

**UNIVERSITY OF KWAZULU-NATAL**

**Measuring internal locus of control and job satisfaction at Protea Chemicals in  
Durban, South Africa**

**By**

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## DECLARATION

I Fuzala Khan declare that:

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## **Dedication**

I dedicate this thesis to Tawfiq N.M. Khan, Abiahda B. Khan, Z.F. Khan and the newest member Muhammed Yassir F. Khan.

## **Abstract**

Locus of control, education and job satisfaction were the focus of this study. The relationship among these factors determine levels of employee productivity, employee satisfaction and proposes solutions on how to enhance it and help the company gain a corporate advantage over their competitors. This research study attempts to examine multiple aspects of psychological empowerment in the organization based on the locus of control.

Data collection was done by using a self-completed survey. The survey was completed by Protea Chemicals Mobeni employees. Hierarchical regression and bias-corrected procedures were utilized to test the hypothesis.

The objectives were set to understand the factors that influence locus of control, the impact of education on locus of control and the impact of locus of control on job satisfaction. Concepts of locus of control including the definitions and theories such as Attribution theory, social learning theory and theory of learned helplessness. McClelland's Theory of Needs, Maslow's Hierarchy of Needs Theory, Alderfer's ERG Theory and Herzberg's two-factor theory of motivation gave rise to the research instrument used in the study to substantiate job satisfaction.

This study conducted is a cross-sectional one which highlights the significance of improving psychological empowerment and natural work motivation which refers to behavior that is driven by internal rewards to advance employees work performance. A sample size of 63 employees was asked to provide their views on a Likert-scale questionnaire the results show that there is a relationship between the levels of education and locus of control. It also shows that there is a significant relationship that exists between locus of control and job satisfaction.

**Keywords:** work performance, psychological empowerment, intrinsic work motivation, locus of control and education.

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# Chapter One

## Introduction

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### 1.1. Introduction

In the ever-changing work environment, organisations must capitalise on their human capital in order to maintain competitiveness (Bester, J., Stander, M.W., & Van Zyl, L.E. 2015). Becker (2002) realized when he declared “the economic success of individuals, and also of whole economies, depends on how extensively and effectively people invest in themselves”. Human capital is the key to success and the most productive workers are looking for a good job, it has become the responsibility of managers to create environments that allow for happy employees to perform at their best (Murray, R., 2016).

Job satisfaction has become a global issue in the private and public sectors for developed and developing countries (Sattar, 2014). The topic of this dissertation was to measure the relationship between internal locus of control and job satisfaction at Protea Chemicals Mobeni, through education. Locus of control is a personality variable which refers to individuals’ perception of the main causes of events in life (Igbeneghu and Popoola 2011). This study highlights the significance of improving the psychological empowerment and work motivation defined as the conduct that is driven by internal rewards to promote employees work performance. The results of this study provides evidence for management, aimed at motivating workers whose locus of control differ from what is required. This study expands the psychological empowerment studies by first inspecting the psychological mechanism through which locus of control influences job satisfaction and then how this impact is dependent upon an individual’s level of education.

## **1.2 Motivation for the study**

Positive organisations can be seen as focusing on the creation of overall wellness (Wilson, Dejoy, Vandenberg, Richardson & McGrath, 2004), in an attempt to sustain individual and organisational performance (Cartwright & Cooper, 2014). Educative efforts enable employees to build knowledge, skills, and abilities, not only to do their own jobs better but also to learn about skills and the economics of the larger organization (Lawler, 1996). Fong and Snape (2013) suggest that empowerment could be viewed as a state that comes from within an individual, indicating that empowerment is similar to the concept of intrinsic motivation.

This study will aim to provide a reference in organizational performance through employee arrangement and evaluate the organization's human capital with respect to the alignment of an individual's needs and capabilities, with their work desires. The organization will be interested in distinguishing from its pool of employees; its potential leaders and its experienced followers. The major aim of this study will be to ascertain whether education has an impact on the internal locus of control of employees at Protea Chemicals Mobeni. The relevance of this study to the organization would be evaluating employees locus of control intern helping to determine the employees fit in the organization. Understanding the employees fit will lead the employee towards job satisfaction, better task performance, and psychological empowerment. This study will aid with deciding whether an employee should be groomed for more senior roles in the organization or whether the employee's best attributes align him/her to their current position.

## **1.3 Focus of the study**

In order to evaluate how the level of education amongst the employees, had an impact, on their internal locus of control, the study investigated the following:

- Education as a key driver in the individual's locus of control at the diverse levels of the employment hierarchy?

- The link between internal locus of control and job satisfaction?

### **1.3 Problem statement**

Protea Chemicals Mobeni has like other large organizations, an expectancy of improved levels of productivity and competitive advantage over its rivals in the Water Treatment, Wax and Oil Industry. Having a “best fit” employee position can improve the company’s effectiveness, efficiency, and competitive advantage. Management has identified the need to determine employee’s internal locus of control in order to optimally align employee position with individual awareness of responsibility.

### **1.4 Organizational context**

Regardless of what type of business you operate in, it is vital that you have a quality workforce to help your organization operate and develop effectively.

Conventionally, individuals with an internal locus of control:

- Engage in exercises that will enhance their circumstances.
- Emphasize endeavoring accomplishment.
- Work hard to improve their insight, aptitude and capacity.
- Are curious, and attempt to make sense of situations.
- Identify and utilise data that can be used to make positive results.
- Have a more participative management style.

Therefore the reason why internal locus of control is an important character trait to be investigated at Protea Chemicals Mobeni is to understand the job function against employees perfect fit. Understanding locus of control will aid the organization with full-filling employee job satisfaction and task performance. Furthermore, understanding an employee’s locus of control, will help the organization empower the employee to best fit their designated responsibilities. If the employee has an internal locus of control, he/she knows that they are in control. If they succeed, they will get the credit and if they fail, they will accept responsibility. This is typical of a leader, accepting responsibility and taking charge. If the employee defines

themselves with an external locus of control, they'll tend to blame other individuals, their surroundings or a higher force that controls what happens, in essence, they are helpless. These individuals may be best suited for other operational tasks in the organization. The relevance of accepting responsibility in the workplace and taking ownership is key to having an organizational culture that is compatible with the ethos of "it's our company".

The research provides insight to the following questions:

- Do we have talent that is going un-noticed?
- Do we have operational experience taking precedence over highly educated employees?
- Should we invest in educating the right people?

### **1.5. Objectives**

The objectives of this study are to determine the following with regards to the relationship between locus of control, education and job satisfaction amongst employees:

- Objective 1: To determine the factors that influence internal locus of control.
- Objective 2: To determine the impact of education on the locus of control.
- Objective 3: To determine the impact of locus of control on job satisfaction.

### **1.6. Research questions**

The following key research questions were used in reaching the objectives of the study:

- What are the factors that influence internal locus of control?
- What significance does education have on internal locus of control?
- What significance does locus of control have on job satisfaction?

## **1.9. Expected limitations of this study**

The limitations of the research study are as follows:

- Self-reported information: self-reported information is constrained by the way that it rarely can be autonomously verified.
- Self-reported information contain a few potential sources of inclination that should be noted as limitations:
  - particular memory (recollecting or not recalling encounters or occasions that happened sooner or later)
  - extendable [recalling occasions that happened at one time as though they happened at another time]
  - attribution [the demonstration of ascribing positive occasions and results to one's own office yet crediting negative occasions and results to outer forces]
  - misrepresentation [the act of speaking to results or adorning occasions as more huge than is really supported from other data]

## **1.10 Outline of the study**

The study consist of the following chapters

### **Chapter One – Introduction**

This chapter identified the motivation for the study, the focus of the study, the problem statement, research objectives, research questions, the limitations of the study and assumptions.

### **Chapter Two – Literature review**

In this chapter an in-depth literature review of the concepts of internal locus of control and job Satisfaction was undertaken. Academic resources such as peer reviewed academic journals, books and previous studies wsatisfaction.as consulted

during the literature review. The literature review further examined the relationship between internal locus of control, education and its impact on job satisfaction.

### **Chapter Three – Research methodology**

This chapter outlines the steps that were taken in research methodology for this study. Clear justification was given for the selection of each approach taken in the research process. The research approach selected, the development and administration of the questionnaire were discussed. The method of sampling, the population and sample size was explained. Data collection and data analysis techniques were also included in the discussion. The testing for the reliability and validity of the questionnaire was also explained.

### **Chapter Four – Presentation of results**

This chapter provides a comprehensive presentation of the results from the survey. This chapter also presents the results of the statistical analysis used to answer the research questions.

### **Chapter 5 – Discussion of results**

All the data obtained in chapter 4 will be discussed in conjunction with the literature review to contribute useful information that will provide answers to the questions raised by the objectives of the study. Simply, this chapter will link data obtained and relevant literature in order to achieve the goals of this study.

### **Chapter Six – Recommendation and conclusion**

In this chapter the key findings of the study will be discussed. Both conclusions, Recommendations and future recommendation based on the current study will be analysed.

## **1.11 Summary**

This chapter highlighted the following: the motivation, the focus, problem statement, research objectives, research questions and limitations of the study. The outline of the study for each chapter was presented. The next chapter presents literature review that was conducted on theories of locus of control and job satisfaction.

## Chapter Two

### Literature review

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#### 2.1. Introduction

This chapter contains literature on the relevant subjects of importance to the research study. The main aspects are internal locus of control, including its key areas and current impact on entrepreneurial qualities namely job satisfaction. The second aspect is education and how it influences locus of control at the different levels in the organisation. The section ends with an outline of the relevant findings.

#### 2.2. What is locus of control?

According to Eatough and Spector, 2014, the term locus of control is used to describe how inclined a person is to believing that he or she is in control over their life circumstances.

A psychological approach or personality trait described by a summed up anticipation about the affiliation amongst behavior and the consequent event of support as reward and punishment. People with an internal locus of control have a tendency to anticipate that reinforcements will be the outcomes of their own endeavors or conduct, while individuals with an external locus of control anticipate them to be the results of chance, luck, destiny, or the activities of effective others. Between these two extremes lies a continuum of intermediate cognitive styles. (Phares, 1957)

The US analyst E. Jerry Phares (1928–2007) defined ‘locus of control’ which was initially distributed in the “Journal of Abnormal and Social Psychology in 1957”. In an article in the diary “Psychological Monographs in 1966”, the US therapist Julian (Bernard) Rotter (conceived 1916) acquainted the internal-external scale measure to it, likewise called internal or external control of reinforcement.

Internal locus of control as an imperative individual contrast, speaks to the summed up expectancy of one's life (Rotter, 1966; Thomas and Velthouse, 1990). Internal people may incline toward, and perform better under states of restraint than externals (Gregory, 1978, Rotter, 1966). Hence the impact of psychological empowerment on job performance might be contingent upon employee's locus of control.

According to Silverthorne (2008) individuals with a higher internal locus of control are more likely to have lower levels of job stress and higher levels of job performance and satisfaction.

According to Lefcourt (2014) man must come to be more effective and more able to perceive himself as the determiner of his fate if he is to live comfortably with himself.

**Table 2.1: Characteristics of Locus of Control Employees**

<b>Internal LOC Employees</b>	<b>External LOC Employees</b>
<ul style="list-style-type: none"> <li>• Do better in jobs where they can set the pace</li> <li>• Males tend to be more internal than females</li> <li>• As people get older they tend to become more internal</li> <li>• People higher up in an organization structure tend to be more internal</li> <li>• Have a more participative management style</li> <li>• Engage in activities that will improve their situation</li> <li>• Are more likely to attempt to influence other people</li> <li>• Are more active in seeking information</li> </ul>	<ul style="list-style-type: none"> <li>Tends to stay in jobs that they are dissatisfied with longer</li> <li>• Works better when pace is automated</li> <li>• Feel victimized by illness or stress</li> <li>• Tends to be negative</li> <li>• Gives up easily, does not try hard</li> <li>• Are more influenced by social surroundings</li> <li>• Believes success or failure is a result of luck, fate or chance</li> <li>• Usually humble and agreeable</li> <li>• Acknowledges and shows praise to others</li> <li>• Laid-back and easy going</li> <li>• Tend to like and follow detailed directions</li> </ul>

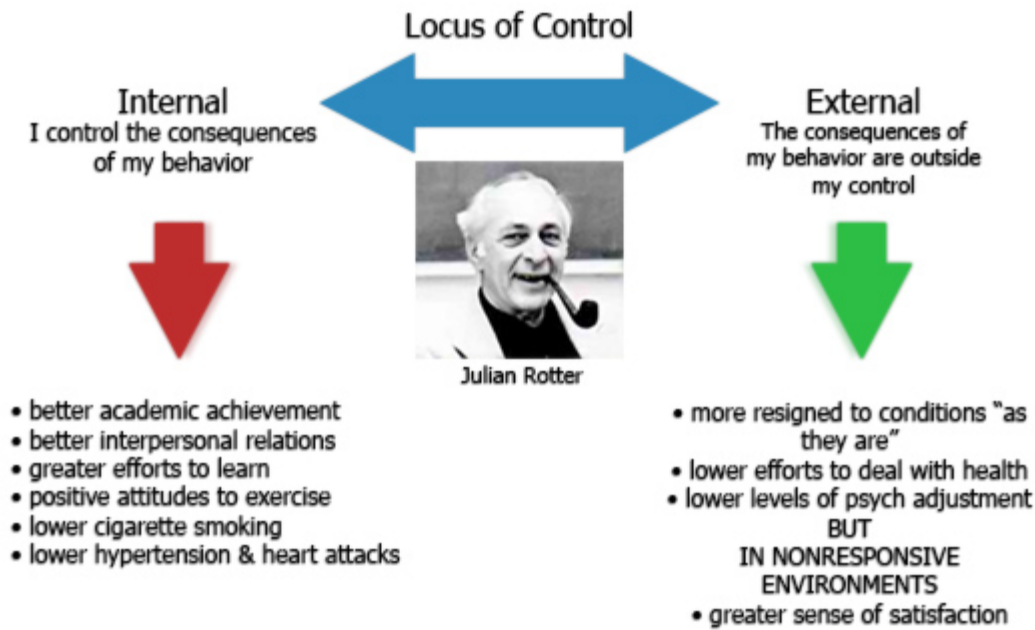
<p>and knowledge concerning their situation</p> <ul style="list-style-type: none"> <li>• Emphasize striving for achievement</li> <li>• Work hard to develop their knowledge, skills and abilities</li> <li>• Generally more inquisitive and try to figure out why things turned out the way they did</li> <li>• Take note of information that they can use to create positive outcomes in the future</li> </ul>	
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*Source: Adapted from Gangai, K.N. Mahakud, G.C. & Sharma, V. (2016)*

### **2.3. Why measure locus of control?**

Meta-analyses (the synthesis of multiple studies into a single study by summarizing the practical significance of each research finding into one combined effect) of 357 research studies “showed that an internal locus of control was associated with higher levels of job satisfaction and job performance” (Colquitt, LePine, & Wesson, 2015, p. 287) and “that people with an internal locus of control enjoyed better health, including higher self-reported mental well-being, fewer self-reported physical symptoms” (Colquitt et al., 2015, p. 287).

Having the information, internal vs external locus of control can impact employees work fulfillment and may reduce employee turnover by allowing an employee to be in a position that suits his locus of control. Similarly, an individual's identity characteristics, for example, the locus of control, can be vital for the representative as far as job satisfaction (Carrim et al., 2006; Johnson, 2003)



**Figure 2.1: Importance of measuring locus of control**

*Source: Adapted from (Healthguidance.org, 2017)*

### 2.3.1. What is job satisfaction?

According to Judge and Kammeyer-Mueller, (2012) job satisfaction is a specific job attitude relating to the reaction an individual has to either their work overall or specific facets of the job.

There have been various determinants of job satisfaction in past research. They include organizational merit systems elements, such as; power dispersion and centralization, and individual contrasts, such as; self-esteem and the requirement for achievement (Lankau and Scandura, 2002; Lefkowitz, 1994). Numerous examinations analyzed job satisfaction, alongside different developments, since job satisfaction is generally regarded as a basic result variable in organizations (e.g., Judge and Watanabe, 1994; Landeweerd and Boumans, 1994). According to Spector (1997) job satisfaction is how individuals feel about their employments at various levels. Lawler, (1990) offers another perspective which is the means by which individuals feel about the pay they get for their occupations in connection to

fulfillment. It has for quite some time been accepted that higher employee satisfaction prompts an increase in worker execution and productivity (Lucas, 1999).

### **2.3.2 The relationship between locus of control and job satisfaction**

With respect to job satisfaction, an examination was done, the outcomes in light of 274 relationships recommend that locus of control are among the finest dispositional indicators of employment fulfillment and job performance. (T. A. Judge, E. A. Locke, and C. C. Durham's, 1997).

The impact of individual and structural determinants on job satisfaction are worth exploring in the context of employee turnover (Buckman, 2015). Cable and Judge (as referred to in Coldwell et al., 2008) support these perspectives and showed that the estimation of consistency amongst representatives and managers is emphatically identified with job satisfaction (p. 616). Carrim and Rotter agree that locus of control may impact job satisfaction. This can be compared to the work of Rotter who theorized on the locus of control. Rotter recognized "internal and external control on the premise of convictions about the relationship amongst conduct and results" (Deci and Ryan, 1987, p. 166).

Further research by Labuschagne, Bosman, and Buitendach (2005) suggests that one's external work locus of control is connected with large amounts of occupation frailty and low levels of employment fulfillment (p. 26). Olukayode (2005) offers that Further, internally oriented individuals rely on a self-generated role definition, impose their own role expectations and are less bothered by tension producing elements in their work environment (Olukayode, 2005, p. 104).

Labuschagne, Bosman, and Buitendach (2005) also state that externally oriented employees seem to prefer lower power positions and operate best when their routine is planned out for them (p. 35). Internally orientated people might be more suited to work within the high duty service model, as skill is required and there might be a larger amount of freedom and independence, thus accounting for a greater amount of job satisfaction.

**Table 2.2 Relationship between Locus of control and Job satisfaction**

<b>Authors</b>	<b>Country</b>	<b>Sectors/ Industry</b>	<b>Gender</b>	<b>Methods</b>	<b>Relationship between Locus of Control &amp; Job Satisfaction</b>
Aghaei et al (2013)	Iran	Private	-	40 Sample; Experimental techniques	Positively correlated
Vijayashree & Jagdishchandra (2011)	India	PSU	Male -58 Female - 15	73 Sample; Quantitative Techniques	Internal& External locus of control is positively correlated
Mahajan & Kaur (2012)	India	Education	Male-75 Female- 75	150 Sample; Quantitative Techniques	Internal& External locus of control is positively correlated
Dhole & Tipnis(2013)	India	Manufacturing	-	60 Sample; Qualitative Techniques	Negatively correlated
Chhabra (2013)	India	IT	Male-335 Female- 114	449 Sample; Quantitative Techniques	Internal LOC are more satisfied with their jobs than employees with external LOC
Hans et al (2014)	Oman	Education		54 Sample; Qualitative Techniques	Internal LOC are more satisfied with their jobs than employees with external LOC

Source: Adapted from Gangai, K.N. Mahakud, G.C. & Sharma, V. (2016)

Majority of the studies researched have highlighted a positive correlation between the internal and external locus of control with regards to job satisfaction of employees (e.g. Aghaei et al, 2013; Fushimi, 2013; Singh and Dubey, 2011; Carrim et al., 2006; Wang, Bowling & Eschleman, 2010; Igbeneghu & Popoola, 2011). The studies have also demonstrated that having an internal locus of control is greater suited trait for job satisfaction than having an external locus of control (e.g. Chhabra, 2013; Hans et al., 2013; Hans et al., 2014).

At Protea Chemicals Mobeni, work performance is based on employee job satisfaction. A satisfied employee will perform better in the workplace than an employee who is dissatisfied with his job. With respect to this statement it is important to find out the relationship between locus of control and the job satisfaction of employees working at Protea Chemicals Mobeni. The findings from different studies indicates people having an internal locus of control are more satisfied with their jobs, they are more productive and more work oriented compared to those individuals who have external locus of control.

In a journal written by Yu Ru Hsu, (2011), results show that work-family conflict has a negative effect on job satisfaction. Perceived supervisor support and internal locus of control not only have direct effects on job satisfaction but also significantly moderate the relationship between work-family conflict and job satisfaction.

### **2.3.3. The relationship between locus of control and job performance**

Locus of control (LOC) is a noteworthy indicator of job satisfaction and employee performance (Judge et al., 2003). As one may expect, individuals with internal LOC report larger amounts of job satisfaction (Martin et al., 2005). According to Porter and Lawler (1968), there are three sorts of job execution.

