al.*, (1986). This measures employees’ perception of how well their organisation supports them. Sample items include “My organisation cares about my opinions,” and “Help is available from my organisation when I have a problem.”
- Perceived opportunity for reward was measured using the **Perceived Opportunity for Reward Survey** developed by McCook (2002) based on the scale identified by Sims and Szilagyi’s (1975) Leader Reward Behaviour Instrument (LRBI). This measured perceptions of reward and punitive behaviours engaged in by leaders as viewed by their subordinates. Sample items include “The reward procedures in my organisation are fair,” and “I have plenty of opportunities to be rewarded for the work I do.”
- Overall job satisfaction was measured using the **Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale** of Cammann *et al.* (1979). Sample items include “All in all I am satisfied with my job,” and “In general, I like working here.”
- Job involvement was measured with Kanungo’s (1982) **Job Involvement Questionnaire (JIQ)**. Sample items for the JIQ include “The most important things that happen to me involve my job,” and “I live, eat, and breathe my job.”
- Employee engagement was measured using **Work and Well Being Survey (UWES)** developed by Schaufeli and Baker (2003), measuring the level of employees’ engagement to the organisation. Sample item includes “At my work I feel bursting with energy”.
- Organisational commitment was measured using the Meyer *et al.*, (1993) **Affective Organisational Commitment Scale (AOCS)**. This scale measures commitment or desire to stay with an organisation out of want, rather than need

or pressure to conform (Meyer *et al.*, 1993). Sample items include “I would be happy to spend the rest of my career with my organisation,” and “I feel as if my organisation’s problems are my own.”

- **Organizational Citizenship Behaviour Questionnaire** developed by Podsakoff, et al. (1990) measuring altruism and conscientiousness. Sample items include “I help others who have heavy workloads” (altruism), and “I try to avoid creating problems for co-workers” (conscientiousness).
- **Intentions to Quit Survey** revised from Meyer *et al.* (1993) and integrated with Moore’s (2002) scale assessing respondents’ turnover intentions. Sample items include “I am thinking about leaving this organisation”.
- **A biographical section** with questions on gender, race, age, years of service qualifications and employee levels.

#### 1.6.2.4 Data analysis methods

The statistical analysis was carried out by means of the SPSS-program. Cronbach alpha coefficients were determined to assess the reliability of the measuring instruments. Pearson product-moment correlation was used to identify the relationships between the variables. A cut-off point of 0.30 (medium effect) was set for the practical significance of correlation coefficients (Cohen, 1988). A step-wise multiple regression analysis was conducted to determine the proportion of variance in the dependent variables of job satisfaction, organisational commitment, organisational citizenship, employee engagement, job involvement and intentions to quit that is predicted by the independent variables (situational work related variables). The effect size in the case of multiple regressions is given by the formula (Steyn, 1999):  $f^2 = R^2/1-R^2$ . The following parameters were used: 0.01 (small effect), 0.09 (medium effect) and 0.35 (large effect) were set for practical significance of  $f^2$  (Steyn, 1999).

### 1.7 Scope of dissertation

The study was targeted at operators, supervisors and professionals such as engineers, laboratory analysts and artisans levels in a catalytic convertor manufacturing site in the Germiston area of Gauteng Province in South Africa. The company is part of a global company which specialises in chemical manufacture. The individual focus company employs 415 permanent employees and 200 were targeted

for the study sample. A strata was defined across the different key strategic business units to cover departmental representation, within the strata a convenience sample was used. The reason for applying this method was to eliminate the bias that could come out of the failure to include all the business units under different managers with enough voluntary flexibility for employees to willingly answer as this could affect the outcome.

The situational work variables play a major role in the state of affairs in the organisation like in any other business hence the study of these to understand their role and deterministic work attitudes is what this research intends to cover. The effectiveness of any business operation is dependent on having the right inputs, one of which is human capital. For employees to function properly in a business the conditions of employment are important as it is generally believed that happy employees will contribute more, stay longer in the business and will not actively think about quitting. The state of situational work variables determines the state of employee attitudes which eventually reduce their effectiveness and at the same time increasing the likelihood of quitting. A number of situational variables have been measured within the organisation to ascertain the employees' view with regards to these variables and interpret the likely contribution to staff turnover and level of intentions to quit.

### **1.8 Possible limitations of study**

The main possible limitation of study based on the permission granted which is that questionnaires were designed to get the perception of employees only but does not check the perception of non-shop floor management roles on the same key issues. Owing to this the responses may be one-sided and may not end up addressing some of the desired end results for the business. In as much as the design was to get representative responses from each department, the voluntary nature of respondents' participation may limit the required level of representation.

## **1.9 Expected benefits**

- The outcome of the research will contribute towards understanding the current standing with regards to the manufacturing plant's situational variables. This can be used as a baseline for integrated improvements. Understanding the position and perceptions of the shop floor and manufacturing support workers is critical in understanding some of the behaviours and direct results on performance as ingredients for continuous and sustained improvement.
- The outcome of the research will help the business to strategise on an improvement roadmap that is driven more from the human capital performance paradigm relative to the current roadmap which assumes that all human-resource based issues are optimised. Current improvements have mainly focussed on technology and production systems; focus on human resources-related issues will make the impact of the other improvements more fruitful.
- The outcome of the research can be used to create a descriptive model which can be compared with other similar structured studies and best practices from other related industries. An improvement plan based on the outcome of this research will aid to sustainable business performance.

## **1.10 Chapter divisions**

Chapter 1 gives the introduction to the study. In Chapter 2 an overview of the available literature on work related situational variables, perceived organisational support and opportunity for reward, work related attitudes and the work related outcomes depicted by the intentions to quit are presented. The research methods used are described in Chapter 3. The main instrument (questionnaire) was used in getting the employees' interpretation of the work related situational variables and their relate attitudes. A number of hypotheses and a hypothesised model are developed using the literature research and discussion with employees and colleagues on the perceived relationships between various work variables and outcomes. In Chapter 4 the results and data analysis are presented whilst in Chapter 5 the discussion, recommendations and conclusions are done, deduced from results analysis and study of causes and effects of various independent and depend variables. The results from research are compared and commented on, with respect to findings from other researchers.

## **1.11 Chapter summary**

This chapter has presented the motivation for the study and why it is necessary to do the research. The formulation of the research questions, primary and secondary objectives and demarcation of the study have been looked at in detail. The research methods have been discussed in detail and the execution plan in conducting this research as well determining the measuring instrument has been discussed in brief.

The following chapter focuses on a literature study on the relationship and impact of and between key situational work related variables such as learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security and work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation.

## **CHAPTER 2**

### **LITERATURE STUDY**

#### **2.1 Introduction**

In this chapter, the literature study on work related variables and how they affect employees' work related attitudes and subsequently the intentions to quit or stay in the organisation is presented. The general background of situational work related variables, work related attitudes and work related outcomes are discussed while an overview of the results obtained by other researchers in trying to explain the effects of certain key situational variables on work related outcomes are discussed. Conclusions drawn from the literature study are also discussed.

#### **2.2 Background to work related situational variables, work related attitudes and outcomes**

The causes and results of employee job attitudes such as job satisfaction, job involvement, organisational commitment, organisational citizenship and employee engagement have been of great interest to researchers and behavioural scientists over the last few centuries (McCook, 2002). Researchers have rigorously explored various work related variables to great lengths to try and understand influences to employee job attitudes and their relationships with important employee and organisational outcomes such as job performance, absenteeism, employee retention and intentions to quit. In addition to these variables, job attitudes are of particular interest to managers and researchers because of their assumed link to job performance (Organ & Ryan, 1995).

Although job attitudes are assumed to relate to in-role job performance, research generally has not supported these seemingly intuitive relationships (McCook, 2002). Different studies have observed either positive, negative, or no relationships between job attitudes and in-role job performance. Specifically, several reviewers have discussed these differing relationships between job performance and job satisfaction (Iaffaldano & Muchinsky, 1985), job involvement (Brown, 1996; Diefendorff, Brown, Kamin & Lord, 2002), and organisational commitment (Mathieu & Zajac, 1990).

### **2.2.1 Work related situational variables**

Herzberg's (1964) two-factor theory (motivator-hygiene theory) portrays various factors as primary causes of job satisfaction and job dissatisfaction (hygiene factors, motivator factors). Based on his research with engineers and accountants, Herzberg concluded that the existence of specific job factors in relation to job attitudes was "fairly well accepted" (Lord, 2002). It was discovered in a South African and Singapore study that the most effective strategies to retain capable people were centred on creating a stimulating and challenging work environment, and participative management styles (Kaliprasad, 2006). In a related study employee orientation and integration, career planning and development, employee relations and motivation, performance management, training and development, transfer and promotions, compensation and benefit programs were perceived to be crucial to ensure that organisations retain their people in China (Kaliprasad, 2006). Further to the key factors investigated by Kaliprasad (2006), Kennedy and Daim (2010) added organisational climate and culture, recognition and leadership as variables that affect employee retention and engagement. McCook (2002) developed a model that explains how work variables affect employee behaviour and attitudes through two variables which he called perceived organisational support and perceived opportunity for reward. In this study the focus is on key situational work related variables such as *learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security* as predictors of work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation. The literature study on key situational work-related variables follows below.

#### **2.2.1.1 Salary and monetary compensation**

Employers and researchers have often identified compensation among the most important factors for potential employees in considering to accept a job offer; however, what is not so clear is the impact that pay has in regard to retention of the new employee after hire (Barber & Bretz, 2000). Kingdon and Knight (2007) in their research using South African data, found a positive relationship between reference income, defined as average income of others in the local residential cluster, and

subjective well-being. Fang (2001) found no statistically significant influence of pay on turnover cognition or turnover intention. It is important to track the pay satisfaction of an employee from their initial hiring as it does not necessarily mean that they will continue to be satisfied with their pay in the years to follow. Currall, Towler, Judge and Kohn (2005) in a study of public school teachers found that pay satisfaction is significantly associated with the intention to quit. In support of this finding, pay satisfaction has also been associated with increased organisational commitment, job satisfaction, and greater intent to stay in the organisation and position (Farrell & Rusbult, 1981; Lum, Kervin, Clark, Reid & Sirola, 1998). From literature it is apparent, that compensation is an important situational variable necessary to include in the present study.

#### **2.2.1.2 Benefits and perks**

Employment benefits include things such as retirement, health insurance, life insurance, disability insurance, paid leave, paid holidays, flexible scheduling, and educational assistance to name a few (Martin, 2011). These benefits have been shown to bond an employee to the employing organisation and result in a strong correlation between benefits and turnover (Shaw, Delery, Jenkins & Gupta, 1998). The inequity of effort made by the employee and reward gained in the working place may lead to negative stress among employees; effort and reward equity at work also affects employees' work-related attitudes especially job satisfaction (Li, 2005) and intention to leave the organisation (Derycke, 2010). Level of effort spent by employees can be seen through their responsibility, job demands, overtime, work interruptions, time pressure and workload (Siegrist, 2004). This level of effort should be equivalent with rewards (money, esteem, job security and career opportunities) received by the employees (Kinman & Jones, 2008). When there is a mismatch between effort and reward, a condition called high cost-low gain occurs (Siegrist, 2004). This condition is associated with job dissatisfaction and high turnover intentions due to the employees' emotional distress. Owing to the findings in literature and employees' concerns on the ground, benefits and perks as situational variables have been deemed important for this research.

### **2.2.1.3 Communication, trust and relationships**

An understanding of communication practices, nature of trust and relationships between employees and management is important when it comes to operational functions impacting employee behaviour and attitudes, that the organisation has control over. Even though management cannot always prevent a valued employee from leaving, it is important to have an understanding of what can be done to minimise the occurrence of that decision. In consideration of how employees respond to actions taken by the organisation and how this is frankly communicated, research had noted that there is a need for clarification and communication of organisational goals and objectives among all employees. Supporting this view, Chartered Institute of Personnel and Development (CIPD, 2006) survey reported that the two most significant drivers of employee engagement are having opportunities to have their voice heard and feeling well informed about what is going on in the organisation. Communication also encompasses that employees receive feedback about their performance and this is an important aspect of this study.

### **2.2.1.4 Working conditions and job security**

Job security and working conditions are important variables in current economies where flexibility in the job market has been proposed as a requirement for economic efficiency and the division between unemployment and various forms of marginal employment is becoming unclear. Some studies have suggested that prolonged exposure to job insecurity and threat of job loss might be even more harmful than the experience of unemployment itself (Heaney, Israel & House, 1994; Aronsson, 1999). The damaging effects of insecure employment may result from anxiety of potential job loss, as well as high levels of exposure to various types of work hazards, including heavier workloads, loss of job control, and decreased workplace social support (Benach, Amable, Muntaner & Benavides, 2002; Benach, Benavides, Platt, Diez-Roux & Muntaner, 2000). It has been shown that organisational restructuring and downsizing resulted in worsening work conditions, including loss of autonomy and self-control, higher work demands with reduced manpower, closer supervision by management, decreased workplace social support, and wage cuts (Denton, Zeytinoglu, Davies & Lian, 2002). In several recent cross-sectional surveys, persons who perceived high levels of job insecurity were found to have poor health (Domenighetti, D'Avanzo & Bisig, 2000; McDonough, 2000), decreased safety

motivation, and higher levels of workplace injuries and accidents (Probst, 2000; Probst, 2002; Probst & Brubaker, 2001).

### **2.2.1.5 Learning and development**

Wellins and Concelman (2005) noted that organisations can enhance engagement in their workforce by creating a learning culture and creating individual development plans for every employee. Most employees want to keep their jobs inventive and interesting by acquiring new knowledge and skills and applying new approaches in their daily worklife. Professional development exists when employers provide employees with opportunities to improve their work-related knowledge and skills (Hart, 1994). Keeping employees educated and developing them for future challenges has become the only sustainable competitive advantage in today's marketplace, with, for example, Motorola believing that it receives \$33 for every \$1 invested in its employees' education and training (Kaliprasad, 2006). The Chartered Institute of Personnel and Development (CIPD)'s Recruitment and Turnover Survey 2006, stated that the second most frequently cited action to increase employee retentions was learning and development opportunities (Wilson, 2006). Past research in organisational psychology provides empirical support for this link. Hart (1994) did report a link between professional development and morale (job satisfaction). In addition, Hart, Wearing, Conn, Carter and Dingle (2002) also reported significant relations with correlation coefficients in the range of 0.18 to 0.60 between professional growth (professional development) and facets of job satisfaction (such as satisfaction with pay, satisfaction with supervisor).

### **2.1.2.6 Prospects for promotion and aligned growth path**

Career commitment describes one's commitment to a number of work related targets; namely, to one's career, one's profession and one's occupation (Cooper-Hakim & Viswesvaran, 2005). The development of affective occupational commitment begins with occupational choice and changes based on actual experiences. Early in one's career, occupational commitment is typically low, but positive job experiences that illuminate career goals, explore different careers and achieve better person-job fit help build affective occupational commitment (Goulet & Singh, 2002; Meyer *et al.*, 1993). Therefore, the degree that an organisation provides for career growth via activities that meet career goals, develop one's professional

abilities, and rewards individuals for those activities should enhance their emotional attachment to their chosen occupation. This is consistent with the work of Thomas (2000) showing that meeting career goals and developing new skills are related to occupational attachment and of Darden, Hampton and Howell (1989) showing a relationship between perceived increases in work related rewards and satisfaction with one's current occupation.

#### **2.2.1.7 Fair Leadership**

Fair leadership support is defined as the degree of support and consideration an employee receives from his or her supervisor (Netemeyer, Boles, McKee & McMurrian, 1997). Several dimensions of leadership behaviour are described in the literature. Researchers have examined the role of supervisors in articulating a vision, fostering group goals, providing support, and giving feedback. Leadership support is the most consistent predictor of the many criterion variables studied (Podsakoff, Mackenzie & Bommer, 1996). A supportive leader has a high level of competence, treats employees fairly and with respect, encourages two-way communications, and recognizes the contribution of individual employees (Singh, 2002). Podsakoff *et al.* (1996) found a positive relationship between leadership support and job satisfaction in their study of white-collar professionals. Brown and Peterson (1993) report a significant correlation between leader consideration and job satisfaction in their meta-analysis of the sales literature. Mathieu and Zajac (1990) reported tentative support for the relationship between leadership support and organisational commitment in their meta-analysis of the management literature. Allen and Meyer (1990) also report a relation between management receptiveness (leadership support) and affective commitment. Building positive job attitudes requires supervisors who are considerate of employees' needs and who can be relied on for support in work situations. Therefore, a positive relationship between leadership support and job attitudes is expected.

