UNIVERSITY OF KWAZULU-NATAL

WATER QUALITY MANAGEMENT STAFF TURNOVER AT THE DEPARTMENT OF WATER AFFAIRS

By
Thabisile Rakgotho
982207240

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Supervisor: Alec Bozas

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Graduate School of Business

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Abstract

The Department of Water Affairs has experienced major staff voluntary turnover in their Water Quality Management section. The water quality management is regarded as a scarce-occupational class (Resolution No. 8 of 2009); a critical skill in the Department and attracting and retaining staff with experience in water quality management is a key component of determining the present and future success of the water quality management component. The talented water quality management personnel who continue to develop their skills and increase their value to the WQM section, Department and to its stakeholders are the most important resource. Managing these employees must occur within the regulatory framework that governs or guides human resource management in general and specifically within the public sector. The staff turnover has been viewed as a major cause for concern for the management of WQM section and in order to manage it, the management needs to understand its causes.

This study looks at the factors that give rise to job satisfaction and also those that may result in staff leaving the section. Questionnaires were distributed to WQM staff members in National office and nine regional offices. A sample of 100 respondents was drawn.

The results indicate 5 Principal Components (PC's) that lead to high staff turnover. PC_1 which accounts for 37.9% of the total variation includes high loadings in support from superiors, safety in performing duties outside the office, flexibility in working hours, independence, recognition from management for the staff's effort and mentorship. PC_2 accounts for 8.9% of the total variation. This component illustrates high loading in optimal utilisation of unique skills and abilities of staff members, training/ studying that are required to enhance the skills of staff, having job security and caring from management. PC_3 accounts for 8.1% of the total variation where loadings of incentives and occupational scarce skill dispensation are highlighted. PC_4 accounts for 6.2% of the total variation. A high loading of legislation as a tool to execute WQM duties and authority that comes with the legislation is observed. PC_5 accounts for 5.8% of

the total variation and it highlights high loadings in bonuses, appraisals and recognition.

The results further support the hypotheses that low levels of staff satisfaction result in higher staff turnover. Also, it was proved that there will always be some form of turnover irrespective of job satisfaction or not.

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C. List of Abbreviations

DWA	Department of Water Affairs
NWA	National Water Act
WSA	Water Services Act
WQM	Water Quality Management
RSA	Republic of South Africa
PDMS	Performance Development and Management System
JSTI	Job Satisfaction and Turnover Intention
SPSS	Statistical Package and Social Science
OSD	Occupation-scarce skill Dispensation
PC	Principal Component
PCA	Principal Component Analysis

CHAPTER ONE

1.1   Introduction

Water is regarded as an indivisible asset and the Department of Water Affairs (DWA) acts as the custodian of the nation's water resources. Water that is required to meet basic human needs and to maintain environmental sustainability is guaranteed and is a right (RSA Constitution, 108 of 1996), whilst water used for all other purposes is subjected to a system of administrative authorisation (NWA, 1998).

South Africa is experiencing backlog in as far as provision of basic water and sanitation services is concerned (WSA, 1997). In trying to address the backlog, the DWA has developed legislation to support the water and sanitation service delivery to the entire population. The new legislation has created significant challenges to the Department and thus a new set of competencies (skills, knowledge and attributes), refreshing and retaining of the current competencies is central to achieving the objectives of water legislation (Recruitment & Retention Strategy, 2006). If staff members remain committed to the causes of the Department then, the goals and objectives are likely to be achieved.

1.2   Motivation for the Study

The DWA has experienced a major staff turnover through resignations and job dissatisfaction has been observed in their Water Quality Management section (Recruitment & Retention Strategy, 2006). Water quality management skills are regarded as a scarce occupational class and a critical skill in the Department. Attracting and retaining staff with this intellectual capital is a key component of determining the present and future success of the WQM component.

According to the Recruitment & Retention strategy, (2006), talented WQM personnel who continue to develop their skills and increase their value to the

WQM section of the Department are the Department's most important resource. Managing these employees must occur within the current regulatory framework that governs or guides human resource management in general and specifically within the public sector (PMDS, 2001). The high staff turnover has been viewed as a major cause for concern for the management of WQM section and in order to manage it, the management needs to understand its causes.

1.3　Focus of the Study

This study focused on demonstrating that there are certain factors that give rise to job satisfaction and some that result in staff turnover in the WQM section of DWA.

1.4　Problem Statement

The purpose of this research was to investigate the relationship between job satisfaction/dissatisfaction and turnover of personnel in the WQM section of DWA. To investigate the main problem, the following sub-problems will need to be investigated:

1. To discover the factors that result in job satisfaction and the factors that may result in turnover amongst the WQM personnel
2. To compare the above two analyses.

1.5   Research Objectives

The objectives of this research are as follows: -

- To determine which factors lead to staff satisfaction.
- To ascertain which factors contribute to staff dissatisfaction.
- To establish whether staff turnover intentions at the WQM section at the Department are high.
- To determine whether dissatisfied staff are more likely to request internal transfers or resign.

1.6   Limitations of the Study

The following limitations are applicable:-

1.   Only WQM personnel that are still working for DWA will be included in the study. It would have been interesting to include those people that have left the DWA already.
2.   The measurements relied on the perceptions of the respondents and not their actions.
3.   Length of time for respondents to return the questionnaires.

1.7   Summary

It is anticipated that this research will assist the management of the WQM section and the Human Resources section to manage turnover by addressing issues which adversely affect employees in terms of job satisfaction. This should improve the working environment, improve productivity and reduce turnover.

Chapter two which follows presents the literature sources that were consulted.

CHAPTER TWO
LITERATURE REVIEW

2.1 Turnover Concepts

According to Papoola (2004), for any organisation to be successful in achieving its objectives, an important element is the achievement of productivity through good leadership and the effective management of people, together with their commitment to and involvement with the organisation. He further mentioned that organisational commitment could predict workers' behavioural outcomes such as turnover.

To understand the nature of employee turnover, it is necessary to first define the terminology. While there are many definitions of employee turnover, for the purpose of this research "turnover" is defined as "the movement of workers in and out of Water Quality section at the Department of Water Affairs (DWA)". This movement is usually voluntary however involuntary turnover (separation) is also of concern, but will not be the focus of this research.

There are four distinct categories of turnover that a company must consider (Sexton, McMurtrey, Michalapoulos & Smith, 2005) and these are discussed below:

• Voluntary separations: Termination of the employment relationship initiated by the employee.

• Layoffs: Suspensions from payroll that are initiated by the employer due to an economic slowdown.

• Discharges: Permanent termination of employment for disciplinary reasons.

• Other: Retirement, death, and permanent disability.

Of these four categories, voluntary separations are the most problematic for companies because the employee controls the separation and often times the

company's investment in the employee is lost to one of its competitors. As indicated above, only voluntary turnover will be the focus of this research and thus this literature review.

There are inconsistencies within the literature regarding turnover, which may be attributable to the uncertainty surrounding both definition and measurement. Turnover is generally viewed as the movement of staff out of an organisation, yet this consistently presents problems within turnover research for two reasons. Firstly, the incongruent inclusion in sample populations of staff who are retiring or are dismissed alongside those who voluntarily leave; and secondly, distinction between intra- (i.e. movement between units within the same organization) and extra- (i.e. movement across organizations) institutional turnover is not made freely within the literature. Coomber & Barriball (2006) view turnover as a two-dimensional concept, distinguishing between the act of leaving as voluntary or involuntary, and between the leaving and joining of an individual to an organization. This defined view is useful to consider when attempting distinguishing the variables that may have a relationship with voluntary turnover.

Turnover at an organisational level is seen to be a major contributor to the shortage of employees (Coomber & Barriball, 2006). Additionally, the loss of performance and efficiency on the part of the leaver prior to departure is a major consequence of turnover, and high absence is seen as a critical problem in times of high turnover. This has the effect of increasing pressure on, and decreasing morale of the remaining staff, resulting in the possibility of further turnover (Coomber & Barriball, 2006). The implications of this 'vicious cycle' serve to focus attention on retention as a means to inhibit turnover and address the burden of shortages.

To promote clarity, factors that predict actual turnover, summarising that behavioural intention is the primary antecedent to actual behaviour are explained in this review. Intention to leave is seen by many writers as the best

predictor of turnover (Sutherland & Jordaan, 2004; Papoola, 2004) and research has shown that there is a strong correlation between intention to depart and the actual turnover (Corporate leadership Council, 1999). This infers that the cognitive process of turnover intention (intent to leave) is an important predictor of actual turnover, a concept that has much empirical and theoretical support within turnover research

Lee (2000) reports on the two reasons why using turnover intentions rather than actual turnover are preferred by researchers. Firstly, he indicates that turnover depends upon the general economic conditions and employees who want to quit may only be able to do so when alternative jobs are available. Secondly, he refers to other prior research that has found that turnover intentions are the strongest cognitive precursor of turnover. Lee (2000) further reports that the actual turnover can be tested, but may not be subject to variables that are directly predictive. Other studies conducted by using actual turnover data have yielded different results, depending on when the study is carried out (Sutherland & Jordaan, 2004).

Other researchers believe that turnover or intent to leave/stay is consequently considered as an outcome of affective variables (such as job satisfaction) rather than actual turnover, which may be mediated by other variables such as age, gender and tenure (Barak *et al*., 2005).

2.1.1. Schools of thought regarding turnover

Sutherland & Jordaan (2004) mentioned that there are two schools of turnover, i.e. labour market school or economic school, and psychological school. The labour market school looks at issues such as labour supply and demand, and objective opportunities (Boeri & Garibald, 2005). Whilst the psychological school involves individual decision-making, and the impact of job satisfaction, job dissatisfaction and organizational commitment are studied as antecedents of turnover.

According to Sutherland & Jordaan, (2004), the antecedents can be divided into three sections: environmental antecedents, which are external to the organisation, antecedents that are internal to the organisation and employee specific issues. The antecedents that are external to the organisation lie within the labour-market approach to turnover and the organisation has no control over them e.g. macro social problems and the impact of the Employment Equity Act, No 55 of 1998. The antecedents' factors that are internal to the organization over which the organisation has some control are problems with a manager, lack of development opportunities and change processes. The employee specific antecedents are associated with individual employees' own career driver, which include family responsibilities.

2.1.2. Impact of turnover

Employee turnover is a concern for any organization due to the major impact it has on the bottom line (Sheehan, 2001; Takase & Manias, 2005). However, turnover does not always bring on negative consequences to the organization; there are positive aspects of turnover for both the organization and the exiting employee (Sheehan, 2001).

The above statements are supported by Tziner (1996) who emphasizes that turnover should not always be considered a negative organisational event. The above information is further supported by Sutherland & Jordaan (2004) who indicated that the mobility could lead to organisational renewal and change. This process can clean out "deadwood", making it easy to introduce new ideas, prevent complacency, and create new mobility opportunities for existing staff.

Whether employee turnover impacts the organization in either a positive or negative way depends on the type of turnover that is experienced. The types of turnover are covered in **section 2.1.3** below.

The most pressing and often overlooked impact of turnover is the loss of productivity experienced immediately after the loss of an employee (Sheehan, 2001). Service firms recognise that delivery of services and customer loyalty

decline when employees leave, and that overall firm productivity decreases significantly due to the lack of manpower to accomplish the constant or increasing workload (Lee, 2000). The morale of the remaining employees also declines because many remaining employees lose the friendships of the exiting employees (Sheehan, 2001; Sutherland & Jordaan, 2004). Turnover affects the delivery of service and retention of customers, which are also dimensions of organisational productivity. Lee (2000) cited Kuei *et al* (2002) who indicated that employee turnover "interrupts the transmission of service values and norms, which are essential underpinnings of high quality service to successive generations of employees". For example, Lee (2000) says that most entry-level employees begin working in low-paying and dead-end jobs. These working conditions create poor job attitudes and high turnover, which eventually leads to poor customer service. Dissatisfied employees deliver poor service and the loss of employees decreases the quality of service. As service declines, customers become dissatisfied, which further compounds the employees' frustration because the customers are complaining, and are inclined to make fewer purchases.

Lee (2000) further mentions that understaffed offices are not able to provide adequate customer service, and offices with new hires provide less than adequate service due to the knowledge of the new hire as compared to the exiting employee. Client retention is significantly reduced and the loss of talented employees may easily endanger a firm's future opportunities in the marketplace

2.1.3. Types of turnover

Turnover is classified by Allen & Graffeth (1999) as either functional or dysfunctional. Functional turnover is characterized by a situation where high performance employees remain with the organization while poor performance employees leave (Lee, 2000; Lu; While & Barriball, 2006; Sexton *et al.*, 2005 and Sutherland & Jordaan, 2004). Tziner (1996) reports that if poor performers are encouraged to leave voluntarily or are laid off; turnover produces beneficial

results by furthering the attainment of a functional goal. The organisation rids itself of ineffective employees and creates opportunities for hiring better performers, thus most probably leading to an increased productivity or performance, and eventually to enhancement of the organization's financial standing.

However, if good-/high-performance employees choose to leave and the poor-performance employees stay, the turnover will engender negative effects i.e. dysfunctional turnover (Lee, 2000; Lu *et al.*, 2006; Sexton *et al.*, 2005 and Sutherland & Jordaan, 2004). When looking to reduce turnover, a company focuses on dysfunctional turnover due to its negative impact on the organization (Sutherland & Jordaan, 2004).

According to Tziner (1996), costs that ensue due to performance downfall or disturbances in the normal work-flow and functioning of the entire organization can be considerably high, particularly if the quitting or terminated employee is a reasonably good performer holding a centrally located job. Tziner (2006) further reports the several detrimental consequences that may follow on dysfunctional turnover:

(1) Erosion of the performance level of the remaining work force due to a drop in morale;
(2) Customers lost to competitors because of the inability to supply them with services or products on schedule;
(3) Excess over-time compensation to inside employees or substitute outside workers to temporarily try to make up for the loss of strong performers; and
(4) The additional cost paid to supervisors and co-workers to integrate new employees.

2.1.4. Turnover rate

Tziner (2006) highlighted that when calculating a company's turnover rate it should first be determined what employee separations will be included in the calculation. He further indicated that many times unavoidable separations, or separations that the company could not control, will not be included in the rate. Unavoidable separations are very different from voluntary separations in which the company does play a role in retaining the employee. Examples of unavoidable separations include: retirement, death, permanent disability, or a spouse changing jobs to a different community. Since employee turnover generally focuses on the motivation of employees to maintain the employment relationship, these unavoidable terminations are not always factored into the employee turnover rate (Tziner, 2006) and will be excluded for this study.

2.2 Determinants of Turnover

2.2.1. Organisational commitment

According to Chen (2006) organisational commitment represents more of how employees feel toward the company or organisation. Barak *et al.*, (2005) describe organisational commitment, as a work attitude generally referring to the strength of an employee's identification with and involvement in the organisation. There are three types of organisational commitment that are discussed by Papoola (2004); these are affective commitment, continuance commitment and normative commitment. Affective commitment is the desire to remain a member of an organisation due to emotional attachment. Put simply, you stay because you want to. Continuance commitment is regarded as a desire to remain a member of an organisation because of awareness of costs associated with leaving. In other words, you stay because you need to. Normative commitment is regarded as a desire to remain a member of an organisation due to the feeling of obligation. In this case you stay because you ought to.