1. The first sort measures yield rates (the amount of effort put into a task).
2. The second sort of measure of job execution incorporates evaluations of individuals by a third person whose execution is being measured.

3. The third sort of job execution measures is self-assessment and self-evaluations. This kind of measure helps with the setting of one's own particular professional objectives.

Thus, work execution measures the level of achievement of business and social targets and commitments from the perspective of the judging party (Hersey and Blanchard, 1993).

Vishal Mali concludes in an international journal of science and research, titled, A Study on Locus of Control and its Impact on Employees' Performance, Volume 2 Issue 12, December 2013, that we can say there exists a positive correlation between internal locus of control and performance of employees. Although he states that the correlation may not be high, it is however an eye opener for the corporate world who have to aspire to increase the goodwill of their respective companies. He states at the macro level company's governance and administrators should develop policies regarding coaching mentoring and counselling their employees. He goes further on to saying that advisors should go beyond the work related areas and help their employees to improve and understand how their perceptions of self and their environment may shape their performance at work. Work related and personal mentoring of employees serves as a tool to a healthy attitude towards work, habits, orientation to others, company and competitors. Employees with these characteristics perform better than those without these traits.

### **2.3.5. The relationship between locus of control and job stress**

As per Choo (1986), an individual's identity type delineates the level of occupation anxiety he/she encounters. Spector and O'Connell (1994) additionally showed that some types of identities may prompt people to self-select occupations which inherently have greater levels of anxiety. As indicated by Rahim (1996), when exploring the conduct of business visionaries and directors, that a person with a high internal locus of control adapt rapidly to change and more than individuals with high external locus of control.

Kalbers and Fogarty (2005) found that those with an internal locus of control are less inclined to encounter an abnormal state of anxiety, however, those with an external locus of control will probably be powerless against anxiety and will probably see certain occasions as upsetting. In addition, these researchers concluded that external locus of control has a significant negative influence on job stress and tends to reduce personal accomplishments and job performance. However, while some researchers have found higher job satisfaction may lead to higher job performance others have not (Nerkar et al., 1996). Jamal (1984) found that as job stress increased, the level of job performance decreased.

The positive variables associated with internal locus of control are; mental and physical well-being, life satisfaction, job satisfaction, job performance, organizational commitment, intrapreneurship, self-efficacy, psychological capital, hours worked, attendance, social support and integration, and relationships with supervisors (Çetin, 2011; Erdem, 2014; Judge et al, 2003; Martin et al, 2005; Ng et al, 2006; Wang et al, 2010; Yıkılmaz, 2014)

The individuals with an external locus of control are more susceptible to depression as well as other health problems. Under stress, they have the feelings of helplessness, shame, grief, anxiety (Khan et al, 2012, 158). A worker with internal control beliefs is more likely to manage or actively cope with job-related stress, and would be less likely to be depressed, copes more effectively with circumstances than one with an external locus of control orientation, who believes that she is at the mercy of fate, luck, or chance (Gray- Stanley et al, 2010, 750- 751). Khan et al (2012) examined the mediating role of locus of control on stress among the university teachers as the results showed that the teachers with internal locus of control reveal low level of stress as contrast to Melisa Erdilek Karabay et al. / Procedia - Social and Behavioral Sciences 235 (2016 ) 269 – 280 273 the teachers with external locus of control. The study also confirmed that teachers with external locus of control were more incline or prone to stress.

In an International Journal of Decision Making in Supply Chain and Logistics Volume 3, No. 1, January-June 2012, pp. 87-95, titled, Impact of locus of control on job stress written by Rajiv Kumar Jha and Bushara Bano. It was concluded that locus of control has significant impact on role stress. The study establishes and supplements the existing literature that the internal locus of control is negatively correlated with organizational stress and external locus of control is positively correlated with stress. It was found that internal employees are faced with less job stress while external employees are faced with the opposite. Their research also suggests that management needs to identify the locus of control of employees and design training stress management programs while taking locus of control into consideration. The paper goes on to suggest to the employees that they should develop internal locus of control by learning to effectively cope with the job stress.

#### **2.4. The relationship between self –efficiency and locus of control**

Self-efficacy can be related to a person's locus of control. Self-efficacy can be something that people use to deal with the stress that they are faced with in their everyday lives. Some findings suggest that higher levels of external locus of control combined with lower levels self-efficacy are related to higher illness-related psychological distress. A study conducted by Bollini et al., (2004) reveals that individuals who have a high external locus of control tend to have higher levels of psychological and physical problems. These people are also more vulnerable to external influences and as a result they become more responsive to stress.

#### **2.8. What defines education?**

The word reference definition, "the demonstration or procedure of bestowing or getting specific information or aptitudes, concerning a profession". Education, training suggest a control and advancement by a method for study and learning. Education is the improvement of the capacities of the brain (figuring out how to know): a liberal education. Training is a functional instruction (figuring out how to do) or practice, for the most part under supervision, in some craftsmanship, exchange, or calling: preparing in workmanship, educator preparing. Education, society are regularly utilized reciprocally to mean the consequences of tutoring. Education, not

withstanding, proposes primarily the data gained. Culture is a method of thought and feeling supported by education. It proposes a yearning toward, and an energy about high scholarly and tasteful beliefs: The level of culture in a nation relies on the education of its kin.

Educationists and philosophers give diverse answers while expressing their points of education; they are expressing their own perspective of the man and his place in the public arena. Plato had one perspective, Rousseau another and, say, Bertrand Russell of our day yet another. We each convey about with us our own size of qualities. (Edgar Baker, (1977) "What is an informed man?", Education + Training, Vol. 19 No: 9, pp.261 - 262).

### **2.9. What is the meaning of employment?**

The Oxford English dictionary defines employment, as an agreement between a business and an employee that the employee will give rise to certain tasks at work, to accomplish the business affiliation's goals and mission, subsequently for compensation.

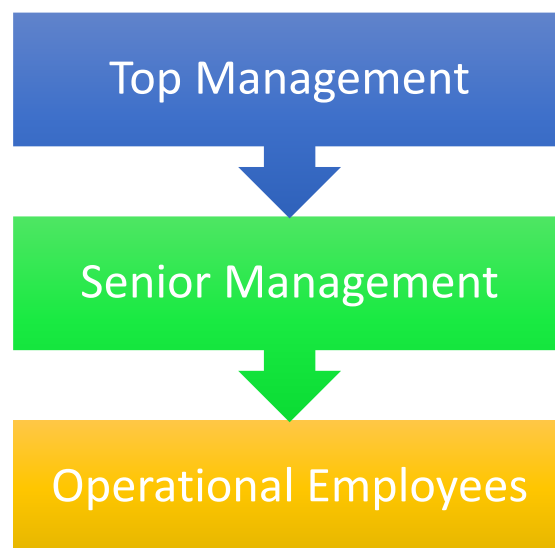
The agreement for the job of the individual worker can be verbal, composed in a document, for example, an email or letter suggested or composed into a formal, official job contract.

### **2.10. What is meant by employment hierarchy?**

Business employee hierarchy system is the pyramidal arrangement of the authoritative representatives, divisions, and capacities. It is the procedure of examining, separating and masterminding the work or exercises into sensible segments for people, areas, and offices. In such plans, the exercises are gathered around capacities, for example, creation, money, advertising and operations. (Hierarchystructure.com,2017)

Such sort of organizational pyramid gives us a vertical chain of importance and the designation of power taking into account the range of control creates numerous levels of employees. Every level in the order turns into a necessary part of the hierarchy of leadership and goes about as the channel for transmission of power to the succeeding lower level of the management.

A hierarchical structure of an association predefines the part of representatives inside the association setup furthermore, pre-sets the way of the relationship that workers will impart to each other. Hierarchical structures in associations narrow down as we move in the upward course and showcase centralization in the entire setup. The general organization hierarchies observe the following business employee hierarchy (Hierarchystructure.com, 2017).



**Figure 2.2: Employment Hierarchy**

*Source: Adapted from (Hierarchystructure.com, 2017)*

## **2.5. Theoretical framework**

McClelland's Theory of Needs, Maslow's Hierarchy of Needs Theory, Alderfer's ERG Theory and Herzberg's two-factor theory of motivation have been used as a theoretical underpinning in the concept of job satisfaction.

Whereas Attribution theory, social learning theory and theory of learned helplessness have been used as a theoretical underpinning in the concept of locus of control.

### **2.5.1 Attribution Theory**

The attribution theory (introduced to psychology by Fritz Heider) has had an influence on the locus of control theory, but there are significant historical differences between the two models. Attribution theorists have been predominantly social psychologists, concerned with the general processes characterizing how and why people make the attributions they do, whereas locus of control theorists have been concerned with individual differences.

As per attribution theory, the causes people credit to occasions affect the way they subjectively, effectively, and behaviorally react on future events (Shell, Bruning, and Colvin, 1995; Weiner, 1986, 1994).

According to Weiner (1986) there are three conditions that must be available for attribution:

1. The individual must distinguish or watch the conduct.
2. The individual must trust that the conduct was deliberate.
3. The individual must settle on the choice, on the off chance that he/she trusts the other individual was pushed into showing the conduct (credited to the circumstance) or in the event that it was their decision (ascribed to the person).

At the end of the day, attribution is much similar to utilizing the word clarification; it resembles clarifying why it happened. When we utilize outer attributions, we construe that a man is carrying on surely or that an occasion is because of the circumstance that they are in. There is the assumption that given the same circumstance, others would undoubtedly react in precisely the same manner. In light of its reliance on situational components, outer attribution is likewise called situational attribution. Four attributions are regularly distinguished in the writing: attributions to good fortune, task difficulty, capacity, and effort. For instance, disappointment on an exam might be credited to misfortune, troublesome inquiries, low capacity, or lacking effort. These causal attributions can likewise be mapped by locus, stability, and controllability (Weiner, 1994).

**Table 2.1: Locus of Control Matrix Based on Attribution Theory**

	Internally Perceived Locus	Externally Perceived Locus
Attribution of No Control	Ability	Chance/ Luck
Attribution of Control	Effort	Task Difficulty

*Source: Adapted from Diagrammatic Summary of Weiners (1985) Locus of Control*

### 2.5.2 Social Learning Theory

Behavioral psychologist Albert Bandura (1977) posited a social learning theory which incorporates numerous ideas, among them being the locus of control. He concurred with B.F. Skinner's theory about identity being produced through adapting; however, couldn't help contradicting Skinner's strict behaviorist way to deal with identity improvement. At the point when Rotter developed his "Social Learning Theory", the prevailing theory in clinical psychology research was Freud's psychoanalysis (Social Learning Theory).

People were seen as not comprehending their obvious driving forces and the treatment required long term investigation of adolescent experiences. Rotter's (1954) social take on a fundamental level, departed from the psychoanalytical and drive-

based behaviorism theories that overpowered the space of clinical brain research and direction at the time.

He believed that a mental hypothesis should be situated upon a mental motivational standard. Rotter utilized the "exact law of impact" as his inspiring component. The law of impact suggests that a man is spurred to search out positive incitement, or fortification, and to stay away from offensive incitement. Rotter made his hypothesis by consolidating behaviorism and the investigation of identity, yet without the utilization of physiological impulses or drives as an inspirational force. (Rotter, 1954).

### **2.5.3 Theory of Learned Helplessness**

Learned helplessness theory is the view that clinical depression and related mental illnesses result from a perceived absence of control over the outcome of a situation (Seligman, 1975). Learned helplessness is formally defined as a disruption in motivation, affect and learning following exposure to no contingent outcomes.

There are three crucial elements to its definition; contingency, cognition and behaviour (Christopher et al, 1993).

- I. Contingency refers to the objective relationship between actions and outcomes and for helplessness to occur there must be no relationship between a person's actions and the outcome he or she experiences.
- II. Cognition is involved in how the person perceives the contingency, explains it and extrapolates from this understanding. The perception of uncontrollability (no contingency) may be accurate or inaccurate but once it occurs the person attempts to explain it. From this explanation they make extrapolations about the future and, when learned helplessness occurs, they expect that their behaviour will not influence future outcomes.

III. Behaviour refers to the observable effects of being exposed to uncontrollable outcomes. Most often it involves giving up weaker attempts to control the situation or even failure to try to do so at all – a behaviour incompatible with new learning. The response is also accompanied by negative emotions such as anxiety and sadness (Christopher et al, 1993).

In the course of studying learned helplessness in humans, Seligman found that it tends to be associated with certain ways of thinking about events that form what he termed a person's "explanatory style."

The three major components of explanatory style associated with learned helplessness are permanence, pervasiveness, and personalization (Knopf, 1991).

Seligman (1975) believes it is possible to change people's explanatory styles to replace learned helplessness with "learned optimism." To combat (or even prevent) learned helplessness in both adults and children, he has successfully used techniques similar to those used in cognitive therapy with persons suffering from depression. These include identifying negative interpretations of events, evaluating their accuracy, generating more accurate interpretations, and decatastrophizing (countering the tendency to imagine the worst possible consequences for an event). (Khan, 2011).

Pervasiveness refers to the tendency to generalize so that negative features of one situation are thought to extend to others as well ("I'm stupid" vs. "I failed a math test" or "nobody likes me" vs. "Janet didn't invite me to her party") (Knopf, 1991).

#### **2.5.4 McClelland's Theory of Needs**

David McClelland was an American psychologist who created a theory in the 1980s that attempts to explain how the needs for achievement, power, and affiliation affect the human motivation and the actions of people (Armstrong and Taylor, 2014). According to McClelland (1987), everyone is more strongly motivated by some needs and less strongly by other needs. He also stated that everyone has all three of

these motives but simply with a different relative degree and the result of the needs is a unique mix that gives one their personality.

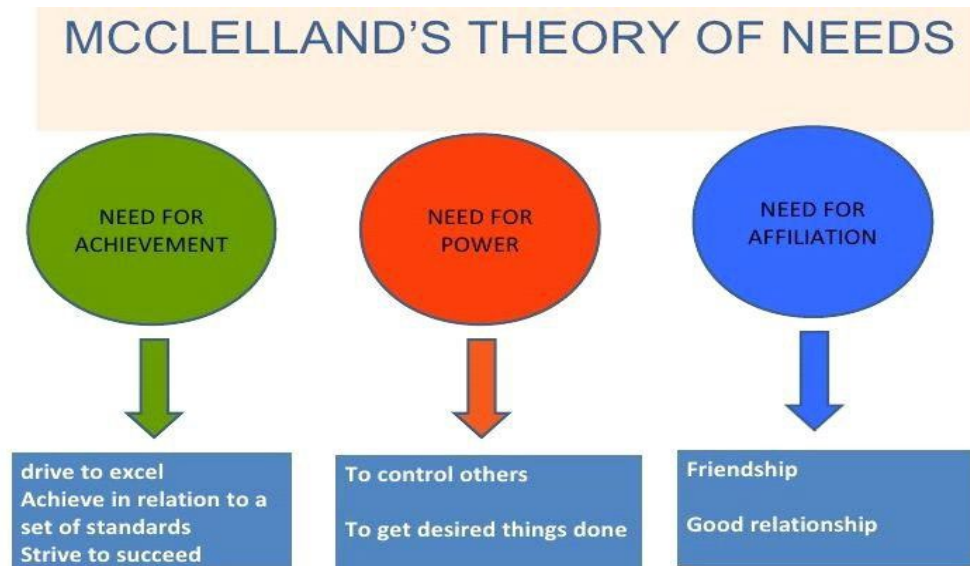
The strength of McClelland's acquired need theory is that it gives an understanding for the leaders on how to deal with different types of members in the group. There are three general categories in the McClelland's acquired need theory; a need for power, need for achievement and the need for affiliation. The leader can actually match the employees with different types of the task according to these categories.

The theory suggested that people with a high level of achievement are suitable to become salespersons as they prefer a challenging task, whereas people with a high need for affiliation are suitable to hold a position of customer service representative as they are good in maintaining companionship or interpersonal relationship and people with high need of power are suitable to hold formal supervisory positions as they have influence over other people in the organization (Woot et al. 1976).

Critics of McClelland's theory state that there are issues with the validity concerning the Thematic Apperception Test (TAT) projection used to determine the level of individual's needs (Redmond, 2009). In this matter, McClelland's theory gives better individual understanding because everyone has their own ability. It is also helped to divide the task according to the individual ability so that the task will be completely smooth in progress. According to Kapp, Smith-Hunter, and Yonkers (2003), the decision to own or manage a business is not directly correlated with the need for achievement as there are many factors that drive people to become entrepreneurs.

In this matter, McClelland's theory is criticized for its lack of predictive power as it relates to entrepreneurship. Besides that, differences in cultures play a significant role in how achievement is viewed. Some cultures view failures as something that is embarrassing, whilst other cultures view failure as an experience in life that allows people to become stronger and grow to take on subsequent challenges.

McClelland's Acquired Need Theory suggests that understanding these needs will accurately placing the right people in the right positions which should enhance greater level of motivation, and in turn will increase productivity and reduce turnover.



**Figure 2.3: Maccleands Theory of Needs**

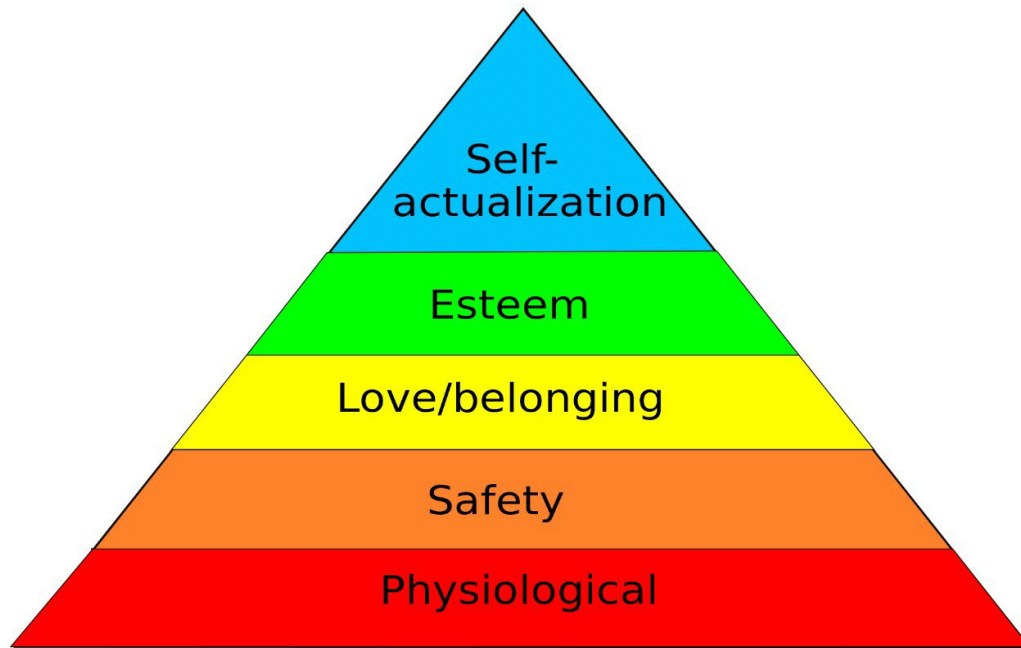
*Source: Adapted from McLeod.S Published 2007, Updated 2014*

### 2.5.5 Maslow's Hierarchy of Needs Theory

According to Maslow's hierarchy of needs theory, there are five essential needs that exist inside each human and masterminded altogether of the progressive system (de Menezes, 2012).

These five needs include:

- **Physiological Needs:** The fundamental human requirement for sustenance, water, and shelter.
- **Safety Needs:** One's requirement for well-being and security.
- **Social Needs:** One's requirement for love, acknowledgment, and fellowship.
- **Esteem Need:** The need of a sense of pride, status, and acknowledgment.
- **Self-Actualization:** This is the requirement for self-satisfaction and achieving one's potential.



**Figure 2.4: Maslow's Hierarchy of Needs**

*Source: Adapted from (McLeod.S, 2007), Updated 2014*

Rutledge (2011) points out in *Psychology Today* in the article entitled "Social Networks: What Maslow Misses" (November 2011) that Maslow's model misses the role of social connection. Maslow's model, as its name suggests, organizes groups of human needs into levels in a hierarchical structure, forming a pyramid. It's similar in some senses to video games in that you have to fulfill the requirements of one set of needs before you can get to the next level up.