#### **2.2.1.8 Recognition, respect and appreciation**

Appreciation of individual and professional aspirations promotes motivation and commitment towards an organisation (Mumford, 2000; Quinn & Rubb, 2006). Effective reward systems encourage employees to take risks, pursue the development of new products and continuously generate ideas that can be realised

(Mumford, 2000). Creativity can be encouraged if freedom, financial rewards, promotion and other forms of recognition exist (Amable, 1997). Workers' empowerment self-esteem, the feeling of power is an important determinant of employee performance. According to Bartlett, Lawler, Bae, Chen and Wan (2002), people should be given the opportunity and means to tackle new problems, to gain varied experiences, and to be prepared to take on more challenging tasks. People may participate in the definition of personal objectives, the time they spend at work. Employees should be able to voluntarily involve themselves in assignments that promote skills development, or establishment and management of effective mentoring relationships (Hemmert, 1998). In such a way firms can foster discovery activities (Mumford, 2000). However, Bartlett *et al.* (2002) warned that mismatches between increased responsibility, and means and skills to perform the job can render empowerment meaningless, counterproductive even.

#### **2.2.1.9 Organisational climate and culture**

Organisational culture refers to shared assumptions, values and norms (Schein, 1985). Organisational culture is a source of sustained competitive advantage (Barney, 1991) and empirical research shows that it is a key factor to organisational effectiveness (Denison, 1990; Gordon & Di Tomaso, 1992). There is evidence in the literature that organisational culture is directly linked to employee attitudes and behaviour (O'Driscoll, Bhagat, Chookar, Fernandez, Mahanyele & Nonokumar, 1998; Williams & Attaway, 1996). Organisational culture does not directly lend its influence on organisational effectiveness; rather, it exerts its influence through shaping the behaviour of organisational members. In an unambiguous and uncertain world, the most important part of decision-making is to digest the information from the environment to structure the unknown (Waterman, 1990), hence the understanding of organisation culture is of paramount importance to build a functioning business.

#### **2.2.1.10 Perceived organisational support (POS)**

Perceived organisational support (POS) is defined as an individual's belief that the organisation for which one works values one's contributions and cares for one's well-being (Eisenberger *et al.*, 1986). POS is affected by employees' interactions with their organisation with regard to the receipt of praise, support, or approval. POS is a concise measure conceptually related to both leadership support and psychological

climate (McCook, 2002). Some work situational variables will directly influence an employee's perceived organisational support hence handling of situations is critical if managers are to achieve a commendable level of POS from their subordinates. Organisational support theory (OST) as discussed by Aselage and Eisenberger (2003) and Eisenberger *et al.* (1986) suggests that treatment offered by the organisation (in terms of fairness, job conditions, and supervisory relationships) serves as a signal to employees regarding the extent to which the organisation values their contributions and cares about their well-being (POS). Consistent with social exchange theory (Blau, 1964) POS obligates employees who feel supported to reciprocate by expressing greater affective organisational commitment, performing citizenship behaviours, and exhibiting lower levels of withdrawal (Rhoades & Eisenberger, 2002). As a result, organisations that foster POS within employees are thought to have a competitive advantage over organisations that do not (Pfeffer, 2005).

#### **2.2.1.11 Perceived opportunity for reward (POR)**

POR is defined as employees' beliefs about their opportunities for obtaining rewards in their organisations. Included in this are beliefs about the fairness of rewards, its availability, and the belief that if one works hard, one will be appropriately rewarded (Sims & Szilagyi, 1975). This is important because an individual working for an unfair organisation that has few opportunities to be rewarded may have different perceptions of his or her organisation, and as such, may behave differently and develop different attitudes than would an individual working for a fair organisation where there is an abundance of opportunities for reward (McCook, 2002). Work situational variables like pay and benefits directly influence an employee's perceived opportunity for rewards hence handling of these are critical if managers are to get a positive influence on their subordinates (McCook, 2002). There is a very close relationship between perceived organisational support and perceived opportunity for reward as both lead into how employees view their employer and how they are likely to behave based on their resultant values and attitudes (McCook, 2002). Siegrist (1996) formulated the model of effort reward imbalance at work. The model emphasises that important social roles (the work role) are to offer a person recurrent options of contributing and performing (self-efficacy), of being rewarded or esteemed (self-esteem), and of belonging to some significant group. These potentially beneficial effects of the work role on self-regulatory needs are dependent on a basic

requirement of social exchange, reciprocity and fairness (Cosmides & Tooby, 1992). Effort at work is spent as part of a socially organised exchange process to which society at large contributes in terms of rewards. Rewards are distributed by three channels: money, esteem, and career opportunities, including job security (McCook, 2002).

### **2.2.2 Work related attitudes**

Work attitudes such as organisational commitment, job involvement and job satisfaction are an outcome of perceived organisational support and perceived opportunity for reward and have a dual interest on managers (McCook, 2002). On the one hand they represent important outcomes that managers may want to enhance. On the other hand they are symptomatic of other potential problems. For example, low job satisfaction may be a symptom of an employee's intention to quit. An attitude is defined as "a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object (Kreitner & Kinicki, 2008). Values represent global beliefs that influence behaviour across all situations, while attitudes relate only to behaviour directed towards specific objects or situations (Kreitner & Kinicki, 2008). The difference between attitudes and values is clarified by considering three components of attitudes: affective, cognitive and behavioural (Kreitner & Kinicki, 2008). The affective component of an attitude contains the feelings or emotions one has about a given object and situation. The cognitive component of an attitude reflects the beliefs or ideas one has about an object or situation. The behavioural component refers to how one intends to act toward someone or something. In an attempt to better understand the factors affecting job attitudes and employee behaviour, researchers have turned their attention to organisational and individual factors that might influence these relationships (Brown & Leigh, 1996; Jacobs & Solomon, 1977; Netemeyer *et al.*, 1997; Randall, Cropanzano, Bormann & Birjulin, 1999).

In a work setting, a meta-analysis involving more than 50000 people revealed that overall job attitude were positively related to performance and associated with indicators of withdrawal, lateness, absenteeism and staff turnover (Harrison, *et al.*, 2006). Various researchers have looked at various work related attitudes as predictors of work related outcomes and both caused by some situational or personal work related variables. In this study job satisfaction, organisational commitment,

organisational citizenship, employee engagement and job involvement are considered.

### **2.2.2.1 Organisational commitment**

Organisational scholars and business leaders have given special attention to organisational commitment based on the belief that organisations with committed employees are more effective and employees who exhibit high levels of affective organisational commitment are more productive and less likely to quit. Organisational commitment reflects the extent to which an individual identifies with an organisation and is committed to its goals. It is an important work attitude because committed individuals are expected to display a willingness to work harder to achieve organisational goals and a greater desire to stay employed at an organisation. Meyer and Herscovitch (2001) showed that organisational commitment is composed of three separate but related components: affective commitment, normative commitment and continuance commitment. These three components combine to produce a binding force that influences the consequences of employee turnover and on the job behaviour such as performance, absenteeism and organisational citizenship (Meyer & Allen, 1991). Business leaders are more likely to frame the importance of affective organisational commitment in terms of attracting, motivating and retaining key talent (Michaels, Handfield-Jones & Axelrod, 2001). Employees who are low in organisational commitment are also more likely to miss work and engage in counterproductive behaviours such as theft, sabotage and aggression (Luchak & Gellatly, 2007). Job satisfaction has a positive association with organisational commitment (Yavas & Bordur, 1999).

### **2.2.2.2 Job satisfaction**

Owing to its importance, job satisfaction is one of the most researched constructs in business science and organisational behaviour for various reasons. Job satisfaction reflects the extent to which an individual likes his or her job. Job satisfaction is an affective or emotional response toward various facets of one's job. Job satisfaction is not a unitary concept hence one can be relatively satisfied with one aspect of his or her job and dissatisfied with another aspect. Various researchers have looked at different indicators to assess one's job satisfaction. First, job satisfaction is relevant for scholars interested in the subjective evaluation of work conditions such as job

characteristics (Schjoedt, 2009). Second, job satisfaction is relevant for managers and researchers interested in organisational outcomes, such as organisational commitment (Rutherford, Boles, Hamwi, Madupalli & Rutherford, 2009; Tsai & Huang, 2008), extra-role behaviour, absenteeism, turnover or intentions to quit the job (DeConinck & Stilwell, 2004; Rutherford *et al.*, 2009). Third, job satisfaction is assumed to have major implications as it is a multidisciplinary and everlasting relevant construct covering all professions, work, jobs and contexts. Despite some controversy concerning this issue (Cropanzano & Wright, 2001), several studies recognize job satisfaction as a key factor influencing productivity (Ng, Soresen & Yim, 2009). Job satisfaction is an attitude that relates to overall attitudes towards life, or life satisfaction (Ilies, Wilson & Wagner, 2008).

### **2.2.2.3 Job involvement**

Job involvement is a work attitude that depicts the extent to which an individual is cognitively and personally involved with his or her work. A meta-analysis (Brown, 1996) involving about 27925 individuals from 87 different studies demonstrated that job involvement was moderately related to job satisfaction, organisational commitment and intrinsic motivation and negatively related to intentions to quit. Blanch and Aluja (2009) stated that work value first affects an individual's work attitude (such as job involvement), then behavioural intent (such as inclination to resign), and finally actual behavioural manifestation (such as absenteeism and performance). Chuang (2003) indicated that the Interpersonal Relationship Index showed highest predictive power for job involvement. Chen (2006) indicated that among the police, job plan, job cognition and quality of work life, job involvement and job achievements are significantly related. Lin (2008a) stated that population variables, work value and job characteristics of primary offices are predictive of job involvement. Chen (2006) analysed the mediating effect of job involvement and organisational commitment and they found out that the two attitudes were positively and strongly related. Furthermore, according to Lin (2008b), factors influencing individual behaviour include personal background, competency, personality and learning.

#### **2.2.2.4 Employee engagement**

Employee engagement has been defined as workers' willingness and ability to contribute to a company's success, the extent to which employees put in discretionary effort into the work (Hundley, Jacobs & Drizin, 2005). Engagement is important for organisations since it contributes to the bottom line (Demerouti & Cropanzano, 2010; Macey & Schneider, 2008). Engaged employees feel passion about their work, provide drive and innovation, and feel that their contribution helps in moving the company forward (Roche, 2005). Work engagement is an active, positive work-related state that is characterised by vigour, dedication, and absorption (Schaufeli, Bakker & Salanova, 2006). Organisations are demonstrating the impact that employees have on the business by measuring employee engagement, tying the target improvement efforts to other business metrics and using the findings to target improvement efforts. As a result, this boosts both engagement and business results (Feather, 2008).

#### **2.2.2.5 Organisational citizenship**

Organisational citizenship behaviours (OCBs) are behaviours performed beyond the regular or expected scope of one's job (Podsakoff *et al.*, 1996). Typical of such inputs are novel ideas, creativity, cultural skills, language skills, working styles, strong work ethics, taking on extra responsibilities. This is because employees are not rewarded for or trained in order to exhibit such behaviours (Organ, 1990). This is widely known as extra-role behaviour; Van Dyne, Graham and Dienesch (1994) argued that extra-role behaviour is underlined by the importance of organisational innovation, flexibility, productivity and responsiveness to changing external conditions. Morrison and Phelps (1999) argued that extra-role behaviour is critical to organisational effectiveness because managers cannot foresee all the contingencies that may lead employees to perform. Thus, the benefits that will accrue from using a diverse workforce can be adequately captured by the concept of OCB.

#### **2.2.2.6 Employee retention and intentions of leaving**

Employee turnover is an expensive proposition for companies and organisations (Martin, 2011). Direct costs include recruitment, selection, and training of new

people. Indirect costs include such things as increased workloads and overtime expenses for co-workers as well as reduced productivity associated with low employee morale (Martin, 2011). Taking into account both the direct and indirect costs of employee turnover, the minimum cost equates to one year's pay and benefits and a maximum of two years' pay and benefits (Ramlall, 2004). Employee retention and intentions of leaving are key outcomes of the work related attitudes. Retention relates to the extent to which an employer retains its employees and may be measured as the proportion of employees with a specified length of service (typically one year or more) expressed as a percentage of overall workforce numbers. Employee turnover refers to the proportion of employees who leave an organisation over a set period (often on a year-on-year basis), expressed as a percentage of total workforce numbers. Although intentions of leaving are an undesirable outcome for organisations, it is valuable to understand its predictors in order to minimise its negative impact on organisation's effectiveness. Human resources-related labour problems can result in operational risks associated with poor quality, low productivity, and unfilled orders (Jiang, Lepak, Han, Hong, Kim & Winkler, 2011). High turnover rates cause organisational friction, create instability of skills and damage customer service, as workers have to be trained on the job until reaching a satisfactory performance level. Researchers have theorised that low levels of organisational commitment will lead to willingness to search for another job, intentions of leaving and turnover. Research results have shown that organisational commitment is negatively related to intentions of leaving (Ingram & Kuen, 1990; Sager, 1990). Shaw (1999) argued that there is a strong negative relationship between job satisfaction and the level of employee turnover.

### **2.3 Findings by other researchers**

Various findings which link various situational and work related variables to work related attitudes have been observed by different researchers using different descriptive models aimed at explaining the impact of each independent input variable on work related outcomes. The studies have tried so much to elucidate the work related situations that need reinforcement as a way to achieve business objectives by improving employee morale. By understanding the interaction of various independent factors with some dependent work variables, leaders can have much better objective information for scanning focus areas for improvement.

### **2.3.1 Theoretical background of existing research**

One framework proposed to explain factors affecting the relationships between job attitudes and employee behaviour is social exchange theory (Kahn, 1990; Konovsky & Pugh, 1994; Saks, 2006). This theory's basic foundation is that people feel obligated to return favours in some way when they are treated well or rewarded. The concept of social exchange is also applicable in the organisational environment where it has been postulated that when an organisation treats employees well, the employees reciprocate in some way (Schnake, 1991; Saks, 2006). Within an organisational perspective, organisations treat employees well through opportunities for reward, kind treatment, or showing commitment towards the employees (Kahn, 1990; Brown & Leigh, 1996; Netemeyer *et al.*, 1997). Employees who identify with this positive support have more favourable attitudes such as higher job satisfaction, job involvement, organisational commitment, organisational citizenship, engagement and may reply through purposefulness towards performing well on the job when serving the organisation. The concept of social exchange is quite central to the psychological contract theory, which takes the reciprocal nature of these interactions a step further, suggesting that employees are bound by an unspoken contract to return in kind the benefits bestowed upon them by the organisation for which they work (Ologbo & Saudah, 2012; Schein, 1985). Eisenberger *et al.* (2001) found evidence in support of this reciprocal exchange in employee-organisation relationships. Specifically, these researchers investigated the relationship between perceived organisational support (POS) and several outcome variables (i.e., job attitudes and in-role performance), and found that POS was positively related to employees' feelings of obligation to support their organisation, which in turn related to affective organisational commitment and in-role performance. These theories focussing on reciprocity in organisational behaviour anchor as framework for the studies that form the basis of the hypothesised model in the current study. Each of these studies is discussed below.

### **2.3.2 Results obtained from studies by other researchers**

Ologba and Saudah (2012) focussed on employee engagement in order to ascertain the influence of individual factors of employee engagement on work outcomes using the measures of employee engagement (job and organisation engagements) as the mediating variables and the social exchange theory as the theoretical underpinning.

They found that co-employees support and employee development were significant predictors of job engagement, co-employees support was also a significant predictor of organisation engagement. Their results further indicated that the individual factors of employee engagement significantly explained 42.3% of the variance in job engagement. Bakker, Demerouti, Lieke and Brummelhuis in 2011 found in their research that work engagement was only positively related to active learning. Harter, Schmidt and Hayes (2002), Schaufeli and Bakker (2004), Xanthopoulou, Bakker, Demerouti and Schaufeli (2007) and Saks (2006) confirmed that employee engagement could be a strong factor for organisational performance and success, as it seems to have a significant potential to affect employee retention, their loyalty and productivity, and also with some link to customer satisfaction, organisational reputation and the overall stakeholder value.

Ackfeldt and Coote (2005) in their research showed that the relationship between job attitudes and OCBs and the relationship between leadership support, professional development, empowerment and job attitudes and the relationship between organisational commitment and job attitudes was strongly positive and significant. Weng and McElroy (2012) in their research discovered that turnover intentions were negatively related to the three dimensions of career growth, with namely, career goal progress, professional ability development and then organisational rewards. Turnover intentions were also negatively related to affective occupational commitment. While education was positively correlated with career goal progress, professional ability development, affective occupational commitment and negatively correlated with turnover intentions. Perceived opportunities were positively related to all three organisational career growth dimensions. Perceived opportunities were also positively related to affective occupational commitment. Career growth predicted an additional 45% of the variance in affective occupational commitment. Among the three factors that comprise career growth, the effect of career goal progress was greatest, followed by organizational rewards and professional ability development.

Vandenberghe (2009) found out in his research that POS was significantly related to employee well-being and affective commitment. Affective commitment was significantly positively associated with employee well-being. Affective commitment was positively related to the four dimensions of career growth, with the correlation coefficient of career goal progress. Judge (2010) found results of their overall meta-analysis which indicated that pay level is positively related with both overall job satisfaction and with pay satisfaction. The population correlation between pay level

and satisfaction was significantly higher than the correlation between pay level and job satisfaction, suggesting that pay level is more strongly associated with satisfaction with pay than the job overall.