Organisational commitment is a strong predictor of intention to leave among child welfare workers (Barak; Levin; Nissly & Lane 2005) as well as employees in other fields. The above statements are supported by Papoola (2004), who indicated that it seems that the commitment of employees is declining because employees expect more from life and their work places, and if they feel that there is no commitment from the organizations side to address their expectations, they tend to lower their own level of commitment to the organisation (Papoola, 2004). Organisational commitment is an effective response to the whole organization (Chen 2006). It must be noted that when employees experience negative psychological work climate, they tend to feel less committed to their organization. The consequences of employees' low level of organisational commitment in any workplace are turnover intentions, high turnover rate, and transfer of loyalty to non-work activities, inefficiency, slow career progression, job dissatisfaction, and low productivity (Papoola, 2004). Employees who are highly satisfied with their jobs or strongly committed to their work will avoid withdrawal behaviours and maintain continued attachment to their work. And, if employees receive high salaries, there is a tendency that they will be organisationally committed as well as having high job satisfaction. Employees who receive a good pay will have low turnover intentions and remain committed to the cause of the organisation (Papoola, 2004). However, it has also been shown that the link between "employee satisfaction" and "intention to leave" is weakening as; increasingly; highly satisfied employees leave their organization for new opportunities (Sutherland & Jordaan, 2004).

Employees with high levels of organisational commitment are more work-oriented than other employees (Van Scotter, 2000). They get more satisfaction from work and view their jobs as fulfilling more of their personal needs. As a result, they are willing to exert considerable effort on behalf of the organisation (Van Scotter, 2000). Other research supports the view that job satisfaction is an antecedent of affective organisational commitment (Papoola, 2004 and Sutherland & Jordaan, 2004).

Organisational commitment and job involvement have been found to be significant factors in predicting turnover of workers in any organisation (Papoola, 2004). It has also been indicated that job involvement, career commitment, organisational commitment and team-oriented commitment contribute significantly to the prediction of job satisfaction of workers. It was noted that when an employee receives promotions as and when due, she/he may have higher organisational commitment as well as job satisfaction and a lower desires to quit.

2.2.2. Job satisfaction

Job satisfaction has received much research attention since the emergence of organisation studies (Alexandru, 2009; Oplatka & Mimon, 2008). Theories and models have been proposed to depict the process of job satisfaction and correlative studies have been used to identify factors affecting it and its effect on various aspects of organizational behaviour (Alexandru, 2009; Chen 2006, Ladebo 2008 and Oplatka & Mimon 2008). Chen (2006) and Ladebo (2008) report that job satisfaction relates to an attitude of employees and managers toward their job. In other words, job satisfaction represents an effective response to specific aspects of the job. Ladebo (2008) and Henne & Locke (1985) stressed the opinion that job satisfaction reflects an employee's perception rather than the reality about certain aspects of the job relative to his/ her values. Castle, Degenholtz & Jules (2006) as well as Oplakta & Mimon (2008) defined job satisfaction as the multidimensional concept that includes "unfavourableness or favourableness" with which the employees view their work. The determinants of these views include the work environment (e.g. supervisors, pay, and promotion opportunities) and the personality of workers. Whereas, Alexandru (2009) defines job satisfaction as a positive evaluation of a specific job situation, he further stated that when talking about job satisfaction, the subjects of work quantity, safety, compensation, work conditions, interpersonal relations, development opportunities, autonomy and responsibility must be looked at.

Wilson & Zhang (2010), provided a useful framework of analysis for employees' job satisfaction and motivation. The model was developed by Frederick Herzberg and it distinguishes between "motivational" factors which are intrinsic to the work, and extrinsic "hygiene" environmental factors, which are not in themselves motivators but have potential to cause dissatisfaction. Motivators include achievement, recognition, stimulating work, responsibility, advancement, promotion and personal growth. While hygiene factors include pay, benefits, working relationships, supervision, job security and working conditions (Wilson & Zhang, 2010 and Crede *et al.*, 2009).
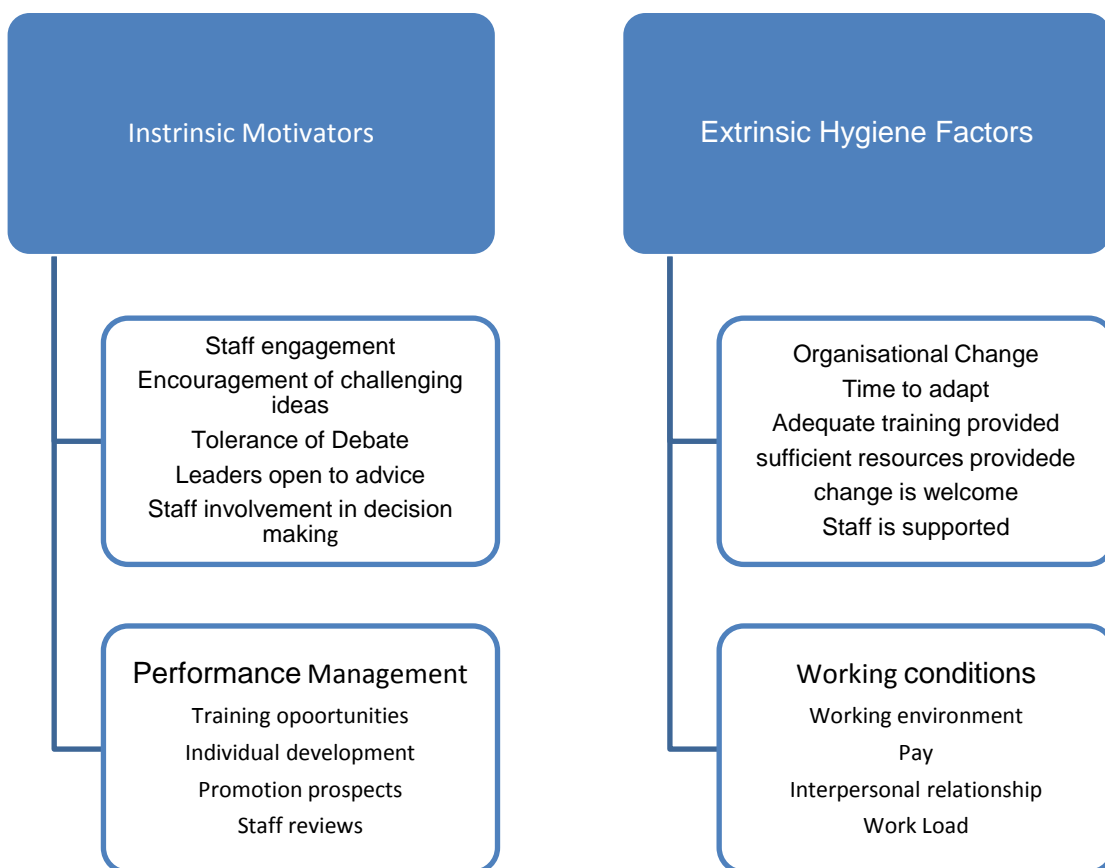
Figure 2.1   Hertzberg model indicating factors impacting on job satisfaction, adapted from (Wilson & Zhang, 2010)

Figure 2.1 indicates a range of variable, with the potential to impact on employee job satisfaction. These have been clustered in four categories viz

staff engagement, performance management, organisational change and general working conditions.

Staff engagement through effective communication and meaningful participation is a strategic management imperative and it is also consistent with a number of key motivators (Wilson & Zhang 2010) including recognition, responsibility and potential personal growth.

According to Wilson & Zhang (2010), linking performance management systems to job satisfaction could be problematic in the sense that staff reviews have the potential of motivating the staff and enhance job satisfaction when directly linked to professional development opportunities and reward in recognition for achievement. However, Dixon & Warner (2010) indicated that there is evidence that job satisfaction is positively related to performance. Therefore, the exploration of satisfaction is important not only for assessing attitudes towards work, but also as part of a larger picture of job performance of both the individual and organisation.

Organisational change has the potential to impact on staff satisfaction in a number of ways (Wilson & Zhang, 2010). It can act as an intrinsic motivator if the changes are perceived as favourable e.g. in providing opportunities for promotion. However, organizational change can be viewed as an extrinsic-hygiene factor with the potential to adversely affect working conditions, for example, in causing anxiety over job security.

Dixon & Warner (2010) indicated that achievement and recognition for achievement, interesting work, increased responsibility, growth and advancement are job factors that influenced job satisfaction. They further indicated that company policies and administration practices, supervision, interpersonal relationships, working conditions, salary status and job security are classified as hygiene factors and they contribute towards job dissatisfaction (Alexandru, 2009).

In terms of job satisfaction's relative contribution to the turnover process, there are three main theoretical perspectives; i.e. the satisfaction-to commitment-

mediation model, the commitment-to-satisfaction- mediation model, and the independent-effects model (Chen, 2006). The satisfaction-to-commitment-mediation model postulates that organizational commitment develops from job satisfaction, such that commitment mediates the effects of satisfaction on turnover variables. The commitment-to-satisfaction- mediation model indicates that organisational commitment engenders a positive attitude toward the job and employee's turnover behaviour depends upon the employee job satisfaction level. The independent-effects model holds that both job satisfaction and organisational commitment contribute independently to the turnover process. It hypothesizes that job satisfaction and organizational commitment, though related, are distinct constructs implying no particular causality relationship between them.

Job satisfaction has been found by Barak *et al.*, (2005) to be a strong and consistent predictor of intention to leave as well as turnover. Research on job satisfaction clearly shows that lack of resources, less rewarding work conditions, lack of support from supervisors and co-workers, and heavy workloads all produce dissatisfied employees (Barak *et al.*, 2005). Well-being has consistently been shown to influence both job satisfaction (Barak *et al.,* 2005) and organisational commitment. The literature yields strong evidence for an association between job satisfaction and organisational commitment, but it is not clear whether satisfaction is a precursor to commitment or whether commitment influences one's level of satisfaction. In however, satisfaction was a stronger indicator of commitment than vice-versa.

It has been theorized that high levels of job dissatisfaction lead to employee withdrawal, particularly in terms of voluntary turnover. While research has shown a consistent relationship between job satisfaction and voluntary worker turnover, the explained variation has typically been small (Lambert; Hogan & Barton 2001). As a result of weak to modest magnitudes, it proposed that the relationship between job satisfaction and turnover is moderated by intentions, and most researchers now accept the premise that intention to stay or leave a job with a particular employer is the final cognitive step in the decision making

process of voluntary turnover (Lambert *et al*., 2001; Barak *et al.,* 2005 Chen, 2006). As a result, turnover intention has been integrated in most employee turnover models developed in the past 20 years.

The effect of job satisfaction on turnover, however, is only part of the equation. It is equally important to explore, confirm, and understand the key antecedents of job satisfaction (Castle *et al*., 2006). Identifying factors that influence job satisfaction provide administrators and managers with necessary, meaningful information to make intelligent decisions regarding interventions aimed at increasing employee job satisfaction. Moreover, rather than treating job satisfaction as either an exclusive exogenous variable or the final endogenous variable, it is important to look at both the causes and effects of job satisfaction (Castle *et al*., 2006).

Therefore, it is necessary to develop comprehensive models for complex human behaviour that take into account both the direct and indirect effects (Lambert *et al.*, 2001).

There are two general categories of factors that are believed to influence employee job satisfaction i.e. demographic characteristics and work environment factors. In turn, job satisfaction negatively effects turnover intent, and turnover intent directly impacts voluntary turnover (Lambert *et al*., 2001). Based upon past theoretical and empirical work, salient measures for both demographic characteristics and work environment factors were selected for inclusion in this: -

Demographic measures included in this study are age, gender, education, and tenure of employment. Measures of work environment utilized in this study by Lambert *et al*., (2001) are role conflict, task variety, financial rewards, relations with co-workers, and autonomy/participation (see measures section for a more complete description of the variables). Therefore, based on past research findings, availability of measures, and theoretical reasons, the following model

presented in **Fig. 2.2** are proposed.

Figure 2.2   General overview of proposed turnover process (Adapted from Lambert *et al.*, 2001)

Job satisfaction has stimulated a great deal of research interest, partly because it is viewed as important in its own right and partly because of its association with other important outcomes. In a recent meta-analysis, Van Scotter (2000) has found that average corrected correlation of r = .28 (N = 2,845) between job satisfaction and behaviours much like those that comprise contextual performance. He did not have enough evidence to determine the direction of the relationship. With a few exceptions, research in this area has been cross-sectional in nature, making it difficult to establish the direction of relationships.

As a shortage ensues and difficulties in retention are highlighted, it follows that the reasons employees leave their jobs must be clearly identified if the issue is to be successfully addressed. Job satisfaction has been cited as a major contributory factor to intent to stay, but job satisfaction is a complex phenomenon with many affecting components. Its status as an important predictor of intent to stay has the secondary effect of decreasing turnover, with many authors concluding that a decrease in turnover occurs when a workforce is satisfied (Coomber & Barriball, 2006).

Whilst substantial literature exists regarding job satisfaction among employees in general, there appears to be no agreed precise definition. It has been described by Cortese (2007) and (Coomber & Barriball, 2006) as an individual attitude to how well personal expectations at work correspond to outcomes. Therefore, an individual's appraisal of the degree to which the job fulfils one's own job values can cause a positive emotional state of satisfaction or a contrasting negative feeling of dissatisfaction.

Job satisfaction is considered within empirical studies either as an overall (global) feeling about the job, or as a related set of attitudes about various aspects of the job (facet approach) (Alexandru, 2009; Chen 2006, Ladebo 2008 and Oplatka & Mimon 2008). The global approach to measurement is used when the interest is in overall attitude to the job. However, facet approaches can determine which particular aspects of the job are producing satisfaction or dissatisfaction for the individual and are, therefore, important in determining areas for improvement (Chen, 2006).

Whilst definitions can provide a broad understanding of what job satisfaction entails, it remains a complex concept illustrated by the multiple variables that have been studied in relation to it. Different theories present differing conceptualizations of job satisfaction that can be categorized as 'content' or 'process' theories Motivator– Hygiene theory and Maslow's Hierarchy of Needs exemplify content theories, and attempt to identify needs or values to be realized in order for an individual to be satisfied at work (Chen 2006; Klassen & Anderson 2009). For instance, Klassen & Anderson (2009) identified maintenance and motivating factors related to peoples' attitudes to work: maintenance or 'dissatisfiers' such as pay and associated benefits, organizational policies and working environment; and motivating factors including recognition, achievement and self-satisfaction. Together with definitions, two main themes run through these theories: that job satisfaction has an affective component, i.e. a feeling of satisfaction, and a perceptual

component which is an evaluation of whether one's job meets one's needs. This is particularly pertinent when appraising the reasons why different studies utilize differing measurement approaches, and provides rationale for this occurrence.
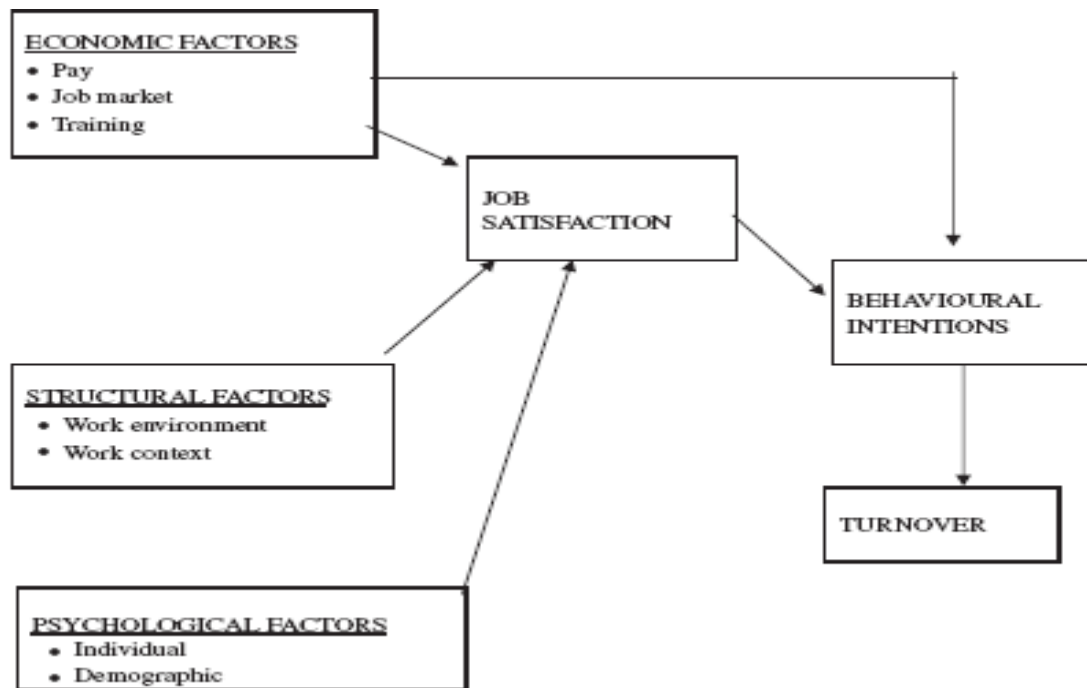
Figure 2.3   Model of turnover behaviour, adapted from (Coomber & Barriball, 2006)

According to Coomber & Barriball, (2006), increasing dissatisfaction of employees' results in a higher chance of considering other employment opportunities.   In his meta-analysis of US studies workers, the relationship between job satisfaction and intent to leave was found to be significantly different from zero and consistently negative.   Factors given by employees as reasons for leaving were centred on issues known to affect job satisfaction such as ineffective supervisory relationships and poor opportunities for professional development, rather than external labour market forces of which managers would justifiably feel unable to control. The economic research with its emphasis on individual choice and labour market variables, sociological research emphasizing characteristics of the work environment and content, and psychological research which emphasized individual variables and cognitive processes. A concept model for the analytical study on job satisfaction turnover

is summarised in **Fig. 2.3.**

Job satisfaction is the most frequently studied psychological variable thought to be related to turnover (Lee 2000). Studies have consistently shown that job satisfaction is significantly related to turnover — i.e., the greater the job satisfaction, the less the likelihood that the individual will leave the organization (Lee 2000). Also, Pillay (2009) concluded that there is a strong evidence of positive relationship between job satisfaction and employee health.