The human brain at the base is driven by a basic instinct to survive with food drink and shelter. The second level is made up of the safety needs. The third level in Maslow's model comprises the social needs of the family, affection, relationships, work groups, and community. The fourth level comprises the ego-centric needs of achievement, responsibility, and reputation. And finally, at the top is self-actualization, personal growth, and fulfillment. In reviews of research based on Maslow's theory, little evidence has been found for the ranking of needs that Maslow described, or even for the existence of a definite hierarchy at all.

None of these needs — starting with basic survival on top — are possible without social connection and collaboration, without collaboration, there is no survival. It was not possible to defeat a Woolly Mammoth, build a secure structure, or care for children while hunting without a team effort. It's truer now than then. Our reliance on each other grows as societies became more complex, interconnected, and specialized. (Rutledge, 2011).

Rutledge indicates in above some shortcomings of Maslows ranking of needs emphasising the importance of connecting the needs through social connection and collaboration. Rutledge goes on to suggest that, 'the connection is a prerequisite for survival, physically and emotionally". (Rutledge, 2011).

### 2.5.6 Alderfer's ERG Theory

Wehrich et al. (2013) distinguish that Alderfer's ERG theory highlights just three essential classes of human needs. These are; existence needs, relatedness needs and growth needs.

- **Existence needs:** these necessities included nourishment, water, shelter, working conditions.
- **Relatedness needs:** these necessities included acknowledgment, affection, and association including relationships.
- **Growth needs:** the need to investigate open doors for development. This is the most critical of the necessities. (Wehrich et al. 2013).

These classes of presence, relatedness and development needs were a streamlined adaptation of Maslow's hierarchy of needs. (Jones and George, 2011). Alderfer stressed that these necessities were in no specific hierarchy and that one or more of these requirements could at the same time impact inspiration (Weirich et al. 2013). Every one of these theories highlights that most human conduct is a consequence of an unsatisfied need. The level of inspiration depends on the desire and power to fulfill needs.

Limitations of ERG Theory:

Disadvantages of the ERG theory are as follows:

1. The ERG theory does not offer clear cut guidelines. This theory says that an individual can satisfy any of the three needs first. But how will we determine which of the three needs is more important to that person?

### **Comparison of McClelland's, Alderfer and Maslow**

David McClelland's theory is known as better as and more useful than those of Alderfer and Maslow (McClelland, 1965). This is because there is more evidence in support of McClelland's Acquired Need Theory than Alderfer's or Maslow's. McClelland's theory offers a better description which suggests that organizations should proactively encourage behaviour through both matching motivational and training programs with task situations.

### **2.5.7 Herzberg's two-factor theory of motivation**

Statt (2004) suggests that a standout amongst the most important theories has been that of Frederick Herzberg. Unlike like other scholars, Herzberg's thoughts on motivation were particularly work-orientated and came out of his exact exploration on job satisfaction where he talked with individuals about their dispositions towards their work (p. 252). Herzberg's theory especially concentrates on motivation as a hidden component of job satisfaction. Herzberg theory had two aspects, "hygiene factors" and "motivator factors". "Hygiene factors" are referred to as the "dissatisfies" or maintenance factors. Hygiene factors incorporate organization strategy and organization, supervision, pay, interpersonal relations and working conditions". (Herzberg, 1968, p. 74).

It is being suggested that hygiene factors may indeed not prompt job satisfaction. Then again, the satisfied elements were alluded to as motivations (Herzberg, 1968). Further Potgieter and Bagraim (2003) have found that inspirations are internal to the representative (natural) and incorporate components, for example, obligation,

accomplishment and open doors for self-awareness (p. 60). According to Herzberg, the best approach to propel workers is to give suitable levels of helper variables; hygiene factors, regardless of how great, can't prompt inspiration (Spector, 2000, p. 180). However, Herzberg contended that money should not as a matter, of course, be seen as the most powerful compel at work (Steers, Porter, and Bigley, 1996, p. 18). Further, Herzberg (1968) had found that "hygiene" or maintenance events prompted work disappointment on account of the need to maintain a strategic distance from offensiveness; the motivator events prompted job satisfaction as a result of the requirement for development or self-completion (p. 75). It is evident that hygiene factors alone can't prompt occupation fulfillment/job satisfaction. However, as per Rotter, (1966), internal locus of control may.

## **2.6. Factors of internal locus of control**

An aspect of this study was to ascertain the respondent's locus of control. This was achieved by asking questions on factors that pertain to locus of control.

In journal written by Gierowski and Rajtar, according to Rotter, individuals with an internal locus of control can be described as:

1. Treating life as a task to be performed. (Q19,Q20)
2. Having a high level of realism. (Q18,Q24,Q25,Q28,Q29)
3. Orientated towards receiving information from their environment, and also searching for new information concerning themselves and the world, to be applied in concrete actions. (Q27)
4. Not attaching importance to others' opinions, but being guided by their own self-control. (Q16)
5. Making use of previous experiences when realizing current life tasks. (Q26)
6. Having a quite well developed sense of responsibility. (Q11,Q12,Q13)
7. Having some difficulties with adaptation to environment; they prefer to change the environment rather than themselves. ( Q7)
8. Resistant to stress and frustrations. (Q14,Q21)

Locus of control has been characterized as an individual's conviction or discernment about the source of outcomes in life (Rotter, 1996). The research proposes that

internals, in comparison to externals, have higher job satisfaction, more regard for their pioneers, feel less weight of their jobs, have a more prominent feeling of self-rule and control and appreciate lengthy residencies (Robbins, 2000; Spector, 1982; Thomas and Velthouse, 1990). They favor states of discretion, while externals may perform better under external control (Gregory, 1978; Rotter, 1996). As Kren contended, internals may have higher performance when managers use participative management style, while externals lean toward the supervisory management style. In comparison to externals, mental strengthening encourages internals an apparent domain where the occupation is important, skill is perceived, more flexibility is given to settle on choices and to react to issues in their own specific manner promptly and they are upheld by colleagues (Spreitzer, 1995).

In a journal article by Sarit Rashkovits and Yael Livne entitled “The Effect of Education Level on Psychological Empowerment and Burnout-The Mediating Role of Workplace Learning Behaviour’s”, affiliation between education level, work environment, learning behaviour’s, mental strengthening and burnout from a sample of hundred and ninety-one (191) educators was analysed. (Rashkovits and Livne, 2013). They speculated that the level of education will influence the psychological condition and reduce burnout. They utilized various regression investigations to examine the model that included additionally the six (6) following control variables: instructors' age, sexual orientation, and teaching tenure; the schools' religious level, the student’s needs: normal/uncommon necessities, and the class level: elementary/secondary school.

The outcomes support the purpose intervening model that the level of education influences mental strengthening. It was observed that education level advances mental strengthening and declines burnout through learning practices. Thus, within the same jobs and organizational characteristics, workers with higher education level do have the advantages of behavioral pattern of learning and mental condition of expanded strengthening and decreases burnout. That implies that advanced education furnishes with favorable circumstances in the way the worker adapts to his occupation which is past the level of the information obtained amid the years of studies.

A research paper composed by Mohammad Saud Khan, Robert J. Breitenecker and Erich J. Schwarz Department of Innovation Management and Entrepreneurship, Alpen-Adria Universitaet, Klagenfurt, Austria, titled "Entrepreneurial group locus of control: differing qualities and trust".

The purpose of this particular paper was to examine how internal locus of control as a well-established entrepreneurial personality trait at team level impacts team performance (effectiveness and efficiency) in Austria. Furthermore, it examines the cooperation impacts of locus of control assorted qualities and affective trust on the internal locus of control performance relationship. Results show that higher internal locus of control at group level advances entrepreneurial group adequacy and productivity. In any case, group effectiveness is expanded when such groups have a high internal locus of control and low locus of control assorted qualities. Intuitive trust is distinguished as an urgent part in upgrading entrepreneurial group adequacy, particularly when the group has a high internal locus of control.

As entrepreneurial group studies have transcendently managed useful or demographic attributes (Hellerstedt and Aldrich, 2008), the possibility of uncovering the relationship between group structure variables and group execution has yet to be exploited (Arthur et al., 2007). Within entrepreneurship research personality traits including locus of control have been broadly studied at the individual level; in any case, little consideration has been given so far to the investigation of the group level (Weiss and Brettel, 2010). Along these lines, this study concentrates on internal locus of control as a settled entrepreneurial identity characteristic (Rauch and Frese, 2007) at the group level. It tries to figure out if the internal locus of control at an individual level as an indicator of entrepreneurial achievement, can likewise foresee accomplishment at the group level. In doing as such, it recognizes that human conduct internal groups are influenced by assessments and communications among colleagues (Homan, 1974), in this manner creating aggregate impacts, which may contrast from individual conduct. One of the refinements would be to analyze education levels.

The connection between internal locus of control and effective management might be clarified with the way people with an internal locus of control have confidence in their capacity to accomplish self-named targets and to change nature. They personally in charge of the employment's prosperity, and present a profound inclusion in arranging work extends and actualizing them to the best of their capacity. At the point when something reverse discharges they credit this to insufficient interest on their part in the exertion, and for their own particular inability to control the group appropriately. A progression of studies backs this hypothesis. Place (1979), discovered that internal locus of control was an exact indicator of levels of productivity in work of directors in governmental departments of trade. Johnson et al. (1984) recognized an association between internal locus of control of directors and efficiency of subordinates.

Hiers and Heckel (1977), Anderson and Schneier (1978), Howell and Avolio (1993), and McCullough et al. (1994) all reported that successful leaders were endowed with a high internal locus of control, whereas the less successful ones typically had a low internal locus of control, i.e. an orientation toward an external locus of control.

### **2.7. How does this study impact on the organisation?**

Both the organisation and its representatives can profit from this study. To understand the employee's locus of control and to better fit his/hers job task could maximize the organization's potential growth by increasing team performance, creating a harmonious organizational culture and increasing efficiency levels across the firm.

“Internal-locus-of-control followers, who believed outcomes were a result of their own decisions, were much more satisfied with leaders who exhibited participative behaviours than they were with leaders who were directive. Conversely, external-locus-of-control followers were more satisfied with directive leader behaviours than they were with participative leader behaviours. Followers’ perceptions of their own skills and abilities to perform particular tasks can also affect the impact of certain leader behaviours. Followers who believe they are perfectly capable of performing a

task are not as apt to be motivated by, or as willing to accept, a directive leader as they would a leader who exhibits participative behaviours” (Hughes, Ginnett, & Curphy, 2012, pp. 544-545).

“There is also evidence that internals are better able to handle complex information and problem solving, and that they are more achievement-oriented than externals (locus of control). In addition, people with a high internal locus of control are more likely than externals to try to influence others, and thus more likely to assume or seek leadership opportunities. People with a high external locus of control typically prefer to have structured, directed work situations. They are better able than internals to handle work that requires compliance and conformity, but they are generally not as effective in situations that require initiative, creativity, and independent action” (Daft, 2008, p. 103).

“Path–goal theory suggests that for subordinates with an internal locus of control participative leadership is most satisfying because it allows them to feel in charge of their work and to be an integral part of decision making. For subordinates with an external locus of control, path–goal theory suggests that directive leadership is best because it parallels subordinates’ feelings that outside forces control their circumstances” (Northouse, 2013, p. 141).

## **2.8. Turnover**

The study has found that workers who encounter abnormal amounts of job satisfaction have a tendency to stay in the association and representatives who encounter low levels of job satisfaction are more disposed in leaving the company which results in high staff turn-over. Understanding one's locus of control can help the organization eradicate high staff turnover by fulfilling key fit positions.

## **2.9. Performance**

It is believed that the employees who are best suited for his/her task holistically in the organization will perform at his/her optimum. With regards to performance, it will be best to know the employees with an internal locus of control to groom them accordingly.

## **2.10. Literature gaps**

There are inadequate studies reported for skilled and unskilled employees by a facility that experiences different levels of education and the associated impacts it has on the internal locus of control in the organization.

## **2.11. Conclusion**

This chapter outlined the experimental hypothesis that is required to delineate the destinations of this study. The elements that influence both levels of education, job satisfaction and internal locus of control were examined encouraging an exhaustive understanding and more precise estimation. The following section describes the methodology utilised in the survey and the substantiation of such a study.

## Chapter Three

### Research Methodology

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#### 3.1. Introduction

In a book titled Research Methodology written by C.R Kothari, Kothari states that research in common parlance refers to a search for knowledge. According to Sekran and Bougie, 2013, research can be defined as a systematic approach to solving problems. One can also define research as a scientific and systematic search for pertinent information on a specific topic.

Business research covers a wide range of phenomenon. It may be motivated by development and changes in an organization. For managers the purpose of research is to provide knowledge regarding the organisation, the market, the economy or another area of uncertainty (Zikmund, W.G., Babin, B.J., Carr, J.C. and Griffin, M., 2013). Business research includes studies that draw on the social sciences, such as sociology, psychology, anthropology, and economics, for conceptual and theoretical inspiration (Bryman, A. and Bell, E., 2015. *Business research methods*. Oxford University Press, USA).

The previous chapter analysed the literature of this study providing context to the themes of locus of control and job satisfaction. This section outlines the research methodology used to undertake this research. Firstly, the literature around subjective examination will be discussed, followed by a review of the methodology and research instrument being utilized. Issues of data collection and investigation in connection with this study will be given, followed by a discussion on the legitimacy, reliability and ethical considerations of this study.

### 3.2. Intent of the study

Human capital affects social capital, and that experience and cognitive ability influence personal relations and complicity (J. Augusto Felício, Eduardo Couto, Jorge Caiado, 2014). Organizational performance is strongly influenced by human capital through the cognitive ability of the manager (J. Augusto Felício, Eduardo Couto, Jorge Caiado, 2014). According to Ramin Gamerschlag, (2013), human capital information is value-relevant. Information on qualification and competence issues is positively associated with firm value.

The intent of this study is to investigate if education impacts on internal locus of control and the relationship between locus of control and job satisfaction. Locus of control is simply taking responsibility for ones actions without passing responsibility onto luck, chance or fate. If job satisfaction positively correlates to internal locus of control, organisations can focus on educating employees to have an internal locus of control thus assisting it employee job satisfaction.

### 3.3. Research paradigm

There are different philosophical views regarding research. Table 3.1 below describes these differences with noteworthy examples.

**Table 3.1: Selection of research paradigms and research methods**

Research paradigms	Research approach	Research methods	Examples
Positivism	Quantitative	Surveys: longitudinal, cross-sectional, correlational; experimental, and quasi-experimental and ex-post facto research	- Attitude of distance learners towards online based education  - Relationship between students' motivation and their academic achievement.  - Effect of intelligence on the

			academic performances of primary school learners
Anti-positivism	Qualitative	Biographical; Phenomenological; Ethnographical; case study	- A study of autobiography of a great statesman. - A study of dropout among the female students - A case study of an open distance learning Institution in a country.
Critical theory	Critical and action-oriented	Ideology critique; action research	- A study of development of education during the British rule in India - Absenteeism among standard five students of a primary school

*Source: Adapted from (Lia Aston, 2017)*

The research conducted in this study is one of Positivism. Positivism methodology combines deductive rationalism as a method of deriving substantive hypotheses and inductive empiricism as a method of verifying these hypotheses (Hill, 1992). A positivist viewpoint is that “the world operates by the law of cause and effect that we can discern if we use a scientific approach to research” (Crestwell, 2014). On the opposite end of the spectrum is what is known as Anti-positivism. An Anti-positivists approach to social research would be much more qualitative, using methods such as unstructured interviews or participant observation. Anti-positivists argue that individuals are not just puppets who react to external social forces as Positivists believe.

In a module from the department of educational development in the UK the advantages and disadvantages of quantitative research is explained as follows (see table 3.2):

**Table 3.2 Advantages and Disadvantages of Quantitative Approach**

<b>Advantages</b>	<b>Disadvantages</b>
Can be used when large quantities of data need to be collected.	Results need to be calculated using Excel, Access, or data analysis software (such as SPSS), which may not always be accessible to a country program.
The result is usually numerical (quantifiable) and hence considered more “objective”.	Time consuming, as the researcher or SFCG team member needs to enter, clean and then analyse the data.
The data is considered quantifiable and usually generalizable to a larger population.	The larger the sample, the more time it takes to analyse the data and analyse results.
It can allow SFCG to see changes overtime and help develop quantitative indicators.	The larger the sample the more time it takes to collect data.
It can provide a clear, quantitative measure to be used for grants and proposals.	The quantitative data ignores a very important human element.

*Source: Adapted from (Anon, 2017)*

### **3.4. Study area**

The source and collection of data took place at Protea Chemicals Mobeni in the form of a survey. The target population was a list of the employees from the different departments obtained from the Human Resource officer. As defined by Sekaran and Bougie (2013) the research population is “the entire group of people, events or things of interest that the researcher wishes to investigate. The employee population at Protea Mobeni is seventy-five employees of which sixty-six questionnaires were administered. Questionnaires were administered personally, because majority of the respondents did not have access to e-mail. Personally administered questionnaires offered a great advantage in that the completed questionnaires were obtained

immediately and any misconceptions were simultaneously clarified. To further alleviate any concerns that the respondents may have had, the purpose of the study was briefly introduced to each respondent. Respondents were reassured that their participation would remain anonymous. The participants were given approximately 30 minutes each to complete the questionnaire during their working hours.

### 3.5. Sample size justification

Sample size is one element of research design that investigators need to consider as they plan their study (Burmeister and Aitken, 2012).

According to an online calculator ((SurveyMonkey, 2017), for a target population of 75 employees, to achieve a confidence interval of 95 % and 5 % margin of error, the sample size of **63** was calculated using the following equation:

$$\text{Sample size} = \frac{Z^2 \times p(1-p)/e^2}{1 + \left(\frac{Z^2 \times p(1-p)}{e^2 N}\right)}$$

Where; Population Size = N, Margin of error = e, z-score = z

And the z-score is the number of standard deviations a given portion is away from the mean. To find the right z-score to use, refer to the table below (table 3.3).

**Table 3.3 Desired Confidence Level vs Z-score**

Desired Confidence Level	Z- score
80 %	1.28
85%	1.44
90%	1.65
95%	1.96
99%	2.58

Source: Adapted from (SurveyMonkey, 2017)

According to Varela, C., Ruiz, J., Andrés, A., Roy, R., Fusté, A. and Saldaña, C., (2017), Survey Monkey has provided some positive aspects, such as: easier access, avoidance of input and data coding errors, a faster distribution and saving time and cost.

### **3.6. Sampling techniques**

A sample is a smaller (yet ideally illustrative) gather of units from a populace used to decide truths about that populace (Field, 2005). Sampling methods can be divided into two categories namely, probability and nonprobability sampling. Sekaran and Bougie (2013) defines probability and non-probability sampling as follows: probability sampling is when “each sampling element in the population have some known, nonzero chance or probability of being selected as sample subjects”. In non-probability sampling “the elements do not have a known or predetermined chance of being selected as sample subjects. Smith et al (2008) highlight that probability sampling offers a sample which can be inferred to the population with a level of confidence whereas non probability sampling can never give the researcher the same level of confidence. In this study the probability sampling process used is Random sampling. This will allow for the sample to be inferred to the population with some level of confidence.

Collis and Hussey (2009, pp.211–212) describes the different methods of probability sampling are as follows:

- Random sampling – This is the simplest form of sampling and occurs when each sampling unit in the population sample size has a known and equal chance of being selected.
- Systemic sampling – This involves the selection of every nth element in the sample population starting by randomly choosing the first sample and then every nth sample thereafter.
- Stratified sampling – This process involves the stratification (segregation) of the sample population into their respective strata and then randomly selecting

sampling units from each of the strata. Stratified sampling can be categorised into either proportionate or disproportionate stratified random sampling.

- Cluster sampling – This method of sampling is used when the target population is dispersed over a geographical region. The target population is then divided into groups known as cluster and random sample is selected from each cluster to represent the target population.

### **3.7. Classification of Data**

According to Gaurav Akrani (2014):

- Primary data are collected by a researcher at the place or source of its origin. These are original or unique information. The primary data collection is done to accomplish some fixed objective, and obtained with some focus in mind
- A researcher does the collection of secondary data from already existing works of others. These are neither originals nor unique information.

For this study primary data collection was conducted in the form a survey.

### **3.8. Research instrument**

According to the online encyclopaedia ,Data collection is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes .Data collection instruments refer to devices used to collect data such as questionnaires, tests, structured interview schedules and checklists (Seaman 1991). Polit and Hungler (1997) define a questionnaire as “a method of gathering information from respondents about attitudes, knowledge, beliefs and feelings”. The research instrument used in this study was in the form of a survey. Surveys are moderately cheap, helpful in eliciting the facts from a vast population and the

confidentiality with which the results are treated encourages respondents to reply with more openness.