Martin (2011), in his study showed that job satisfaction and organisational commitment were significant contributors to intention to quit but no HR practices contributed significantly to intention to quit. The parameter estimates for benefits and compensation ( $\beta=-0.47$ ) and training and development ( $\beta=-0.173$ ) were two HR practices that were both negative and significant. His reduced regression model included job satisfaction, organisational commitment, and salary as the independent variables, and indicated that 48% of the variance related to intention to quit was explained by the three variables job satisfaction ( $\beta= -0.29$ ), organisational commitment ( $\beta=-0.45$ ) and salary ( $\beta=-0.11$ ). All indicated a significant negative relationship with intentions to quit. Another reduced regression model which included job satisfaction, evaluation and supervision, and tenure as the independent variables indicated that 51% of the variance related to organisational commitment was explained by the three variables job satisfaction ( $\beta= 0.66$ ), evaluation and supervision ( $\beta=0.01$ ) and tenure ( $\beta=0.09$ ), which were not all significant, but together they produced the model with the greatest contribution to organisational commitment.

Brown and Leigh (1996) examined how organisational support variables and employee effort affect the relationship between job involvement and job performance. Brown and Leigh found support for their proposed model such that psychological climate had a direct impact on job involvement. In turn, job involvement had a direct impact on effort, which had a direct impact on one's in-role job performance. The authors proposed a direct path between psychological climate and effort, but the link was not statistically significant. Their model accounted for 13% of the variance in job performance, and indicated that psychological climate impacts job performance indirectly through job involvement and the amount of effort one exerts. This study is important because it is one of the few empirically tested models that have incorporated both antecedent and intervening variables affecting job involvement's relation with employee job performance, thereby providing a more complete picture of the interplay among factors influencing job involvement and job performance.

Netemeyer *et al.* (1997) developed a model to investigate how leadership support, person-organisation fit, and fairness in reward allocation influence organisational commitment behaviours (OCBs) through job satisfaction. That is, employees who

perceive themselves to be treated well by their organisation and who like their jobs will respond in kind through their own behaviours. In their first study, their results provided a good fit to the hypothesis, the total amount of variance explained in job satisfaction by leader supported, fairness in reward allocation, and person-organisation fit was 63%, and the amount of variance explained in OCBs was 9%. In their second study, the results also provided a good fit to the hypothesis, leadership support, person-organisation fit, and fairness in reward allocation explained 32% of the variance in job satisfaction, and, along with job satisfaction, explained 22% of the variance in OCBs. These findings are significant for this study as it demonstrated that leadership support, person-organisation fit, and fairness in reward allocation influence organisational commitment behaviours (OCBs) through job satisfaction.

## **2.4 Chapter summary**

The literature study of work related variables showed that there is a critical relationship between work situational variables, work related attitudes and outcomes. Results from various researchers have shown that work attitudes and outcomes are a result of various situational work variable predictors which need to be investigated to see how in each scenario, these affect the business outcomes. Based on the above discussed variables and the hypotheses behind these studies, a study has been formulated, informed from these studies and objectives formulated mainly within the framework of the company in concern. The research will harness the knowledge gathered from literature investigate and help understand and interpret the state of affairs at the manufacturer in concern.

The next chapter describes the research methods in terms of the empirical research design, the population of study, the instruments used and data analysis procedures. Discussion of the data collection method and brief introduction of the target population and sampling and special ethical considerations will be done. Detailed questionnaire description is provided as well as the biographical characteristics of the sample. Data analysis methods applied are explained and the research objectives developed.

## **CHAPTER 3**

### **RESEARCH METHODS**

#### **3.1 Introduction**

This chapter describes the research study in terms of the empirical research design, the population of study, the instrumentation, and data analysis procedures. Discussion of the data collection method and brief introduction of the target population and sampling and special ethical considerations are done. Detailed questionnaire design is discussed as well as the biographical characteristics of the sample. Data analysis methods applied are explained and the hypotheses developed.

#### **3.2 Research approach**

The two main methodologies namely quantitative approach which involves evaluating objectives consisting of numbers and the qualitative approach which involves evaluating subjective data produced by the minds of the respondents were evaluated. The quantitative approach was selected based on the nature of the data. A cross section design using questionnaires was selected as the most applicable method in obtaining data for this study. The advantages of the quantitative method over the qualitative method were the ability to control investigations and structure of research situation in order to identify and isolate the study variables using specific measuring instrument rather than the holistic approach used in qualitative research.

#### **3.3 Research procedure**

Participants for this study were from one company at one production site in the city of Germiston, in the province of Gauteng in South Africa, involved in the manufacture of chemical catalysts. The company employs about 415 permanent employees on this manufacturing site. Permission was sought from management to do the study in the company and it was granted. The questionnaires were targeted on key groups in each strategic business unit of the company and randomly distributed to 200 employees from the level of supervisors, engineers, artisans and operators;

participation was voluntary. The main reason for selecting these employee levels as the target groups is because that is the level of concern where there is a higher staff turnover of about 20% which is directly affecting the organisational stability cycles. The management consent was that the research permission granted was only limited to these given groups and not management.

The confidentiality of the respondents was respected and upheld in conducting the collection and analysis of the questionnaires. A locked and security monitored collection box was used to collect the questionnaires in sealed envelopes. Introductory meetings were held with targeted groups in all shifts and questionnaires in envelopes distributed immediately after the meetings. The questionnaire did not require identification, such as name or personnel employee numbers of the respondents. A properly informed consent letter was sent to the respondents with the questionnaire to explain the purpose of the study and the questionnaire. The information received was treated confidentially and respondents' anonymity enhanced cooperation and preparedness to respond to the questionnaires.

### **3.4 Measuring instruments**

Work related variables and work related attitudes and outcomes were measured using scales with sound psychometric properties used in previous studies Cammann *et al.*, (1979), Eisenberger, Huntington, Hutchison and Sowa (1986), Kanungo's (1982), Kennedy and Daim (2010), McCook (2002), Meyer *et al.* (1993); Moore (2002); Podsakoff *et al.* (1990); Schaufeli and Baker (2003); Sims and Szilagyi's (1975), using a five-point Likert scale to assess perceived importance: strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5). The exact employee measures used in the questionnaire are presented in Appendix A on the attached sample questionnaire.

- **Salary and Monetary Compensation Survey** developed by Kennedy and Daim (2010) measuring the employees' view of the salary practices in the company. A sample item includes "I feel I am being paid a fair amount for the work that I do".
- **Benefits and Perks Survey** developed by Kennedy and Daim (2010) measuring employees' perception of the benefits system in the organisation. A sample item includes "The reward procedures in my organisation are fair".
- **Communication, Trust and Relationships Survey** developed by Kennedy and Daim (2010) measuring employees' perception of the communication and

transparency in the work relationships. A sample item includes “The norms of performance in my organisation are well understood and communicated.”

- **Working Conditions and Environment Survey** developed by McCook (2002) measuring employees’ view of the work conditions. A sample item includes “I feel a sense of pride in doing my job.”
- **Job Security Survey** developed by Kennedy and Daim (2010) measuring employees’ perception of the level of security in their jobs. “I feel very secure in my job”.
- **Learning and Development Survey** developed by Kennedy and Daim (2010) measuring the employees’ view of the learning and skills development in the company. A sample item includes “My Company is providing me with job specific training”.
- **Prospects for Promotion and Aligned Growth Path Survey** developed by McCook (2002) measuring the employees’ perception of how the organisation aligns and treats promotion and employee growth. A sample item includes “Those who do well on the job stand a fair chance of being promoted”.
- **Fair Leadership Survey** developed by McCook (2002) measuring employees’ views of the level of fairness in how they are treated by their superiors at work. A sample item includes “My manager is supportive of my ideas and ways of getting things done”.
- **Recognition, Respect and Appreciation Survey** developed by McCook (2002) measuring the employees’ view of the performance recognition systems used. A sample item includes “The organisation recognises the significance of the contribution I make”.
- **Organisational Climate and Culture Survey** developed by Kennedy and Daim (2010) measuring the employees’ view of the general organisational climate in the company. A sample item includes “I feel that my personal values are a good fit with my organisation”.
- Perceived organisational support was measured using the **Survey of Perceived Organisational Support (SPOS)** developed by Eisenberger *et al.*, (1986). This measures employees’ perception of how well their organisation supports them. Sample items include “My organisation cares about my opinions,” and “Help is available from my organisation when I have a problem.”
- Perceived opportunity for reward was measured using **Perceived Opportunity for Reward Survey** developed by McCook (2002) based on the scale identified by Sims and Szilagyi’s (1975) Leader Reward Behaviour Instrument (LRBI). This

measured perceptions of reward and punitive behaviours engaged in by leaders as viewed by their subordinates. Sample items include “The reward procedures in my organisation are fair,” and “I have plenty of opportunities to be rewarded for the work I do.”

- Overall job satisfaction was measured using the **Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale** (Cammann *et al.*, 1979). Sample items include “All in all I am satisfied with my job,” and “In general, I like working here.”
- Job involvement was measured with Kanungo’s (1982) **Job Involvement Questionnaire (JIQ)**. Sample items for the JIQ include “The most important things that happen to me involve my job,” and “I live, eat, and breathe my job.”
- Employee engagement was measured using **Work and Well Being Survey (UWES)** developed by Schaufeli and Baker (2003), measuring the level of employees’ engagement to the organisation. Sample item includes “At my work I feel bursting with energy”.
- Organisational commitment was measured using Meyer, Allen and Smith (1993)’s **Affective Organisational Commitment Scale (AOCS)**. This scale measures commitment or desire to stay with an organisation out of want, rather than need or pressure to conform (Meyer *et al.*, 1993). Sample items include “I would be happy to spend the rest of my career with my organisation,” and “I feel as if my organisation’s problems are my own.”
- **Organizational Citizenship Behaviour Questionnaire** developed by Podsakoff, *et al.* (1990) measuring altruism and conscientiousness. Sample items include “I help others who have heavy workloads” (altruism), and “I try to avoid creating problems for co-workers” (conscientiousness).
- **Intentions to Quit Survey** revised from Meyer *et al.* (1993)’s and integrated with Moore (2002) scale assessing respondents’ turnover intentions. Sample items include “I am thinking about leaving this organisation”.
- **A biographical section** with questions on gender, race, age, years of service qualifications and employee levels.

### 3.5 Characteristics of study participants

200 questionnaires were distributed using strategy of stratified random sampling targeting getting representation across all strategic business units of the company

and key biographical paradigms of the business. The biographical information and grouping of the sample is shown in Table 3.1 below.

**Table 3.1:** *Biographical grouping and targeted number of questionnaires*

| Category              | Biographical group | Population represented | Target number of questionnaires |
|-----------------------|--------------------|------------------------|---------------------------------|
| <b>Gender</b>         | Male               | 268                    | 135                             |
|                       | Female             | 147                    | 65                              |
| <b>Race</b>           | African            | 360                    | 180                             |
|                       | Indian             | 21                     | 10                              |
|                       | Coloured           | 19                     | 5                               |
|                       | White              | 15                     | 5                               |
| <b>Age</b>            | 20 - 30yrs         | 166                    | 90                              |
|                       | 31 - 40yrs         | 184                    | 90                              |
|                       | 41 - 50yrs         | 65                     | 20                              |
| <b>Years' service</b> | 0 - 5yrs           | 156                    | 80                              |
|                       | 6 - 10yrs          | 204                    | 90                              |
|                       | > 11yrs            | 55                     | 30                              |
| <b>Qualification</b>  | Gr12               | 210                    | 80                              |
|                       | Certificate        | 45                     | 30                              |
|                       | Diploma            | 63                     | 30                              |
|                       | Degree             | 56                     | 40                              |
|                       | Post Graduate      | 41                     | 20                              |
| <b>Employee level</b> | Operator           | 291                    | 120                             |
|                       | Supervisor         | 49                     | 20                              |
|                       | Professional       | 75                     | 60                              |

### 3.6 Data analysis methods

The statistical analysis was carried out by means of the SPSS-program. Descriptive statistics including Cronbach alpha coefficients were determined to assess the reliability of the measuring instruments. Pearson product-moment correlation was used to identify the relationships between the variables. A cut-off point of 0.30 (medium effect) was set for the practical significance of correlation coefficients (Cohen, 1988). A step-wise multiple regression analysis was conducted to determine the proportion of variance in the dependent variables of job satisfaction, organisational commitment, organisational citizenship, employee engagement, job involvement and intentions to quit that is predicted by the independent variables (situational work related variables). The effect size in the case of multiple regressions is given by the formula (Steyn, 1999):  $f^2 = R^2/1-R^2$ . The following parameters were

used: 0.01 (small effect), 0.09 (medium effect) and 0.35 (large effect) were set for practical significance of  $F^2$  (Steyn, 1999).

### 3.7 Research objectives

The primary objective of the study was to investigate key situational work related variables such as salary and monetary compensation, benefits and perks, communication, trust and relationships, working conditions and environment, job security, learning and development, prospects for promotion and aligned growth path, fair leadership, recognition, respect and appreciation, organisational climate and culture and work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation.

The secondary objectives of the investigations were:

- To determine the relationship between key situational work related variables such as *learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security* and work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation.
- To determine the impact of key situational work related variables such as *learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, and perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security* on work related attitudes such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and intentions to quit the organisation.
- To determine the impact of work related attitudes such as *organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement* on intentions to quit the organisation.

### **3.8 Chapter summary**

In this chapter the quantitative research approach adopted for this study has been discussed followed by the research procedure detailing the ethical issues and steps taken to get approval and the method of distributing and collecting questionnaires. The measuring instruments used were explained in detail followed by the discussion of study participants and the biographical profiles targeted. Data analysis methods to be applied were explained in detail with regards to descriptive statistics, correlational analysis and regression analysis. The objectives of the study were lastly explained. In the next chapter, the research results will be presented by focussing on the descriptive statistics followed by correlation and regression analysis.

## CHAPTER 4

### RESULTS

#### 4.1 Introduction

In this Chapter, the research results are presented. The results will be presented in four sections. Firstly a discussion of the exploratory factor analyses will be provided, followed by a presentation of the descriptive statistics, followed by a discussion of the correlational analyses and the regression analyses will be provided.

#### 4.2 Participants and response rate

Of the 200 questionnaires distributed there were 111 completed responses. Of the returned questionnaires, 103 were useable and 8 were spoiled hence could not be used for the purpose of this study. Useable responses were 51.5% of the targeted. The questionnaire responses are presented in Table 4.1.