2.2.3. Job dissatisfaction

Job dissatisfaction seems to cause turnover for two reasons: (1) it causes people to search for more attractive alternatives and (2) it influences the degree to which people feel their jobs will provide the rewards they desire in the future (Sheehan, 2001). The satisfaction and turnover relationship, although consistent, usually accounts for less than 16% of the variance in turnover (Lee, 2000). The small variance has two implications. First, the relationship between job satisfaction and turnover may be more than just a simple direct relationship. Second, turnover may involve more variables than just job satisfaction as the primary explanatory variable.

Castle *et al.*, (2006) indicate that not all dissatisfied employees leave the organization, even if they report they intend to leave. Dissatisfied employees often exhibit an unreliable work ethic, including taking unscheduled days off and tardiness, moreover, dissatisfied employees may also show aggression towards other workers. Ladebo (2008) indicate that aggressive behaviour from dissatisfied employees could lead to employee harming co-workers and that specific acts of aggressive behaviour may be verbal (yelling, shouting, criticizing or cursing) or physical assault (pushing and punching).

In Figure 2.4 below, Henne & Locke (1985) described job dissatisfaction as not having any direct or inevitable consequence. Rather, when it occurs, it is an emotional state. The behavioural and psychological response taken as a result

of the dissatisfaction will depend upon the cognitive process the employee initiates in response to it. The chosen alternative, in turn, may have implications for the individual life satisfaction, his mental health and his physical well being.
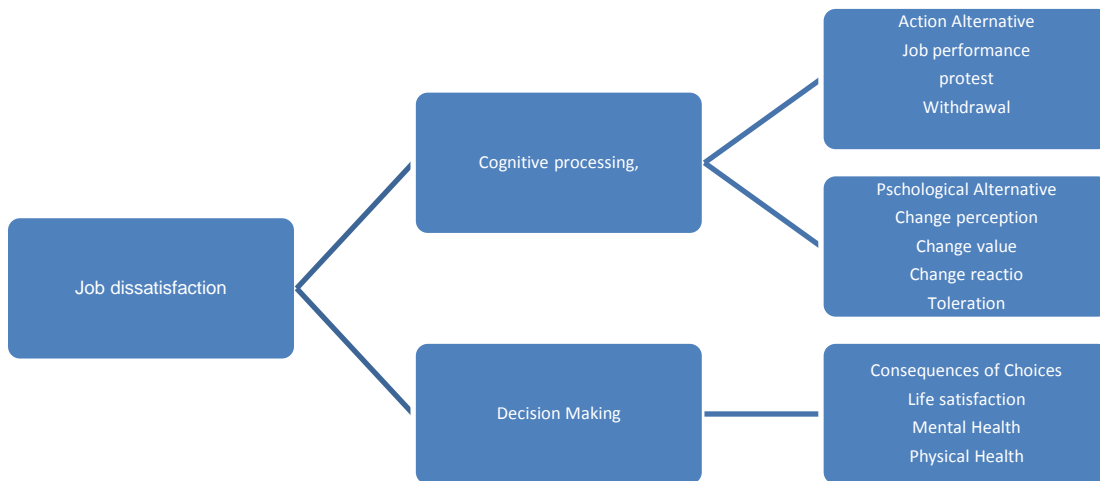
Figure 2.4   A Model indicating consequences of job dissatisfaction adapted from (Henne & Locke 1985).

Dixon & Warner (2010) argues that job satisfaction and dissatisfaction are not opposite, but distinct constructs with identifiable antecedents and consequences. For example, factors such as having interesting work and opportunities for growth impacts on job satisfaction. But, their absence does not impact on job dissatisfaction. That is, not having interesting work does not necessarily induce employee to detest their jobs, it just does not provide any motivation for them to do their jobs better. Conversely, factors such as working conditions and supervision could lead to dissatisfaction if they are poor, but not satisfaction if they were great. For example, having an office with a window does not necessarily induce the employee to work harder, but having a dark office could lead to a great deal of dissatisfaction.

Pillay (2009) concluded that job dissatisfaction leads to increased stress, and frustration, which resulted in physical, emotional and behavioural problems.

This is found to be an important contributor to suboptimal performance of employees.

2.2.4. Contextual performance

Employee turnover is an especially important outcome for many organisations, yet few studies have examined the impact of contextual performance on turnover (Crede; Cheryshenko; Bargraim & Sully, 2009). The nature of contextual performance suggests one very basic link between contextual performance and turnover. Contextual performance is a form of discretionary behaviour that demonstrates an employee's willingness to participate in the organisation and interact with other members (Crede *et al.*, 2009). In contrast, turnover is described as the culmination of a series of withdrawal behaviours (Van Scotter, 2000).

Although other factors certainly influence participation or turnover, higher levels of participation seem likely to be associated with lower levels of turnover and lower levels of participation seem likely to be associated with higher levels of turnover. Organisations also need to ensure that effective performers are rewarded and encouraged to stay (Crede *et al.*, 2009). Ineffective performers must be informed that their substandard performance must be improved or they will risk administrative action or involuntary termination (Van Scotter, 2000). Van Scotter (2000) suggested that employees learn which types of behaviours are rewarded by supervisors and adapt their behaviour in ways that are positively reinforced. Thus, an employee's contextual performance can be expected to influence the favourability of the feedback an employee receives concerning opportunities for advancement and continued membership in the organization, in the same way feedback about the value of task performance does (Van Scotter, 2000). After receiving feedback, employees may decide to modify their performance or begin searching for another job.

Van Scotter (2000) suggested that performance leads to rewards and rewards lead to satisfaction. In their view, employees are satisfied when they receive

outcomes that are valued and when they feel they have been treated fairly. However, Van Scotter (2000) also acknowledged that employees might find some tasks rewarding or enjoyable by themselves. Many of the interpersonal aspects of contextual performance, especially those that involve expressing oneself seem likely to fit in this category. Van Scotter (2000) suggested that by helping to create a more attractive work environment, contextual performance might increase employee commitment and improve retention. The model quoted in Van Scotter (2000) by Steers and Porter also suggests that as organizational commitment leads to more effective contextual performance, the employee would receive proportionally higher levels of rewards, which would lead to increased satisfaction and higher commitment.

Van Scotter (2000) indicated that employees who are more helpful, cooperative, and team-oriented are more likely to be judged effective employees. He further indicated that they are also more likely to receive positive supervisory feedback concerning their chances of advancing to the next level of the organization and more likely to be encouraged to remain with the organisation. As a result, they are expected to be more satisfied with their jobs, more highly committed to the organization, and less likely to leave it.

2.2.5. Other factors

In addition to job satisfaction, job dissatisfaction and organisational commitment, several other factors have been used to examine their contributions to turnover. According to Lee (2000), turnover has been studied extensively in organisational behaviour research and meta analyses of past studies indicate that a number of factors are associated with turnover. They include amongst others age, gender, education, and job tenure. Barak *et al.*, (2005) report that these factors are personal and work environment characteristics. Papoola (2004) also indicates that age, gender, marital status, length of service and level of education affect organisational commitment. Sheehan (2001) concluded that younger and less tenured employees are more likely to quit and the biggest reason for employee turnover is alternative jobs.

Barak *et al.*, (2005) report two types of diversity i.e. visible diversity (e.g., gender, ethnicity, and age) and invisible diversity (e.g., education, tenure and position). The findings related to gender and turnover generally indicate that women are more likely to leave their jobs than men. According to Oplakta & Mimon (2008) the relationship between job satisfaction and gender has been inconsistent and contradictory. They indicate that in some of the studies women employees are more satisfied than male employees, whereas some studies show the opposite. Xu (2008) found that women are less satisfied with the financial rewards and challenges their work provides.

The research results related to race/ethnicity and turnover are mixed: while most studies indicate that members of minority groups report more negative experiences than do their counterparts and are more likely to leave their jobs than are their colleagues others have found that turnover is less likely among ethnic minorities (Ellette; Ellis; Westbrook & Dews 2006).

Age is also a relevant variable in predicting turnover (Ellette; Ellis; Westbrook & Dews 2006). Older workers are less likely to leave their jobs than their younger co-workers (Barak *et al.*, 2005) often because of perceived and actual lack of alternatives and vested benefits. With respect to education and intention to leave, findings suggest that better educated workers – those who often have more employment options available to them – may more frequently contemplate leaving their jobs (Ozel; Bayindir; Inan & Ozel, 2008).

Organisational tenure is also negatively related to employees' intention to leave the organisation. The more time that an employee has invested in an organisation, the more committed he or she is to continuing employment (Barak *et al.*, 2005) with the organisation. Examination of agency job position in relation to intention to leave has produced mixed results, with some studies showing a significant relationship between position and intent to leave (Ellete *et al.*, 2006) and others finding no significance.

2.3 Turnover Costs

There are negative consequences associated with staff turnover, costs being one. The direct costs are those that occur in the short term after resignation and are relatively easy to quantify (Sutherland & Jordaan, 2004). They include cost of recruitment and advertising, relocation expenses etc. The indirect costs of turnover are loss of knowledge, productivity impacts lowered morale of remaining staff and customer dissatisfaction (Sutherland & Jordaan, 2004).

According to a turnover-costing model indicated in Tziner (1996) the above costs can be categorised as follows: -

2.3.1 Separation costs

- *Exit interviews*

The financial value of both the interviewer's time and the departing employee's time

- Administrative costs

The cost incurred by the activities of removing an employee from the payroll, termination of benefits, and the return of company equipment.

- *Severance pay*

Compensation paid to a departing employee.

2.3.2 Replacement costs

This includes advertising position availability in various media, processing candidate applications and reviewing references, conducting screening interviews, assessing candidates' compatibility with the vacant job, holding decision making meetings and orientation activities for the hired employee (Sutherland & Jordaan, 2004).

2.3.3 Training costs

This includes disseminating relevant information for organizational socialization, organizational regulations, norms of conduct and performance. In this context socialization refers to the process of acquiring the relevant information that employees must know in order to adequately perform their jobs. Tziner (1996) points out that this is not a short-term process. He further reports that even after six months on the job, the new employees will still seek information in order to adjust their roles. This obviously engenders considerable financial expenditures for the organization, particularly because during the socialization period the newcomers perform at lower levels than those exhibited by their predecessors. Also, socialisation of the newcomer might demand considerable time and energy on the part of insiders, co-workers and supervisors (Sheehan (2001). The expenditures due to socialization would even be higher in respect to the supervisors, since socialisation and mentoring of the newcomer takes time away from the management's more productive efforts. That is, less time is left for the supervisors to devote to their ordinary assignments related directly to the main operative goals of the organisation. This constitutes sizeable resource expenditure for the organisation (Sheehan 2001).

As indicated above, employee turnover has significant costs for every company. On the low end, the departure of someone earning wages equivalent to R30 000 per year costs a company R10 000. On the high end, turnover among white collar employees can cost companies up to 150% of base salary, when one counts the costs of lost productivity, training, lost business and sourcing a replacement.

Organisations can dramatically reduce employee turnover by improving the quality of their selection decisions, developing a strategic retention strategy, and implementing a competitive and creative salary and benefit structure. If one is able to source, screen, and select better people in the first place, you will see benefits in the form of increased retention rates.

2.4 Summary

From the studies read, it is clear that job satisfaction and dissatisfaction are independent factors (Crede *et al*., 2009). With job satisfaction being derived from the nature of the work performed (achievement, recognition and the work itself) and, job dissatisfaction resulting largely from the circumstances in which the work is conducted (resources, interpersonal relationship, salaries and working conditions). According to Klassen & Anderson (2009), hygiene factors illustrated in Figure 1 should reduce the job dissatisfaction, but not necessarily increase job satisfaction.

The literature review in this Chapter confirms that job satisfaction, turnover intention and the actual turnover are influenced by the organisational characteristics workload, management style, empowerment, promotional opportunities and work schedules. This opinion is supported by Van Bogaert *et al.*, 2009).

Sheehan (2001) indicated that turnover has both negative and positive consequences for leavers and the organisation. Some positive consequences for leavers include the attainment of career or personal goals, more job satisfaction and higher pay. A negative aspect of leaving is the stress inherent in the process of adjustment to a new position. For the organisation, positive consequences of leaving employees include lower costs for replacements' salaries and benefits, and new ideas. Although turnover may initially result in a decrease in productivity, productivity may increase once replacements have been trained. The administrative costs involved in the closing of leavers' files and in recruitment and selection of the new employees are directly incurred by the organisation. With high turnover rates in organizations, it could also lead to decreased effectiveness and decreased innovativeness.

Sheehan (2001) further stated that employee turnover has consequences for stayers as well. Stayers may attempt to understand why a colleague has quit. Depending on the information that is available, stayers may attribute their colleagues' departure to any of the several causes. The stayers may conclude

that their colleague left for a better position elsewhere or because she/ he was dissatisfied with the job. These reasons reflect negatively on the stayers. The stayers' conclusions may affect their attitudes about their jobs. Researchers has shown that employee turnover influences stayers attitude, but the consequences of turnover for stayers behaviour and job performance have not been extensively examined (Sheehan, 2001).

Chapter three which follows presents the research methodology that was followed.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter revolves around the practical aspect of the research undertaking. In order to answer the research questions that were developed in Chapter One, it is necessary to design a research methodology, which will be applied in order to practically find answers to these questions.

The research questions were:
1. What are the factors that result in job satisfaction in WQM?
2. What are the factors that may result in turnover amongst the WQM personnel?
3. What comparative analyses could be drawn from the above two analysis?

Research articles and Internet websites were used to gather the information on research methodology. In this section, we will discuss the method of data collection chosen (i.e. questionnaire), the types of questions that have been asked, the survey population and sample size determination and data handling. Finally a chapter summary will be presented.