The survey in this study aimed to follow a structure with the following design:

- Short simple questions were asked.
- The questions were given time frames.
- The questionnaire comprises of tick boxes.
- The tick boxes covered all possible outcomes.
- It was ensured that answer options on the tick boxes don't overlap.
- To be specific with questions and boxes.
- The questions aimed to not be personal or offensive.
- The questionnaire tried not to ask leading questions.
- The questions seem easy to answer and were respectful.

### **3.9. Pilot Study**

Pilot studies are a crucial element of a good study design (Van Teijlingen, E. and Hundley, V., 2002). A pilot study consisting of 4 questionnaires were distributed to the respondents. The purpose of the pilot study was to check for the validity of the content, spelling, grammar and terminology used in the questionnaires and to ensure that the questions were clearly understood.

### **3.10. Questionnaire development**

Questionnaire design and development must be supported by a logical, systematic and structured approach (Rattray, J. and Jones, M.C., 2007). The questionnaire was constructed after conducting extensive literature review on locus of control and job satisfaction.

**Table 3.4: Stages in questionnaire development: item generation and scale construction**

Questionnaire development	Key issues	Examples of measures
What will the questionnaire measure?	Knowledge Attitude/beliefs/intention Cognition      Emotion Behaviour	The York Angina Beliefs Questionnaire, (Furze <i>et al.</i> 2001) Operationalising the Theory of Planned Behaviour (Conner & Sparks 1995) Illness Perception Questionnaire (Weinman <i>et al.</i> 1996) Anxiety, depression (Spielberger <i>et al.</i> 1983, Goldberg & Williams 1988) Functional Limitations Profile, FLIP (Patrick & Peach 1989)
What types of scale can be used?	Frequency      Thurstone Rasch Guttman Mokken Likert type      Multiple choice	ICEQ, (Rattray <i>et al.</i> 2004) Nottingham Health Profile, (Hunt <i>et al.</i> 1985) Loneliness scale (De Jong Gierveld & Kamphuis 1985) FLIP (Patrick & Peach 1989) Edinburgh Feeding Evaluation in Dementia, (Watson & Deary 1996) SNSI, (Jones & Johnston 1999) The York Angina Beliefs Questionnaire, (Furze <i>et al.</i> 2001)

How do I generate items for my questionnaire?	<p>Ensure relevance of items? Wording issues</p> <p>Which response format is best? Which types of question are possible?</p> <p>Free text options? Does your measure have subscales?</p> <p>Questionnaire layout</p>	<p>Check research questions, explore literature, experts, target population Follow established guidelines (Oppenheim 1992, Bowling 1997). Discard poor items. Consider and pilot response format (five-point, seven-point, visual analogue scale) In standardized measures most are closed, to allow combination of scores from large numbers of respondents. May have some open, free text responses. Construct items that represent each different hypothesized domain Carefully consider order of items</p>
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*Source: Adapted from (Rattray, J. and Jones, M.C., 2007)*

In this study the questionnaire had the following parts to it:

Part A: Questions 1 - 10

- This part consists of biographical data such as gender, race, marital status, age, qualification etc.

Part B: Questions 11 – 29

- This part consists of questions that involve the elements of Locus of Control of the participating employee and job satisfaction.
- This scale is a measure of control beliefs.

The questions in this study questionnaire were categorized as follows:

**Table 3.5: List of categories and questions**

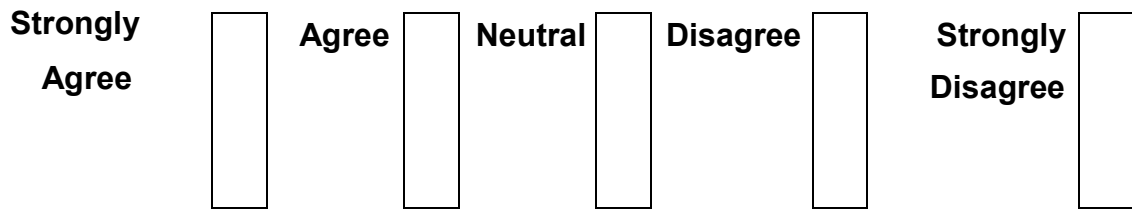
Category	Questions
<b>Socio-Demographic and Employment</b>	1,2,3,4,5,6,7,8,
<b>Education Level</b>	9,10
<b>Job satisfaction</b>	11,12,13,14,15,16,17,18
<b>Employee characteristics (Motivation)</b>	19,20,21,22,23
<b>Locus of Control</b>	24,25,26,27,28,29

### 3.11. Likert Scale

The objective of this research was to investigate respondent's locus of control. The initial step is to choose a scale to gauge the individual's qualities. A Likert Scale is utilized to recognize how emphatically an individual concurs or can't help contradicting a specific proclamation (Sekeran and Bougie, 2013). Three types of Likert Scales are commonly used; a 3-point scale, a 5 point scale and a 7-point Likert scale. They each have their pros and cons.

The central tendency bias is the tendency of respondents to avoid the extreme responses and select an average response resulting in less variation. Utilizing a 3-point Likert scale expands the danger of acquiring the mistake of central tendency bias as most respondents will choose the normal or center reaction. Utilizing a 7-point Likert scale fundamentally decreases the danger of acquiring the central tendency bias, however having an excessive number of alternatives in a poll lessens the convergence of the respondents. Utilizing 5-point Likert scale offers a harmony between the danger of acquiring the central tendency bias and member fixation. (Sekeran and Bougie, 2013).

The alternative choice is the utilization of a 5-point Likert Scale. The 19 questions encompassing locus of control were arranged into choices that the respondent could give a response to utilizing the 5-point Likert Scale shown below.



**Figure 3.1: Survey Response Categories using the Likert Scale**

The respondents were required to tick the check box depending on their view to the statement.

### **3.12. Validity and reliability**

Validity is the degree to which something is well-founded and corresponds accurately to the real world. According to (Lameck, 2013), validity is described as the degree to which the research instrument measures what is actually meant to measure. There are different types of validity to name a few, external validity, internal validity, criterion validity and construct validity. For this study internal validity has been selected to ensure that the information gathering procedure was consistent.

#### **3.12.1. Internal validity**

Internal validity guarantees the information gathering procedure is uniform throughout. The design of the questionnaire will guarantee internal validity by consistently using the same question format with each and every respondent.

#### **3.12.2. Reliability**

Reliability is the degree to which results are consistent and yield the same results in repeated trials (Neuendorf 2002). The connection of subjective exploration requires a more refined piece of reliability. Terms, for example, 'meticulousness', "dependability" and "faultlessness" may better portray the quest for reliability in subjective studies (Golafshani 2003). Reliability will also be confirmed using SPSS Cronbach's Alpha score.

In statistics (classical test theory), Cronbach's (alpha) is used as a (lower - bound) estimate of the reliability of a psychometric test. It has been proposed that this can be viewed as the expected correlation of two tests that measure the same construct. By using this definition, it is implicitly assumed that the average correlation of a set of items is an accurate estimate of the average correlation of all items that pertain to a certain construct (Nunnally, 1978).

**Table 3.6: Cronbach's Alpha**

<b>Cronbach's alpha</b>	<b>Internal consistency</b>
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

*Source: Adapted from (Cortina, J.M. 1993).*

### **3.13. Data collection**

The following methods of data collection will be used:

The survey was deployed in the following way:

- The survey was compiled in English to ensure that all respondents would be able to complete it.
- The information gathering will at all times consider the critical attributes of determinants to be measured i.e. estimation system, scaling, unwavering quality and legitimacy of the information.

The questionnaires were personally administered owing to the following advantages (Sekaran and Bougie 2013, p.148):

- Less expensive to administer to respondents;
- Almost 100 percent return rate ensured;
- Any doubts surrounding the questions can be clarified; and
- Anonymity of the respondents can be guaranteed

### **3.14. Data analysis**

Quantitative data can be compared in different ways. For this study, Statistical Package for Social Science (SPSS) was chosen to perform the following types of statistical analysis; descriptive, ANOVA, Cramer's, and Pearson Chi-square.

### **3.15. Ethical considerations**

Before the commencement of issuing the questionnaire, ethical clearance was granted from University of KwaZulu-Natal's Ethical Clearance Committee (Appendix 3).

Keeping in mind the end goal to ensure that this study conforms to the acceptable ethical standards the following was done:

All research subjects will have a written consent form and disclosure to guarantee that:

- All members' rights are observed and secured i.e. right of privacy, and confidentiality.
- All participants provided with a written consent to confirm participation.
- None of the collected data will be used for any other purpose except as indicated in the informed consent letter (Appendix 3) and as permitted by the ethical clearance (Appendix 3) letter issued by UKZN Ethical Clearance Committee.

Respondents were all guaranteed that their support was voluntary and confidential. All respondents confirmed participation by signing an informed consent letter that outlined the purpose of the study and the member's rights (Appendix 2).

### **3.16. Conclusion**

This section outlines the research methodology utilized which included the design of the questionnaire, and deploying the survey. In addition sample size, reliability and validity of the questionnaire was confirmed using various statistical methods. The following chapter will present and analyse the results from the survey which used (SPSS) to perform the statistical analysis.

## Chapter Four

### Presentation and Analysis of Results

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#### 4.1. Introduction

The previous section outlined the research methodology and the choice of research instrument used to acquire the required information. Chapter four focuses on the presentation and understanding of the information gathered. One of the most notable aspects of research is the conversion of data into noteworthy information (Sekaran and Bougie, 2013). The analysis of the results was broken down into descriptive statistics which comprises of graphs for the demographic profile, locus of control and the level job satisfaction of the respondents. The inferential statistics conducted were reliability analysis to determine the reliability of the questionnaire, Pearson chi-squared analysis to determine the impact that education has on locus of control and Pearson's correlation analysis described the relationship of job satisfaction and internal locus of control.

#### 4.2 Inferential Statistics

Inferential statistics test were conducted to determine the reliability of the questionnaire by means of a Cronbach's alpha test. The strength of association between education, locus of control and job satisfaction was conducted by correlation analysis.

**Table 4.1: Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.76	0.776	21

According to the Cronbach's alpha Table by Cortina, J.M. (1993), for the statistics to be internally consistent, the minimum range of the Cronbach's alpha score needs to be between 0.7-0.8. Therefore the reliability of the data is acceptable.

### 4.3 Descriptive Statistics

The descriptive statistics were conducted for each section of the questionnaire and are presented in the form of graphs.

#### 4.3.1 Demographical Profile

The demographical profile of all respondents were obtained from Questions 1-10. This addressed factors such as race, gender, age group, qualification, job position, education etc.

### 4.4. Results of survey

The questionnaire was given by hand to all participants. Any uncertainty was addressed by the researcher and clarified immediately. A total number of 63 questionnaires were completed from 66 questionnaires that were issued. Three participants opted out from filling in the survey after initially agreeing to complete the survey.

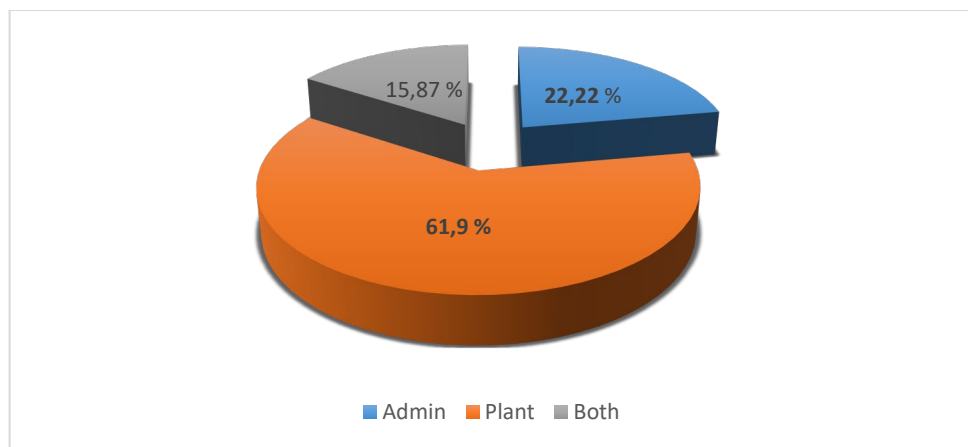
**Table 4.2: Results of survey**

<i>Description of Questionnaire Events</i>	<i>Results</i>
<b>Number of Employees Requested to Participate</b>	66
<b>Number of Employees that Completed the Questionnaire</b>	63
<b>Number of Employees that Elected to Participate and then Declined</b>	3
<b>Rate of Completion</b>	95.45%
<b>Average Time Taken to Complete the Questionnaire</b>	30 minutes

#### 4.5. Results of socio-demographic and employment category questions

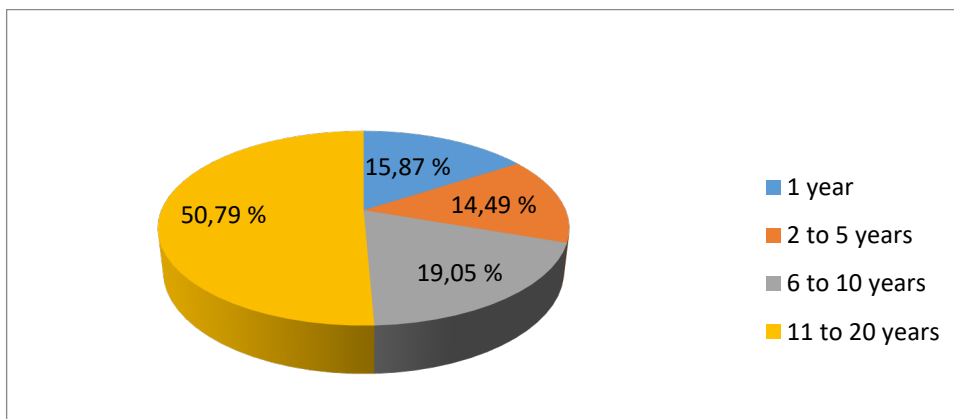
The first part of the questionnaire comprised of ten socio-demographic and employment category questions that will aim to distinguish the variables of locus of control that are correlated to the socio-demographic and employment category information.

Figure 4.1: Departmental spread of respondents showed that majority of respondents work in the plant.



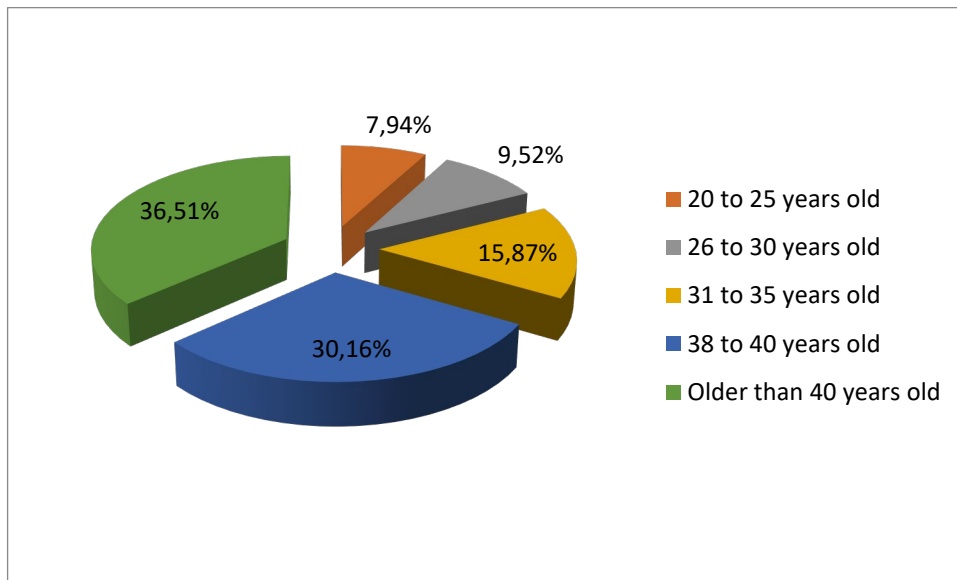
**Figure 4.1: Area of employment**

Figure 4.2: Interestingly revealed that approximately fifty percent (50%) of the respondents have a range of 11 to 20 years of service.



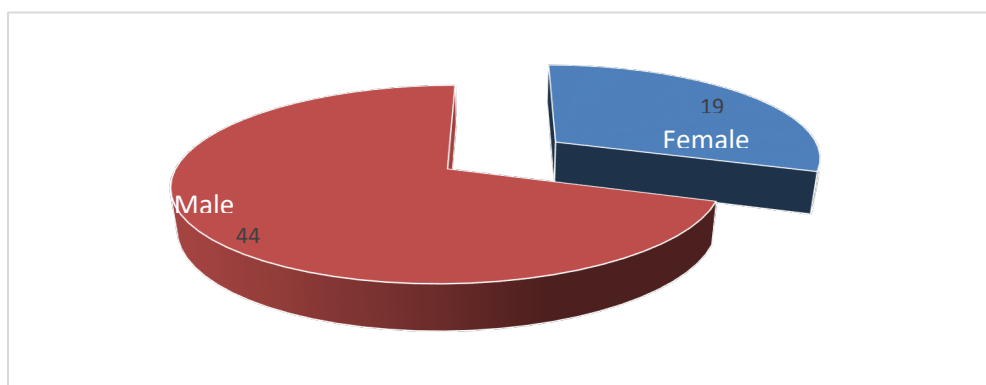
**Figure 4.2: Number of years the respondents are employed**

Figure 4.3: Showed that there is a very strong dominance of older employees in this organisation just over thirty six percent (36.51%). Interestingly almost sixty percent (60%) of respondents were under 40 years of age, being exactly twenty three respondents. Only five respondents were between the ages of 20-25 years.



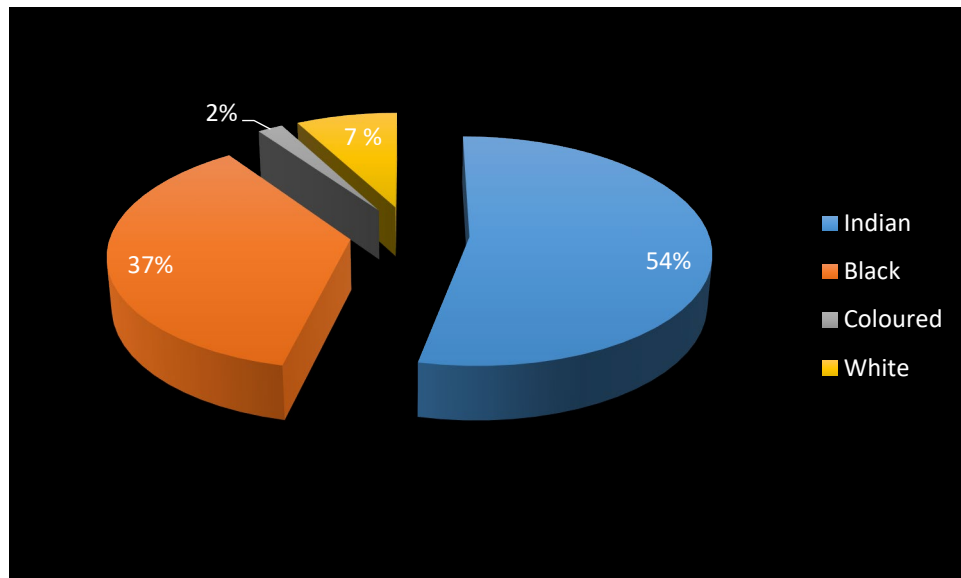
**Figure 4.3: Age category of respondents**

Figure 4.4 Highlighted the gender split which featured a majority of males (44 %)



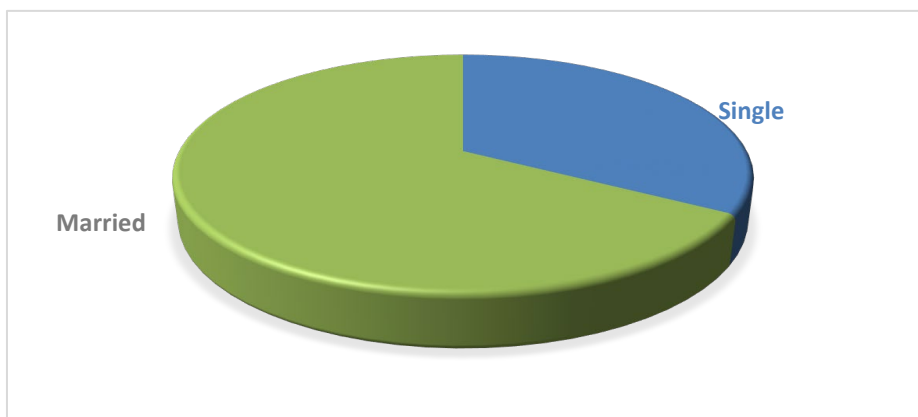
**Figure 4.4: Gender category of respondent**

Figure 4.5: Showed that 54% of the respondents were Indian, while 37% of the respondents were Black, 7.9% White and less than 2% Coloured.