The study population consisted of 100% participants that were permanently employed by the company. Moreover, the sample consisted of White (4.9%), African-Black (89.3%), Coloured (1.9%) and Indian (3.9%). The participants were also predominantly male (71.8%) similar to the company environment. The majority (51.5%) were within the 0-5 years of service whilst 39.8% were in the 6-10 years' service group. Concerning the level of qualification, 35.9% had degrees, 25.2% Grade 12 certificates, 18.4% college certificates, 13.6% diplomas and 6.8% postgraduate as their highest levels of qualification. Regarding the age group of the sample 49.5% were between 20-30 years, 44.7% were between 31-40 years and 5.8% between 41-50 years. 46.6% of the sample was primarily employed as operators, 34% professionals and 18% working in supervisory roles. It is important to note that though employees have primary roles, there are also levels of seniority within roles and some of the supervisors also physically work as operators

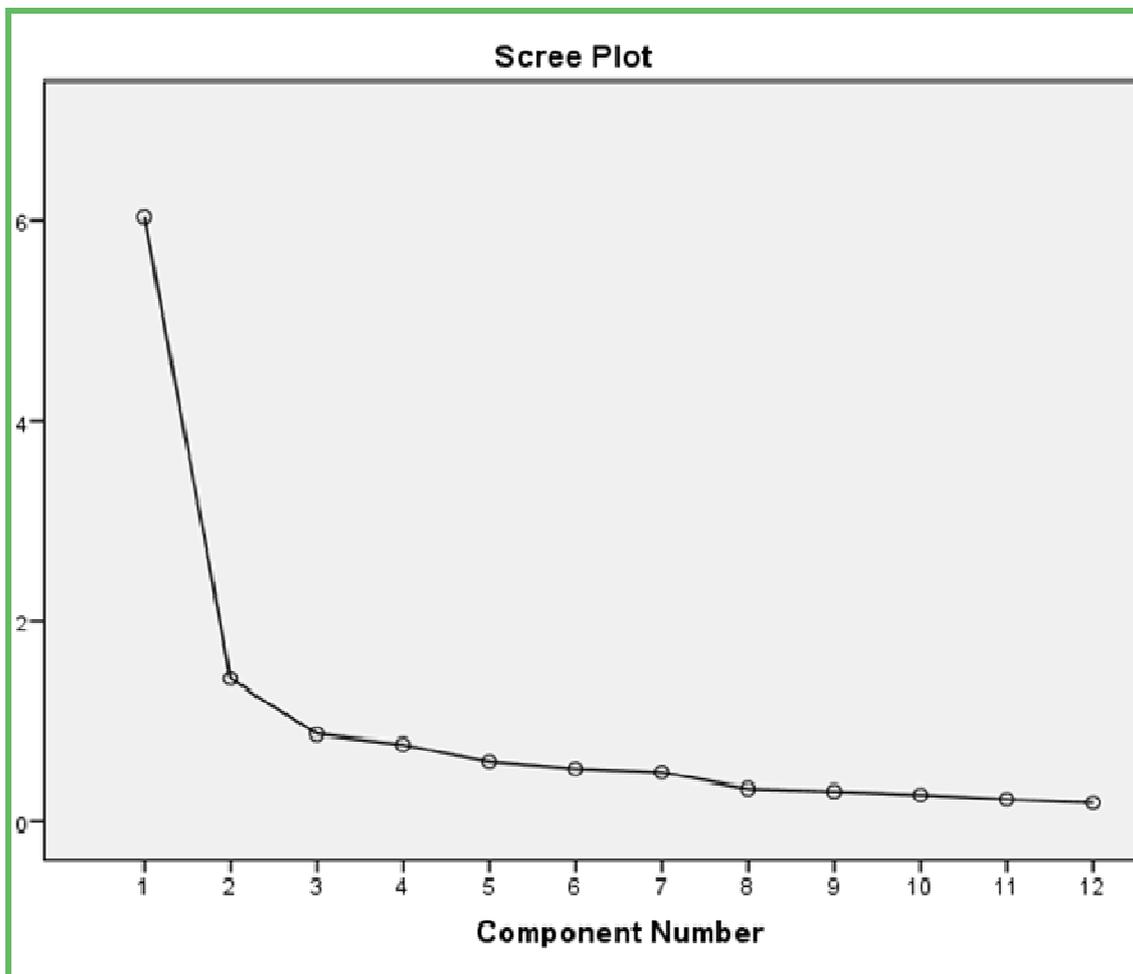
**Table 4.1:** Questionnaire response rates from various biographical groups

| Category              | Biometric group | Target sample size | Responses (n) | % of Responses |
|-----------------------|-----------------|--------------------|---------------|----------------|
| <b>Gender</b>         | Male            | 135                | 74            | 71.8%          |
|                       | Female          | 65                 | 29            | 28.2%          |
| <b>Race</b>           | African - Black | 180                | 92            | 89.3%          |
|                       | Indian          | 10                 | 4             | 3.9%           |
|                       | Coloured        | 5                  | 2             | 1.9%           |
|                       | White           | 5                  | 5             | 4.9%           |
| <b>Age</b>            | 20 - 30yrs      | 90                 | 51            | 49.5%          |
|                       | 31 - 40yrs      | 90                 | 46            | 44.7%          |
|                       | 41 - 50yrs      | 20                 | 6             | 5.8%           |
| <b>Years' service</b> | 0 - 5yrs        | 80                 | 53            | 51.5%          |
|                       | 6 - 10yrs       | 90                 | 41            | 39.8%          |
|                       | > 11yrs         | 30                 | 9             | 8.7%           |
| <b>Qualification</b>  | Gr12            | 80                 | 26            | 25.2%          |
|                       | Certificate     | 30                 | 19            | 18.4%          |
|                       | Diploma         | 30                 | 14            | 13.6%          |
|                       | Degree          | 40                 | 37            | 35.9%          |
|                       | Post Graduate   | 20                 | 7             | 6.8%           |
| <b>Employee level</b> | Operator        | 120                | 48            | 46.6%          |
|                       | Supervisor      | 20                 | 19            | 18.4%          |
|                       | Professional    | 60                 | 35            | 34.0%          |

### 4.3 Exploratory factor analyses and descriptive statistics

The results obtained from exploratory analyses and inspections of the scree plots and eigenvalues of the factors indicated that all scales used to assess key situational work related variables and employee attitudes were one-dimensional. The choice for one factor was based on problems in interpreting multi-factorial solutions and on the strong decrease of the eigenvalue after the first factor. The uni-factorial solutions extracted explained 42.8% of the variance in *learning and development*, 50.5% of the variance in *recognition, respect, appreciation*, 45.7% of the variance in *benefits and perks*, 38.6% of the variance in *salary and monetary compensation*, 46.1% of the variance in *prospects for promotion and aligned growth*, 38.4% of the variance in

*organisational support*, 43.9% of the variance in *perceived opportunity for rewards*, 35.1% of the variance in *fair leadership*, 33.9% of the variance in *organisational culture*, 41.3% of the variance in *working conditions and environment*, 32.2% of the variance in *communication, trust and relationships* and 55.2% of the variance in *job security*, 29.0% of the variance in *organisational commitment*, 24.8% of the variance in *organisational citizenship*, 75.4% of the variance in *job satisfaction*, 40.9% of the variance in *job involvement*, 43.8% of the variance in *employee engagement* and 70.5% of the variance in *intentions to quit the organisation*. A second order exploratory factor analyses of the key situational work related variables indicated that two factors could be extracted explaining 62.1% of the variance, which we labelled *what employee get from the organisation* and the *general organisational climate and culture*. The scree-plot and pattern matrix for the second order factor analysis are provided in Figure 4.1 and Table 4.2 below.



**Figure 4.1:** The scree-plot for the second order factor analysis with all the key situational work related variables

**Table 4.2:** *The pattern matrix of the second order factor analysis with all the key situational work-related variables*

| <b>Variable</b>                            | <b>Factor 1</b> | <b>Factor 2</b> |
|--|-----------------|-----------------|
| Working conditions and environment         | .00             | .90             |
| Communication, trust and relationships     | .00             | .86             |
| Job security                               | .00             | .74             |
| Organisational Climate                     | .00             | .60             |
| Fair leadership                            | .00             | .46             |
| Learning and development                   | .51             | .00             |
| Perceived organisational support           | .56             | .00             |
| Recognition, respect and appreciation      | .69             | .00             |
| Salary and monetary compensation           | .75             | .00             |
| Benefits and perks                         | .82             | .00             |
| Perceived opportunity for rewards          | .85             | .00             |
| Promotion for promotion and aligned growth | .89             | .00             |

**Factor 1** = what employee get from the organisation or employee gains / **Factor 2** = General organisational climate and culture

Next, the internal consistency and reliability of the research data was tested using Cronbach's alpha, a commonly accepted rule of thumb (Cortina, 1993). Internal consistency calculated for the research data using Cronbach's alpha is presented in Table 4.3 as calculated using SPSS statistical software. The Cronbach alpha of all scales falls within the acceptable range of 0.70 and above (Cortina, 1993; Nunally & Bernstein, 1994) required for data to be useable in research of a similar nature. The standard deviation of the average responses on fifteen out of eighteen variables across all the biographical grouping ranged between 0.10-0.18 (*Appendix Table B.3*) which explains a very small deviation in the general perception and state of the investigated variables. Three of the variables exhibited standard deviation between 0.20-0.47 (*Appendix Table B.3*) which tends to show distinctive behaviours in some of the groups from the general behaviour of the rest of the groups. Of the eighteen variables measured, four had Kurtosis less than zero depicting flat responses distribution, which means the rest and majority of the variables had distinct peaks in their distribution. Ten of the variables had skewness below zero depicting response distribution with a peak on the disagreement side of the Likert scale and tail extending towards the agreement side whilst eight variables skewed to the left explaining a peak on the agreement side of the Likert scale with the tail of the response distribution extending towards the disagreement side of the Likert scale.

**Table 4.3: Descriptive statistics for research data**

| Variable                                   | Mean score | Std. Deviation | Skewness | Kurtosis | $\alpha$ |
|--|------------|----------------|----------|----------|----------|
| Learning and development                   | 2.66       | 0.58           | -0.13    | `        | 0.88     |
| Recognition, respect and appreciation      | 2.89       | 0.60           | -0.74    | 1.22     | 0.87     |
| Fair leadership                            | 2.69       | 0.53           | 0.59     | 0.78     | 0.80     |
| Benefits and perks                         | 2.38       | 0.54           | 0.56     | 1.85     | 0.87     |
| Salary and monetary compensation           | 2.36       | 0.52           | 0.01     | -0.08    | 0.89     |
| Prospects for promotion and aligned growth | 2.23       | 0.58           | 0.11     | 1.27     | 0.88     |
| Organisational climate                     | 3.06       | 0.47           | -0.70    | 0.89     | 0.78     |
| Working conditions and environment         | 3.24       | 0.54           | -0.53    | 1.38     | 0.73     |
| Communication, trust and relationships     | 3.42       | 0.46           | -0.71    | 0.76     | 0.76     |
| Job security                               | 3.05       | 0.78           | -0.42    | -0.38    | 0.78     |
| Perceived organisational support           | 2.72       | 0.54           | 0.02     | 0.40     | 0.88     |
| Perceived opportunity for rewards          | 2.48       | 0.52           | 0.14     | 0.40     | 0.88     |
| Organisational commitment                  | 2.97       | 0.45           | 0.23     | -0.03    | 0.85     |
| Organisational citizenship                 | 3.73       | 0.37           | -0.41    | 0.76     | 0.86     |
| Job satisfaction                           | 3.27       | 0.93           | -0.47    | -0.61    | 0.85     |
| Employee involvement                       | 2.90       | 0.48           | -0.10    | 0.99     | 0.86     |
| Employee engagement                        | 3.31       | 0.56           | -0.76    | 0.12     | 0.85     |
| Intentions to quit                         | 2.03       | 0.86           | 0.92     | 0.18     | 0.86     |

#### 4.4 Correlational analysis of research data

The correlation statistics was used to analyse the relationships between situational variables, work related attitudes and work related outcomes – intention to quit. Correlations between the independent and dependent variables were done using SPSS Software and analysed to examine the effect of the independent variables on the dependent variables on an individual basis. As explained in the research method, the magnitudes of the correlations were described using terms and classification appropriate for the context of social science research. By using a standard such as Cohen's (1988), the relative strength of the correlation between variables were reported with greater clarity. The correlation value is only significant if the  $p$ -statistical

value is less than 0.05 (Cohen, 1988). The correlation results for the data are shown in Table 4.4 below. The discussion of correlation analysis follows after the table.

**Table 4.4:** Correlation values (*r*) of the dependent and independent variables

| Variable                      | 1      | 2     | 3      | 4      | 5      | 6      | 7     | 8      | 9  | 10     | 11     | 12     | 13     | 14    | 15     | 16    | 17    | 18 |  |
|-------------------------------|--------|-------|--------|--------|--------|--------|-------|--------|--|--------|--------|--------|--------|-------|--------|-------|-------|----|--|
| 1 Learning                    | 1      |       |        |        |        |        |       |        |  |        |        |        |        |       |        |       |       |    |  |
| 2 Recognition                 | .59**  | 1     |        |        |        |        |       |        | ** - Correlation is significant at the p< 0.01 level (2-tailed). |        |        |        |        |       |        |       |       |    |  |
| 3 Leadership                  | .49**  | .53** | 1      |        |        |        |       |        | * - Correlation is significant at the p<0.05 level (2-tailed).   |        |        |        |        |       |        |       |       |    |  |
| 4 Benefits                    | .53**  | .65** | .46**  | 1      |        |        |       |        | ' - insignificant  |        |        |        |        |       |        |       |       |    |  |
| 5 Salary                      | .37**  | .47** | .29**  | .46**  | 1      |        |       |        |  |        |        |        |        |       |        |       |       |    |  |
| 6 Promotion                   | .51**  | .50** | .40**  | .65**  | .55**  | 1      |       |        |  |        |        |        |        |       |        |       |       |    |  |
| 7 Organisational climate      | .54**  | .47** | .31**  | .53**  | .36**  | .36**  | 1     |        |  |        |        |        |        |       |        |       |       |    |  |
| 8 Conditions                  | .33**  | .35** | .46**  | .32**  | .36**  | .20*   | .48** | 1      |  |        |        |        |        |       |        |       |       |    |  |
| 9 Communication               | .45**  | .36** | .41**  | .35**  | .14'   | .34**  | .60** | .56**  | 1  |        |        |        |        |       |        |       |       |    |  |
| 10 Security                   | .43**  | .44** | .40**  | .35**  | .33**  | .32**  | .41** | .68**  | .47**  | 1      |        |        |        |       |        |       |       |    |  |
| 11 Organisational support     | .58**  | .61** | .60**  | .52**  | .56**  | .53**  | .44** | .51**  | .40**  | .54**  | 1      |        |        |       |        |       |       |    |  |
| 12 Opportunity rewards        | .44**  | .57** | .35**  | .69**  | .51**  | .64**  | .35** | .33**  | .25*   | .43**  | .54**  | 1      |        |       |        |       |       |    |  |
| 13 Organisational commitment  | .54**  | .55** | .30**  | .45**  | .58**  | .49**  | .50** | .39**  | .41**  | .41**  | 0.63** | 0.36** | 1      |       |        |       |       |    |  |
| 14 Organisational citizenship | .17'   | .20*  | 0.33** | .16'   | .15'   | .084'  | .14'  | 0.29** | .14'   | 0.24** | 0.33** | .012'  | .37**  | 1     |        |       |       |    |  |
| 15 Satisfaction               | .42**  | .47** | .38**  | .39**  | .38**  | .27**  | .39** | .58**  | .38**  | .64**  | .60**  | .42**  | .62**  | .43** | 1      |       |       |    |  |
| 16 Involvement                | .37**  | .48** | .24*   | .40**  | .37**  | .28**  | .40** | .34**  | .36**  | .35**  | .50**  | .30**  | .61**  | .28** | .60**  | 1     |       |    |  |
| 17 Engagement                 | .52**  | .66** | .47**  | .50**  | .47**  | .35**  | .44** | .56**  | .37**  | .57**  | .63**  | .42**  | .64**  | .49** | .71**  | .67** | 1     |    |  |
| 18 Intentions to quit         | -.38** | -.24* | -.32** | -.33** | -.28** | -.33** | -.22* | -.29** | -.29**   | -.43** | -.44** | -.35** | -.48** | -.23* | -.55** | -.24* | -.24* | 1  |  |

**Learning and development** are statistically and practically significantly related (large effect) with recognition, respect and appreciation, benefits and perks, prospects for promotion and aligned growth path, organisational climate and culture, perceived organisational support, organisational commitment and employee engagement. **Learning and development** are also statistically and practically significantly related (medium effect) with supportive and fair leadership, salary and monetary compensation, working conditions and environment, communication, trust and relationships, job security, perceived opportunity for rewards, job satisfaction, job involvement and negatively with intentions to quit.

**Recognition, respect and appreciation** are statistically and practically significantly related (large effect) with learning and development, benefits and perks, prospects for promotion and aligned growth path, perceived organisational support, perceived opportunity for rewards, organisational commitment and employee engagement. **Recognition, respect and appreciation** are also statistically and practically significantly related (medium effect) with supportive and fair leadership, salary and monetary compensation, organisational climate and culture, working conditions and environment, communication, trust and relationships, job security, job satisfaction, and job involvement. **Recognition, respect and appreciation** are further statistically and practically significantly related (small effect) with organisational citizenship and negatively with intentions to quit.

**Supportive and fair leadership** are statistically and practically significantly related (large effect) with recognition, respect and appreciation and perceived organisational support. **Supportive and fair leadership** are statistically and practically significantly related (medium effect) with learning and development, benefits and perks, prospects for promotion and aligned growth path, organisational climate and culture, working conditions and environment, communication, trust and relationships, job security, opportunity for rewards, organisational commitment, job satisfaction, organisational citizenship, employee engagement and negatively with intentions to quit. **Supportive and fair leadership** are statistically and practically significantly related (small effect) with salary and monetary compensation and job involvement,

**Benefits and perks** are statistically and practically significantly related (large effect) with learning and development, recognition, respect and appreciation, prospects for promotion and aligned growth path, organisational climate and culture, perceived organisational support, perceived opportunity for rewards and employee

engagement. **Benefits and perks** are statistically and practically significantly related (medium effect) with supportive and fair leadership, salary and monetary compensation, working conditions and environment, communication, trust and relationships, job security, organisational commitment, job satisfaction, job involvement and negatively with intentions to quit.

**Salary and monetary compensation** are statistically and practically significantly related (large effect) with prospects for promotion and aligned growth path, perceived organisational support, salary and monetary compensation, perceived opportunity for rewards and organisational commitment. **Salary and monetary compensation** are statistically and practically significantly related (medium effect) with learning and development, recognition, respect and appreciation, benefits and perks, organisational climate, working conditions and environment, job security and job satisfaction, job involvement, employee engagement. **Salary and monetary compensation** are statistically and practically significantly related (small effect) with supportive and fair leadership, recognition, respect and appreciation and negatively with intentions to quit.