3.2 Aim and Objective of the Study

The aim of this research was to investigate the relationship between job satisfaction/dissatisfaction and turnover of personnel in the WQM section of DWA. The objectives of this research were as follows: -
- To determine which factors lead to staff satisfaction.
- To ascertain which factors contribute to staff dissatisfaction.
- To establish the staff turnover intentions at the WQM section at the Department.

- To determine whether dissatisfied staff are more likely to request internal transfers or resign.

3.3   Participants and Location of the Study

The population consisted of all water quality management staff in the national (Pretoria Head Office) and 9 regional offices (Kwa-Zulu Natal, Eastern Cape, Western Cape, Northern Cape, Free State, Limpopo, Mpumalanga, North West and Gauteng). A simple random sampling technique was utilised to obtain a sample size that is sufficiently large to meet the statistical test requirements.

3.4   Data Collection Strategy

The questionnaire was administered using the intercept method under controlled room conditions to ensure the standardisation of data gathering, to decrease non-response errors and increase response rate.

3.5   Research Design and Method

This study used a quantitative method, and a questionnaire called "Job satisfaction and turnover Intention –JSTI" was developed. The measures in this phase were grouped into three categories, which are discussed below.
Part 1 of the questionnaire provides the researcher's details, briefly explaining the nature of the survey and asks permission to use the participant's responses for academic research. The research was designed such that the rights of the participants were protected.   The participants should not suffer discomfort, embarrassment or loss of privacy. **Part 2** solicited general demographic data which was collected at the beginning of the questionnaire. The items that were used in this study included, age, gender, marital status, educational level, job position, length of service in the section. The organisational tenure have been theorized and empirically shown to be significant predictors of job satisfaction (Lambert *et al*., 2001 and Lu *et al*, 2006) and turnover (Lambert *et al*., 2001). Other researchers indicate that demographic characteristics, such as race and

marital status are either poor or inconsistent predictors of job satisfaction and turnover (Lambert *et al.*, 2001). However, race and marital status characteristics will be included in this study because in WQM section, these factors seem to play a major role in determining whether an official is likely to turnover or not. It has been observed over the past years that mostly single official do not stay long in the section.

Part 3 focused on the aspects of the research problem and relate to job satisfaction, job dissatisfaction and organizational commitment, and how often the targeted group seeks other employment opportunities. The five point Likert scale system was used for this i.e. 1= strongly disagree and 5= strongly agree. In this part**,** different facets of job satisfaction were also tested e.g. pay, supervision, co-workers and career satisfaction. However, Lee (2000) emphasises that summing various facets of job satisfaction may not be equivalent to overall job satisfaction. He further states that simply adding facets in a single linear manner may not capture the unique individual method of combining components to arrive at a summary measure for overall job satisfaction. Job satisfaction was therefore measure based on global measures (Lambert *et al.*, 2001 and Lee, 2000). The last four questions focused on turnover intent. It should be noted that one of the fundamental goals of voluntary turnover is to account for employee turnover. In order to accomplish this, worker voluntary turnover must be measured. According to (Lambert *et al.*, 2001), the best method is to measure a variable that consistently and immediately precedes voluntary employee turnover, namely intention. Lee (2000) reports that instruments used in prior research to measure turnover intention are problematic in two ways i.e. they either do not provide a time frame for exercising intentions or they use an infinite time frame. Intentions are more likely to lead to behaviour if they are measured within a reasonable time frame. The shorter the time frame, the more accurate the prediction of behaviour linked to the intentions. Empirical evidence strongly supports the position that intent to stay or leave is strongly and consistently related to voluntary turnover ((Lambert *et al.*, 2001). Secondly, some instruments use only one item to measure

turnover intentions e.g.: "taking everything into consideration, how likely is it that you will make a genuine effort to find a new job? According to Lee (2000), a single item is likely to decrease the reliability of measurement. In order to overcome problems associated with prior instruments, three items will be adapted in this study and we will incorporate a 12- month period for exercising intentions. All items were measured on a five -point scale ranging from 1 for strongly unsatisfied to 5 for strongly satisfied.

The final part measured the availability of alternative employment opportunities. According to theories of economy, most people are rational in major economic decision and therefore, researchers argue that most people will not leave their current job without reasonable probability of finding other employment (Lambert *et al.*, 2001). The availability of alternative employment is measured by the following item "About how easy would it be for you to find a job with approximately the same income and fringe benefits you have now?"

3.6   Administration of Questionnaire

The questionnaires were administered using the intercept method under controlled room conditions to ensure the standardisation of data gathering, to decrease non-response errors and increase response rate

3.7   Analysis of Data

The collected data was entered and processed using the Statistical Package for

the Social Sciences software (SPSS). The SPSS program generated all

significant correlation. Data is represented in the form of descriptive and

inferential statistics.

3.7.1. Descriptive statistics

Descriptive statistics are most often used to examine central tendency (location) of data, i.e. where data tends to fall, dispersion (variability) of data, i.e. how spread out data are, skew (symmetry) of data, i.e. how concentrated data are at the low or high end of the scale, as measured by the skew index and kurtosis (peakedness) of data, i.e. how concentrated data are around a single value, as measured by the kurtosis index.

Descriptive data needs to be essential for arranging and displaying data and it forms the basis of rigorous data analysis. It is much easier to work with, interpret, and discuss than raw data, help examine the tendencies, spread, normality, and reliability of a data set, be rendered both graphically and numerically, include useful techniques for summarizing data in visual form and form the basis for more advanced statistical methods.

Descriptive statistics can be of limited use when samples and populations are small, and they demand a fair amount of calculation and explanation and they can offer little information about causes and effects. Descriptive data needs to be essential for arranging and displaying data and it forms the basis of rigorous data analysis. It is much easier to work with, interpret, and discuss than raw data, help examine the tendencies, spread, normality, and reliability of a data set, be rendered both graphically and numerically, include useful techniques for summarizing data in visual form and form the basis for more advanced statistical methods.

3.7.2. Inferential statistics

Inferential statistics are procedures used that allow researchers to infer or generalize observations made with samples to the larger population from which they were selected. They are frequently used to answer cause-and-effect questions and make predictions and they are also used to investigate differences between and among groups. However, one must understand that inferential statistics by themselves do not prove causality.

Inferential statistics can provide more detailed information than descriptive statistics and they yield insight into relationships between variables. They also reveal causes and effects and make predictions and generate convincing support for a given theory

Inferential statistics can be quite difficult to learn and use properly and they can be vulnerable to misuse and abuse. They depend more on sound theory than on implications of a data set.

The following briefly introduces the techniques of inferential statistics that were used during this study

Analysis of variance (ANOVA) permits comparison of two or more populations when interval variables are used. ANOVA does this by comparing the dispersion of samples in order to make inferences about their means. ANOVA seeks to answer two basic questions:
-Are the means of variables of interest different in different populations?
-Are the differences in the mean values statistically significant?

Correlation (D**)**, like ACOVA, is used to measure the similarity in the changes of values of interval variables but is not influenced by the units of measure. Another advantage of correlation is that it is always bounded by the interval:
$-1 \leq D \leq 1$
Here -1 indicates a perfect inverse linear relationship, i.e. y increases uniformly as x decreases, and 1 indicates a perfect direct linear relationship, i.e. x and y move uniformly together. A value of 0 indicates no relationship. Note that correlation can determine that a relationship exists between variables but says nothing about the cause or directional effect. As a rule, it is wise to examine the correlations between all variables in a data set.

Regression analysis is often used to determine the effect of independent variables on a dependent variable. Regression measures the relative impact of each independent variable and is useful in forecasting. It is used most appropriately when both the independent and dependent variables are interval, though some social scientists also use regression on ordinal data. Like correlation, regression analysis assumes that the relationship between variables is linear.

Regression analysis permits including multiple independent variables. For example, in this study, we wanted to predict the relationship between job satisfaction/dissatisfaction and staff turnover.

3.8 Summary

Since this study used questionnaires to obtain the required information, anonymity/confidentiality was maintained by not revealing the names of those sent questionnaires.

Literature indicates that descriptive statistics should be utilised when the objective of the study is to describe and discuss a data set more generally than would be possible using raw data alone. It is much easier to work with descriptive statistics, easy to interpret and discuss than raw data.

Inferential statistics was also utilised in this study to allow the researcher to infer or generalise observations made with samples to the larger population from which they were selected. Inferential statistics provides detailed information than descriptive statistics. In this study, ANOVA was utilised to analyse variance and the ACOVA was used for correlation. Regression analysis also permitted multiple independent variables to be analysed.

Chapter four which follows presents the analysis of the data that was received from the questionnaires.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION

4.1   Introduction

In this chapter, the designed research methodology indicated in Chapter Three is utilised. Questionnaires were distributed to WQM staff members from nine regional offices and the National Office. A sample of 100 respondents was received. This chapter looks at the data collected from the 100 respondents and the data is presented in the form of Descriptive and Inferential Statistics.

4.2   Descriptive Statistics

4.2.1 Analysis of data with regards to biographical details

The bar charts below represent the responses in respect to the personal particulars of the 100 respondents. This section paints a picture of the personal details ranging from age, gender, experience, marital status, rank and qualification.
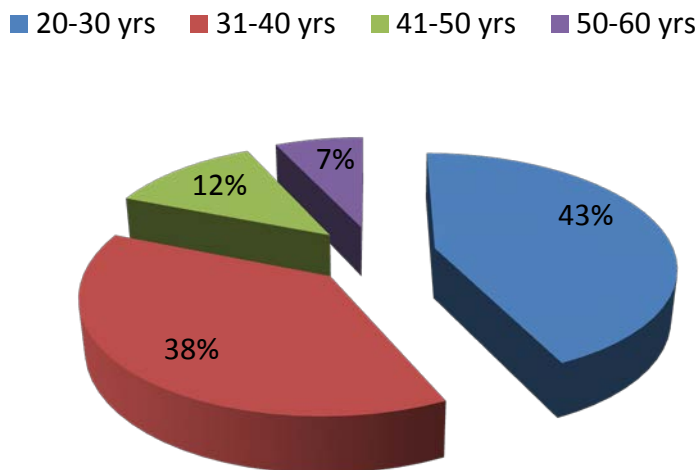

Figure 4.1 (Question 1) Age of respondents?

Some 43% of the sample represents the age group of 20-30 years with 38% representing between 31-40 years. The sample indicates that WQM staff members are predominantly young people with 81% of the population below the age of 40.
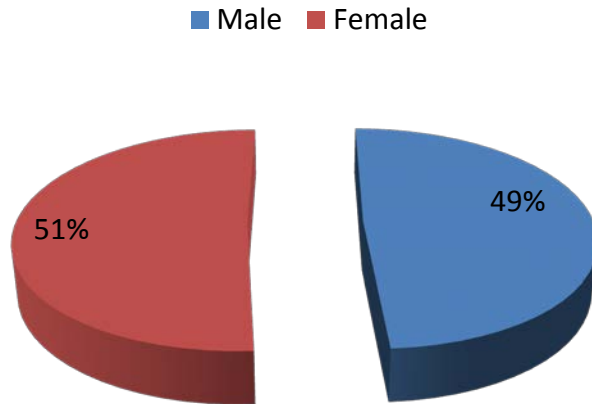

Figure 4.2 (Question 2) Please indicate your gender

The sample has an almost equal distribution of female and male participants, which it is anticipated that it is to give us interesting result from both perspectives.
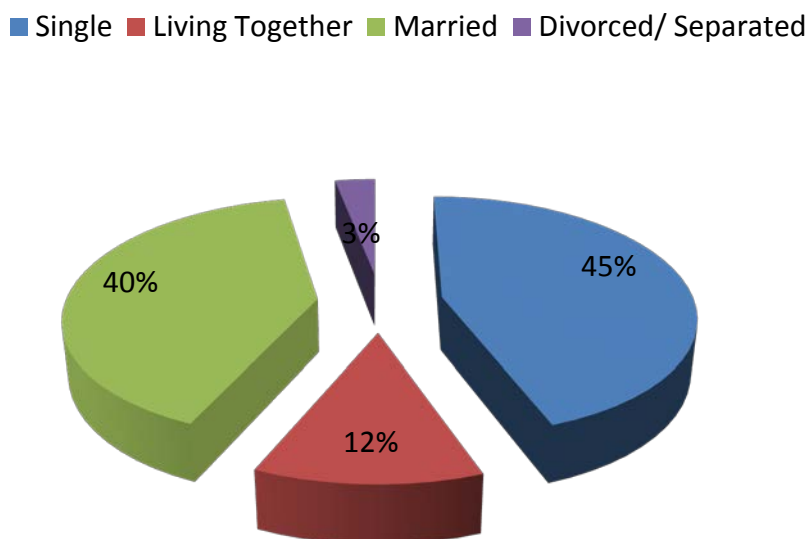

Figure 4.3 (Question 3) What is your marital Status?

The marital status results reveal that 45% of the respondents are single. This correlates well with the first question about the age group where 43% of the participants are between the ages of 20-30 years old. It correctly represents the social structure in terms of the age in which people would mostly get married and the sample is aligned with the societal realities.
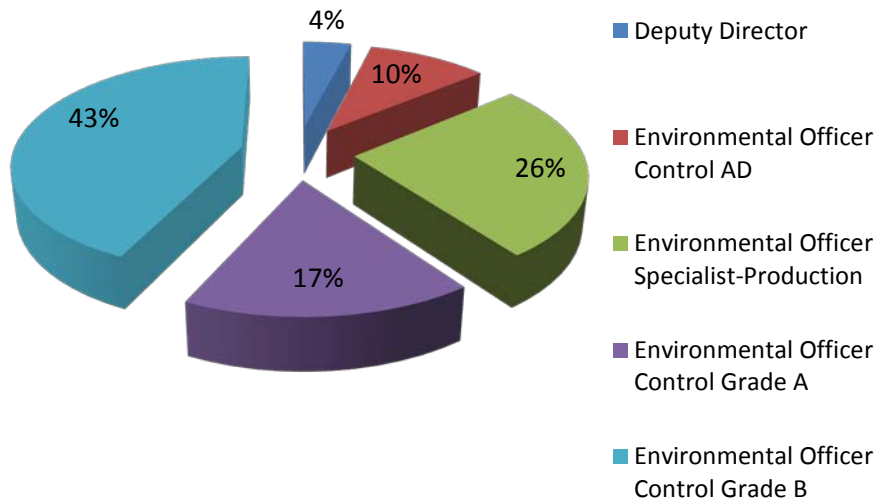

Figure 4.4 (Question 4) What rank are you on?

The distribution of participants correlates with the pyramidal structure of the section. Only 14 % of the sample represents the management of WQM whilst the majority of the sample, 43%, represents the entry level and another 43% represent the other ranks. There is a fairly good representation from all ranks within the WQM section.
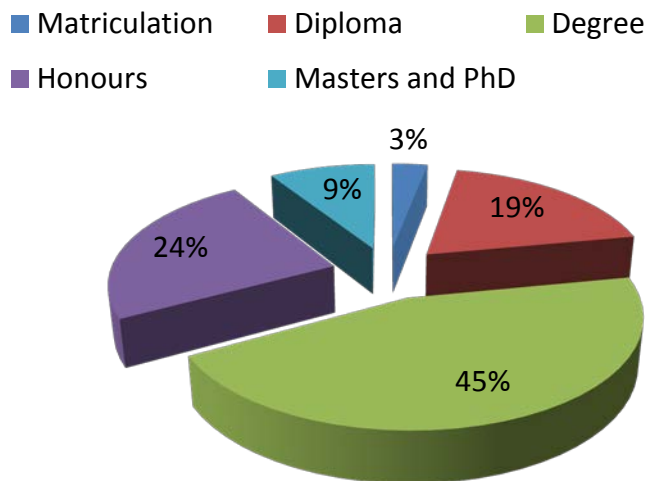
Figure 4.5 (Question 5) What qualification do you have?