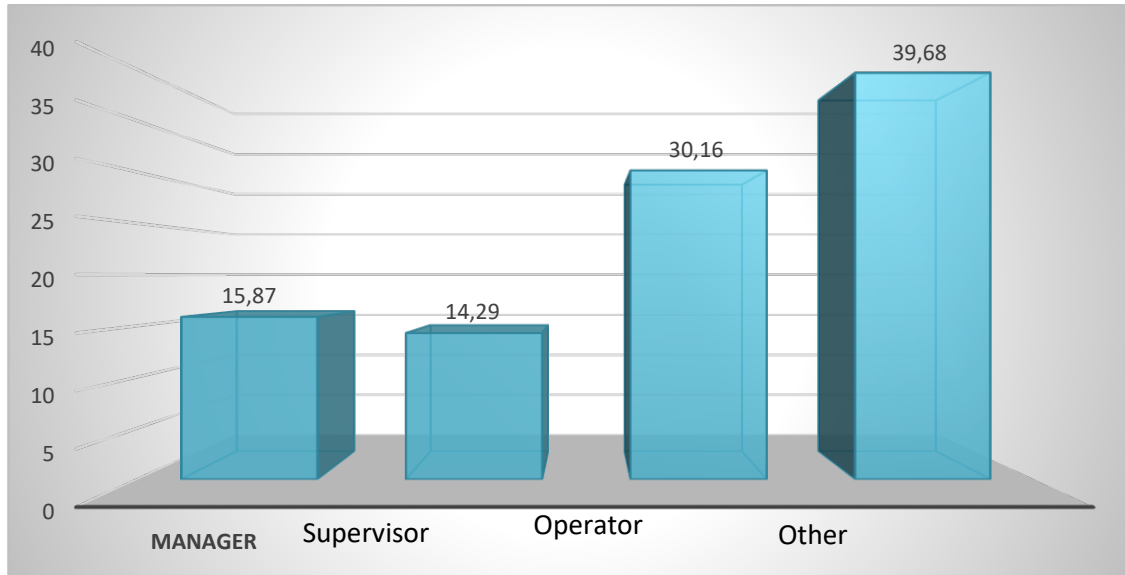
**Figure 4.5: Race distributions of respondent**

Figure 4.6: Revealed a relatively uneven split between married respondents (67%) and single respondents (33%).



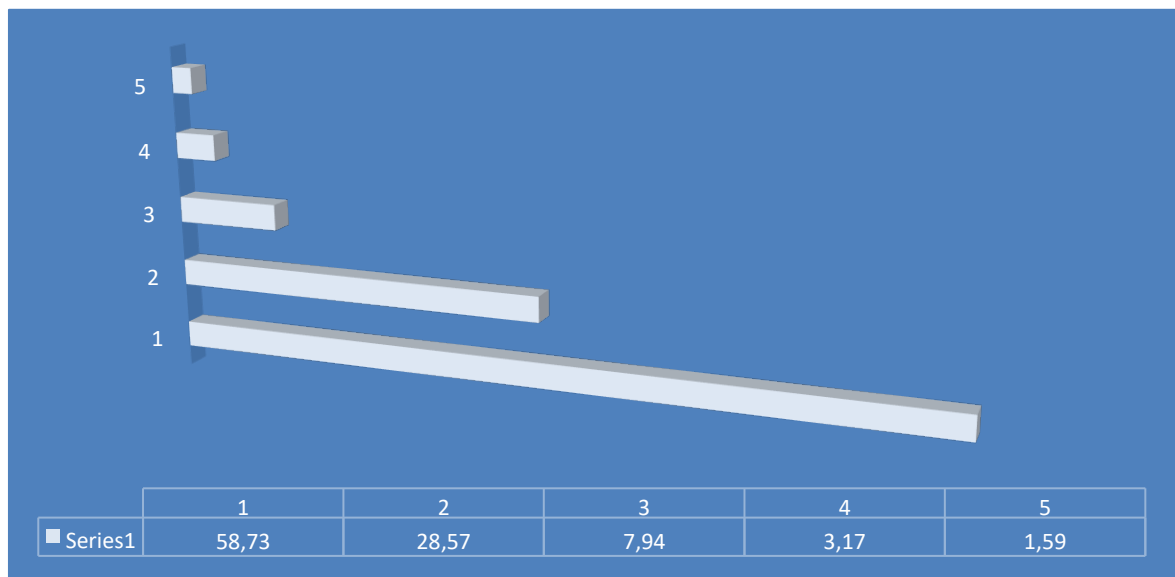
**Figure 4.6: Marital status of respondents**

Figure 4.7: Below disclosed that 30.16 % of the respondents had some managerial or supervisory authority within the organisation while the majority 69.84% had no authority within the organisation.



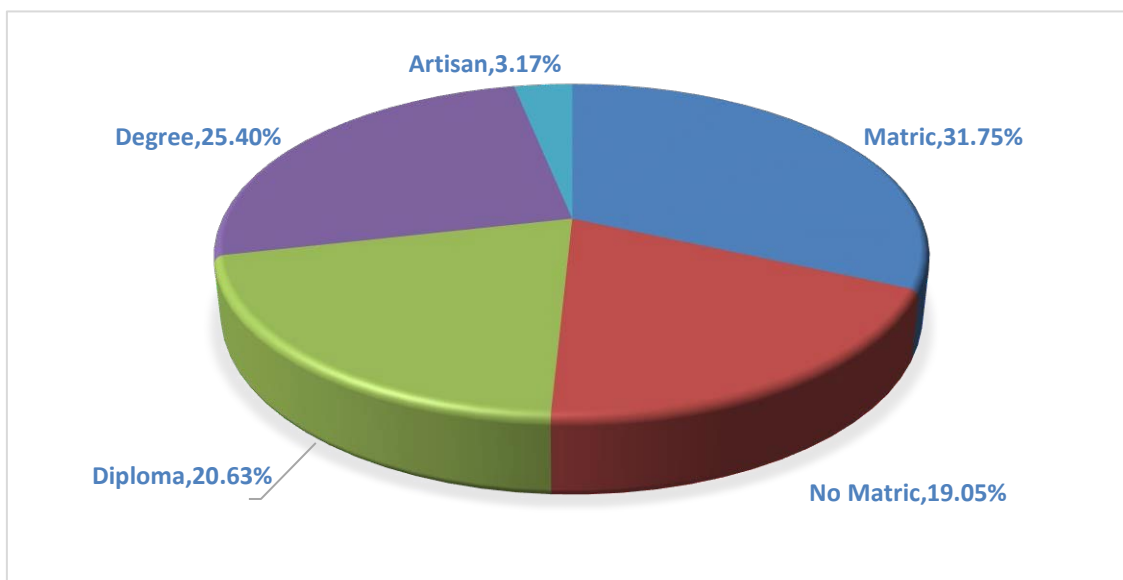
**Figure 4.7: Respondents level in the organization**

Figure 4.8: Showed that approximately 58% of the respondents did not have any employees reporting to them while the remaining 42% of the respondents had more than one employee reporting to them.



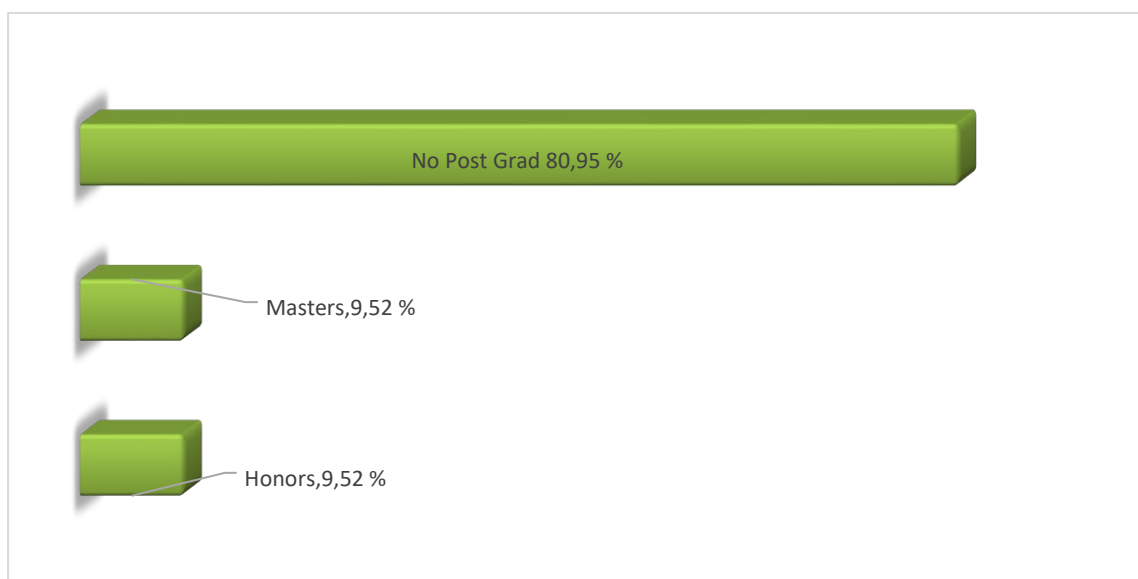
**Figure 4.8: Number of employees reporting to the respondents**

Figure 4.9: Disclosed that a very high percentage (50.8%) of the respondents did not possess a tertiary qualification of which 19.05% of the respondents did not complete matric.



**Figure 4.9: Educational qualification of respondents**

Figure 4.10: Disclosed that a very high percentage (80.95 %) of the respondents did not further their education and the remaining 19.04 % have a post graduate qualification.

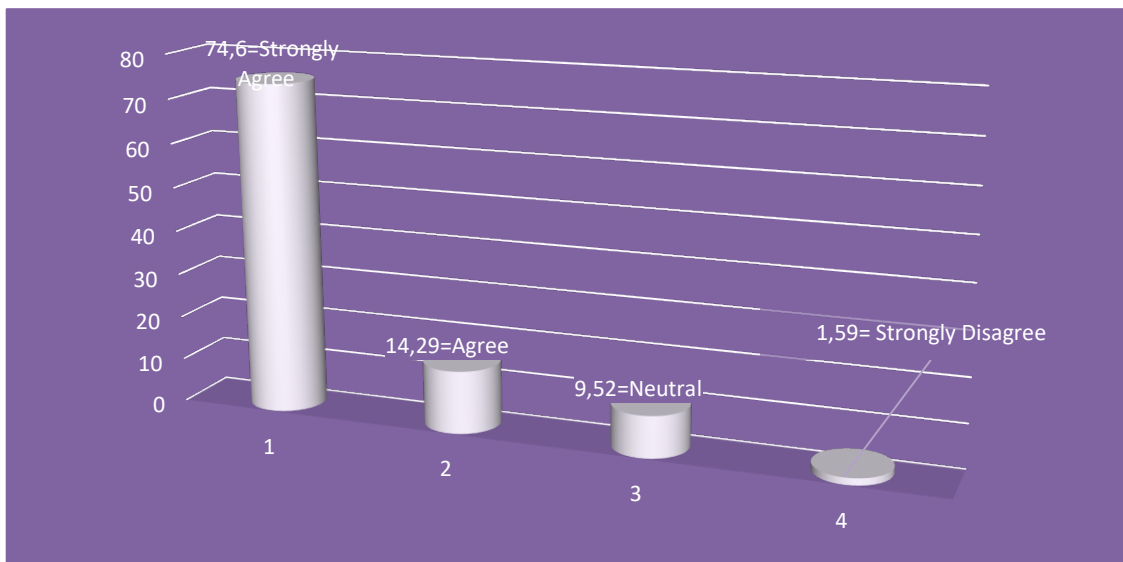


**Figure 4.10: Post graduate qualification of respondents**

#### 4.4. Results from job satisfaction and locus of control questions.

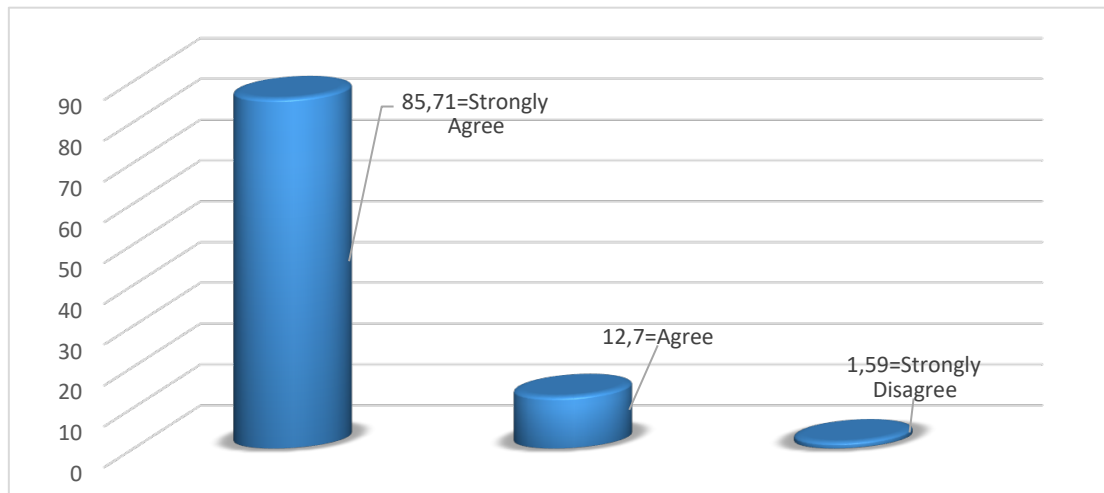
The next segment of the questionnaire comprises of questions that reveal factors of locus of control and job satisfaction. There are eight questions that explore job satisfaction. Following that, there are eleven questions of which five questions explore locus of control based on employee characteristics and six questions explore locus of control based on purely control beliefs of the respondent. These questions are presented individually in a graphical format with a summarized description of the highlights.

Figure 4.11: Shows that approximately three-quarters of the respondents feel that their job is important to the success of the organization.



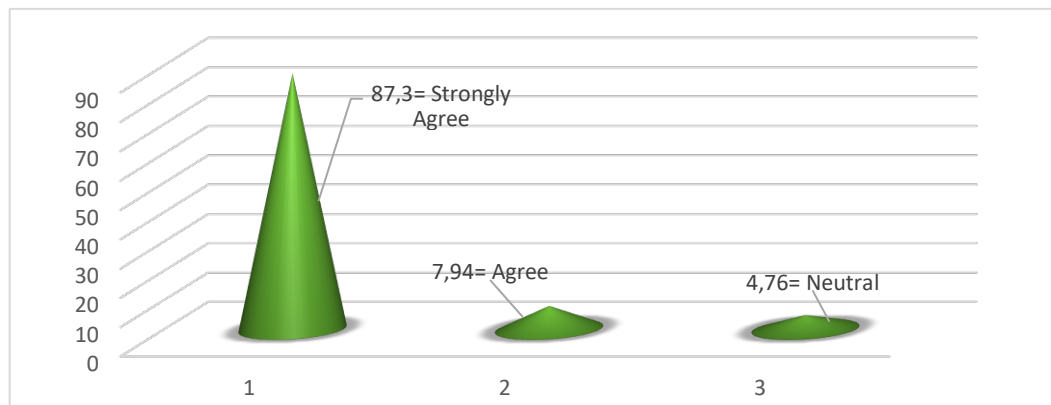
**Figure 4.11: Locus of control due to broader employee characteristics:  
“My job is very important to the success of the organization”**

According to Figure 4.12, a majority of the respondents strongly agree (85.71%) and agree (12.71%) that they are responsible for their actions.



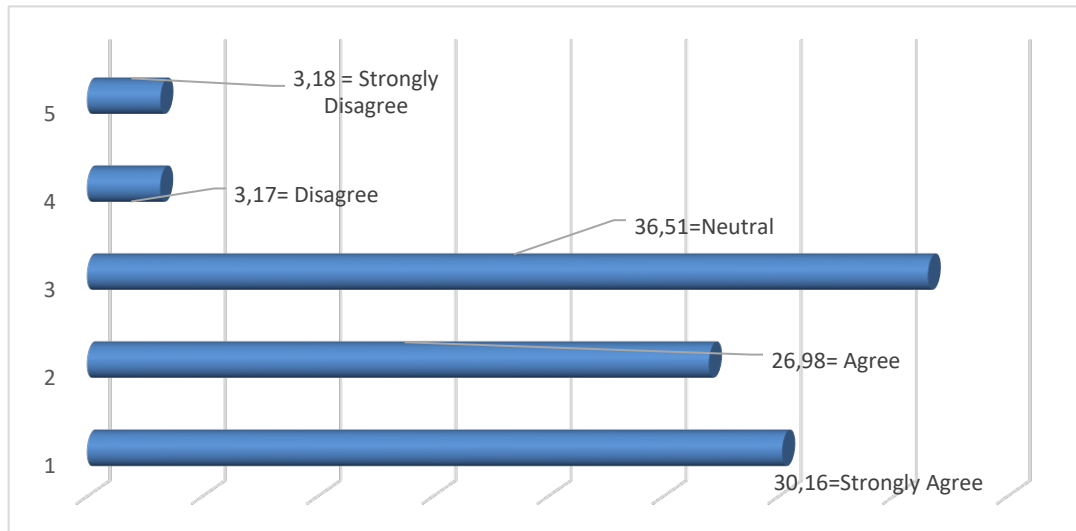
**Figure 4.12: Locus of control due to broader employee characteristics: "I am responsible for my actions"**

Figure 4.13: Exhibits that more than ninety-five percent (95%) of the respondents understand what is expected from their jobs. Five percent (5%) of the respondents remain neutral.



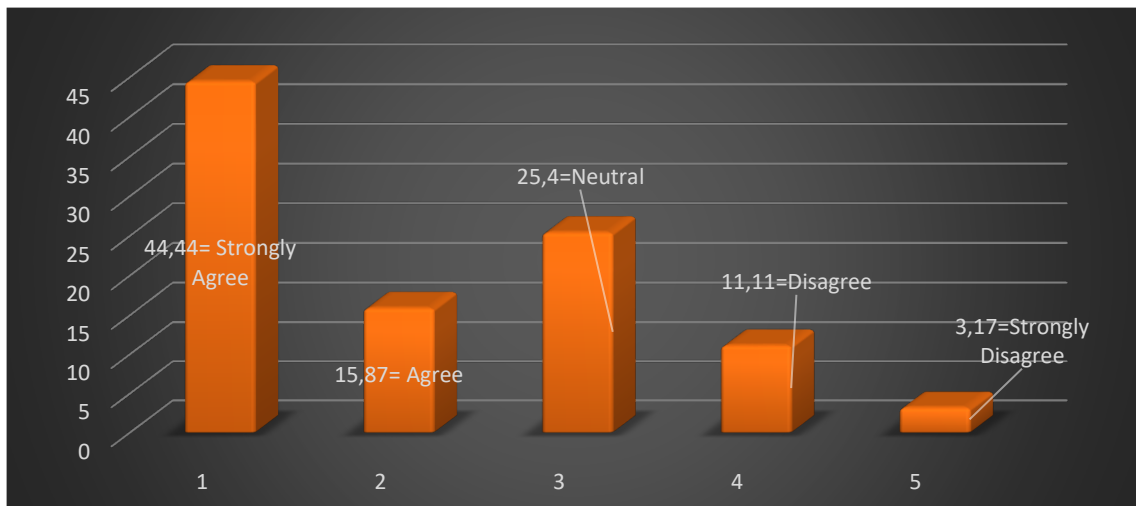
**Figure 4.13: Locus of control due to employee characteristics: "I understand clearly what is expected of me in my job"**

Figure 4.14: Depicts that even though the majority of the respondents (57.14) feel that their work environment is very pleasant there exists approximately thirty-six percent (36%) of the respondents that kept neutral about the subject .