**Prospects for promotion and aligned growth path** are statistically and practically significantly related (large effect) with learning and development, recognition, respect and appreciation, benefits and perks, salary and monetary compensation, perceived organisational support and perceived opportunity for rewards. **Prospects for promotion and aligned growth path** are statistically and practically significantly related (medium effect) with supportive and fair leadership, organisational climate and culture, communication, trust and relationships, job security, organisational commitment, employee engagement and negatively with intentions to quit. **Prospects for promotion and aligned growth path** are statistically and practically significantly related (small effect) with working conditions and environment, job satisfaction and job involvement.

**Organisational climate and culture** are statistically and practically significantly related (large effect) with learning and development benefits and perks, salary and monetary compensation and communication, trust and relationships. **Organisational climate and culture** are statistically and practically significantly related (medium effect) with recognition, respect and appreciation, supportive and fair leadership, prospects for promotion and aligned growth path, working conditions and environment, job security, organisational commitment, organisational citizenship, job

satisfaction, job involvement, employee engagement, perceived organisational support and opportunity for reward. **Organisational climate and culture** are statistically and practically significantly related (small effect) with intentions to quit

**Working conditions and environment** are statistically and practically significantly related (large effect) with communication, trust and relationships, job security, perceived organisational support, job satisfaction and employee engagement.

**Working conditions and environment** are statistically and practically significantly related (medium effect) with learning and development, recognition, respect and appreciation, supportive and fair leadership, benefits and perks, salary and monetary compensation and perceived opportunity for rewards, organisational climate and culture, organisational commitment and job involvement. **Working conditions and environment** are statistically and practically significantly related (small effect) with prospects for promotion and aligned growth path, organisational citizenship and negatively with intentions to quit.

**Communication, trust and relationships** are statistically and practically significantly related (large effect) with organisational climate and culture Working conditions and environment, **Communication, trust and relationships** are statistically and practically significantly related (medium effect) with learning and development, recognition, respect and appreciation, supportive and fair leadership, benefits and perks, prospects for promotion and aligned growth path, job security, organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement and perceived organisational support. **Communication, trust and relationships** are statistically and practically significantly related (small effect) with perceived opportunity for reward and intentions to quit.

**Job security** is statistically and practically significantly related (large effect) with working conditions and environment, perceived organisational support, job satisfaction and employee engagement. **Job security** is statistically and practically significantly related (medium effect) with learning and development, recognition, respect and appreciation, supportive and fair leadership, benefits and perks, salary and monetary compensation, prospects for promotion and aligned growth path, organisational climate and culture, communication, trust and relationships, organisational commitment, job involvement, perceived opportunity for reward and

intentions to quit. **Job security** is statistically and practically significantly related (small effect) with organisational citizenship

**Perceived organisational support** is statistically and practically significantly related (large effect) with learning and development, recognition, respect and appreciation, supportive and fair leadership, benefits and perks, salary and monetary compensation, prospects for promotion and aligned growth path, working conditions and environment, job security, organisational commitment, job satisfaction, employee engagement and perceived opportunity for reward. **Perceived organisational support** is statistically and practically significantly related (medium effect) with organisational climate and culture, communication, trust and relationships, organisational citizenship, job involvement and intentions to quit.

**Perceived opportunity for reward** is statistically and practically significantly related (large effect) with recognition, respect and appreciation, benefits and perks, salary and monetary compensation, prospects for promotion and aligned growth path and perceived organisational support. **Perceived opportunity for reward** is statistically and practically significantly related (medium effect) with learning and development, supportive and fair leadership, organisational climate and culture, working conditions and environment, job security, organisational commitment, job satisfaction, employee engagement and negatively with intentions to quit. **Opportunity for reward** is statistically and practically significantly related (small effect) with communication, trust and relationships and job involvement.

**Organisational commitment** is statistically and practically significantly related (large effect) with learning and development, recognition, respect and appreciation, salary and monetary compensation, organisational climate and culture, job satisfaction, job involvement, employee engagement, perceived organisational support and intentions to quit. **Organisational commitment** is statistically and practically significantly related (medium effect) with supportive and fair leadership, benefits and perks, prospects for promotion and aligned growth path, working conditions and environment, communication, trust and relationships, job security, opportunity for reward organisational citizenship.

**Organisational citizenship** is statistically and practically significantly related (medium effect) with recognition, respect and appreciation; perceived organisational support organisational commitment, job satisfaction and employee engagement.

**Organisational citizenship** is statistically and practically significantly related (small effect) with supportive and fair leadership, working conditions and environment, job security, job involvement and negatively with intentions to quit.

**Job satisfaction** is statistically and practically significantly related (large effect) with working conditions and environment, job security, perceived organisational support, organisational commitment, job involvement, employee engagement and perceived opportunity for reward. **Job satisfaction** is statistically and practically significantly related (medium effect) with learning and development, recognition, respect and appreciation, supportive and fair leadership, benefits and perks, salary and monetary compensation, organisational climate and culture, communication, trust and relationships, organisational citizenship, job satisfaction and negatively with intentions to quit. **Job satisfaction** is statistically and practically significantly related (small effect) with prospects for promotion and aligned growth path.

**Job involvement** is statistically and practically significantly related (large effect) with organisational commitment, job satisfaction and employee engagement. **Job involvement** is statistically and practically significantly related (medium effect) with learning and development, recognition, respect and appreciation, benefits and perks, salary and monetary compensation, organisational climate and culture, working conditions and environment, communication, trust and relationships, job security, perceived organisational support. **Job involvement** is statistically and practically significantly related (small effect) with supportive and fair leadership, prospects for promotion and aligned growth path, perceived opportunity for reward, organisational citizenship and intentions to quit.

**Employee engagement** is statistically and practically significantly related (large effect) with learning and development, recognition, respect and appreciation, benefits and perks, working conditions and environment, job security, organisational commitment, job satisfaction, job involvement, employee engagement and perceived organisational support. **Employee engagement** is statistically and practically significantly related (medium effect) with supportive and fair leadership, salary and monetary compensation, prospects for promotion and aligned growth path, organisational climate and culture, communication, trust and relationships, perceived opportunity for reward and organisational citizenship.

***Intention to quit*** is statistically and practically significantly related (large effect) with job satisfaction negatively. ***Intention to quit*** is statistically and practically significantly related (small effect) with learning and development, supportive and fair leadership, benefits and perks, prospects for promotion and aligned growth path, job security, organisational commitment, perceived organisational support and perceived opportunity for reward. ***Intention to quit*** is statistically and practically significantly related (small effect) with recognition, respect and appreciation, salary and monetary compensation, organisational climate and culture, working conditions and environment, communication, trust and relationships, organisational citizenship, job involvement and employee engagement.

This study indicates that employees' perceptions of the fairness of reward distribution and availability of rewards as well as the employee support in their organisations positively impact their attitudes toward their jobs and affect the intentions to quit.

#### **4.5 Regression analysis**

One of the main objectives of the research was to explain employees' work related attitudes as predicted by situational variables and intentions to quit as predicted by work related attitudes. Regressions were done at three different functional level groupings of the variables as per the measuring instrument used. The situational variables were grouped into two functional groups, the first grouping related to *what employees gain from the business whether monetary or other personnel support* and the second grouping based on *the general managerial climate, organisational climate and conditions*. The regression analysis part looked at how the situational variables related to what an employee gains from the business affect work related attitudes and intentions to quit. The second part of the regression analysis looked at how the situational variables related to the general managerial climate, organisational climate and conditions that affect work related attitudes and intentions to quit. The third part of the regression analysis looked at how the work related attitudes affect the intentions to quit. The regression models presented in Tables 4.5, 4.6 and 4.7 were used to present the relationships with focus on influence of predicting variable on the dependent variables.

#### 4.5.1 What employees gain from business as predictors of work related attitudes and intention to quit

The first regression analysis looked at how the situational variables related to what an employee gains from the business affect work related attitudes and intentions to quit. The results of the analysis are presented in Table 4.5 below.

**Table 4.5:** Regression analysis of situational variables related to what employee gain from the business as predictors of work-related attitudes and intentions to quit

|  | Organisational<br>Commitment | Organisational<br>Citizenship | Satisfaction | Involvement | Engagement | Intentions to<br>quit |
|--|------------------------------|-------------------------------|--------------|-------------|------------|-----------------------|
| <b>Learning and development</b>                | .18                          | -.04                          | .10          | .04         | .11        | .20                   |
| <b>Recognition, respect /<br/>appreciation</b> | .16                          | .06                           | .08          | .21         | .38**      | -.26                  |
| <b>Benefits and perks</b>                      | .04                          | .18                           | .05          | .18         | .23        | .11                   |
| <b>Salary and monetary<br/>compensation</b>    | .30**                        | .01                           | .06          | .12         | .10        | .00                   |
| <b>Prospects for promotion / growth</b>        | .10                          | -.07                          | -.25*        | -.12        | -.19       | .02                   |
| <b>Perceived organisational support</b>        | .30**                        | .43**                         | .47**        | .31*        | .31**      | .34**                 |
| <b>Perceived opportunity for<br/>rewards</b>   | -.21*                        | -.31*                         | .18          | .12         | -.05       | .14                   |
| <b>R</b>                                       | <b>.73</b>                   | <b>.40</b>                    | <b>.64</b>   | <b>.57</b>  | <b>.74</b> | <b>.51</b>            |
| <b>R<sup>2</sup></b>                           | <b>.54</b>                   | <b>.16</b>                    | <b>.41</b>   | <b>.32</b>  | <b>.55</b> | <b>.26</b>            |
| <b>f<sup>2</sup></b>                           | <b>.41</b>                   | <b>.03</b>                    | <b>.20</b>   | <b>.11</b>  | <b>.43</b> | <b>.07</b>            |

\* =p<0.05 / \*\*=p<0.01

With regards to employees' perceptions of what they gain from the business, regression analysis yielded an R-square ( $R^2$ ) of 0.54 between **organisational**

**commitment** with situational variables, which means that 54% of variance in **organisational commitment** is statistically and practically significantly explained by salary and monetary compensation ( $\beta=0.30$ ,  $t=3.29$ ), perceived organisational support ( $\beta=0.30$ ,  $t=2.89$ ), perceived opportunity for reward ( $\beta=-0.21$ ,  $t=-1.96$ ). The coefficient of determination value according to Cohen (1988) signifies a large effect size.

An  $R^2$  of 0.16 was obtained between **organisational citizenship** with the situational variables related to what employees gain from the business, which means that 16.3% of variance in **organisational citizenship** is statistically and practically significantly explained by perceived organisational support ( $\beta=0.43$ ,  $t=3.07$ ), and perceived opportunity for reward ( $\beta=-0.31$ ,  $t=-2.81$ ). The coefficient of determination value according to Cohen (1988) signifies a small effect size.

An  $R^2$  of 0.41 was obtained between **job satisfaction** and the situational variables related to what employees gain from the business, which means that 41% of variance in **job satisfaction** is statistically and practically significantly explained by perceived organisational support ( $\beta=0.47$ ,  $t=4.04$ ), and prospects for promotion and aligned growth ( $\beta=-0.25$ ,  $t=-2.12$ ). The coefficient of determination value according to Cohen (1988) signifies a medium effect size.

An  $R^2$  of 0.32 was obtained between **employee involvement** and the situational variables related to what employees gain from the business, which means that 31.9% of variance in **employee involvement** is statistically and practically significantly explained by perceived organisational support ( $\beta=0.31$ ,  $t=2.49$ ). The coefficient of determination value according to Cohen (1988) signifies a medium effect size.

An  $R^2$  of 0.55 was obtained between **employee engagement** and the situational variables related to what employees gain from the business, which means that 55% of variance in **employee engagement** is statistically and practically significantly explained by perceived organisational support ( $\beta=0.31$ ,  $t=3.06$ ), recognition, respect and appreciation ( $\beta=0.38$ ,  $t=3.65$ ). The coefficient of determination value according to Cohen (1988) signifies a large effect size.

An  $R^2$  of 0.26 was obtained between **intentions to quit** and the situational variables related to what employees gain from the business, which means that 25.8% of variance in **intentions to quit** is statistically and practically significantly explained by

perceived organisational support ( $\beta=0.34$ ,  $t=2.58$ ). The coefficient of determination value according to Cohen (1988) signifies a small effect size.

#### 4.5.2 The general managerial climate, organisational climate and conditions as predictors of work related attitudes and intention to quit

The second regression analysis looked at how the situational variables related to the general managerial climate, organisational climate and conditions affect work related attitudes and intentions to quit. The results of the analysis are presented in Table 4.6 below.

**Table 4.6:** *Regression analysis of situational variables related to general managerial climate, organisational climate and conditions as predictors of work-related attitudes and intentions to quit*

|   | Organisational Commitment | Organisational Citizenship | Satisfaction | Involvement | Engagement | Intentions to quit |
|---|---------------------------|----------------------------|--------------|-------------|------------|--------------------|
| <b>Fair leadership</b>                        | .08                       | .26*                       | .10          | .04         | .23**      | .17                |
| <b>Organisational climate</b>                 | .34**                     | .13                        | .11          | .23*        | .21*       | .00                |
| <b>Working conditions and environment</b>     | .01                       | .19                        | .22          | .05         | .22        | -.11               |
| <b>Communication, trust and relationships</b> | .07                       | -.10                       | -.50         | .11         | -.12       | .10                |
| <b>Job security</b>                           | .20                       | .04                        | .43**        | .15         | .29**      | .39**              |
| <b><i>R</i></b>                               | <b>.56</b>                | <b>.37</b>                 | <b>.68</b>   | <b>.46</b>  | <b>.67</b> | <b>.47</b>         |
| <b><i>R</i><sup>2</sup></b>                   | <b>.31</b>                | <b>.14</b>                 | <b>.46</b>   | <b>.21</b>  | <b>.41</b> | <b>.22</b>         |
| <b><i>f</i><sup>2</sup></b>                   | <b>.11</b>                | <b>.02</b>                 | <b>.27</b>   | <b>.05</b>  | <b>.20</b> | <b>.05</b>         |

\* = $p < 0.05$  / \*\*= $p \leq 0.01$

With regards to employees' perceptions of general managerial climate, organisational climate and conditions as predictors of work related attitudes and intentions to quit, regression yielded an  $R^2$  of 0.31 between **organisational commitment** with situational variables, which means that 31% of variance in **organisational commitment** is statistically and practically significantly explained by organisational climate ( $\beta=0.34$ ,  $t=3.17$ ). The coefficient of determination value according to Cohen (1988) signifies a medium effect size.

An  $R^2$  of 0.14 was obtained between **organisational citizenship** with the situational variables related to general managerial climate, organisational climate and conditions, which means that 14% of variance in **organisational citizenship** is statistically and practically significantly explained by fair leadership ( $\beta=0.26$ ,  $t=2.42$ ). The coefficient of determination value according to Cohen (1988) signifies a small effect size.

An  $R^2$  of 0.46 was obtained between **job satisfaction** and the situational variables related to general managerial climate, organisational climate and conditions, which means that 46% of variance in **job satisfaction** is statistically and practically significantly explained by job security ( $\beta=0.43$ ,  $t=4.18$ ). The coefficient of determination value according to Cohen (1988) signifies a medium effect size.

An  $R^2$  of 0.21 was obtained between **employee involvement** and the situational variables related to general managerial climate, organisational climate and conditions, which means that 21% of variance in **employee involvement** is statistically and practically significantly explained by organisational climate ( $\beta=0.23$ ,  $t=2.01$ ). The coefficient of determination value according to Cohen (1988) signifies a small effect size.

An  $R^2$  of 0.41 was obtained between **employee engagement** and the situational variables related to general managerial climate, organisational climate and conditions, which means that 41% of variance in **employee engagement** is statistically and practically significantly explained by job security ( $\beta=0.29$ ,  $t=2.75$ ) fair leadership ( $\beta=0.21$ ,  $t=2.62$ ) and organisational climate ( $\beta=0.21$ ,  $t=2.18$ ). The coefficient of determination according to Cohen (1988) signifies a medium effect size.

An  $R^2$  of 0.22 was obtained between **intentions to quit** and the situational variables related to general managerial climate, organisational climate and conditions, which

means that 22% of variance in **intentions to quit** is statistically and practically significantly explained by job security ( $\beta=0.34$ ,  $t=2.58$ ). The coefficient of determination value according to Cohen (1988) signifies a small effect size.

#### 4.5.3 Work related attitudes as predictors of work related attitudes and intentions to quit

The third part of regression analysis looked at how the work related attitudes affect the intentions to quit. Results of the analysis are presented in Table 4.7 below.

**Table 4.7:** Regression analysis of work related attitudes as predictors of intentions to quit

| Variables                            | Intentions to quit |
|--------------------------------------|--------------------|
| Organisational Commitment            | -.79**             |
| Organisational Citizenship Behaviour | -.70**             |
| Job Satisfaction                     | -.61**             |
| Job Involvement                      | .23                |
| Engagement                           | -.64**             |
| <i>R</i>                             | .65                |
| <i>R</i> <sup>2</sup>                | .44                |
| <i>f</i> <sup>2</sup>                | .24                |

\* = $p < 0.05$  / \*\*= $p \leq 0.01$

With regards to employees' work related attitudes as predictors of intentions to quit, regression yielded a  $R^2$  of 0.44 between **intentions to quit** with work related attitudes, which means that 44% of variance in **intentions to quit** is statistically and practically significantly explained by organisational commitment ( $\beta=-0.79$ ,  $t=3.84$ ), job satisfaction ( $\beta=-0.61$ ,  $t=5.72$ ) and engagement ( $\beta=-0.64$ ,  $t=-3.27$ ). The coefficient of determination value according to Cohen (1988) signifies a medium effect size.