The results indicated that the WQM is mostly comprised of people with post matriculation qualification and about 69% of the respondents are in possession of either a degree or Honours degree qualification. The 3% of the sample representing matriculation only, means, that that is the highest qualification that they have. The rest, as it would be the norm in the South African education system implies that they have matriculation and higher qualification. The results also reveal that 9% have either a Masters Degree or PhD.

Figure 4.6 (Question 6) How long have you been with WQM?

This result reveals that the 65% of the respondents may have limited experience as they have less than 5 years of WQM experience. Only 13% of the respondents have been in the department for a longer period (> 10 years) and it can be inferred to be highly experienced. This result correlates well with the age group question (Question 1). The age group reveals that 43% of the respondents are below 30 years old, thus the hi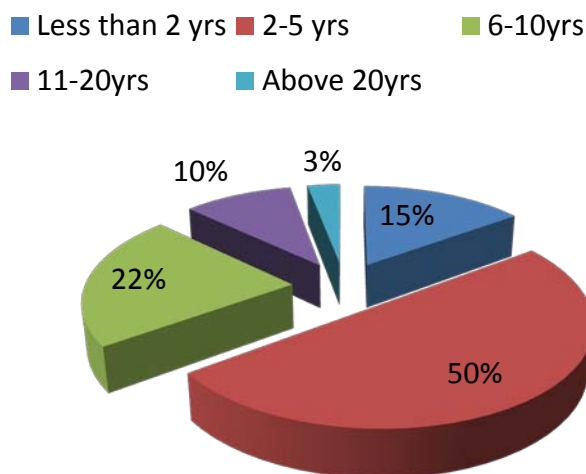gh probability of limited work experience or WQM experience in particular. This could also be a sign of high staff turnover and as a result the section is only attracting inexperienced staff members.

4.3   Frequency Distribution

Frequency distributions are a way of displaying numbers in an organised manner so such questions raised in the questionnaire can be answered easily. A frequency distribution displays how many times in a data set each response occurs. The results are presented in the form of Bar Charts.

4.3.1 Analysis of data with regards to satisfaction/dissatisfaction factors
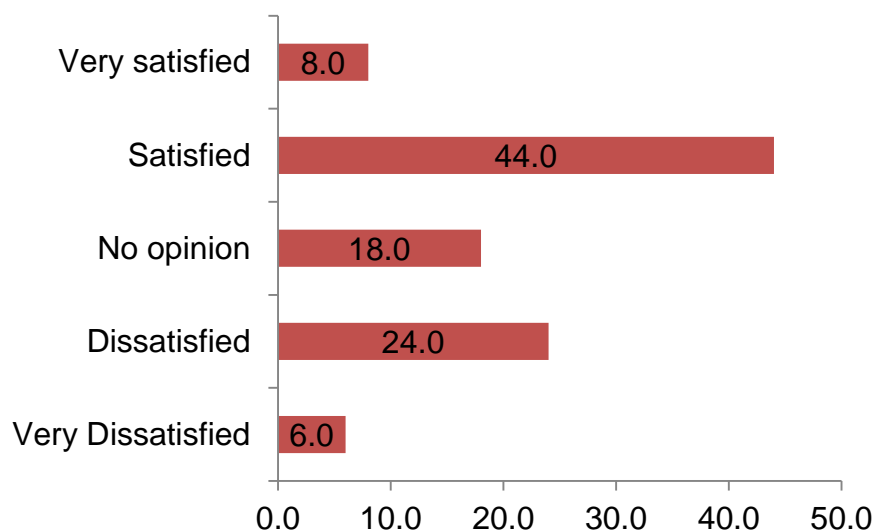
Figure 4.7 (Question 7) I feel satisfied that my skills and ability are being utilized optimally at my current position

Figure 4.7 shows that 52% of the respondents indicated that they are either satisfied or very satisfied with the fact that their skills and abilities are being utilised optimally at their current position. Of the 52%, the majority of 44% is moderately satisfied and only 8% is very satisfied. 30% of the respondents are dissatisfied that their skills and abilities are being utilised optimally. It is however, interesting to note that about 18% of respondents did not express their opinions. Whilst 44% of the respondents expressed their moderate satisfaction, it is concerning that another 30% expressed dissatisfaction. Ideally the percentage of negative feeling about job satisfaction should not be as it currently reflects. Such change of statistic will probably present an opportunity for higher percentage of very satisfied employees.

The issue of utilising the available skills and abilities is fundamental in making employees feel valued and appreciated, furthermore, it is vital that the management acknowledges and utilises the available skills and abilities. This is a motivating factor for productivity and performance amongst the staff members. The management of WQM section need to recognize and appreciate each staff member for the unique skills and abilities each staff member brings to the section. They need to take time during staff meetings to focus on this aspect.
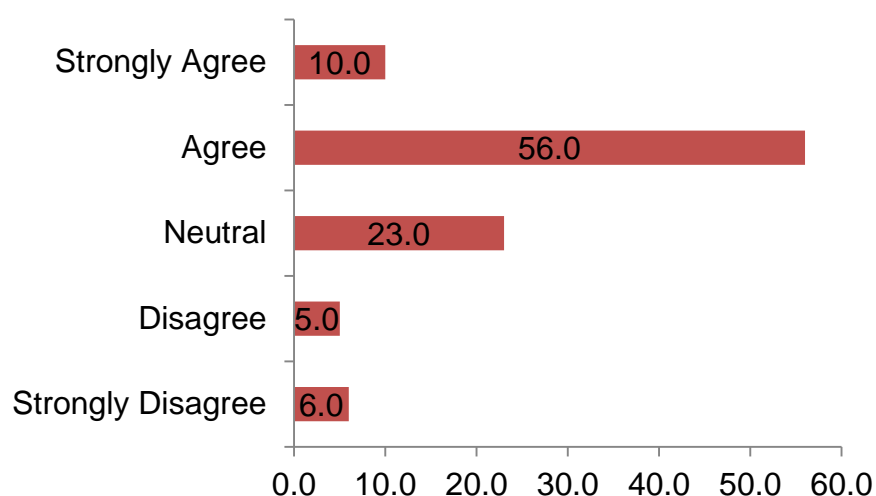

Figure 4.8 (Question 8) I have adequate opportunity to enhance my skills through training or studying

Figure 4.8 above shows that 66% of the respondent either agree or strongly agree that the WQM offers them an opportunity to enhance their skills through training or studying. Of the 66%; only 10% have expressed a strong agreement to the question. It would have been interesting to note how many of these respondents have attended short courses in the past year or are currently having bursaries for further development. Furthermore, 23% of respondents did not have an opinion on this and 11% expressed their disagreement. Training in the workplace is a vital way in today's knowledge-based economy. Workplace training is necessary to help employees develop and use the skills they need to adapt to changing workplace needs, to promote innovation and to help employers remain competitive in the global marketplace.
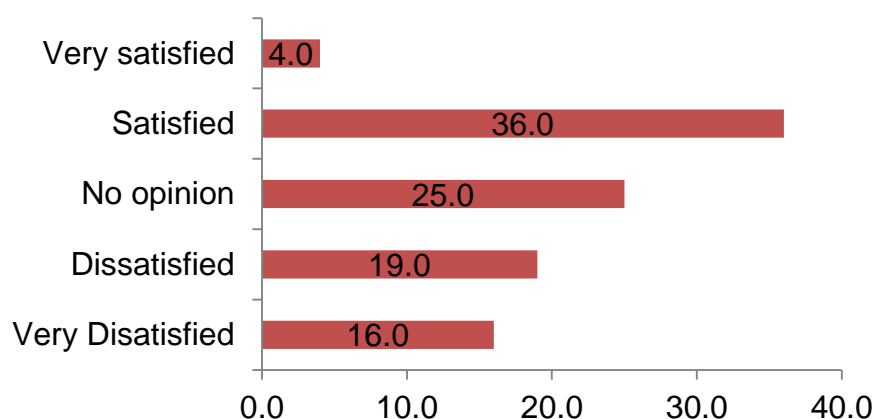
Figure 4.9 (Question 9) I get the impression that the management of WQM section cares about me

Figure 4.9 clearly shows that the 35% of respondents are not satisfied that the management of WQM section cares about its staff members. Some 40% are either fairly satisfied or very satisfied that they are cared for. It is interesting to note the percentage split which is marginally low between the satisfied/ very satisfied and the dissatisfied/ very dissatisfied respondents. It may be logical to infer that it is likely that the quarter of the respondents do not have an opinion on this question may split in almost the same manner, that is, for example, 13% may be part of the satisfied respondents and another 12% of dissatisfied respondents and may thereby keep the split at the same level as it currently reflects. Management of WQM section should always show that they are aware

of and care about each staff member in the section. This will demonstrate to the employees that management is aware of them as people, and are also aware of what's happening on the section. By doing this, management will also demonstrate that they are willing to listen and are responsive to staff's needs.
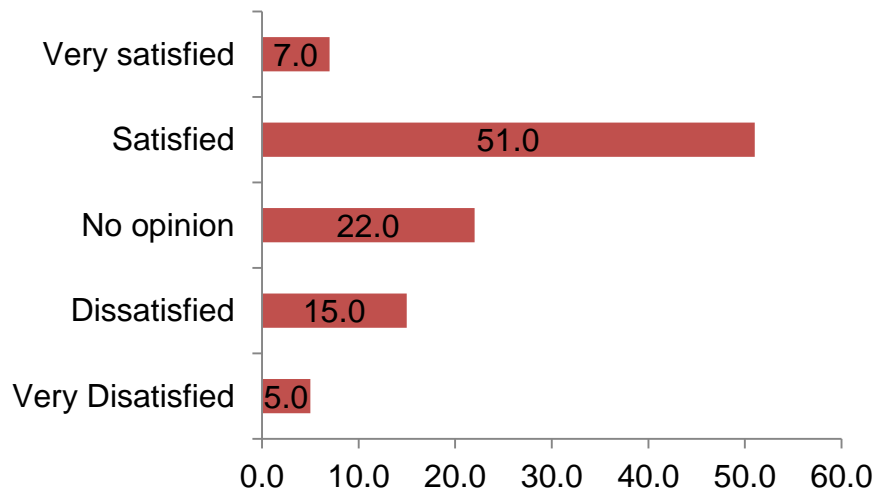
Figure 4.10 (Question 10) I am satisfied with all water quality related tasks that have been assigned to me.

A total of 51% of the respondents are satisfied with the water quality tasks that have been assigned to them. About 7% are very satisfied with their tasks. It is interesting to note that about 20% of the respondents are dissatisfied/very dissatisfied. Their dissatisfaction could be due to various reasons including tasks that are not necessarily where their passion and or competence is. E.g. licensing of water use "Letsema project" where backlog is being eradicated. Most of the respondents participate in this project and it needs employees who are highly experienced and have passion for water resource management in order to provide their input in the licensing process. For someone who is inexperienced this process might not be challenging and exciting due to the lack of experience in water quality. It also has a potential to cause dissatisfaction in terms of tasks allocated due to their inexperience and may trigger thoughts or probabilities for voluntary exit in order for them to find something that may make them feel satisfied with the tasks and the perceived competence.
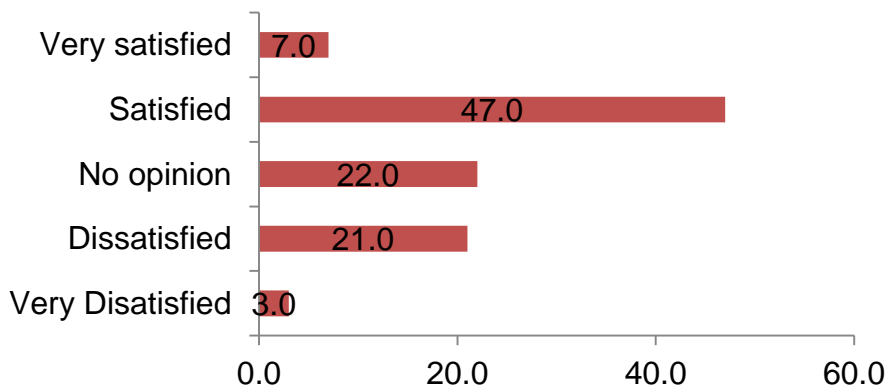
Figure 4.11 (Question 11) I am satisfied with the legal tools e.g. NWA and associated regulation that have been given to me to achieve my key performance areas objectives.

Figure 4.11 indicates that 54% of the respondents are satisfied that the available legislation and its associated regulations are giving them enough powers to execute their duties and utilise the legislation to manage the water resources in a sustainable manner. This legislation and its regulations are regarded as the best piece of legislation in the world; however, the major problem is to implement what is contained in them. It is possible that the problem may be the reason for the 24% of the respondents who expressed their dissatisfaction with the legislation. Once again, 22% of the respondents did not have an opinion on this. This is worrying as it could mean that these respondents are still inexperienced and therefore lack knowledge and understanding on how effective the legislation is, and whether or not this legislation and its associated regulations is indeed sufficient for them to achieve their objective of water quality and water resource management.
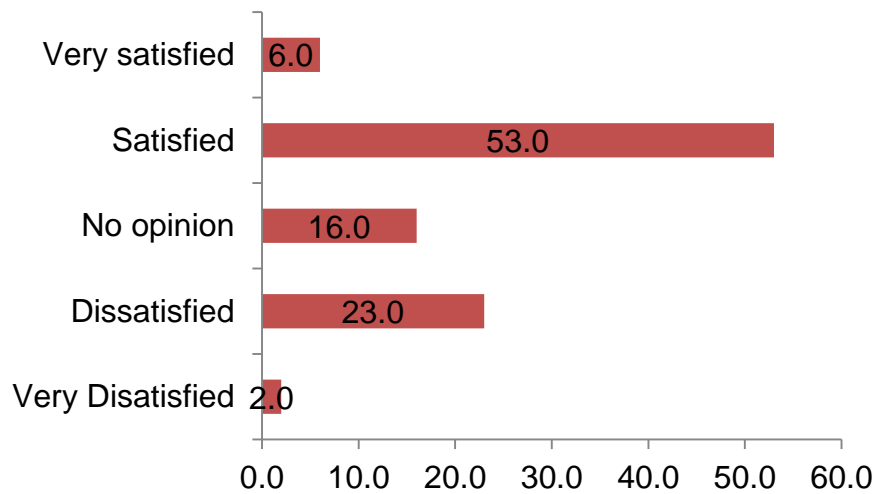
Figure 4.12(Question 12) I am satisfied that the sections of the NWA gives me the appropriate authority to act on issues of water quality?

Figure 4.12 gives an indication that 59% of respondents are satisfied that the sections of NWA applicable to water quality are giving them enough authority to attend to issues of water pollution of the water resources. The appropriate sections include section 19 and 20 of the NWA, which gives them authority to prosecute all water polluters. However, these sections are not assisting the WQM staff with the biggest polluters of water resources which are the local municipality due to the government model. According to this model, the local municipality is another sphere of government and therefore, national government departments cannot take another sphere of government to court with ease. It could be assumed that 25% of respondents that are dissatisfied with these sections are considering the local municipalities' pollution challenges. Also, the analysis of Question 12 correlates well with the Question 11. Both these questions were seeking opinion of legislation- related satisfaction.
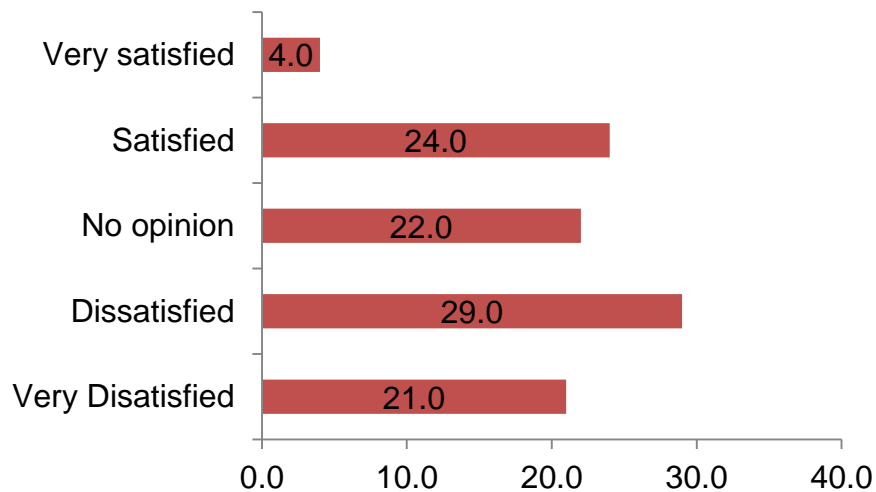
Figure 4.13 (Question 13) I feel there is sufficient incentive for me to go beyond my normal working hours at my current job level?