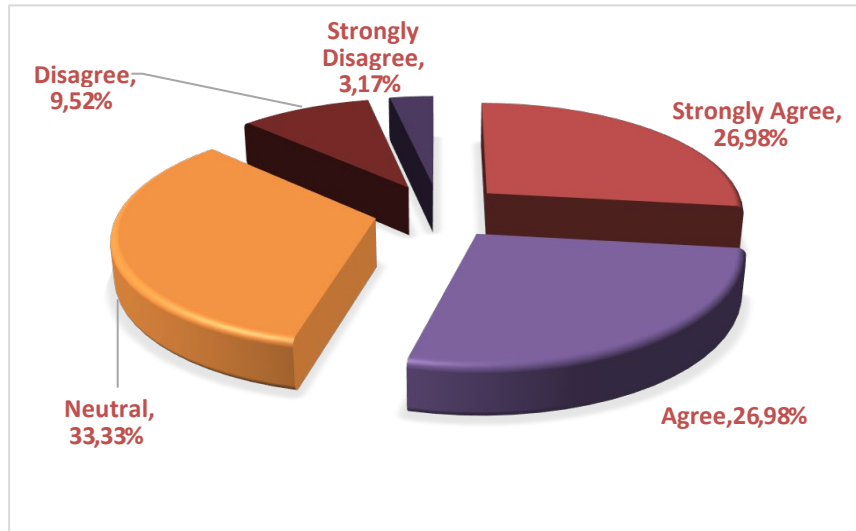
**Figure 4.14: Locus of control due to employee characteristics: “My work environment is very pleasant”**

Figure 4.15: Shows that more than half the respondents agree that their job is challenging. A small minority (15%) feel that their job is not challenging.



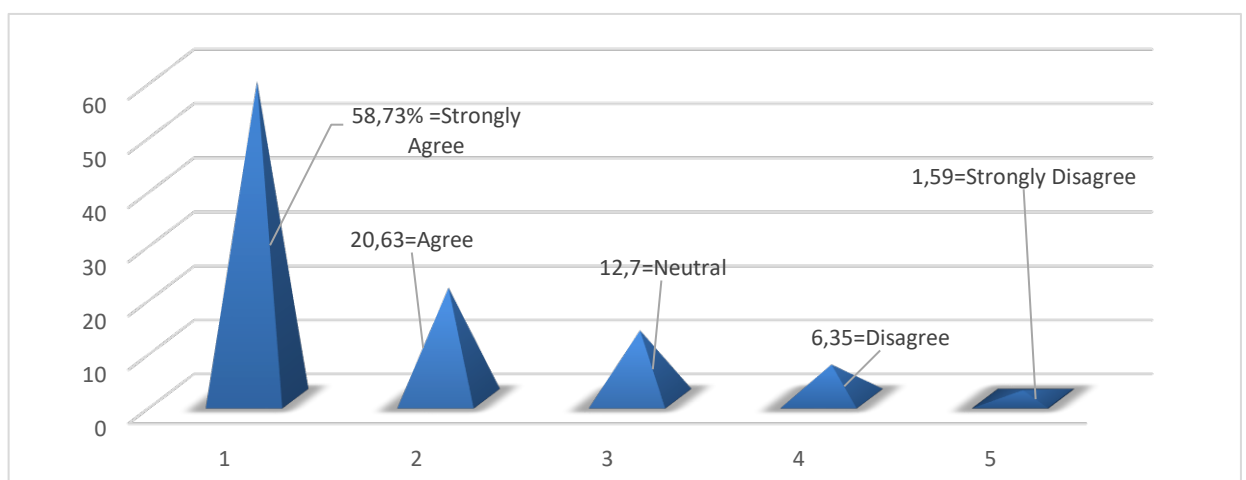
**Figure 4.15: Locus of control due to employee characteristics: “My job is very challenging”**

Figure 4.16 Displays that more than half the respondents agree there is potential for growth within the organization. Approximately twelve percent of the respondent's disagree.



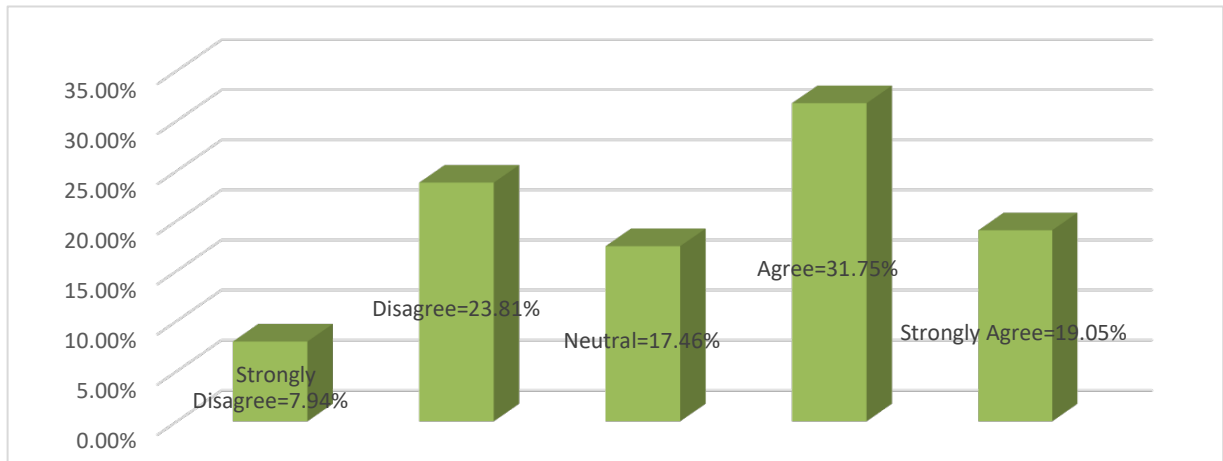
**Figure 4.16: Locus of control due to employee characteristics: "I can easily grow within the organization"**

Figure 4.17: Features that more than half the respondents (79%) believe that there is teamwork within the organization. Twelve percent of the employees remain neutral regarding teamwork. The small minority says there is no teamwork within the organization.



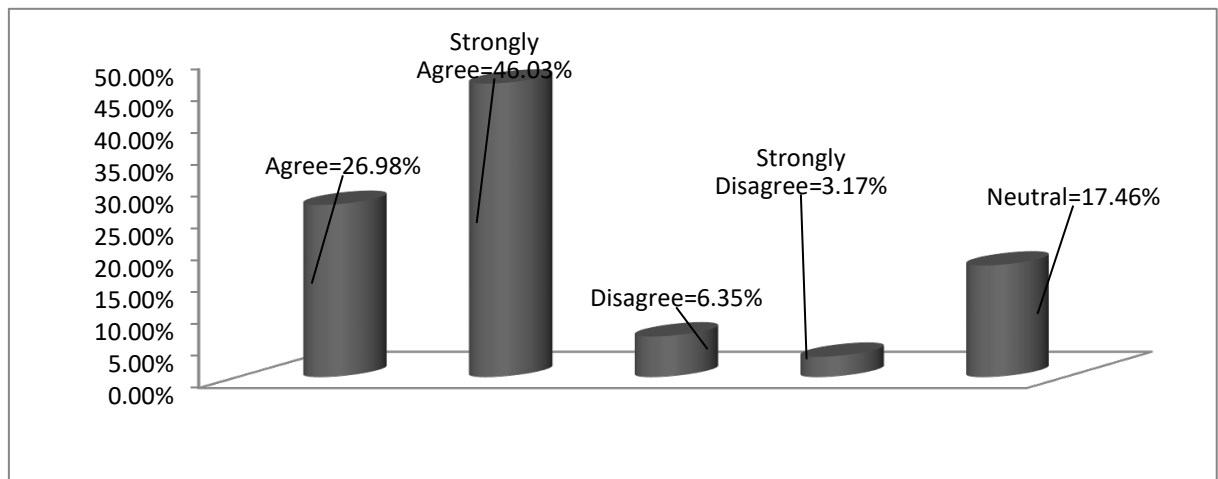
**Figure 4.17: Locus of control due to employee characteristics: "Employees work as a team to ensure that work is completed"**

Figure 4.18: Shows that less than half of the respondents (46%) feel that their salary is market related and fair whereas more than one-quarter of the respondents disagree with the statement.



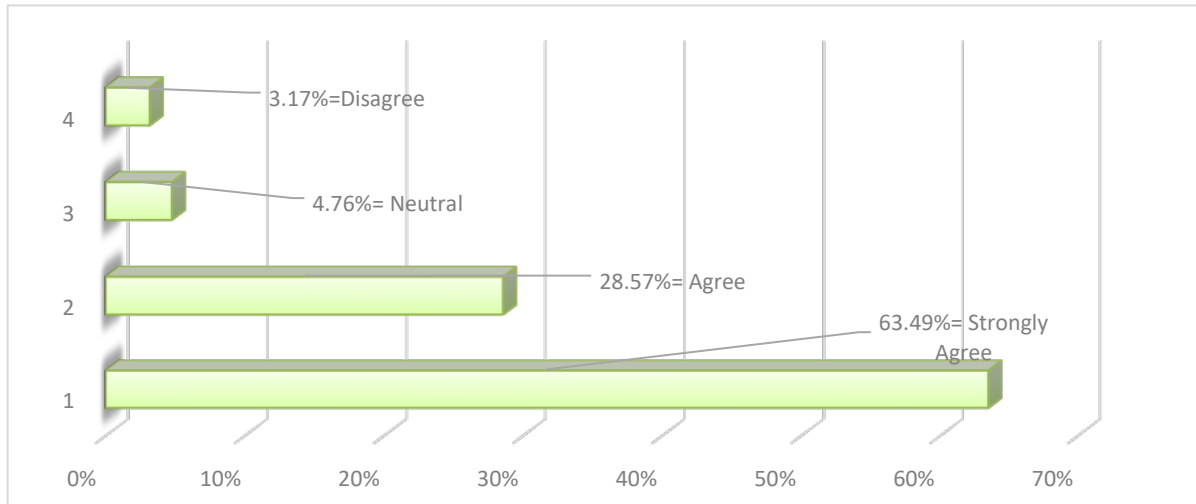
**Figure 4.18: Locus of control due to employee characteristics:  
“My salary is market related and fair”**

Figure 4.19 : Reveals that a significant number of respondents (17.46%) remain neutral regarding studying and educating oneself, however, more than half (73%) of the respondents agree that they will continue to study and educate themselves.



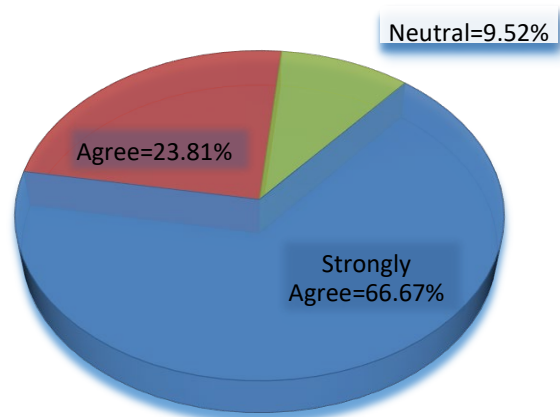
**Figure 4.19: Locus of control due to control beliefs:  
“I am going to continue to study and educate myself”**

Figure 4.20: Shows that more than ninety percent of the respondents (92.06%) have a strong desire to achieve all their goals in life. A significant number of the respondents are unsure or disagree.



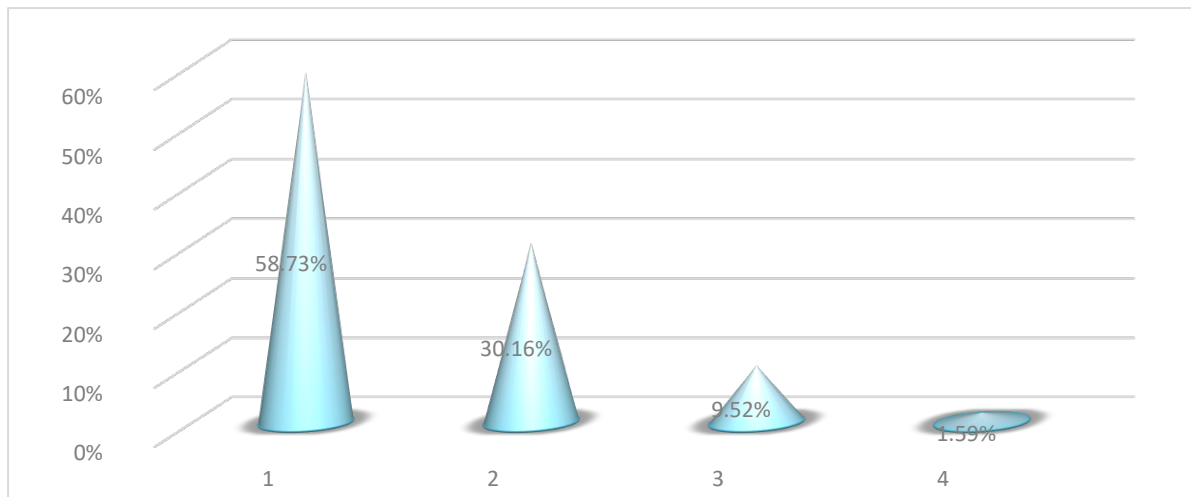
**Figure 4.20: Locus of control due to control beliefs:  
“I have a strong desire to achieve all my goals in life”**

Figure 4.21: Conveys that ninety percent of respondents (90.48%) are ever willing to confront their problems. Approximately ten percent (9.52%) of the respondents remain neutral on this question.



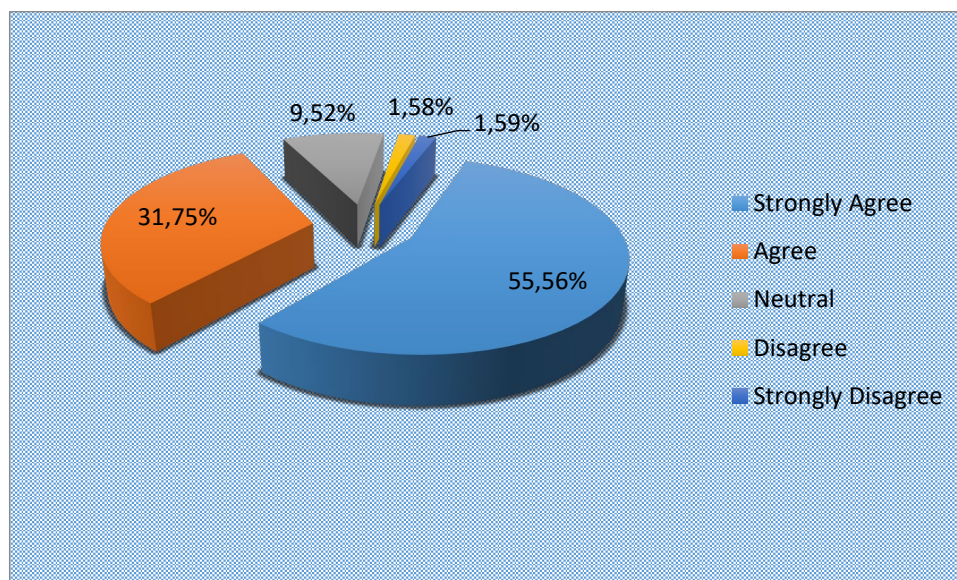
**Figure 4.21: Locus of control due to control beliefs:  
“I am ever willing to confront my problems”**

Figure 4.22: Reads 88.89% of respondents are very persistent in achieving their goals and approximately ten percent (9.52%) remain neutral.



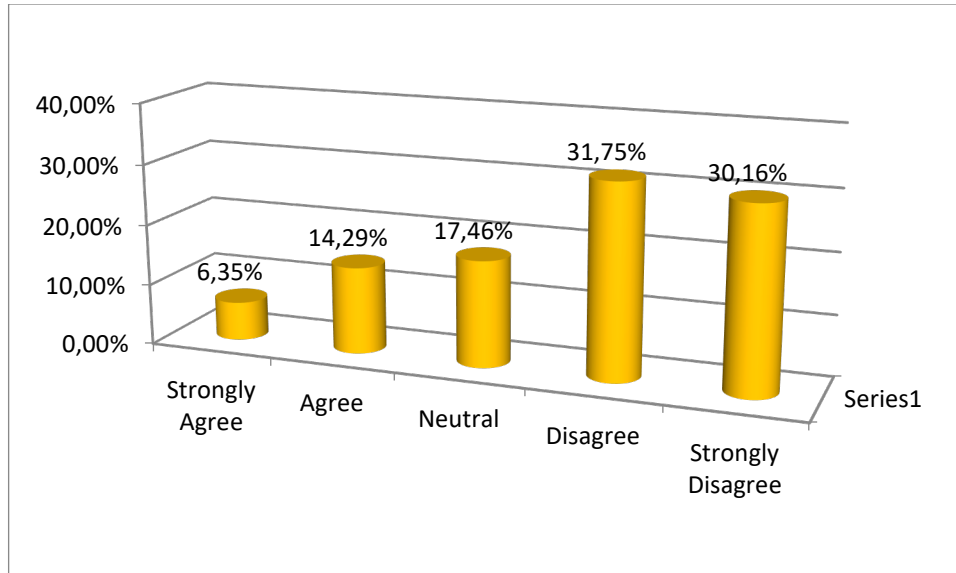
**Figure 4.22: Locus of control due to control beliefs:  
“I am very persistent in achieving my goal”**

Figure 4.23: Depicts that majority of the respondents will do whatever is possible to be successful.



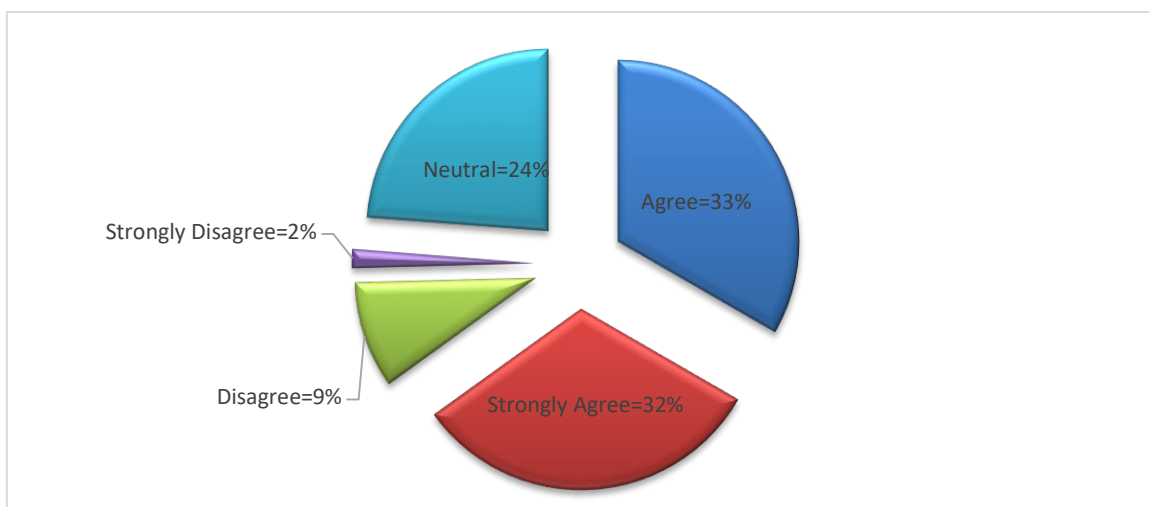
**Figure 4.23: Locus of control due to control beliefs:  
“I am willing to do whatever it takes to be successful”**

Figure 4.24: Shows a great number (61.91%) of respondents that don't believe in bad luck attributing to unhappiness.



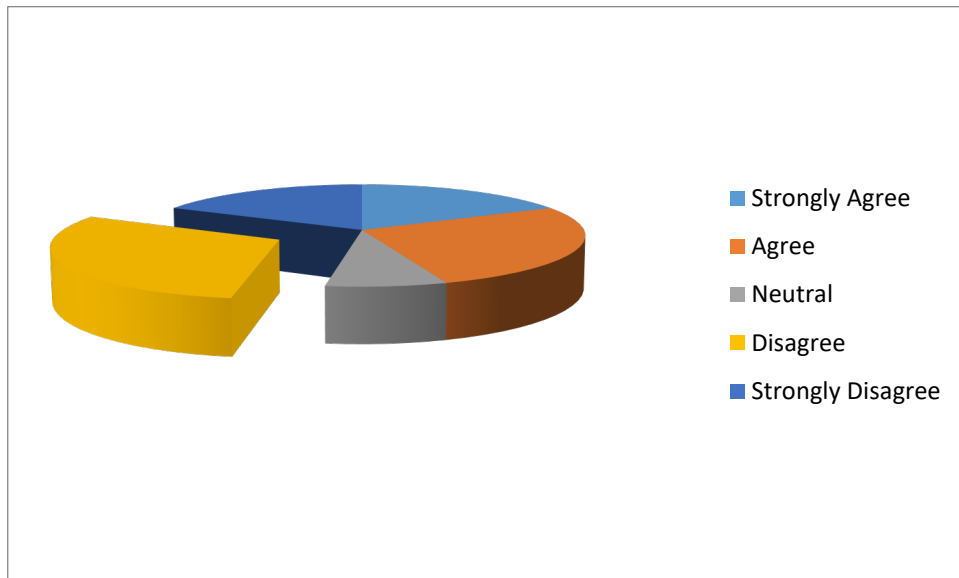
**Figure 4.24: Locus of control due to control beliefs: “Many of the unhappy things in people's life is partially due to bad luck”**

Figure 4.25: Highlights sixty-five percent (65%) of responds agree to peoples misfortunes being a result of the mistakes they make.