This study's findings agree with McCook's (2002) findings that organisational support and rewards impact job satisfaction, job involvement, and organisational commitment suggesting that perceptions of the organisation's support and reward efforts involving employees are perceived discriminately by employees, and that each factor contributes uniquely (and in some cases more strongly) to employee attitudes. Each of these findings is relevant to managers and human resources practitioners from the standpoint that an improved ability to understand job attitudes should lead to benefits for the organisation.

#### **4.6 Chapter summary**

The research results have been presented and analysed in this chapter. The response rate and the data according to full battery as well as biographical profiles have been presented. The descriptive statistics used to analyse the battery data showed that most of the situational variables exhibited a state of unhappiness whilst the work related attitudes showed neutrality but the intentions to quit was highly negative showing that employees are actively considering leaving the organisation. The correlational analyses showed medium to strong relationship between the situational variables, work related attitudes and intentions to quit. The regression analysis showed a high influence of various situational variables on work related attitudes and intentions to quit. The work related attitudes have shown a high level of prediction on intentions to quit. The discussions of the results with reference to previous findings by other researchers are done in chapter 5.

## CHAPTER 5

### DISCUSSION, RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

#### 5.1 Discussion of Results

The first objective of the study was to investigate *the current position and perception of employees' experiences of key situational variables, work related attitudes and work related outcomes particularly intentions to quit the organisation*. The results indicated that *prospects for promotion and aligned growth path* are less favourably experienced by employees than other major situational variables categories. The other situational variable category that stood out from the others was *perceived opportunities for rewards*. Because of this, special attention should be given when determining career growth paths for employees. Salary and monetary compensation followed by benefits and perks in terms of fair compensation for work performed were the next set of least favourable situational variables. The three statements with the lowest overall mean score were 'If I work hard, I will receive extra pay for my efforts', 'I have plenty of opportunities for promotion in my organisation', 'Company pay policy helps attract and retain high performing employees' and 'I am satisfied with my chances of promotion' give an indicator of areas of concern for the employees. Previous studies confirmed that low pay and unclear growth paths were found to be the major reasons why employees left their employment (Rousan & Henderson, 1996; Martin, 2011).

The work related situational variable categories with scores below the midpoint (3), signalling employee unhappiness were *learning and development, supportive and fair leadership, perceived organisational support, recognition, respect and appreciation*. All these variable need interventions to improve them as the state of these variables are believed to be the major causes of unwarranted attitudes amongst employees as well as poor performance. Employees also showed a level of neutrality and slight happiness on *organisational climate and culture, job security, general working conditions and environment* followed by *communication, trust and relationships*. Despite being positive, these situational variables are still very close to neutrality and may easily degenerate into areas of unhappiness hence should also be looked at with an eye to reinforce them to a higher level of satisfaction.

The only work related attitudes that showed an affirmed state of unhappiness with a score of 2.9 were *job involvement* followed by *organisational commitment* at almost neutral. *Job satisfaction*, *employee engagement* and *organisational citizenship* which were among the highest of all scores for all the variables investigated. The effects and implications of scores for the work related attitudes are not as straight forward as for the situational variables as there are many other factors synergistically contributing to the same attitude. The work related outcome predicted by employees' intention to quit show a low level, indicating that employees do not seriously intend to quit the organisation, despite poor experiences of work related situational conditions. A number of factors are presumed to lead to the effect hence addressing them are important to solving the problems.

The next objective of the study was to determine the relationship between the situational variable, the work related attitudes and outcomes. Using correlational analysis, the findings did indicate that there was a strong positive relationship between salary and monetary compensation, benefits and perks, prospect for promotion and aligned growth with perceived opportunity for reward. There was also a moderate to strong relationship between communication, trust and relationships, job security, learning and development, supportive and fair leadership, recognition, respect and appreciation, organisational culture with perceived organisational support. Both perceived organisational support and opportunity for reward have a medium to strong positive relationship with job satisfaction, organisational citizenship, job involvement, organisational commitment and employee engagement. These findings indicate that the more positive an employee's feelings are about the human resource practices of the organisation, the more committed they will be to the organisation. In a system where the organisation shows commitment to the employees, the employees may in turn show commitment to the organisation. This type of exchange is known as perceived organisational support and was designed to explain the development of employee commitment to an organisation (Eisenberger *et al.*, 1986).

The findings also indicated a medium to strong negative effect relationship between job satisfaction, organisational citizenship, job involvement, organisational commitment, employee engagement with intentions to quit. There was also a medium to strong positive relationship between job satisfaction, organisational citizenship, job involvement, organisational commitment and employee engagement. Researchers have theorised that low levels of organisational commitment will lead to

a willingness to search for another job, intentions of leaving and turnover. Research results have also shown that organisational commitment is negatively related to intentions of leaving (Ingram & Kuen, 1990; Sager, 1990). Shaw (1999) argued that there is a strong negative relationship between job satisfaction and the level of employee turnover.

The next objective of this study *was to determine the impact of key situational work related variables* such as learning and development, recognition, respect, appreciation, benefits and perks, salary, promotion, organisational support, perceived opportunity for rewards, fair leadership, organisational culture, working conditions, communication, trust and relationships and job security *on work related attitudes* such as organisational commitment, organisational citizenship, job satisfaction, job involvement, employee engagement *and intentions to quit the organisation*. The situational variables were grouped into two functional groups; the first grouping related to *what employees gain from the business whether monetary or other personnel support* and the second grouping based on *the general managerial climate, organisational climate and conditions*. With regards to employees' perceptions of what they gain from the business, regression analysis indicated that 54% of variance in *organisational commitment* was explained *with salary and monetary compensation, perceived organisational support, perceived opportunity for reward* proving to be the only statistically significant predictors; 16% of variance in *organisational citizenship* was explained with *perceived organisational support, perceived opportunity for reward* proving to be the only statistically significant predictors; 41% of variance in *job satisfaction* was explained with *perceived organisational support, prospects for promotion and aligned growth* proving to be the only statistically significant predictors; 32% of variance in *employee involvement* was explained *with perceived organisational support* proving to be the only statistically significant predictors; 55% of variance in *employee engagement* was explained with perceived organisational support, and recognition, respect and appreciation proving to be the only statistically significant predictors; 26% of variance in *intentions to quit* was explained *with perceived organisational support* proving to be the only statistically significant predictor.

This study's findings agree with McCook's (2002) findings that organisational support and rewards impact job satisfaction, job involvement, and organisational commitment suggesting that perceptions of the organisation's support and reward efforts involving employees are perceived discriminately by employees, and that each factor

contributes uniquely (and in some cases more strongly) to employee attitudes. Each of these findings is relevant to managers and human resources practitioners from the standpoint that an improved ability to understand job attitudes should lead to better attitudes in the organisation.

With regards to employees' perceptions of the general managerial climate, organisational climate and conditions as predictors of work related attitudes and intentions to quit, regression indicated that 31% of variance in *organisational commitment* was explained with organisational climate proving to be the only statistically significant predictor; 14% of variance in *organisational citizenship* was explained with fair leadership proving to be the only statistically significant predictor; 46.2% of variance in *job satisfaction* was explained with job security proving to be the only statistically significant predictor; 21% of variance in *employee involvement* was explained with organisational climate proving to be the only statistically significant predictor; 41% of variance in *employee engagement* was explained with job security, fair leadership and organisational climate proving to be the only statistically significant predictors; and 22% of variance in *intentions to quit* was explained with job security proving to be the only statistically significant predictor.

The last objective of this project was to determine the impact of work related attitudes such as *organisational commitment*, *organisational citizenship*, *job satisfaction*, *job involvement*, *employee engagement* on intentions to quit the organisation. With regards to employees' work related attitudes as predictors of intentions to quit, 44% of variance in *intentions to quit* was explained by organisational commitment, job satisfaction and engagement. Correlational analysis conducted in this study showed a strong and negative relationship between job satisfaction, organisational commitment and employee engagement and intentions to quit. These findings suggest that job satisfaction, organisational commitment and employee engagement are related to an employee's intent to quit and indicate that the more satisfied, committed and engaged the employee is with their job, the lower their intent to quit. This is because affective commitment is the strongest and most consistent predictor of organisationally desired outcomes such as employee retention (Mohamed, Taylor & Hassan, 2006). These findings are well supported in the related literature (Holtom, Mitchell & Lee, 2008, Vandenberghe & Tremblay, 2008).

## 5.2 Recommendations

Based upon the findings and conclusions of this study, the researcher recommends the following to the organisation in concern wishing to limit occurrences of unwanted voluntary turnover of valuable employees:

1. Employee administration should investigate options for better meeting the salary expectations of employees. It is evident from this research that salary, perks and benefits have an important influence on job satisfaction, organisational commitment, employee engagement and also the intention to quit of younger and newly hired employees. Fair compensation for work performed is an area that employers should give more attention.
2. The organisation should strive to offer employees opportunities to increase their salary through implementing multiple levels of promotion in the early years. Developing workers are not any less loyal than longer-staying more experienced workers, but organisations need to understand that they are looking for opportunities for growth and development. Salary and compensation linked with career development plans and performance management can be a part of this plan for growth.
3. The organisation should develop a clearer and realistic employee performance plan for the initial years of employment. The organisation can begin this process during the recruitment and hiring phase by providing realistic job previews and internships to see how employees have moved according to their initial career plans. Understanding an employee's position in relation to where they think they need to be in their careers will assist in determining interventions to improve career planning from a business cycle perspective. This would be a good way for prospective employees to gain practical experience and perspective of the career choice prior to making the commitment. This is particularly important since employees are not satisfied with their development and training on the job, but they are also more likely to quit because of this.
4. Since job satisfaction, organisational commitment and employee engagement are the best predictors of employee intent to quit, the organisation should conduct formal assessments of their employees progressively to measure success in providing an employment environment that promotes jobs satisfaction and organisational commitment. This may provide information useful for analysing

and modifying HR practices that will help to improve where there are deficiencies in employee perceptions of job satisfaction, organisational commitment and employee engagement.

5. Findings indicate that since job satisfaction is a strong predictor of intent to quit, the organisation should consider giving attention to recruitment and hiring, benefits and compensation, evaluation and supervision, age in occupation, and physical age as they seek to improve the job satisfaction of employees in the organisation.
6. The organisation should seek and share experiences and best practices with other similar organisations to improve the satisfaction and commitment of their employees, and reduce their intent to quit.
7. Developing workers desire regular skill development and support and the organisation must enhance their training schedules to meet the expected requirement of the employees.
8. A replication study should be conducted to see if results would differ as employment conditions change and options become more readily available for employees.
9. All the key situational variables which were significant in this study should be explored in regard to the direct influence on intent to quit of all employees. Additional research in regard to the influence of such variables as exact perks and benefits levels and exact scenarios of fair leadership issues affecting intent to quit should be explored.

### **5.3 Limitations**

The main possible limitation of the study based on the permission granted by management which is that questionnaires were designed to obtain the perceptions of employees only but does not check the perceptions of non-shop floor management roles on the same key issues. Owing to this the responses may be one-sided and may not end up addressing some of the desired end results for the business. In as much as the design was to get representative responses from each department, the

voluntary nature of respondents' participation may limit the required level of representation.

## **5.4 Conclusions**

Several important findings were identified in this study, and these were identified in an organisationally diverse sample. The study shows that the state of key situational variables and work attitudes are in a dire state which needs a proper management and human resources intervention to restore credibility of properly functioning industrial relations. Although a handful of variables had been looked at in this study, it is possible that other organisational perceptions, such as perceptions of culture, organisational goodwill, or honesty influence employee attitudes and loyalty. Many factors of practical interest were not included in the current study because of practical limitations. Future research should investigate the role that some of these individual difference factors, such as personality (e.g., acculturation, conscientiousness, agreeableness, cognitive ability, and motivations) play in relationships between situational variables, organisational support, job attitudes, effort, and employee behaviour. Another direction for future research which the company should explore in understanding the complexities of relationships between the various dimensions of situational variable and job attitudes is through employee attitude survey

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## APPENDIX A: LETTER FROM LANGUAGE EDITOR

November 22, 2012



To whom it may concern

### Re: Letter of confirmation of language editing

The MBA mini-dissertation "Situational variables and related work attitudes and outcomes in a manufacturing concern in the Gauteng Province" by Steady Mukondiwa (20446713) was language, technically and typographically edited. The sources and referencing technique applied was checked to comply with the specific APA technique as per North-West University prescriptions. Final editing and printing remains the responsibility of the student.

**Antoinette Bisschoff**

*BA (Languages); MBA  
SA Translators' Institute (SATI)/SA Vertalersinstituut (SAVI) Membership: 1001891  
Officially approved language editor of the NWU*

## APPENDIX B: QUESTIONNAIRE AND RESPONSE TABLES

### B.1: Research questionnaire

#### Demographic Information

|            |   |                 |                    |                     |                |                      |
|------------|---|-----------------|--------------------|---------------------|----------------|----------------------|
| <b>I</b>   | Gender  | <b>Male</b>     | <b>Female</b>      | <b>ii. Age</b>      | <b>Years</b>   |                      |
| <b>iii</b> | Race  | <b>White</b>    | <b>Black</b>       | <b>Coloured</b>     | <b>Indian</b>  | <b>Other</b>         |
| <b>iv</b>  | Highest Qualifications                        | <b>Grade 12</b> | <b>Certificate</b> | <b>Diploma</b>      | <b>Degree</b>  | <b>Post graduate</b> |
| <b>v</b>   | Employment level                              | <b>Operator</b> | <b>Supervisor</b>  | <b>Professional</b> | <b>Manager</b> | <b>Executive</b>     |
| <b>Vi</b>  | How long have you been with the organisation? |                 |                    |                     | <b>Years</b>   |                      |

**Mark the applicable answer with an X (the scale for answers is shown on top of the page)**

|    | STATEMENT   | SCALE |   |   |   |   |
|----|---|-------|---|---|---|---|
| 1  | My company is providing me with job specific training.  | 1     | 2 | 3 | 4 | 5 |
| 2  | Sufficient time is allocated for work related training.                                       | 1     | 2 | 3 | 4 | 5 |
| 3  | I can apply the training I receive, in this organisation.                                     | 1     | 2 | 3 | 4 | 5 |
| 4  | There are enough development opportunities for me in this organisation.                       | 1     | 2 | 3 | 4 | 5 |
| 5  | Sufficient monetary support is allocated for employee training.                               | 1     | 2 | 3 | 4 | 5 |
| 6  | I have the opportunity to be involved in activities that promote my professional development. | 1     | 2 | 3 | 4 | 5 |
| 7  | My Supervisor is effective in maximising the potential of others.                             | 1     | 2 | 3 | 4 | 5 |
| 8  | The trainers used are knowledgeable and effective.  | 1     | 2 | 3 | 4 | 5 |
| 9  | There is equal opportunity for advancement at our company.                                    | 1     | 2 | 3 | 4 | 5 |
|    |   |       |   |   |   |   |
| 10 | I rarely feel my work is taken for granted.   | 1     | 2 | 3 | 4 | 5 |
| 11 | My superiors generally appreciate the way I do my job.  | 1     | 2 | 3 | 4 | 5 |
| 13 | The organisation recognises the significance of the contribution I make.                      | 1     | 2 | 3 | 4 | 5 |
| 14 | Employees are recognized for good work performance.   | 1     | 2 | 3 | 4 | 5 |
| 15 | I am rewarded for exceeding my goals.   | 1     | 2 | 3 | 4 | 5 |
|    |   |       |   |   |   |   |
| 16 | My boss is flexible about how I accomplish my job objective.                                  | 1     | 2 | 3 | 4 | 5 |