A total of 50 % of the respondents feel there is not enough incentive for them to go beyond their normal working hours to do some of the tasks assigned to them. This is a worrying factor, as it means that the WQM management does not offer enough incentives to entice and encourage their staff to work beyond normal hours. Management could introduce overtime compensation, however, it needs to be managed and monitored carefully so that staff members do not abuse the privilege. It is an inherent requirement of the job that WQM staff work outside the normal working hours and if this is not done, productivity might be low and the service delivery might be hampered. The staff members are normally offered subsidized vehicle, subsistence and transport allowance as well as overtime as incentives to do the tasks outside their normal working hours and outside their offices. It therefore leaves an interesting question as to what would be the basis of the 50% of the respondents to be dissatisfied whereas, various monetary interventions are in place to make their working environment conducive, particularly beyond normal working hours.
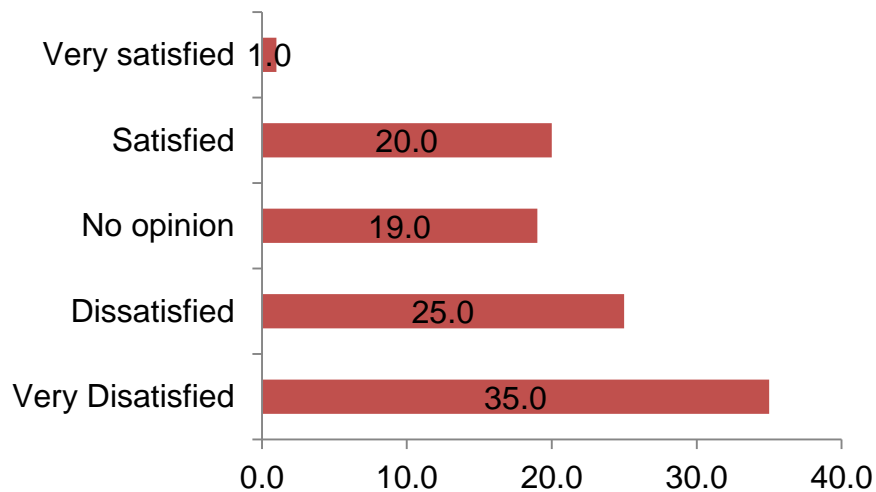
Figure 4.14 (Question 14) I feel that the current OSD compensation is acceptable when compared to remuneration offered elsewhere for this job level.

Figure 4.14 clearly shows that 60% of the respondents are either dissatisfied or very dissatisfied with the occupation scarce skill dispensation in the WQM section. Of the 60%; 35% are very dissatisfied that the OSD remuneration is not acceptable when compared to remuneration for similar jobs offered elsewhere. It must be noted that 19% of the respondents do not have an opinion to this Question. It could once again be the respondents that are fairly new in the section and were recruited into when the OSD dispensation was already implemented. They have also not had a chance to compare the remuneration of their jobs to similar jobs elsewhere. 21% of the respondents are quite satisfied with the OSD remuneration. These respondents could be those staff that are highly experienced and are occupying high ranks, and therefore OSD works well for them.
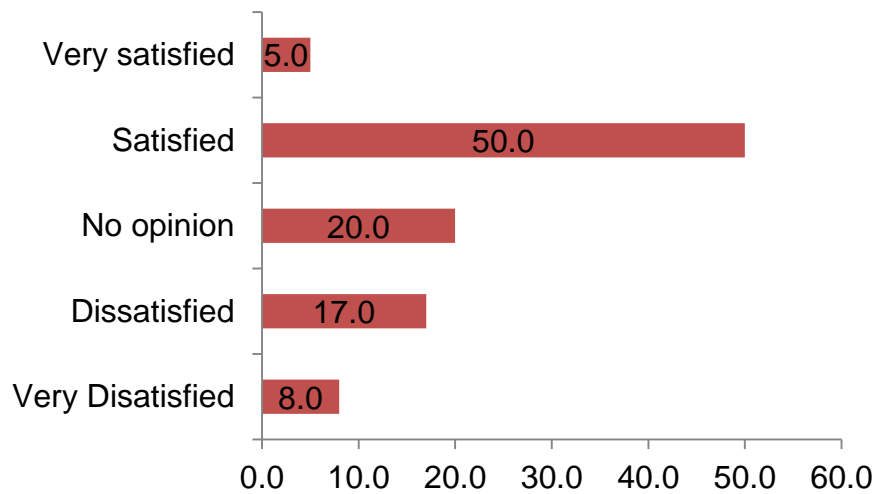
Figure 4.15 (Question 15) There is good team spirit at the WQM section.

Figure 4.15 indicate that 55% of respondents feel either satisfied or very satisfied with the good team spirit they are experiencing in the section; however, 25 % are dissatisfied. One of our basic human needs is to feel we belong to something bigger than ourselves, and for many people that need is met by being part of a supportive work group. Management should create a feeling of unity among WQM staff. This unity will help WQM team members feel valued and that they belong somewhere. As a result they will want to be at work, and the WQM section will function smoothly and be better able to carry out the mandates and goals of the Department.

To foster this team feeling the management need to let each WQM staff know they are a valued part of the team and staff must learn to respect each other for their unique contributions.
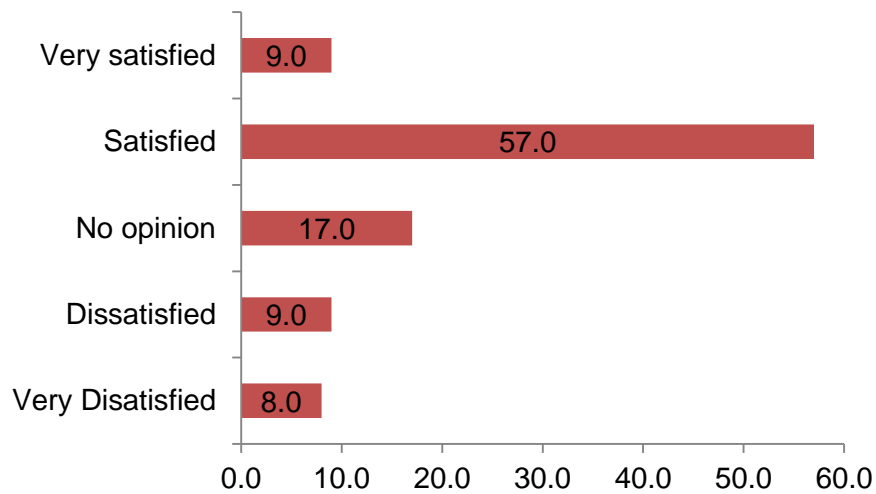
Figure 4.16 (Question 16) I have good flexible working hours

In Figure 4.16; 66 % of respondents are either satisfied or very satisfied with the flexible working hours they are receiving; however, there are 17% of the respondents that are not. Flexibility of working hours is very crucial in the WQM section as the staff members are now and again expected to work outside their normal working hours. The incentives such as overtime compensation must play a major role in motivating the staff and ensuring that they are satisfied to be part of the WQM team.
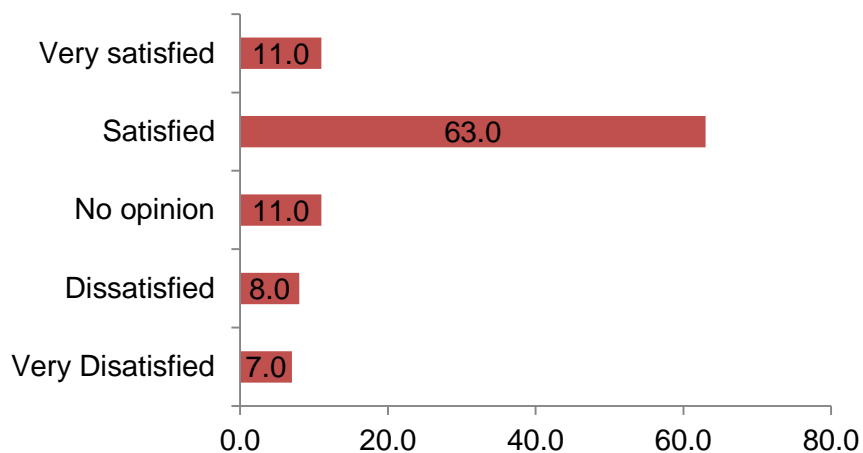
Figure 4.17 (Question 17) I feel I am given the independence I need to do my work well.

Figure 4.17 shows that 74% of the respondents feel they are given an independence to do their work well. The level of dissatisfaction is very low, at about 15%. This is commendable from the management of WQM section, and it is also advisable that such factors must be encouraged as they are likely to make the staff members to feel satisfied and this might reduce the level of WQM staff leaving the section.
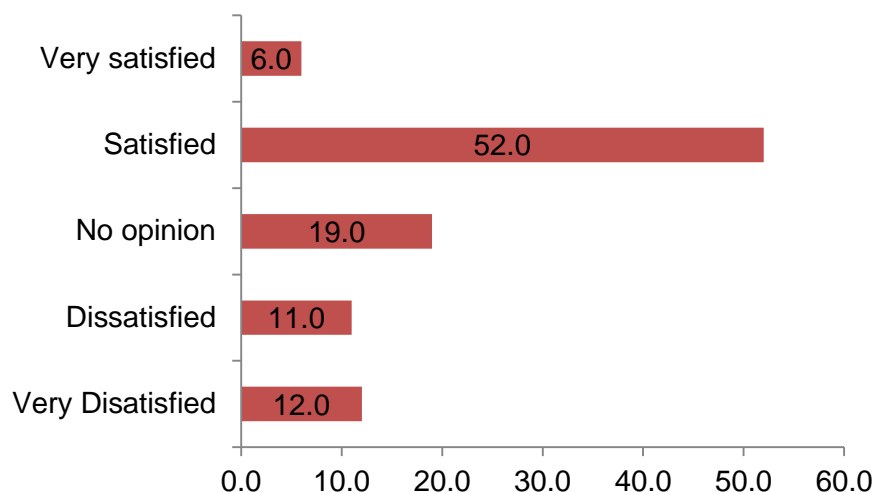
Figure 4.18 (Question 18) I feel secure in my current job

Figure 4.18 demonstrates that 58% of respondents feel that they have their job security in WQM. However, there is 23% that is not convinced that there is job security at their current WQM job. Job security is critical since it contributes to job satisfaction of all personnel. The above statement is supported by the 2010 Employee Job Satisfaction Survey report which was released on the 27 June 2010 whereby job security was ranked the 2nd most important factor that leads to job satisfaction.
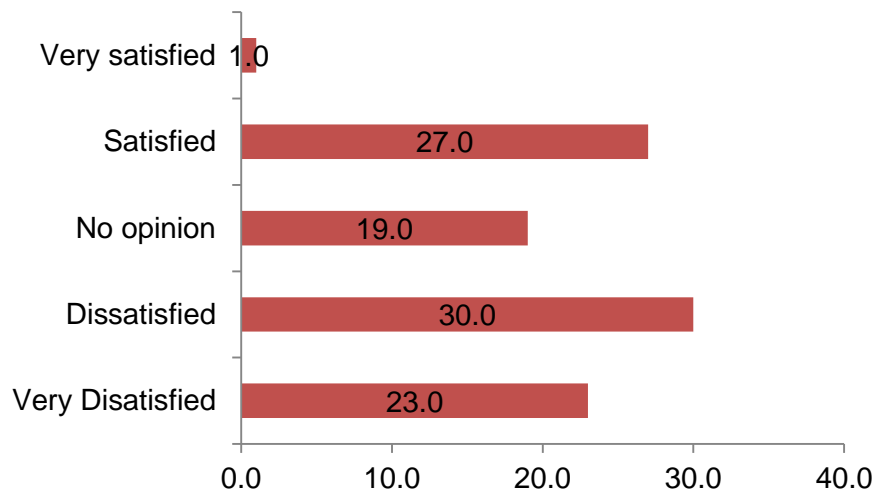
Figure 4.19 (Question 19) I am happy with the way the performance reviews and assessments are being done at the WQM section.

A total of 53% of respondents in Figure 4.19 indicated that they are dissatisfied/ very dissatisfied with the way the performance reviews and assessments are being done. These respondents may need to be interrogated further as to the basis of their dissatisfaction. It is likely that they may not appreciate the process because they are not high performers. Some 19 % did not have an opinion and this could be due to not being yet exposed to performance reviews and assessment for them to make an informed decision. It is also possible that the 19% are not good performers and therefore sees the process negatively.

Performance assessment and reviews should be a positive experience for WQM staff members, as it is a great opportunity for management to praise their staff for their cooperative spirit and all their efforts in doing an excellent job. It is also a good time to thank the staff for participating by bringing their special skills and abilities to the section. Some areas in which the WQM staff members may need improvement, management still need to it a positive encounter by focusing on the good and all that the staffs are doing right.

Performance reviews and assessment are a two-way process and it is also an opportunity for the WQM staff members to rate themselves. This is also an opportunity for management to revisit any difficult situations that the WQM staff

members might have in the past six months or year and ensure that staff are feeling fine about it and are moving forward. Regular reviews ideally monthly may need to be introduced to help engage staff often and to create a better sense of appreciation of the process.
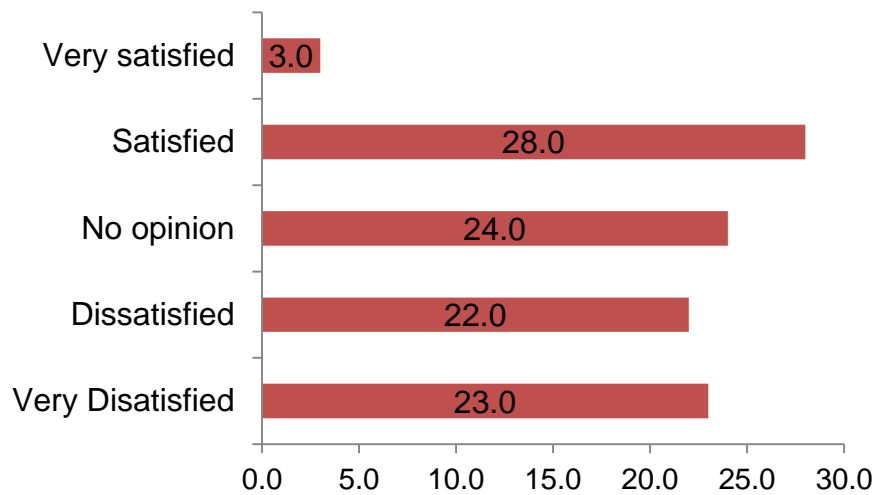
Figure 4.20 (Question 20) I am satisfied with the different levels (8%, 12% and 18%) of performance bonuses that are provided in WQM section.