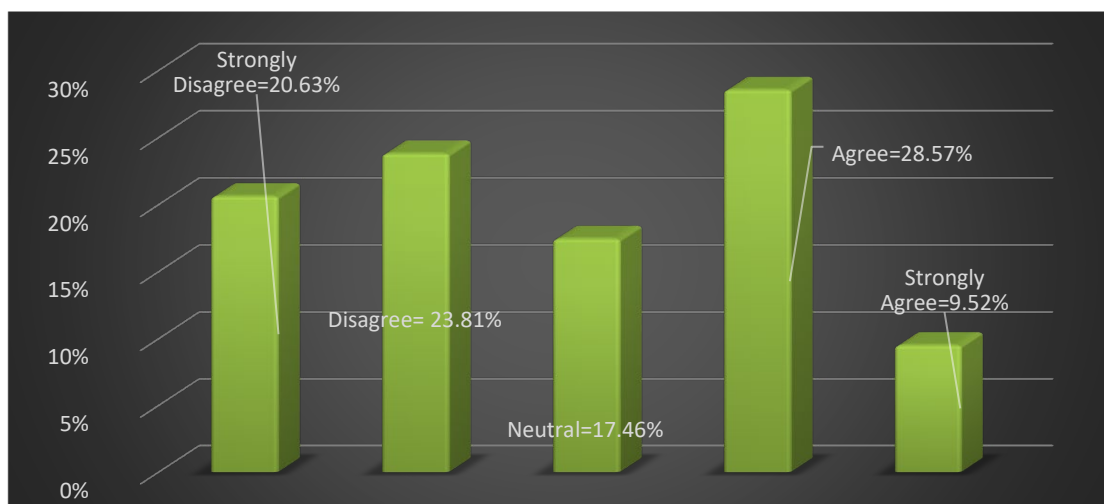
**Figure 4.25: Locus of control due to control beliefs: “Peoples misfortunes results from the mistakes they make”**

Figure 4.26: Show majority of the respondents (30.16%) disagree.



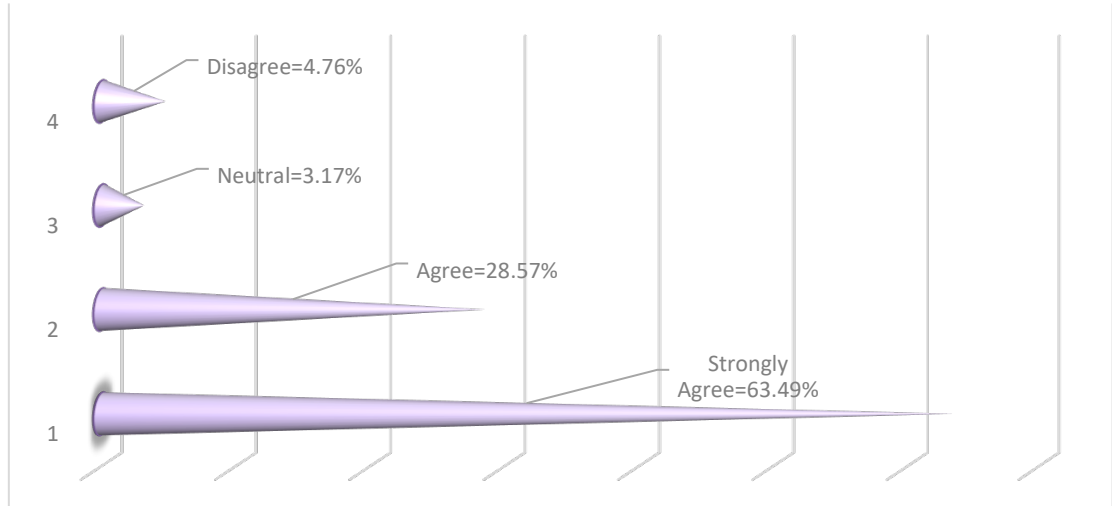
**Figure 4.26: Locus of control due to control beliefs: "Peoples misfortunes results from the mistakes they make"**

Figure 4.27: Shows that forty-four percent (44.44%) of respondents disagree with the statement and the remaining thirty-eight percent (38%) agree that heredity has an effect on personality.



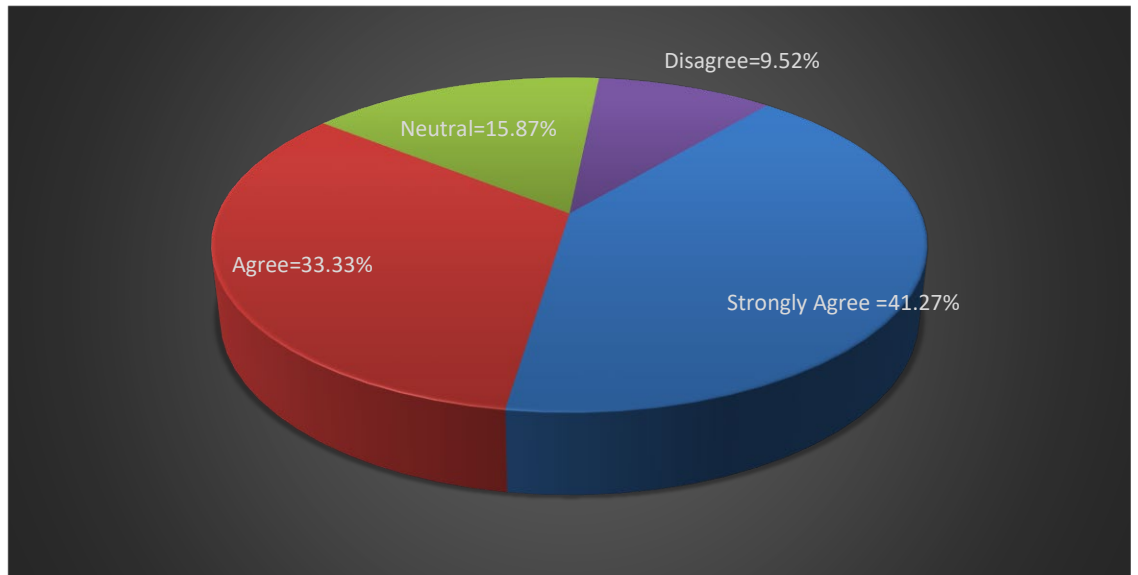
**Figure 4.27: Locus of control due to control beliefs: "Heredity plays the major role in determining one's personality"**

Figure 4.28: Interestingly reveals that a great majority (92%) believe one should always admit mistakes.



**Figure 4.28: Locus of control due to control beliefs:  
“One should always be willing to accept mistakes”**

Figure 4.29: Clearly shows that a vast majority (74.6%) of respondents agree to question 29



**Figure 4.29: Locus of control due to control beliefs:  
“What happens to me is of my doing”**

#### 4.5. Measure of central tendency and dispersion

This section includes the means, standard deviation, minimum and maximum values, which were calculated from the descriptive statistics based on the questionnaire. Table 4.3 relates to job satisfaction, table 4.4 relates to the locus of control based on employee characteristics and table 4.5 locus of control based on control beliefs. These tables indicates the average responses for each of the questions and the deviation in responses from the average response.

##### 4.6.1 Job satisfaction factors

The mean values and standard deviation for Questions 11 to 18 which relates to factors of job satisfaction are illustrated in Table 4.3.

**Table 4.3: Mean, Standard Deviation, Minimum and Maximum Scores for Job satisfaction**

	N	Minimum	Maximum	Mean	Std. Deviation
I am responsible for my actions	63	4.00	5.00	4.8730	0.33563
I understand clearly what is expected of me in the job	63	3.00	5.00	4.8254	0.49317
My job is very important to the success of the organisation	63	1.00	5.00	4.6032	0.79392
Employees work as a team to ensure that work is completed	63	1.00	5.00	4.2857	1.02278
My work environment is very pleasant	63	1.00	5.00	3.7778	1.02303
I can easily grow within the organisation	63	1.00	5.00	3.6508	1.08000
My salary is market related and fair	63	1.00	5.00	3.3016	1.25254
My job is challenging	63	1.00	5.00	2.1270	1.19801
Valid N	63				

Table 4.3 represents the central tendency and dispersion of the job satisfaction in the questionnaire. They are arranged in descending order. Responses range from strongly disagree (1) to strongly agree (5).

The mean score ( $M= 4.87$ ) for responsibility indicates respondents viewed this factor as the highest factor of locus of control that contributes to their job satisfaction. This indicates that respondents' were in agreement that they feel a sense of responsibility for their actions. The standard deviation ( $SD = 0.33563$ ) indicates a moderate variation in the responses that were obtained for responsibility.

The mean score ( $M= 4.8254$ ) for expectation is the second highest factor that the respondents' view as contributor to job satisfaction. It indicates that the respondents were in agreement that they understand clearly they job requirements. The standard deviation ( $SD= 0.49317$ ) indicates a moderate variation in response from the respondents with regards to requirements as a factor of job satisfaction.

The mean score ( $M =4.6032$ ) for the importance of the job to the organisation that the respondents' were in agreement that recognition is a contributor towards their job satisfaction. The standard deviation ( $SD= 0.79392$ ) indicates a moderate variation in the responses obtained from the participants.

The mean score ( $M= 4.2857$ ) for peer relationship as factor that contributes to job satisfaction, indicates that the respondents were in agreement that team works pays. The standard deviation ( $SD=1.02278$ ) indicates a large variation in the responses received with regard to this factor of job satisfaction.

The mean score ( $M= 3.7778$ ) for work environment as factor that contributes to job satisfaction, indicates that the respondents were in agreement that work environment is fair. The standard deviation ( $SD=1.02303$ ) indicates a large variation in the responses received with regard to this factor of job satisfaction.

The mean score ( $M= 3.6508$ ) for growth as factor that contributes to job satisfaction, indicates that the respondents were in agreement that is room to grow. The standard

deviation (SD=1.08000) indicates a large variation in the responses received with regard to this factor of job satisfaction.

The mean score (M= 3.3016) for salary as factor that contributes to job satisfaction, indicates that the respondents were in partial agreement. The standard deviation (SD=1.25254) indicates a large variation in the responses received with regard to salary as factor of job satisfaction.

“My job is challenging” received the lowest mean score (M=2.1270) of all the job satisfaction factors and indicates that the respondents were in disagreement. The standard deviation (SD=1.1907) indicates an extremely large variation from average responses obtained.

#### 4.6.2 Mean, Standard Deviation, Minimum and Maximum Scores for Employee Characteristics.

The mean values and standard deviation for Questions 19 to 23 which relates to factors of locus of control based on employee characteristics are illustrated in Table 4.4.

**Table 4.4: Mean, Standard Deviation, Minimum and Maximum Scores for Employee Characteristics.**

	N	Minimum	Maximum	Mean	Std. Deviation
I am ever willing to confront my problems	63	3.00	5.00	4.5714	0.66513
I have a strong desire to achieve my goals in life	63	2.00	5.00	4.5238	0.73741
I am very persistent in achieving my goals in life	63	2.00	5.00	4.4603	0.73672
I am willing to do whatever it takes to be successful	63	1.00	5.00	4.3810	0.85059
I am going to continue to study and educate myself	63	1.00	5.00	4.0635	1.09062
Valid N	63				

Table 4.4 represents the central tendency and dispersion of locus of control in the questionnaire. They are arranged in descending order. Responses range from strongly disagree (1) to strongly agree (5).

The mean score ( $M= 4.5714$ ) for problem confrontation indicates respondents viewed this factor as the highest factor of employee characteristics that contributes to locus of control. This indicates that respondents' were in agreement that they feel little or no fear confronting problems. The standard deviation ( $SD = 0.66513$ ) indicates a moderate variation in the responses.

The mean score ( $M= 4.5238$ ) for desire to achieve ones goal is the second highest factor of employee characteristics that the respondents' view as contributor to locus of control. It indicates that the respondents were in agreement that they understand clearly they job requirements. The standard deviation ( $SD= 0.73741$ ) indicates a moderate variation in response from the respondents with regards to requirements as a factor of job satisfaction

The mean score ( $M =4.4603$ ) for persistence as a factor that contributes to locus of control. The standard deviation ( $SD= 0.73672$ ) indicates a moderate variation in the responses obtained from the participants.

The mean score ( $M =4.3810$ ) for willingness as a factor that contributes to locus of control. The standard deviation ( $SD= 0.85059$ ) indicates a moderate variation in the responses obtained from the participants

The mean score ( $M =4.0635$ ) for higher education as a factor that contributes to locus of control. The standard deviation ( $SD= 1.09062$ ) indicates a high variation in the responses obtained from the participants

#### **4.6.3 Mean, Standard Deviation, Minimum and Maximum Scores for Locus of Control.**

The mean values and standard deviation for Questions 24 to 29 which relates to factors of locus of control based on control beliefs are illustrated in Table 4.5.

**Table 4.5: Mean, Standard Deviation, Minimum and Maximum Scores for Locus of Control based on control beliefs**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>One should always be willing to admit mistakes</b>	63	2.00	5.00	4.5079	0.78026
<b>What happens to me is of my doing</b>	63	2.00	5.00	4.0635	0.98165
<b>People’s misfortunes result from the mistakes they make</b>	63	1.00	5.00	3.8413	1.03497
<b>Many of the unhappy things in people’s lives are partly due to bad luck</b>	63	1.00	5.00	3.6508	1.23339
<b>Heredity plays the major role in determining ones personality</b>	63	1.00	5.00	3.1746	1.31419
<b>Without the right opportunities one cannot be an effective leader</b>	63	1.00	5.00	3.0317	1.41385
<b>Valid N</b>	63				

Table 4.5 represents the central tendency and dispersion of locus of control in the questionnaire. They are arranged in descending order. Responses range from strongly disagree (1) to strongly agree (5).

The mean score (M= 4.5079) for accepting responsibility for mistakes, respondents viewed this factor as the highest contributing factor of locus of control. This indicates that respondents’ were in agreement that they feel a sense of responsibility for their actions. The standard deviation (SD = 0.78026) indicates a moderate variation in the responses that were obtained for responsibility.

The mean score (M= 4.5238) for accepting responsibility for one’s surroundings is the second highest factor of employee characteristics that the respondents’ view as contributor to locus of control. It indicates that the respondents were in agreement that what happens to you is of your own doing. The standard deviation (SD= 0.98165) indicates a moderately high variation in response from the respondents with regards to requirements as a factor of job satisfaction.

The mean score ( $M = 3.8413$ ) to accept responsibility for one's misfortunes as a factor that contributes to locus of control. The standard deviation ( $SD = 1.03497$ ) indicates a high variation in the responses obtained from the participants.

The mean score ( $M = 3.6508$ ) for the belief in luck as a factor that contributes to locus of control. The standard deviation ( $SD = 1.2339$ ) indicates a high variation in the responses obtained from the participants.

The mean score ( $M = 3.1746$ ) for the belief in heredity as a factor that contributes to locus of control. The standard deviation ( $SD = 1.3149$ ) indicates a high variation in the responses obtained from the participants.

Opportunism received the lowest mean score ( $M = 3.0317$ ) of all the factors and indicates that the respondents were in disagreement as a contributor towards locus of control. The standard deviation ( $SD = 1.41385$ ) indicates an extremely large variation from average responses obtained.

#### **4.7 Findings based on the correlation analysis of the survey results**

Table 4.6 highlights a dissection of the relationships between locus of control for the various categories and table 4.7 highlights a dissection of the relationship between job satisfaction and other variables. Table 4.8 highlights independently the relationship between education and locus of control. The number of participants for each category were isolated and chi-squared test were conducted. The chi-square test for independence is used to discover if there is a relationship between two categorical variables. The following calculations were conducted using SPSS for Windows.

**Table 4.6: Locus of control and various categories**

Categories	Value <i>X</i> (1)	Asymptotic Significance (2-sided) ( <i>p</i> -value)
Which department are you based	2.917 <sup>a</sup>	0.233
Number of years employed	10.239 <sup>a</sup>	0.017
Age	7.375 <sup>a</sup>	0.117
Gender	<b>3.352 <sup>a</sup></b>	<b>0.067</b>
Race	<b>9.733 <sup>a</sup></b>	<b>0.021</b>
Marital status	4.63 <sup>a</sup>	0.496
Level in the organisation	5.636 <sup>a</sup>	0.131
Reporting structure	0.827 <sup>a</sup>	0.935
Post grad qualification	3.488 <sup>a</sup>	0.175

When reading the above table the Pearson Chi-Square results for the various categories were calculated using spss and tabulated. We can see here that  $\chi(1) = 3.352, p = 0.067$  for gender tells us that there is a statistically significant association between gender and locus of control. Same applies to race, we can see  $\chi(1) = 9.733, p = 0.021$ . This tells us that there is a statistically significant association between race and locus of control.

**Table 4.7: The Cross tabulation table (Gender\* Locus of Control)**

Crosstab					
			Locus of Control 2		Total
			otherwise	Good locus of control	
Gender	Male	Count	33	11	44
		% within Locus of Control 2	64.7%	91.7%	69.8%
	Female	Count	18	1	19
		% within Locus of Control 2	35.3%	8.3%	30.2%
Total		Count	51	12	63
		% within Locus of Control 2	100.0%	100.0%	100.0%

This table allows us to understand that in this sample pool, males have an internal locus of control as compared to their female counterparts.

**Table 4.8: The Cross tabulation table (Race\* Locus of Control)**

Crosstab					
			Locus of Control 2		Total
			otherwise	Good locus of control	
Race	Black	Count	14	9	23
		% within Locus of Control 2	27.5%	75.0%	36.5%
	White	Count	5	0	5
		% within Locus of Control 2	9.8%	0.0%	7.9%
	Coloured	Count	1	0	1
		% within Locus of Control 2	2.0%	0.0%	1.6%
	Indian	Count	31	3	34
		% within Locus of Control 2	60.8%	25.0%	54.0%
Total		Count	51	12	63
		% within Locus of Control 2	100.0%	100.0%	100.0%

This table allows us to understand that in this sample pool, black respondents have an internal locus of control as compared to Indian respondents.

**Table 4.9: Job satisfaction and various categories**

Categories	Value $\chi(1)$	Asymptotic Significance (2-sided) ( <i>p-value</i> )
<b><i>Which department are you based</i></b>	<b>7.872<sup>a</sup></b>	<b>0.020</b>
<b>Number of years employed</b>	2.622 <sup>a</sup>	0.454
<b>Age</b>	1.093 <sup>a</sup>	0.895
<b>Gender</b>	0.490 <sup>a</sup>	0.484
<b>Race</b>	5.708 <sup>a</sup>	0.127
<b>Marital status</b>	0.000 <sup>a</sup>	1
<b>Level in the organisation</b>	5.25 <sup>a</sup>	0.154
<b>Reporting structure</b>	2.019 <sup>a</sup>	0.732
<b>Highest education level</b>	2.705 <sup>a</sup>	0.608
<b><i>Post grad qualification</i></b>	<b>9.122<sup>a</sup></b>	<b>0.01</b>

When reading the above table the Pearson Chi-Square results for the various categories were calculated using spss and tabulated. We can see here that  $\chi(1) = 7.872$ ,  $p=0.020$  for the department the respondent is based in. This tells us that there is a statistically significant association between departments and job satisfaction. Same applies to post graduates, we can see  $\chi(1) = 9.122$ ,  $p=0.01$ . This

tells us that there is a statistically significant association between respondents who have a post graduate qualification and job satisfaction.

**Table 4.10: The Cross tabulation table (Which department are you based \* job satisfaction)**

Crosstab					
			Job satisfaction		Total
			.00	1.00	
Which department are you based	Admin	Count	11	3	14
		% within job satisfaction	28.2%	12.5%	22.2%
	Plant	Count	19	20	39
		% within job satisfaction	48.7%	83.3%	61.9%
	Both	Count	9	1	10
		% within job satisfaction	23.1%	4.2%	15.9%
Total		Count	39	24	63
		% within job satisfaction	100.0%	100.0%	100.0%

This table allows us to understand that in this sample pool, respondents that are based in the plant are the most satisfied with their jobs.