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| 17 | My manager is supportive of my ideas and ways of getting things done.                 | 1 | 2 | 3 | 4 | 5 |
| 18 | My manager gives me the authority to my job as I see fit.                             | 1 | 2 | 3 | 4 | 5 |
| 19 | I am careful in taking responsibility because my boss is often critical of new ideas. | 1 | 2 | 3 | 4 | 5 |
| 20 | I can trust my boss to back me up on decisions I make in the plant.                   | 1 | 2 | 3 | 4 | 5 |
| 21 | My Manager dumps his work on me.  | 1 | 2 | 3 | 4 | 5 |
| 22 | Workplace issues are resolved fairly and quickly.                                     | 1 | 2 | 3 | 4 | 5 |
| 23 | The grievance process used at our company is fair and equitable.                      | 1 | 2 | 3 | 4 | 5 |
| 24 | Managers communicate frequently and honestly about issues affecting employees.        | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 25 | The reward procedures in my organisation are fair.                                    | 1 | 2 | 3 | 4 | 5 |
| 26 | My organisation will notice if my productivity or work quality declines.              | 1 | 2 | 3 | 4 | 5 |
| 27 | If I work hard, I will receive extra pay for my efforts.                              | 1 | 2 | 3 | 4 | 5 |
| 28 | I have plenty of opportunities for reward in my organisation.                         | 1 | 2 | 3 | 4 | 5 |
| 29 | I have plenty of opportunities for promotion in my organisation.                      | 1 | 2 | 3 | 4 | 5 |
| 30 | No matter how hard I work I won't receive extra pay.                                  | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 31 | I feel I am being paid a fair amount for the work that I do.                          | 1 | 2 | 3 | 4 | 5 |
| 32 | Raises are too few and far between.   | 1 | 2 | 3 | 4 | 5 |
| 33 | I feel unappreciated by the organisation when I think about what they pay me.         | 1 | 2 | 3 | 4 | 5 |
| 34 | I feel satisfied with my chances for salary increases.                                | 1 | 2 | 3 | 4 | 5 |
| 35 | I feel I am adequately paid compared to my colleagues at other similar companies.     | 1 | 2 | 3 | 4 | 5 |
| 36 | Company pay policy helps attract and retain high performing employees.                | 1 | 2 | 3 | 4 | 5 |
| 37 | The benefits offered provide security for me and my family.                           | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 38 | There is really too little chance for promotion on my job                             | 1 | 2 | 3 | 4 | 5 |
| 39 | Those who do well on the job stand a fair chance of being promoted                    | 1 | 2 | 3 | 4 | 5 |
| 40 | People go up the hierarchy as fast here as they do in other places.                   | 1 | 2 | 3 | 4 | 5 |
| 41 | I am satisfied with my chances of promotion.  | 1 | 2 | 3 | 4 | 5 |
| 42 | Job promotions are awarded based on merit.  | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 43 | I feel that my personal values are a good fit with my organisation.                   | 1 | 2 | 3 | 4 | 5 |
| 44 | My organisation has the same values as I do with regard to                            | 1 | 2 | 3 | 4 | 5 |

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
|    | concern for others.   |   |   |   |   |   |
| 45 | My organisation has the same values as I do with respect to honesty                       | 1 | 2 | 3 | 4 | 5 |
| 46 | My organisation has the same value as I do with regard to fairness                        | 1 | 2 | 3 | 4 | 5 |
| 47 | Other employees treat me with respect at work.  | 1 | 2 | 3 | 4 | 5 |
| 48 | Our organisation values the individual worker.  | 1 | 2 | 3 | 4 | 5 |
| 49 | Our culture promotes a balance between work and family life.                              | 1 | 2 | 3 | 4 | 5 |
| 50 | Our team fosters open communication and recognises individual contributions.              | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 51 | I sometimes feel my job is meaningless.   | 1 | 2 | 3 | 4 | 5 |
| 52 | I like doing the things I do at work.   | 1 | 2 | 3 | 4 | 5 |
| 53 | I feel a sense of pride in doing my job.  | 1 | 2 | 3 | 4 | 5 |
| 54 | My job is enjoyable.  | 1 | 2 | 3 | 4 | 5 |
| 55 | I feel free to be completely myself at work.  | 1 | 2 | 3 | 4 | 5 |
| 56 | There are parts of myself that I am not free to express at work.                          | 1 | 2 | 3 | 4 | 5 |
| 57 | It is okay to express my true feelings in this job  | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 58 | Management makes it clear how my job is to be done  | 1 | 2 | 3 | 4 | 5 |
| 59 | The amount of work responsibility and effort expected in my job clearly defined.          | 1 | 2 | 3 | 4 | 5 |
| 60 | The norms of performance in my organisation are well understood and communicated.         | 1 | 2 | 3 | 4 | 5 |
| 61 | I like the people I work with.  | 1 | 2 | 3 | 4 | 5 |
| 62 | I find I have to work harder at my job because of the incompetence of people I work with. | 1 | 2 | 3 | 4 | 5 |
| 63 | I enjoy my co-workers.  | 1 | 2 | 3 | 4 | 5 |
| 64 | There is too much bickering and fighting at work.   | 1 | 2 | 3 | 4 | 5 |
| 65 | Employees at our company regularly share and exchange ideas.                              | 1 | 2 | 3 | 4 | 5 |
| 67 | I can go to my manager if I have a problem.   | 1 | 2 | 3 | 4 | 5 |
| 68 | The managers keep us informed about issues at our company.                                | 1 | 2 | 3 | 4 | 5 |
| 69 | I know what is expected of me.  | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 70 | I feel very secure in my job.   | 1 | 2 | 3 | 4 | 5 |
| 71 | I do not fear losing my job.  | 1 | 2 | 3 | 4 | 5 |
| 72 | My position within the company is strong and valued.                                      | 1 | 2 | 3 | 4 | 5 |
| 73 | I feel I am part of the organisation.   | 1 | 2 | 3 | 4 | 5 |
|    |   |   |   |   |   |   |
| 74 | I would be very happy to spend the rest of my career in this company.                     | 1 | 2 | 3 | 4 | 5 |

|     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
| 75  | I enjoy discussing my organisation with people outside it.   | 1 | 2 | 3 | 4 | 5 |
| 76  | I really feel as if this organisation's problems are my own.   | 1 | 2 | 3 | 4 | 5 |
| 78  | I think I could easily become as attached to another company as I am to this one.                          | 1 | 2 | 3 | 4 | 5 |
| 79  | I do not feel like "a member of the family" at this company.   | 1 | 2 | 3 | 4 | 5 |
| 80  | I do not feel "emotionally attached" to this company.  | 1 | 2 | 3 | 4 | 5 |
| 81  | This company has a great deal of personal meaning for me.  | 1 | 2 | 3 | 4 | 5 |
| 82  | I do not feel a strong sense of belonging to this company.   | 1 | 2 | 3 | 4 | 5 |
| 83  | I am not afraid of what might happen if I quit my job at this company without having another one lined up. | 1 | 2 | 3 | 4 | 5 |
| 84  | It would be very hard for me to leave my job at this company right now even if I wanted to.                | 1 | 2 | 3 | 4 | 5 |
| 85  | Too much of life would be disrupted if I decided to leave my job at this company right now.                | 1 | 2 | 3 | 4 | 5 |
| 86  | It would not be too costly for me to leave my job at this company in the near future.                      | 1 | 2 | 3 | 4 | 5 |
| 87  | Right now, staying with my job at this company is a matter of necessity as much as desire.                 | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |
| 88  | I help colleagues who have been absent from work.  | 1 | 2 | 3 | 4 | 5 |
| 89  | I help colleagues who have heavy workloads.  | 1 | 2 | 3 | 4 | 5 |
| 90  | I am mindful of how my behaviour affects other people's job.   | 1 | 2 | 3 | 4 | 5 |
| 91  | I go out of way to help new employees.   | 1 | 2 | 3 | 4 | 5 |
| 92  | I take a personal interest in my colleagues' job.  | 1 | 2 | 3 | 4 | 5 |
| 93  | My attendance at work is above the norm.   | 1 | 2 | 3 | 4 | 5 |
| 94  | I take undeserved breaks at work.  | 1 | 2 | 3 | 4 | 5 |
| 95  | I often complain about insignificant things at work.   | 1 | 2 | 3 | 4 | 5 |
| 96  | I tend to make "mountains out of molehills".   | 1 | 2 | 3 | 4 | 5 |
| 97  | I adhere to informal rules devised to maintain order.  | 1 | 2 | 3 | 4 | 5 |
| 98  | I attend meetings that are not mandatory but considered important.   | 1 | 2 | 3 | 4 | 5 |
| 99  | I perform duties that are not required but which improve corporate image.                                  | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |
| 100 | All in all I am satisfied with my job  | 1 | 2 | 3 | 4 | 5 |
| 101 | In general, I don't like my job  | 1 | 2 | 3 | 4 | 5 |
| 102 | In general, I like working here  | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |
| 104 | The most important things that happen to me involve my job.  | 1 | 2 | 3 | 4 | 5 |
| 105 | To me my job is only a small part of who I am.   | 1 | 2 | 3 | 4 | 5 |
| 106 | I am very much involved personally in my job.  | 1 | 2 | 3 | 4 | 5 |

|     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
| 107 | I live, eat and breathe my job.  | 1 | 2 | 3 | 4 | 5 |
| 108 | Most of my interests are centred around my job.                                    | 1 | 2 | 3 | 4 | 5 |
| 109 | I have very strong ties with my present job that would be very difficult to break. | 1 | 2 | 3 | 4 | 5 |
| 110 | Usually I feel detached from my job.   | 1 | 2 | 3 | 4 | 5 |
| 111 | Most of my personal life goals are job oriented.                                   | 1 | 2 | 3 | 4 | 5 |
| 112 | I consider my job to be very central to my existence.                              | 1 | 2 | 3 | 4 | 5 |
| 113 | I like to be absorbed in my job most of the time.                                  | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |
| 115 | At my work I feel bursting with energy   | 1 | 2 | 3 | 4 | 5 |
| 116 | I find the work that I do full of meaning  | 1 | 2 | 3 | 4 | 5 |
| 117 | Time flies when I am working   | 1 | 2 | 3 | 4 | 5 |
| 118 | At my work I feel strong and vigorous  | 1 | 2 | 3 | 4 | 5 |
| 119 | I am enthusiastic about my job   | 1 | 2 | 3 | 4 | 5 |
| 120 | When I am working I forget everything else around me                               | 1 | 2 | 3 | 4 | 5 |
| 121 | My job inspires me   | 1 | 2 | 3 | 4 | 5 |
| 122 | When I get up in the morning I feel like going to work                             | 1 | 2 | 3 | 4 | 5 |
| 123 | I feel happy when I am working intensely   | 1 | 2 | 3 | 4 | 5 |
| 124 | I am proud of the work that I do   | 1 | 2 | 3 | 4 | 5 |
| 125 | I am immersed in my work   | 1 | 2 | 3 | 4 | 5 |
| 126 | I can continue working for very long periods at a time                             | 1 | 2 | 3 | 4 | 5 |
| 127 | To me my job is challenging  | 1 | 2 | 3 | 4 | 5 |
| 128 | I get carried away when I am working   | 1 | 2 | 3 | 4 | 5 |
| 129 | At my job I am very resilient mentally   | 1 | 2 | 3 | 4 | 5 |
| 130 | It is difficult to detach myself from my job                                       | 1 | 2 | 3 | 4 | 5 |
| 131 | At my work I always persevere, even when things do not go well                     | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |
| 132 | My organisation cares about my opinions.   | 1 | 2 | 3 | 4 | 5 |
| 133 | My organisation really cares about my well-being.                                  | 1 | 2 | 3 | 4 | 5 |
| 134 | My organisation strongly considers my goals and values.                            | 1 | 2 | 3 | 4 | 5 |
| 135 | Help is available from my organisation when I have a problem.                      | 1 | 2 | 3 | 4 | 5 |
| 136 | My organisation would forgive an honest mistake on my part.                        | 1 | 2 | 3 | 4 | 5 |
| 137 | If given the opportunity, my organisation would take advantage of me.              | 1 | 2 | 3 | 4 | 5 |
| 138 | My organisation shows very little concern for me.                                  | 1 | 2 | 3 | 4 | 5 |
| 139 | My organisation is willing to help me if I need a special favour.                  | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |

|     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
| 140 | The reward procedures in my organisation are fair.   | 1 | 2 | 3 | 4 | 5 |
| 141 | My organisation will notice if my productivity or work quality declines.                             | 1 | 2 | 3 | 4 | 5 |
| 142 | If I work hard, I will receive extra pay (bonus or raise) for my efforts.                            | 1 | 2 | 3 | 4 | 5 |
| 143 | I have plenty of opportunities for promotion in my organisation.                                     | 1 | 2 | 3 | 4 | 5 |
| 144 | I have plenty of opportunities for reward in my organisation.  | 1 | 2 | 3 | 4 | 5 |
| 145 | No matter how hard I work, I won't receive extra pay.  | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |
| 146 | It is likely that I will be working at the same company this time next year.                         | 1 | 2 | 3 | 4 | 5 |
| 147 | It is likely that you I will take steps during the next year to secure a job at a different company. | 1 | 2 | 3 | 4 | 5 |
| 148 | I will be with this company five years from now.   | 1 | 2 | 3 | 4 | 5 |
| 149 | I will probably look for a job at a different company in the next year.                              | 1 | 2 | 3 | 4 | 5 |
|     |  |   |   |   |   |   |

## B.2: Average scores for individual items of the main behaviour group

| Item group                            | Average score | Individual items with negative responses (score) - employees unhappy with   | Score | Individual items with positive responses (score) - employees okay with                                      | Score |
|---------------------------------------|---------------|---|-------|---|-------|
| Learning and development              | 2.7           | Sufficient time is allocated for work related training.   | 2.3   | My company is providing me with job specific training   | 3.1   |
|                                       |               | There are enough development opportunities for me in this organisation.   | 2.2   | I can apply the training I receive, in this organisation.   | 3.4   |
|                                       |               | Sufficient monetary support is allocated for employee training.   | 2.2   | The trainers used are knowledgeable and effective.  | 3.1   |
|                                       |               | I have the opportunity to be involved in activities that promote my professional development.                       | 2.5   |   |       |
|                                       |               | My Supervisor is effective in maximizing the potential of others.   | 2.8   |   |       |
|                                       |               | There is equal opportunity for advancement at our company.  | 2.2   |   |       |
| Recognition, respect and appreciation | 2.9           | Employees are recognised for good work performance.   | 2.6   | I rarely feel my work is taken for granted.   | 3.1   |
|                                       |               | I am rewarded for exceeding my goals.   | 2.2   | My superiors generally appreciate the way I do my job.  | 3.3   |
|                                       |               |   |       | The organisation recognises the significance of the contribution I make.                                    | 3.2   |
| Supportive and fair Leadership        | 2.7           | My boss is flexible about how I accomplish my job objectives.   | 2.8   | My manager dumps his work on me (score inverted to normalise).  | 3.4   |
|                                       |               | My manager is supportive of my ideas and ways of getting things done.   | 2.8   |   |       |
|                                       |               | My manager gives me the authority to my job as I see fit.   | 2.8   |   |       |
|                                       |               | I am careful in taking responsibility because my boss is often critical of new ideas (score inverted to normalise). | 2.9   |   |       |
|                                       |               | I can trust my boss to back me up on decisions I make in the plant.   | 2.7   |   |       |
|                                       |               | Work-place issues are resolved fairly and quickly.  | 2.4   |   |       |
|                                       |               | The grievance process used at our company is fair and equitable.  | 2.3   |   |       |
|                                       |               | Managers communicate frequently and honestly about issues affecting employees.                                      | 2.1   |   |       |
| Benefits and perks                    | 2.4           | The reward procedures in my organisation are fair.  | 2.0   | My organisation will notice if my productivity or work quality declines.                                    | 3.6   |
|                                       |               | If I work hard, I will receive extra pay for my efforts.  | 1.9   | No matter how hard I work I won't receive extra pay (score inverted to normalise).                          | 3.0   |
|                                       |               | I have plenty of opportunities for reward in my organisation.   | 2.0   |   |       |
|                                       |               | I have plenty of opportunities for promotion in my organisation.  | 1.8   |   |       |
| Salary and monetary compensation      | 2.2           | I feel I am being paid a fair amount for the work that I do.  | 2.5   | I feel unappreciated by the organisation when I think about what they pay me (score inverted to normalise). | 3.0   |
|                                       |               | Raises are too few and far between (score inverted to normalise).   | 2.5   |   |       |
|                                       |               | I feel satisfied with my chances for salary increases.  | 2.3   |   |       |
|                                       |               | I feel I am adequately paid compared to my colleagues at other similar companies.                                   | 2.3   |   |       |
|                                       |               | Company pay policy helps attract and retain high performing employees.  | 1.8   |   |       |
|                                       |               | The benefits offered provide security for me and my family.   | 2.3   |   |       |