In figure 4.20; 45% of respondents are dissatisfied with the bonus levels, and it is once again sad that 24% of respondents do not have an opinion on this matter. It is possible that their level of exposure to the bonus aspect is limited. Remuneration or reward is one of the intricate issues in the employment relationship and can be inferred from the human nature of always believing they deserve more, thus the possible reason for dissatisfaction amongst the 45% of respondents.
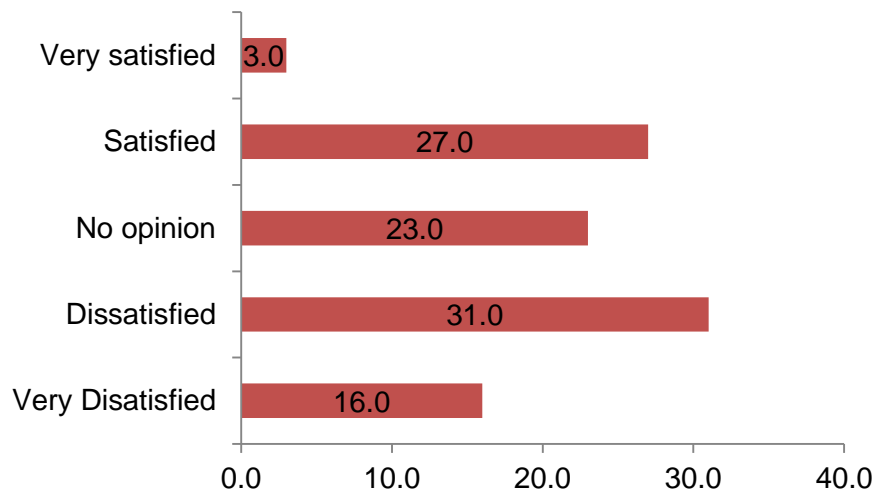
Figure 4.21 (Question 21) I am satisfied with the recognition I am getting from management for my effort.

In figure 4.21; 47% of respondents are either dissatisfied or very dissatisfied with the recognition they receive from the management for their efforts. Out of the 47%, 16% are very dissatisfied. Only 30% seem to be happy about the situation. It is important for management to give recognition and appreciation to everyone at every opportunity. Whenever managers noticed people doing well, they need to make sure they recognise and praise them ideally openly. Rather than just saying something vague like "good job", managers need to recognise excellent job performance and attitude. Showing appreciation for these things will go a long way towards making WQM staff members feel that they are a valued and respected part of the team. A reward and recognition program might have to be introduced which will be a formal way to recognise and reward deserving staff members.

Management always must give credit for success of their staff, and take responsibility when things don't go well. WQM management must ensure that staff is well trained, capable and competent. If for some reason they fail to perform their job in the expected manner, it is management responsibility to ensure that they receive further direction and training so they will be able to perform up to standards.

Strongly Agree 2.0
Agree 37.0
Neutral 40.0
Disagree 17.0
Strongly Disagree 4.0
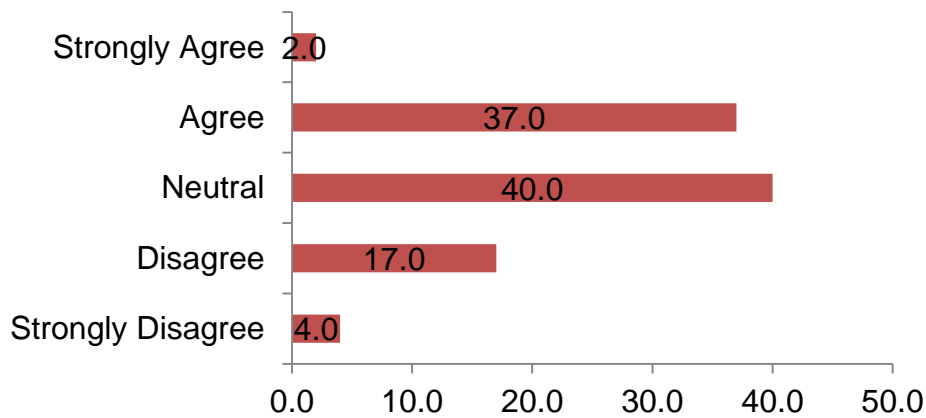
Figure 4.22 (Question 22) I have good support from the section in terms of mentorship

In figure 4.22, 40% of the respondents did not offer an opinion to this question. This is a worrying factor as mentorship is critical.

Very satisfied 6.0
Satisfied 45.0
No opinion 21.0
Dissatisfied 21.0
Very Disatisfied 7.0
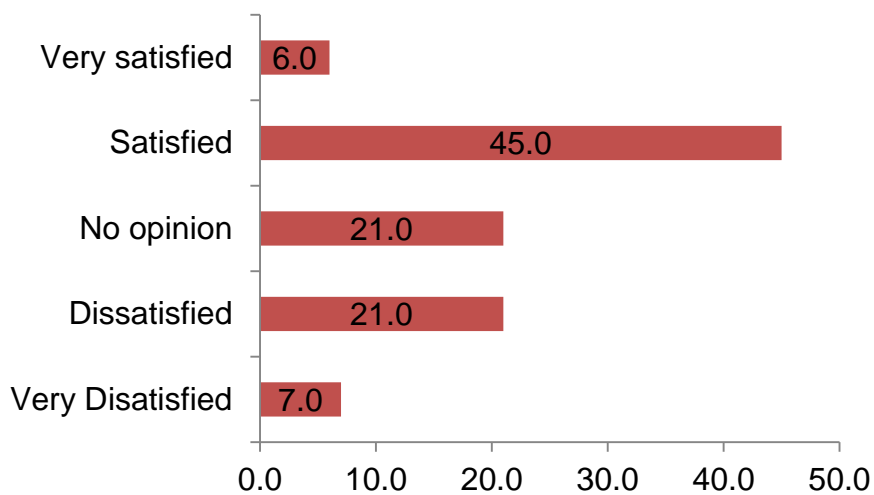
Figure 4.23 (Question 23) I feel safe when I am performing my duties outside my office

In Figure 4.23, 51% of the respondents feel safe when performing their duties outside their office. It is an inherent condition of the WQM jobs that they are field workers and therefore expected to work outside their office and sometimes outside their normal working hours. Some 28% of the respondents are dissatisfied with the safety issue. Once again a 21% of respondents did not express their opinion.
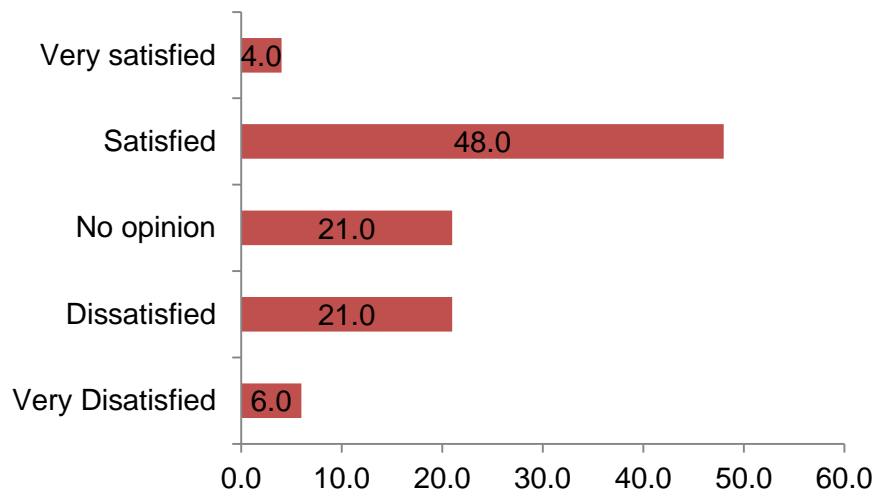
Figure 4.24 (Question 24) I have excellent informal support from my superiors

Figure 4.24 illustrates that some 52% of respondents feel their superiors are supporting them. Only 27% are dissatisfied about the informal support they receive from their superiors. Informal support from superiors is an important factor to employees because it makes them to feel appreciated and cared for. This factor is important that management need to take seriously if they want to retain their staff members in their sections.
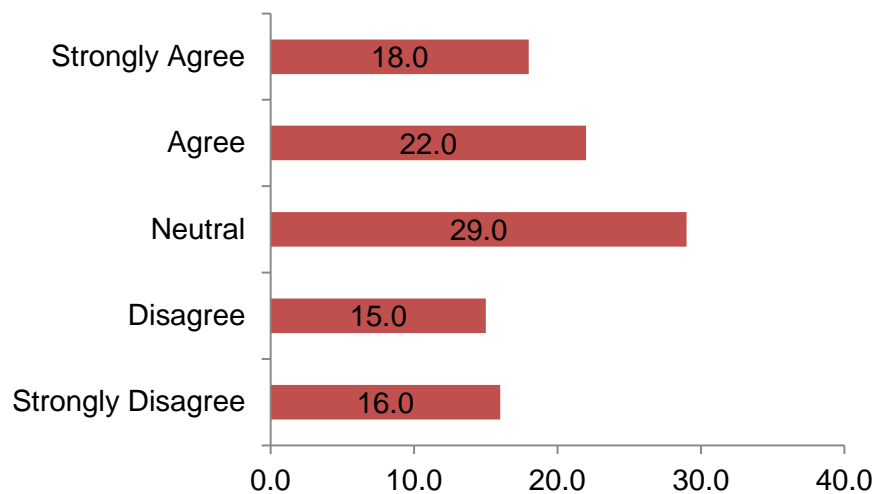
Figure 4.25 (Question 25) I have considered asking for a transfer to another section/ Department.

In Figure 4.25, 40% of the respondents have considered asking for a transfer to another section/ Department. Out of the 40%, only 18% have strongly considered asking for a transfer. This is an indication of their intention to leave the WQM section. It is possible that the 40% which is a significant percentage may be those respondents who feel that their skills and abilities are under utilised. However, it is also good to note that 31% of the respondents have not considered a transfer to another section or Department. That means there are those that are quite happy being in the section and do not have intention to leave through a transfer.
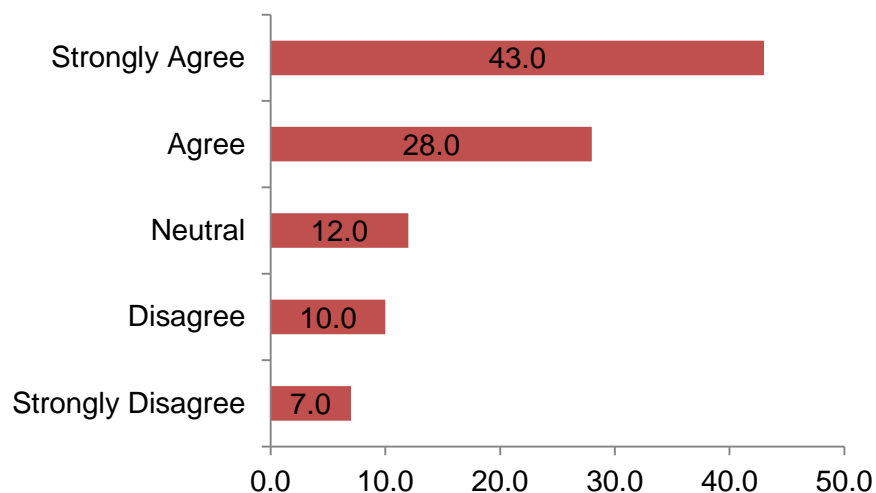
Figure 4.26 (Question 26) I have considered applying for jobs elsewhere

In figure 4.26, 71% of the respondents have considered applying for a job somewhere. Of the 71%; 43% have shown a strong intention to apply somewhere else. This result indicates a high level of dissatisfaction and thus translates to an intention to leave the section. When comparing results illustrated in Figure 4.25, the intention to leave the section by applying elsewhere is stronger than an intention to leave through a transfer. It means a number of WQM staff would rather apply somewhere else than to consider taking a transfer to another Section/Department.
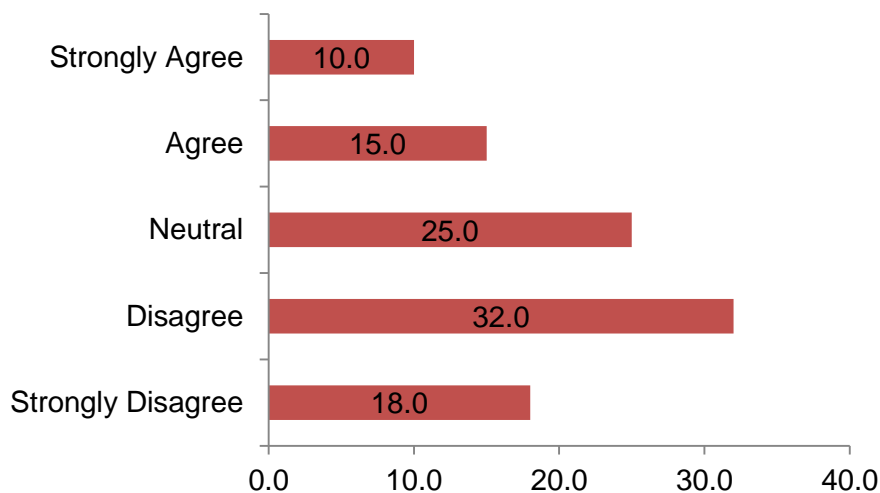
Figure 4.27 (Question 27) I have requested a transfer to another Section/ Department.

Requesting for a transfer to another section is not a popular way of leaving the section. In Figure 4.27, only 25% of the respondents have actually asked for a transfer to another Section/Department, as opposed to 40% of the respondents (Figure 4.25) that have considered asking for a transfer. Further, 40% of the respondents have not asked for a transfer although only 31% have considered asking for a transfer. A quarter of the respondents have not provided their opinion.
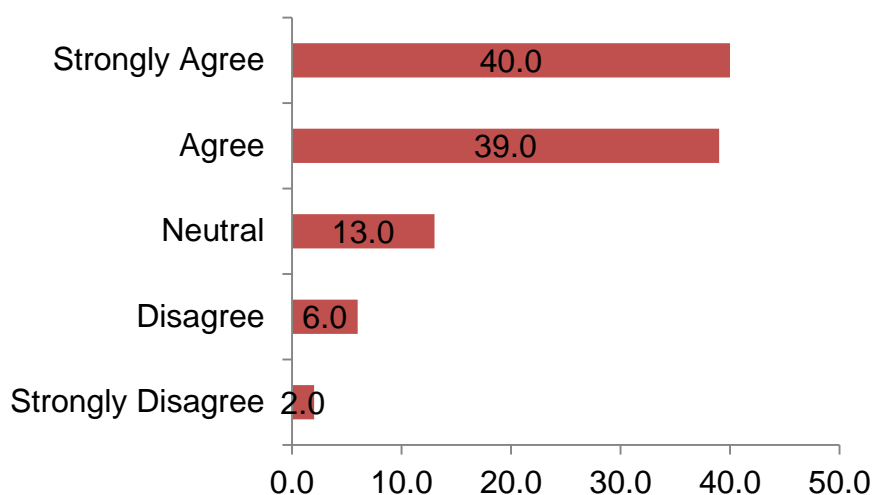
Figure 4.28 (Question 28) I have applied for jobs elsewhere.

In Figure 4.28, 79% of the respondents have applied for jobs elsewhere. Out of 79%; 40% have expressed their strong opinion about applying for jobs somewhere. This result demonstrates the high intentions of the respondents to leave the WQM section. This information correlates well with the reasons why there are a high number of staff members with less or inadequate experience as the section seems to be unable to retain their human capital.

4.4   Inferential Statistics

This section will be presented as correlations and regressions analyses. Principal Component Analysis (PCA) technique and Regression Analysis were utilised during the data analysis.

4.4.1   Principal component analysis

Using the PCA technique, this study aimed to summarise the information contained in a number of correlated variables (in this case, there are 18 factors that are likely to result in staff turnover) into a smaller set of uncorrelated dimensions with minimal loss of information. The factors that are likely to result in high staff turnover are illustrated in the previous section from Figure 4.7-Figure 4.24. The decision about which of the principal components (PC's) to retain depends on the percentage of the variation in the original variables accounted for by each PC and whether the PC can be meaningfully interpreted (Koutsoyiannis, 1987). The data presented here is in ordinal form and according to Darroch and Mushayanyama (2006); the use of this set of data can be justified if the researcher intends to find general clustering of variables for exploratory purposes and if the underlying correlations among variables are believed to be moderate – less than 0.7.

The correlation matrix on factors that result in high staff turnover run in SPSS indicated that all the estimated correlation coefficients were less than 0.7 (see

Table 4.1 below hence PCA was applied for exploratory purposes as explained above.

	Component Matrix				
	Component				
	1	2	3	4	5
Skills	.046	.895	.144	.081	.035
Training	.140	.642	.165	.179	-
Care	.450	.541	.715	-.025	.109
Tasks	.371	.603	.077	.023	.182
Legislation	.033	.298	.009	.778	.236
Authority	.137	.061	.069	.863	.106
Incentives	.214	.140	.969	.038	.220
OSD	.216	.266	.891	.107	.235
Team spirit	.545	.404	.338	-.319	.304
Flexibility	.669	.393	-	.182	.245
Independence	.592	.402	.137	.097	.050
Security	.448	.602	.271	.132	.121
Appraisals	.225	.104	.371	.192	.751
Bonuses	.150	-.010	.117	.220	0.900
Recognition	.528	.398	.376	-.108	.511
Mentorship	.523	.162	.163	.006	.137
Safety	.673	-.149	.391	.416	-
Support	.769	.088	.238	.062	.161

Table 4.1 illustrates the component matrix on factors that result in high staff turnover

In Table 4.1, five PC's that explained 66.8% of the variance in factors that lead to high turnover was extracted from the covariance matrix using the SPSS Statistical Package. Koutsoyiannis (1987) suggests retaining PC's that meet Kaiser's criterion PC's must have Eigen values of one or above.

The rule of thumb frequently applied by researchers to interpret component loadings is based on no mathematical proposition. Following this, all components loading greater than 0.5 in absolute terms are considered very significant. The components should also be meaningfully interpretable otherwise a rotation method will be applied. In this study, the rotation method was applied (See Table 4.2) in order to improve the interpretation of the results as follows:

Initial Eigenvalues[a]			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
7.851	37.995	37.995	7.851	37.995	37.995	3.441	16.653	16.653
1.840	8.905	46.899	1.840	8.905	46.899	3.118	15.089	31.742
1.666	8.064	54.963	1.666	8.064	54.963	3.044	14.731	46.473
1.279	6.190	61.153	1.279	6.190	61.153	1.839	8.901	55.374
1.172	5.672	66.824	1.172	5.672	66.824	2.366	11.451	66.824

Table 4.2 Illustrates five PCs that lead to staff turnover.

In Table 4.2, PC_1 accounts for 37.9% of the total variation. This index shows high loading in excellent informal support from superiors 0.769, safety in performing duties outside office 0.673, flexibility in working hours 0.669, independence to do work 0.592, team spirit 0.545, recognition from management for work done 0.528, and mentorship/ support 0.523.This indicates the need for a Laissez-faire leadership style to be used in WQM section. This "leave it be," management style is ideal in this situation since WQM management could allow their staff members to work on their own. WQM staff could receive complete freedom to do their work and set their own deadlines and they receive support through resources and advice from the management, if needed. This leadership style can be effective if the WQM management monitor performance and gives feedback to team members regularly. It is most likely to be effective when individual team members are passionate about the water quality and water resource management, experienced and skilled. The main benefit of laissez-faire leadership is that it gives team members so much autonomy and this can lead to high job satisfaction and increased productivity in the WQM section.This style has disadvantages because it could result in poor management and makes the employees lose their sense of direction and focus. The disinterest of the management and leadership causes the employees to become less interested in their job and their dissatisfaction increases.

This result of 0.673 indicates that positive contribution by management towards supporting staff informally is likely to ensure a feeling of caring and safety when duties are performed outside office and these staff members value flexible hours where they are not tied to some form of fixed working hours. There is a lot of value for these WQM employees in safeguarding their independence. All these culminate in a sense of recognition from management for the work they have done.

PC_2 accounts for 8.9% of the total variation. This index shows high loadings in skills 0.895, training 0.642, security 0.602, and care 0.541. Generally this index is about opportunities of skilling staff and utilisation of the acquired skill optimally. This index shows that staff sees the importance of adequate opportunities to enhance their skills and that their skills and abilities are being utilized.   They also feel that there is a need for caring on the part of management. The training opportunity and utilisation of skills acquired thereof result in staff members feel secure with their job.

PC_3 accounts for 8.1% of the total variation. This index shows high loadings in incentives 0.969, OSD 0.891 and care 0.715.   This index is about financial incentives and rewards that the staff feel is very important and it shows that the management cares about them. The issue of OSD is likely to cause staff turnover if is not implemented properly.   Also incentives such as overtime, Subsistence and travelling allowance are very crucial as this form of compensation if provided to the employees, is likely to satisfy the employees and thus prevent high turnover in the section.

PC_4 accounts for 6.2% of the total variation. This index shows high loadings in authority 0.863 and legislation 0.778. Water quality staff utilises the legislation such as NWA and its associated regulation to perform their daily duties. Furthermore, certain section of NWA such as section 19 and 20 are the key tools that staff uses to manage and conserve the water quality of the resources. This index highlights the importance of the applicable legislation and the

authority that comes with it, in ensuring that the water quality work is executed successfully. If the NWA is the best piece of legislation and it is well implemented, WQM staff is likely to be satisfied about using it and this could lead to less staff intending to leave the section as a result of not having enough authority to execute their tasks.

PC_5 accounts for 5.8% of the total variation and shows high loadings in bonuses 0.9, appraisals 0.75 and recognition0.51. This indicates that staff appraisals are normally rewarded through bonuses currently pegged at 8%, 12% and 18%. These bonuses are acceptable. The department should ensure that the appraisals and rewarding of bonuses continue because the index could easily decline if bonuses or some form of reward is not offered to staff.

4.4.2 Regression analysis

Regression analysis includes many techniques for modelling and analysing several variables, when the focus is on the relationship between a **dependent variable** and one or more **independent variables**. More specifically, regression analysis helps one understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed.

In this section, all 22 factors (Figure 4.7-Figure 4.28) were analysed using the SPSS. Table 4.3 below indicate the results were obtained from the SPSS.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Skills	100	1	5	3.24	.109
Training	100	1	5	3.59	.095
Care	100	1	5	2.93	.117
Tasks	100	1	5	3.40	.099
Legislation	100	1	5	3.38	.097
Authority	100	1	5	3.34	.099
Incentives	100	1	5	2.61	.118
OSD	100	1	5	2.27	.117
Teamspirit	100	1	5	3.27	.106
Flexibility	100	1	5	3.50	.105
Independance	100	1	5	3.63	.102
Security	100	1	5	3.29	.113
Appraisals	100	1	5	2.53	.115
Bonuses	100	1	5	2.66	.120
Recognition	100	1	5	2.70	.112
Mentorship	100	1	5	3.16	.087
Safety	100	1	5	3.22	.107
Support	100	1	5	3.23	.102
Transferrequest	100	1	5	3.11	.132
Applyelsewhere	100	1	5	4.09	.098
Transfer	100	1	5	2.67	.122
Applied	100	1	5	3.90	.126
Valid N (listwise)	100				

Table 4.3 SPSS Illustration of 22 factors that could result in staff turnover.

Using the above information contained in Table 4.3, SPSS was used and the following information was obtained.

	Mean	Std. Deviation	N
L	3.4	0.9	100
S	3.1	0.6	100

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.769	1	10.769	15.614	.000[b]
	Residual	67.588	98	.690		
	Total	78.357	99			

a. Dependent Variable: L

b. Predictors: (Constant), S

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371	.137	.129	.83047

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	5.031	.411		12.256	.000	4.216	5.846
	S	-.511	.129	-.371	-3.952	.000	-.768	-.254

Turnover = 5.03 − 0.51 Satisfaction

$$(12.3)^{***}$$

Adjusted R^2 = 0.13

F= 15, 6***   df = 99   **Equation 1**

The above equation is statistically significant (F=15.6). The variance in satisfaction explains 13 percent of the variance in staff turnover. The negative, statistically significant coefficient estimate in this equation support hypotheses that low levels of staff satisfaction results in higher turnover. The constant of 5.03 shows that irrespective of job satisfaction, there is likely to be some form of turnover anyway.

4.5   Summary

From the analysis of results obtained, it is clear that there is an indirect relationship between job satisfaction and turn over. If a staff member is not satisfied with the job, he/she is likely to leave the WQM section. And if a staff member is satisfied with the job, the intentions of leaving the section are slim. Therefore, WQM Management should focus on improving satisfaction elements that were discussed in section 4.3.1 should they want to avoid staff turnover. However, the equation generated from analysis also indicates that sometimes irrespective of whether the staff member is satisfied or not with the job, she/he might   decide   to   leave   the   section   anyway.

CHAPTER FIVE
CONCLUSIONS AND RECOMMENDATIONS

5.1   Introduction

This chapter presents the conclusions and recommendations concerning this research. Based on discussions with senior management, this study will be of benefit to the management of the WQM section and the Department to attract and retain the intellectual capital.

5.2   Conclusions

5.2.1 Objectives one and two
Objective one and two of this study attempted to determine factors that lead to staff satisfaction and dissatisfaction within the WQM section.

Findings:

Literature: The literature review conducted indicated that there are intrinsic motivators and extrinsic hygiene factors that impact on job satisfaction/ dissatisfaction. The intrinsic factors highlighted in the literature review include staff engagement, staff involvement in decision making, training opportunities, individual development opportunities and staff reviews. The extrinsic factors highlighted include work load, safety issues, work conditions, pay/ compensation, support received by staff, sufficient resources provided, recognition and adequate training provided.

Fieldwork: Based on the fieldwork results, it could be concluded that WQM staff members need recognition in order to feel valued. A compensation and recognition programme might need to be put in place in order to formally recognise and reward the deserving staff members. Informal support to staff and mentorship programmes are also highlighted in the outcome of the study as major issues that WQM management needs to look into.

Fieldwork further revealed that if staff members of WQM are optimally utilised in terms of their skills and competence, then their need to be valued would automatically arise. It may also be deduced that where there is a correlation between the satisfaction and optimal skill utilisation, then productivity may be the most logical outcome. WQM staff also needs opportunities to enhance their skills through training or studying. Opportunities through short courses and the awarding of bursaries could motivate and encourage staff and this might make them more loyal and result in them remaining at WQM. Personal development programmes are to be developed by all WQM staff, whereby each staff member identifies his/her training needs and the management of the section makes sure that those training needs are met and people are developed. Also, the manner in which water quality tasks are allocated is crucial. It is important for management to identify what staff members are good at and where their passion lies. Allocation of tasks could be based on the ability, skills, experience and passion that particular individual has towards those tasks.

The study also highlighted the importance of the applicable and relevant legislation. It appears that there may be a need to enhance the legislation and its associated regulations with the hope that it will address the concerns raised about the inadequacy of the legislation on the staff's ability to execute their duties.

It was also noted that there are concerns regarding the reward/pay processes in relation to working beyond normal working hours. Incentives such as overtime, OSD compensation, Appraisals and Bonuses seem to be big factors in satisfying the WQM staff.

Conclusion: In conclusion it is evident that literature and fieldwork refer to the same issues and that this study has identified issues relevant to staff satisfaction and dissatisfaction. If addressed as per recommendations made, WQM will then most probably ensure that it increases staff satisfaction level and

as a result retains the valuable expertise.

5.2.2 Objectives three and four

Objective three of this study attempted to establish whether staff turnover intentions at the WQM section at the Department are high. Objective four tries to determine whether dissatisfied staff are more likely to leave the section.

Findings:

Literature: According to Barak et al., 2005 physiological factors such as demographics could be used to indicate intent of staff members to leave or stay. Furthermore, Westbrook and Dews (2006) indicate that age is relevant in predicting turnover as older workers are less likely to leave their jobs than their younger co-workers.

Fieldwork: Based on the demographic results obtained from this study, it could be concluded that the WQM section is predominantly comprised of young people with limited WQM experience however, there is a good percentage of those younger people that are highly educated. If the Department cannot meet their career and job satisfaction needs, they could leave the section and the Department. This study further shows that there are a number of old and experienced members who are thus assets to WQM and are quite happy working there.

Conclusion: In conclusion, it is evident that fieldwork and literature refer to the same factors that could determine staff turnover.

5.3 Limitations of the Study

Based on the study, some limitations have been experienced as only WQM personnel that are still working for DWA and WQM section were included. It would have been of value to include those people that have already left the Department and the WQM section to determine their reasons for leaving.

In addition to the above, the measurements on the questionnaire relied on the perceptions of the respondents and not their actions.This study also revealed that about 20-25% of the respondents did not express their opinion on a number of factors. This is a worrying factor as their opinion was critical in that they could have provided more insight to add value to the study. Also, removing the neutral option on the questionnaire could have been good in a sense that respondents would have been forced to make an opinion.

5.4   Implications of this Research

This study will be of value to the management of the WQM section and the Department's Human Resources section to manage turnover by addressing issues which adversely affect employees in terms of job satisfaction. If the identified shortcomings are addresses that should improve the working environment, improve productivity and reduce turnover. Furthermore, this research provides scientific and logical insight with regards to factors that may cause dissatisfaction of qualified yet underutilized employees, especially in government. Clearly such issues need to be evaluated and addressed in order to retain competent, skilled personnel.

5.5   Recommendations

It is recommended that in order to keep staff satisfied, the WQM management need:-

1. To enhance staff skills through training/ studying: - A personal development programme for each employee must be drawn up. All training needs e.g. short courses, post graduate courses must be identified and be put on the programme. Budget must be available for these training needs to be met. After the course has taken place, the impact the course has had on the individual's skills needs to be evaluated. In order to realize the value of their investment (Return on Investment), the department may have to put in place contracts aligned to the training/studying provided with an aim of retaining the skills acquires over a period of time.

2. To draw up a Reward and Recognition Plan: - WQM section must develop a plan where all employees that perform well are recognized. This process should be transparent and all employees to participate, e.g. quarterly nominations of the best technical performer/manager/ administrator, and people need to vote for their preferred candidate. Another example might be to put in place "Employee of the Month" boards. Criteria for all these options will have to be developed to ensure fairness and objectivity. In doing so people that deserve to be recognized will receive their recognition openly. Financial rewards could be given to best performers on a quarterly basis.

3. To adopt an approach to empower employees whereby staff members could be allowed to work on their own and be more independent. They would set their deadlines but receive support through resources and advise from management if needed. A Flexi time programme must be considered and people must be financially compensated should they work overtime.

4. To conduct appraisals and award bonuses in a transparent manner.

5.6 Summary

Data collected was able to solve the research problem as the factors that result in job satisfaction/ dissatisfaction were identified. Furthermore, the factors that may result in turnover were also discovered.

The data confirmed the hypothesis that low levels of staff satisfaction result in high turnover. It also revealed that it is likely that there will be some form of turnover irrespective of job satisfaction or not.

In conclusion, this study has identified various shortcomings and

recommendations have been made to address such shortcomings. If these recommendations are soundly implemented and monitored, they should result in improved staff morale, job satisfaction and thus lower staff turnover rates. This would be of immense benefit to the WQM section and the Department as a whole.

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