| Item group                                      | Average score | Individual items with negative responses (score) - employees unhappy with                                       | Score | Individual items with positive responses (score) - employees okay with  | Score |
|---|---------------|---|-------|---|-------|
| Prospects for promotion and aligned growth path | 2.3           | There is really too little chance for promotion on my job (score inverted to normalise).                        | 2.8   |   |       |
|   |               | Those who do well on the job stand a fair chance of being promoted  | 2.4   |   |       |
|   |               | People go up the hierarchy as fast here as they do in other places.   | 2.0   |   |       |
|   |               | I am satisfied with my chances of promotion.  | 1.9   |   |       |
|   |               | Job promotions are awarded based on merit.  | 2.1   |   |       |
| Organisational climate and culture              | 3.1           | I feel that my personal values are a good fit with my organisation.   | 2.8   | My organisation has the same values as I do with respect to honesty.  | 3.0   |
|   |               | My organisation has the same values as I do with regard to concern for others.                                  | 2.6   | Other employees treat me with respect at work.  | 4.1   |
|   |               | My organisation has the same value as I do with regard to fairness .  | 2.4   | Our culture promotes a balance between work and family life.  | 3.1   |
|   |               | Our organisation values the individual worker.  | 2.9   | Our team fosters open communication and recognises individual contributions.  | 3.6   |
| Working conditions and environment              | 3.2           | I feel free to be completely myself at work.  | 2.9   | I sometimes feel my job is meaningless (score inverted to normalise).   | 3.5   |
|   |               | There are parts of myself that I am not free to express at work (score inverted to normalise).                  | 2.8   | I like doing the things I do at work.   | 3.5   |
|   |               | It is okay to express my true feelings in this job  | 2.9   | I feel a sense of pride in doing my job.  | 3.7   |
|   |               |   |       | My job is enjoyable.  | 3.4   |
| Communication, trust and relationships          | 3.4           | I can go to my manager if I have a problem.   | 2.9   | Management makes it clear how my job is to be done  | 3.6   |
|   |               | The managers keep us informed about issues at our company.  | 2.6   | The amount of work responsibility and effort expected in my job clearly defined.  | 3.5   |
|   |               |   |       | The norms of performance in my organisation are well understood and communicated.   | 3.5   |
|   |               |   |       | I like the people I work with.  | 3.9   |
|   |               |   |       | I find I have to work harder at my job because of the incompetence of people I work with (score inverted to normalise).   | 3.4   |
|   |               |   |       | I enjoy my co-workers.  | 3.8   |
|   |               |   |       | There is too much bickering and fighting at work (score inverted to normalise).   | 3.0   |
|   |               |   |       | Employees at our company regularly share and exchange ideas.  | 3.7   |
| Job security                                    | 3.1           | I feel very secure in my job.   | 2.8   | My position within the company is strong and valued.  | 3.3   |
|   |               | I do not fear losing my job.  | 2.9   | I feel I am part of the organisation.   | 3.2   |
| Organisational commitment                       | 3             | I would be very happy to spend the rest of my career in this company.   | 2.1   | I do not feel like "a member of the family" at this company.  | 3.1   |
|   |               | I enjoy discussing my organisation with people outside it.  | 2.6   | I do not feel a strong sense of belonging to this company.  | 3.1   |
|   |               | I really feel as if this organisation's problems are my own.  | 2.7   | I am not afraid of what might happen if I quit my job at this company without having another one lined up.                | 3.2   |
|   |               | I think I could easily become as attached to another company as I am to this one (score inverted to normalise). | 2.3   | It would be very hard for me to leave my job at this company right now even if I wanted to (score inverted to normalise). | 3.3   |
|   |               | I do not feel "emotionally attached" to this company (score inverted to normalise).                             | 2.9   | Too much of life would be disrupted if I decided to leave my job at this company right now.                               | 3.5   |
|   |               | This company has a great deal of personal meaning for me.   | 2.9   | It would not be too costly for me to leave my job at this company in the near future (score inverted to normalise).       | 3.1   |
|   |               |   |       | Right now, staying with my job at this company is a matter of necessity as much as desire.                                | 3.6   |
|   |               |   |       |   |       |

| Item group  | Average score | Individual items with negative responses (score) - employees unhappy with | Score | Individual items with positive responses (score) - employees okay with             | Score |
|---|---------------|---|-------|--|-------|
| <b>Organisational citizenship</b>   | 3.7           |   |       | I help colleagues who have been absent from work.                                  | 3.6   |
|   |               |   |       | I help colleagues who have heavy workloads.  | 4.0   |
|   |               |   |       | I am mindful of how my behaviour affects other people's job.                       | 4.2   |
|   |               |   |       | I go out of way to help new employees.   | 4.0   |
|   |               |   |       | I take a personal interest in my colleagues' job.                                  | 3.7   |
|   |               |   |       | My attendance at work is above the norm.   | 3.6   |
|   |               |   |       | I take undeserved breaks at work.  | 4.0   |
|   |               |   |       | I often complain about insignificant things at work.                               | 3.6   |
|   |               |   |       | I tend to make "mountains out of molehills".                                       | 3.9   |
|   |               |   |       | I adhere to informal rules devised to maintain order.                              | 3.5   |
|   |               |   |       | I attend meetings that are not mandatory but considered important.                 | 3.4   |
| I perform duties that are not required but which improve corporate image. | 3.3           |   |       |  |       |
| <b>Job satisfaction</b>   | 3.3           |   |       | All in all I am satisfied with my job.   | 3.1   |
|   |               |   |       | In general, I don't like my job (score inverted to normalise).                     | 3.4   |
|   |               |   |       | In general, I like working here.   | 3.3   |
| <b>Job involvement</b>  | 2.9           |   |       | The most important things that happen to me involve my job.                        | 2.7   |
|   |               |   |       | To me my job is only a small part of who I am (score inverted to normalise).       | 2.9   |
|   |               |   |       | I am very much involved personally in my job.                                      | 2.7   |
|   |               |   |       | I live, eat and breathe my job.  | 2.6   |
|   |               |   |       | Most of my interests are centred around my job.                                    | 2.7   |
|   |               |   |       | I have very strong ties with my present job that would be very difficult to break. | 2.9   |
| <b>Employee engagement</b>  | 3.3           |   |       | When I am working I forget everything else around me                               | 2.9   |
|   |               |   |       | When I get up in the morning I feel like going to work                             | 2.9   |
|   |               |   |       | At my work I feel bursting with energy   | 3.2   |
|   |               |   |       | I find the work that I do full of meaning  | 3.6   |
|   |               |   |       | Time flies when I am working   | 3.6   |
|   |               |   |       | At my work I feel strong and vigorous  | 3.3   |
|   |               |   |       | I am enthusiastic about my job   | 3.4   |
|   |               |   |       | My job inspires me   | 3.3   |
|   |               |   |       | I feel happy when I am working intensely   | 3.3   |
|   |               |   |       | I am proud of the work that I do   | 3.7   |
|   |               |   |       | I am immersed in my work   | 3.1   |
|   |               |   |       | I can continue working for very long periods at a time                             | 3.6   |
|   |               |   |       | To me my job is challenging  | 3.2   |
|   |               |   |       | I get carried away when I am working   | 3.0   |
|   |               |   |       | At my job I am very resilient mentally   | 3.4   |
|   |               |   |       | It is difficult to detach myself from my job                                       | 3.0   |
|   |               |   |       | At my work I always persevere, even when things do not go well                     | 3.7   |

| Item group  | Average score | Individual items with negative responses (score) - employees unhappy with  | Score | Individual items with positive responses (score) - employees okay with          | Score |
|---|---------------|--|-------|---|-------|
| <b>Perceived Organizational Support</b>                           | 2.7           | My organisation cares about my opinions.   | 2.4   | My organisation would forgive an honest mistake on my part.                     | 3.0   |
|   |               | My organisation really cares about my well-being.  | 2.9   | My organisation shows very little concern for me (score inverted to normalise). | 3.1   |
|   |               | My organisation strongly considers my goals and values.  | 2.3   |   |       |
|   |               | Help is available from my organisation when I have a problem.  | 2.8   |   |       |
|   |               | If given the opportunity, my organisation would take advantage of me (score inverted to normalise).                            | 2.8   |   |       |
| My organisation is willing to help me if I need a special favour. | 2.5           |  |       |   |       |
| <b>Opportunity for Reward</b>                                     | 2.5           | The reward procedures in my organisation are fair.   | 2.2   | My organisation will notice if my productivity or work quality declines.        | 3.7   |
|   |               | If I work hard, I will receive extra pay (bonus or raise) for my efforts.  | 2.1   |   |       |
|   |               | I have plenty of opportunities for promotion in my organisation.   | 2.0   |   |       |
|   |               | I have plenty of opportunities for reward in my organisation.  | 2.0   |   |       |
|   |               | No matter how hard I work, I won't receive extra pay (score inverted to normalise).  | 2.9   |   |       |
| <b>Intentions to quit</b>   | 2             | It is likely that I will be working at the same company this time next year.   | 2.5   |   |       |
|   |               | It is likely that I will take steps during the next year to secure a job at a different company (score inverted to normalise). | 2.0   |   |       |
|   |               | I will be with this company five years from now.   | 1.9   |   |       |
|   |               | I will probably look for a job at a different company in the next year (score inverted to normalise).                          | 1.7   |   |       |

Table B.3: Average scores of the main behaviour groups grouped according to biometric group

| Biometric group                           | number of respondents (n) | Learning and development | Recognition, respect and appreciation | Supportive and fair Leadership | Benefits and perks | Salary and monetary compensation | Prospects for promotion and aligned growth path | Organisational climate and culture | Working conditions and environment | Communication, trust and relationships | Job security | Organisational commitment | Organisational citizenship | Job satisfaction | Job involvement | Employee engagement | Perceived Organizational Support | Opportunity for Reward | Intentions to quit |
|---|---------------------------|--------------------------|---------------------------------------|--------------------------------|--------------------|----------------------------------|---|------------------------------------|------------------------------------|--|--------------|---------------------------|----------------------------|------------------|-----------------|---------------------|----------------------------------|------------------------|--------------------|
| Male                                      | 74                        | 2.70                     | 2.90                                  | 2.70                           | 2.30               | 2.40                             | 2.20  | 3.00                               | 3.30                               | 3.40                                   | 3.10         | 2.90                      | 3.80                       | 3.30             | 2.90            | 3.30                | 2.70                             | 2.40                   | 2.10               |
| Female                                    | 29                        | 2.70                     | 3.00                                  | 2.60                           | 2.50               | 2.40                             | 2.40  | 3.10                               | 3.20                               | 3.50                                   | 3.00         | 3.10                      | 3.70                       | 3.30             | 2.90            | 3.30                | 2.70                             | 2.60                   | 1.90               |
| African                                   | 92                        | 2.70                     | 2.90                                  | 2.70                           | 2.40               | 2.30                             | 2.20  | 3.00                               | 3.20                               | 3.40                                   | 3.10         | 3.00                      | 3.70                       | 3.30             | 2.90            | 3.30                | 2.70                             | 2.50                   | 2.00               |
| Indian                                    | 4                         | 2.60                     | 2.90                                  | 2.60                           | 2.50               | 2.30                             | 2.50  | 3.00                               | 2.80                               | 3.40                                   | 2.30         | 3.20                      | 3.70                       | 2.70             | 2.60            | 2.90                | 2.50                             | 2.60                   | 2.10               |
| Coloured                                  | 2                         | 2.90                     | 3.20                                  | 2.80                           | 2.30               | 2.40                             | 2.20  | 3.30                               | 3.20                               | 3.60                                   | 3.00         | 3.00                      | 3.50                       | 2.80             | 2.80            | 2.90                | 2.50                             | 2.30                   | 1.60               |
| White                                     | 5                         | 2.80                     | 3.40                                  | 3.00                           | 2.80               | 2.90                             | 2.50  | 3.40                               | 3.50                               | 3.60                                   | 3.40         | 3.00                      | 3.70                       | 3.60             | 3.00            | 3.50                | 3.10                             | 2.80                   | 2.30               |
| 20 - 30yrs                                | 51                        | 2.60                     | 2.90                                  | 2.70                           | 2.30               | 2.20                             | 2.20  | 3.00                               | 3.20                               | 3.50                                   | 3.00         | 2.90                      | 3.70                       | 3.20             | 2.80            | 3.30                | 2.60                             | 2.50                   | 1.80               |
| 31 - 40yrs                                | 46                        | 2.70                     | 2.90                                  | 2.70                           | 2.40               | 2.50                             | 2.20  | 3.00                               | 3.20                               | 3.40                                   | 3.10         | 3.10                      | 3.80                       | 3.30             | 3.00            | 3.30                | 2.80                             | 2.40                   | 2.10               |
| 41 - 50yrs                                | 6                         | 2.80                     | 2.80                                  | 2.90                           | 2.40               | 2.50                             | 2.30  | 3.30                               | 3.50                               | 3.50                                   | 3.50         | 3.00                      | 3.60                       | 3.30             | 2.60            | 3.00                | 2.70                             | 2.70                   | 3.50               |
| 0 - 5yrs                                  | 53                        | 2.60                     | 3.00                                  | 2.60                           | 2.40               | 2.40                             | 2.30  | 3.10                               | 3.30                               | 3.40                                   | 3.00         | 3.00                      | 3.80                       | 3.30             | 2.90            | 3.40                | 2.80                             | 2.50                   | 2.00               |
| 6 - 10yrs                                 | 41                        | 2.60                     | 2.80                                  | 2.60                           | 2.30               | 2.30                             | 2.10  | 3.00                               | 3.20                               | 3.40                                   | 3.10         | 3.00                      | 3.70                       | 3.20             | 2.90            | 3.20                | 2.60                             | 2.40                   | 2.10               |
| >11yrs                                    | 9                         | 2.90                     | 2.70                                  | 2.50                           | 2.60               | 2.40                             | 2.30  | 3.00                               | 3.00                               | 3.20                                   | 2.90         | 2.90                      | 3.70                       | 3.00             | 2.80            | 3.20                | 2.80                             | 2.70                   | 2.30               |
| Gr12                                      | 26                        | 2.70                     | 2.90                                  | 2.50                           | 2.40               | 2.30                             | 2.20  | 3.10                               | 3.30                               | 3.50                                   | 3.10         | 3.00                      | 3.70                       | 3.40             | 3.00            | 3.40                | 2.80                             | 2.40                   | 2.20               |
| Certificate                               | 19                        | 2.60                     | 2.80                                  | 2.70                           | 2.40               | 2.30                             | 2.20  | 3.20                               | 3.10                               | 3.50                                   | 2.80         | 2.90                      | 3.60                       | 3.10             | 3.00            | 3.30                | 2.70                             | 2.50                   | 1.80               |
| Diploma                                   | 14                        | 2.80                     | 2.60                                  | 2.60                           | 2.20               | 2.20                             | 2.20  | 2.90                               | 3.10                               | 3.40                                   | 3.20         | 2.80                      | 3.80                       | 3.10             | 2.80            | 3.30                | 2.70                             | 2.40                   | 2.10               |
| Degree                                    | 37                        | 2.60                     | 3.00                                  | 2.80                           | 2.40               | 2.40                             | 2.20  | 3.00                               | 3.30                               | 3.30                                   | 3.00         | 2.90                      | 3.80                       | 3.20             | 2.80            | 3.40                | 2.60                             | 2.50                   | 1.80               |
| Post Graduate                             | 7                         | 2.90                     | 3.20                                  | 3.10                           | 2.70               | 2.70                             | 2.30  | 3.20                               | 3.40                               | 3.60                                   | 3.30         | 3.40                      | 3.90                       | 3.40             | 2.80            | 3.50                | 3.00                             | 2.60                   | 3.30               |
| Operator                                  | 48                        | 2.60                     | 2.80                                  | 2.60                           | 2.20               | 2.20                             | 2.20  | 3.10                               | 3.20                               | 3.50                                   | 3.00         | 2.90                      | 3.60                       | 3.20             | 2.90            | 3.20                | 2.70                             | 2.40                   | 2.00               |
| Supervisor                                | 19                        | 2.90                     | 2.80                                  | 2.70                           | 2.60               | 2.60                             | 2.30  | 3.10                               | 3.20                               | 3.40                                   | 3.10         | 3.10                      | 4.00                       | 3.40             | 2.90            | 3.40                | 2.80                             | 2.50                   | 2.40               |
| Professional                              | 35                        | 2.50                     | 3.00                                  | 2.70                           | 2.40               | 2.40                             | 2.20  | 3.00                               | 3.30                               | 3.30                                   | 3.10         | 3.00                      | 3.80                       | 3.20             | 2.90            | 3.40                | 2.60                             | 2.40                   | 1.90               |
| <b>All groups</b>                         | <b>103</b>                | <b>2.67</b>              | <b>2.90</b>                           | <b>2.68</b>                    | <b>2.38</b>        | <b>2.35</b>                      | <b>2.21</b>                                     | <b>3.08</b>                        | <b>3.24</b>                        | <b>3.42</b>                            | <b>3.10</b>  | <b>2.98</b>               | <b>3.75</b>                | <b>3.27</b>      | <b>2.92</b>     | <b>3.31</b>         | <b>2.71</b>                      | <b>2.46</b>            | <b>2.05</b>        |
| Standard deviation on biometric data      |                           | 0.13                     | 0.18                                  | 0.15                           | 0.16               | 0.17                             | 0.10  | 0.13                               | 0.16                               | 0.10                                   | 0.24         | 0.13                      | 0.11                       | 0.20             | 0.11            | 0.18                | 0.15                             | 0.13                   | 0.47               |
| Standard deviation on individual response |                           | 0.58                     | 0.60                                  | 0.53                           | 0.54               | 0.55                             | 0.58  | 0.47                               | 0.54                               | 0.46                                   | 0.78         | 0.45                      | 0.37                       | 0.93             | 0.48            | 0.56                | 0.54                             | 0.52                   | 0.86               |