**Table 4.11: The Cross tabulation table (Post Grad Qualification \*job satisfaction)**

Crosstab					
			Job satisfaction		Total
			.00	1.00	
Post Grad Qualification	Honors	Count	6	0	6
		% within job satisfaction	15.4%	0.0%	9.5%
	Masters	Count	6	0	6
		% within job satisfaction	15.4%	0.0%	9.5%
	None	Count	27	24	51
		% within job satisfaction	69.2%	100.0%	81.0%
Total		Count	39	24	63
		% within job satisfaction	100.0%	100.0%	100.0%

This table allows us to understand that in this sample pool, respondents that have neither Honors nor masters are most satisfied with their jobs .

**Table 4.12: Locus of control and highest education**

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.536 <sup>a</sup>	4	0.032
Likelihood Ratio	12.733	4	0.013
Linear-by-Linear Association	3.051	1	0.081
N of Valid Cases	63		

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is .38.

We can see here that  $\chi(1) = 10.536, p = 0.032$  for the category of highest education. This tells us that there is a statistically significant association between highest education and locus of control.

#### 4.7.3 Correlation Analysis

The correlation analysis between job satisfaction and locus of control are indicated in Table 4.13.

**Table 4.13: Pearson Correlation Analysis between the locus of control and Job satisfaction**

Correlation			
		Locus of control	Job satisfaction
Locus of control	Pearson Correlation	1	0.376**
	Sig. (2-tailed)		0.002
	N	63	63
Job satisfaction	Pearson Correlation	.376**	1
	Sig. (2-tailed)	.002	
	N	63	63

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4.13 represents the strength and direction of the relationship between locus of control and job satisfaction. The Pearson Product Movement Coefficient Correlation was used to determine the correlation (Likert scale data) between locus of control

and job satisfaction. The values of the correlation coefficient indicate the correlation is statistically significant.

#### **4.8. Summary**

This chapter incorporated an examination of the measurements in light of the responses and delineated the participation rate and the demographic information of the respondents. The section also highlighted the findings from the survey taking into account selected questions. The next chapter will analyze the research objectives of this study in conjunction with the statistical analysis from the survey and the literature review.

# Chapter Five

## Discussion of results

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### 5.1. Introduction

The previous chapter displayed a comprehensive presentation of the data obtained during this survey which is focused on delineating the objectives of this study. This chapter deals with the discussion of the results that were presented in Chapter Four. This chapter will link data obtained and relevant literature in order to achieve the objectives that were presented in Chapter One.

### 5.2. Objective One

This objective set out to determine the factors that influence locus of control. For this study factors that influence locus of control are divided in to two sub sets;

- I. Locus of control based on employee characteristics.
- II. Locus of control based on control beliefs.

From chapter two, in journal written by Gierowski and Rajtar, according to Rotter, individuals with an internal locus of control can be described as:

1. Treating life as a task to be performed;
2. Having a high level of realism;
3. Orientated towards receiving information from their environment, and also searching for new information concerning themselves and the world, to be applied in concrete actions;
4. Not attaching importance to others' opinions, but being guided by their own self-control;
5. Making use of previous experiences when realising current life tasks;

6. Having a quite well developed sense of responsibility;
7. Having some difficulties with adaptation to environment; they prefer to change the environment rather than themselves;
8. Resistant to stress and frustrations

I. Locus of control based on employee characteristics.

### 5.2.1 Confrontation

The responses received in the current study, with regard to confronting ones problems as a locus of control factor, showed that majority of the respondents were in agreement that they felt they could confront their problems. Figure 21 indicates that a total of 66.67 % of the responses were in agreement (agree and strongly agree) with Question 21 which relates to problem confrontation. Table 4.3 indicates a mean score ( $M = 4.57$ ) for confrontation which further indicates that the average response gather indicated that the respondents were in agreement with feeling a sense of ease and willingness in confronting problems. These respondents are resistant to stress and frustrations.

### 5.2.2 Desire

The responses received in the current study, with regard to desire for achievement as a factor of locus of control, showed that majority of the respondents were in agreement. Figure 4.20 indicates that a total of 63.49 % of the responses were in agreement (agree and strongly agree) with Question 20 which relates to the desire to achieve ones goals in life. Table 4.3 indicates a mean score ( $M = 4.52$ ) for desire which further indicates that the average response gather indicated that the respondents were in agreement with feeling a sense of achievement on goals in their lives. This show how internal locus of control respondents see life as a task to be performed,

### 5.2.3 Persistence

With regard to persistence in goal achievement (Question 22) addressed in the current study, Figure 4.22 indicates that the respondents were in agreement (88.89 %), and found that they are very persistent in achieving their goals. The mean score of 4.46 (Table 4.3) was obtained for the average response. This factor depicts respondent's lack of attaching importance to others' opinions, but being guided by their own self-control and perseverance in achieving their goals.

### 5.2.4 Willingness

Respondents were asked if they are willing to do whatever it takes to gain success (Question 23). The analysis of the data collected revealed that majority of the Respondents (55.56 %) were in agreement that they will do whatever it takes to achieve success. Figure 4.23 provides a graphical representation on the responses gathered. Table 4.3 indicates a mean score of 4.38 which indicates that the respondents were in agreement and have high level of realism.

### 5.2.5 Need for further education

The responses gathered from growth and advancement as a factor of locus of control indicates that the opportunities for growth and advancement within the organisation (Question 10) was met with a 73.01 % majority of the respondents who were in agreement, 9.52 % who were in disagreement and 17.46 % who were undecided with regards to further education (Figure 4.19). A mean score of 4.06 (Table 4.3) was obtained indicating that respondents were in agreement and make use of previous experiences when realising current life tasks that further education is needed to progress and achieve ones goals.

According to Rotter (1966), one of the particular determinates of conduct is the manner by which people see their reinforcement. Is it dependent upon an individual's own internal conduct or is the support controlled by powers outside of himself and

autonomous of his outer activities? Locus of control is defined as an individual's perception of the cause of events that endure in their life (Grimes et al., 2004). As indicated by some scholars, employees with an internal locus of control orientation, acknowledge responsibility regarding control over their surroundings, though those with an external orientation trust they have little control of their surroundings (Grimes et al., 2004). Locus of control is nearly connected with the ideas of learned powerlessness and attribution. As indicated by Rotter, 1966, external locus of control is when reinforcement is seen by the person as not to be altogether dependent upon his activity. Internal locus of control is characterized as an individual's discernment that a specific support is dependent upon their own particular conduct or perpetual attributes.

## II. Locus of control based on control beliefs.

### 5.2.6 Accepting responsibility for mistakes made

The current study shows that the respondents were in agreement with regards to admission of ones mistakes. A majority of 92 % (Figure 4.28) of the respondents were in agreement that they should admit to their mistakes (Question 28). A mean value of 4.508 was obtained for the accepting responsibility which indicates that the respondents were in agreement.

### 5.2.7 Accepting responsibility for ones surroundings

The current study shows that the respondents were in agreement with regards to accepting responsibility with what happens to them. A majority of 74.6% (Figure 4.29) of the respondents were in agreement that they should accept responsibility with regards to what happens to them (Question 29). A mean value of 4.508 was obtained for accepting responsibility which indicates that the respondents were in agreement.

### 5.2.8 Accepting responsibility for ones misfortunes

The current study shows that the respondents were in disagreement with regards to accepting responsibility with the misfortunes that happen to them. A majority of 65% (Figure 4.25) of the respondents were in disagreement that they should accept responsibility with regards to what happens to them (Question 25). A mean value of 3.84 was obtained for accepting responsibility which indicates that the respondents agree that misfortunes results from the mistakes they make.

### 5.2.9 Accepting responsibility as opposed to believing in bad luck

The current study shows that the respondents were in agreement with regards to accepting responsibility as opposed to believing in bad luck. A majority of 61.91% (Figure 4.24) of the respondents do not believe in bad luck (Question 24). A mean value of 3.65 was obtained for the respondents accepting responsibility which indicates that the respondents were in agreement about responsibility and bad luck.

### 5.2.10 Accepting responsibility as opposed to heredity

The current study shows that the respondents were in agreement with regards to accepting responsibility as opposed to heredity. A majority of 44.44% (Figure 4.27) of the respondents believe in taking responsibility (Question 27). A mean value of 3.17 was obtained for the accepting responsibility which indicates that the respondents were in disagreement that heredity plays a role in personality.

### 5.2.11 Leadership

The current study shows that the respondents were in disagreement with regards to accepting responsibility for being an effective leader. A majority of 47.62% (Figure 4.26) of the respondents do not believe in taking responsibility for being an effective leader (Question 26). A mean value of 3.03 was obtained for accepting responsibility which indicates that the respondents were in disbelief.

In a similar study Janssen and Carton (1999) examined the impacts of locus of control on stalling. They found that subordinates with an internal locus of control finished and gave back the task sooner than subordinates with an external locus of control. Individuals with an external locus of control will probably encounter from others both mental and physical resistance since they trust they have no power over their circumstance (Wang & Anderson, 1994). Those that have an internal locus of control trust that diligent work and individual capacities will prompt positive results. These people will probably face challenges and make progress in their approaching attempts.

According to Klein and Warnet (2000) in a study to observe whether locus of control affects the experiences of individuals in their lives the results of the study have shown that the internal facet of locus of control plays an important role in influencing the experiences in people's lives.

According Selart (2005) in a study to research whether locus of control has an effect on decision making periods of the organizations. It has been determined that the managers with low internal locus of control have more tendencies to consult to group decision than the ones with high locus of control do. Additionally, the managers with external locus of control take the role of participant in decision making more than the ones with low internal locus of control.

According to Coban and Hamamcı (2006) in a study to examine the decision making strategies used by the individuals with different locus of control. At the end of the research, it has come to a conclusion that the individuals with internal locus of control mostly use logical decision making strategy. It has been found that there is a negative and low correlation between logical decision making strategy and locus of control. It has also been revealed that the individuals with internal locus of control use logical decision making strategies more than ones with external locus of control and they encounter less hesitation.

### 5.2.12 Gender and locus of control

In this respective sample pool one of the categories that influence locus of control was gender ( $\chi(1) = 3.352, p = 0.067$ ).

Minimal research has substantiated that females have a higher external locus of control than males, while different research found no distinctions in the locus of control between gender differences. This current study of respondents in Protea Chemicals Mobeni discovered that males have a higher internal locus of control than females. Amongst the example populace, between 63 respondents, 11 male respondents and 1 female have an internal locus of control. However, there isn't a considerable number of males and females. In this way amongst the males, 91.7% of them have an internal locus of control and amongst the females 8.3% of them have an external locus of control, hence delineating males have a more prominent internal locus of control than females in this objective populace.

In a similar journal by Vijayahree and Jagdishchandra (2011) titled "Locus of control and job satisfaction: PSU employees", there were no significant relationship between internality and demographic factors like gender and education. There were no significant relationship between externality (others) and demographic factors like gender, age and education.

In a study titled "Effects of locus of control on gender" by Khan and Iqbal (2014) aimed to determine the gender differences in the locus of control with academic achievement among secondary school science students of Wah Cantonment area. It was concluded from the study results that the boys were found superior to girls in their mean locus of control scores which shows that boys have comparatively strong belief than girls about the control of some events that affect their academic achievement.

In a journal titled "A study of locus of control among distance learning pursuing professional in Bangalore" written by Choudhary and others (2014). The paper aimed to study the locus of control of men and women employed in various sectors (mainly IT) at executive level and studying MBA in distance learning unit of Sikkim Manipal University of Health, Medical and Technological Sciences. The results obtained after analysis support the conclusion that men are more internal than women and believe that events result primarily from their own behaviour and actions.

### **5.2.13 Race and locus of control**

In this respective sample pool one of the categories that influence locus of control was race ( $\chi(1) = 9.733, p = 0.021$ ).

In examining locus of control, Tashakkori & Thompson (1991) reported racial contrasts concerning achievement and disappointment in a collection of regions. Blossoms, Milner & Moore (2003) composed that African American secondary school seniors who had a greater amount of an internal locus of control were more able to have higher instructive goals than African American secondary school seniors who disclosed a more external locus of control.

Preceding studies were additionally reprimanded in light of the fact that the people utilized as a part of the studies did not absolutely portray their Culture, consequently pulverizing the whole aim of the study. Identifying with this study led between the 63 respondents larger part of the black respondents have an internal locus of control, however here too that is not a reasonable critic considering there isn't an even distribution of races.

In a Journal of youth and adolescence by Kang and others (2015), Significant interactions between ethnicity and locus of control indicated that having a more internal locus of control was particularly important for Caucasian students' peer relationships (ECLS-K) and social status (NELS), but less so for Asian, Hispanic, and African American students.

As indicated by Aldefer's ERG hypothesis, the development need of an individual depends on the force of the individual's longing for self-awareness (Wehrich et al. 2013).

### 5.3 Objective Two

This objective set out to establish the impact of education on locus of control.

This objective set out to identify the impact that education has on locus of control amongst the respondents. A Pearson chi-squared analysis was conducted to establish the relationship that existed between locus of control and highest education achieved by the respondents excluding post graduate accomplishments.

Based on the empirical evidence from Pearson chi-squared analysis conducted, shown in table 4.12 we can see that  $\chi(1) = 10.536, p = 0.032$  shows that education has a direct and positive impact on the respondents internal locus of control. Respondents who have high levels of education i.e. is post matric but not including post graduate qualifications will have an internal locus of control and the opposite can be said for respondents who experienced lower levels education will experience external locus of control in the workplace. However respondents with post graduate qualifications did not show a statistically significant association between education and locus of control ( $\chi(1) = 3.488, p = 0.175$ ). Previous studies conducted on the relationship and impact that education had on internal locus of control are discussed below and can be used to strengthen the finding of the current study.

In a comparative examination, Hansemark looks at the adjustment in Achievement and Locus of Control of people in a nine-month business program. The investigation contained two test groups and two control groups. All groups comprised of male and female understudies. All groups were at comparable education levels, age, and region of study. All members had completed secondary school or a comparable level of education. Locus of Control was measured with Rotter's Internal-External test. The outcome underpins the speculation that taking an interest in a business

enterprise project should expand Need for Achievement and internal Locus of Control of Reinforcement (Ove C. Hansemark, 1998).

According to Sardogan et. al. (2006) in a study to observe the effect of 10-session Human Relations Skills Education Program on University students' levels of locus of control. At the end of the study, it has been concluded that 10-session Human Relations Skills Program is effective on the locus of control levels of the university students.

In a study by D'souza, Agarwal and Chavali (2013), they examine variations in employees' locus of control (LOC) across the demographic variables of gender, educational background and respondent's age. Men, Gen X and people with higher educational levels (postgraduates) demonstrate higher internal LOC when compared with counter-part demographic groups.

#### **5.4 Objective Three**

This objective set out to establish the impact of on locus of control on job satisfaction.

A Pearson's correlation was run to assess the relationship between job satisfaction and locus of control. There was a moderate positive correlation between job satisfaction and locus of control,  $r = 0.376$ ,  $p < 0.002$ , with locus of control explained 14% of the variation in job satisfaction.

Basically, it is job specific for instance where self-sufficiency and job diversity are extremely constrained that have effects on job satisfaction, in this manner, there is no gender contrasts that exist in connection with job satisfaction ( $\chi(1) = 0.490$ ,  $p = 0.485$ ). Different studies have however demonstrated that gender contrasts exist with regards to job satisfaction. For instance, Okpara (2004) inspected individuals, for example, sex, age and education amongst data innovation (IT) chiefs and found that gender is essentially identified with job satisfaction.

In accordance with these discoveries, Oshagbemi (2003) in his study examined individually connects of job satisfaction where he looked at variables, for example, age, gender orientation, rank, and length of service (p. 1210). He proposed that the form of the work itself, supervision, and pay, working conditions, organization approaches, methodology and room for growth are critical indicators of job satisfaction (Oshagbemi, 2003, p. 1211).

Herzberg (1968) demonstrated that organization strategies, working conditions, supervision, and pay are hygiene factors that can't prompt representatives being inspired and won't prompt job satisfaction. Research for the most part demonstrates that jobs that are very repetitive, firmly controlled, offers little independence and job diversity tend to prompt disappointment with one's job (Gordi, 2006; Holman, 2003; Bakker et al., 2003; Zapf et al., 2003; Deery et al., 2004). The workplace has appeared to have impacted job satisfaction (Patten, 2005). However, different studies had found that locus of control is identified with job satisfaction. Case Siu and Cooper (1998) in their exploration looked at work related anxiety, job satisfaction, resignation intentions, with locus of control and authoritative duty in Hong Kong organizations. They have found that locus of control was emphatically identified with job satisfaction.

Further, different studies have found a huge relationship between job satisfaction and locus of control (Carrim et al., 2006; Judge et al. as referred to in Davis, 2004; Chen and Silverthorne, 2008). The fundamental reason that a huge relationship was found between job satisfaction and locus of control in these studies was that internals experienced job satisfaction rather than externals, because of their capacity to adapt better under distressing workplaces.

According to Patten 2005 in a study to observe whether locus of control affects the experiences of individuals in their lives the results of the study have shown that the internal facet of locus of control plays an important role in influencing the experiences in people's lives.

According to Aube et. al. 2007 in a study to test the effects of the perceived organizational support, work autonomy, the facets of organizational participation (active, normative, etc.), and locus of control. It has come out that there is a positive correlation between organizational support, and normative participation, and activities. Also, it has been concluded that locus of control and work autonomy have a considerable effect on organizational support and active participation.

In the journal by Vijayahree and Jagdishchandra (2011) titled "Locus of control and job satisfaction: PSU employees The results indicate that there is a positive correlation between internal locus of control and job satisfaction as well as between External (other) locus of control and job satisfaction.

Overall, this studies results recommend that there is a larger amount of satisfaction than disappointment in Protea Chemicals Mobeni. The categories that significantly impacted on the respondents being satisfied with their jobs were related to the department in which they worked ( $\chi(1) = 7.872, p = 0.020$ ) and the fact that the respondent had a post graduate qualification ( $\chi(1) = 9.122, p = 0.01$ ).

#### **5.4.1 Job characteristics**

There exists an extensively low turnover of employees in this organization since as per this study over fifty percent of respondents (50.79%) have been working at the organization for a period of over eleven years. This low worker turnover could be a result of employer stability. It is basic for companies to make jobs that are intriguing, testing and important (Panagiotakopoulos, 2013).

Remuneration and other financial benefits form the basis of employee satisfaction (Wilton, 2011; Armstrong, 2009). This study highlights that more than half of the respondents (50.8%) trust that their compensation is business sector related. Most employees believe that their share of income is unjust when compared to their contribution to the organization (Nel et al. 2012).

As indicated by Shekar et al. (2013) utilizing Levinson's (1986) life stage model, representative's fulfillment is driven by money related motivating force between the early stages (20 – 40 years) and reducing in the middle stages (40 – 54 years) of life. It can be seen from the present study that very nearly thirty-six percent of the respondents (36.51%) are older than forty years of age. This implies most respondents are in the middle stages of their life cycle and are not driven by the need for monetary gain.

#### **5.4.2 Job stress**

The challenge of the job received lowest mean score in table 4.3. Measures of central tendency were computed to summarize the data for the “job is challenging” variable. Measures of dispersion were computed to understand the variability of scores for the “job is challenging” variable. The following was the result of the analysis  $N=63$ ,  $M=2.127$ ,  $SD=1.198$ . This implies that the respondents (60.31%) find their jobs challenging.

An applicable experiment on understudies with an internal locus of control have lower stress levels and subsequently, report less psychosomatic symptoms than those with an external locus of control (Ruiz-bueno, 2000). Likewise, studies on locus of control demonstrate that our identity impacts our research (more or less challenging or debilitating), which in turn, increments or decline our sentiments of anxiety and our odds of creating psychosomatic manifestations (Kirkcaldy et al., 2002).

In "The impact of locus of control on job stress, job stress, job performance and job satisfaction in Taiwan", analyst Jui-Chens' findings show that one part of a bookkeepers' identity, as measured by locus of control, plays a vital part in anticipating the level of job satisfaction, anxiety, and execution in CPA firms in Taiwan. People with a higher internal locus of control will probably have lower levels of employment anxiety and more elevated amounts of job satisfaction (Jui-Chen Chen, Colin Silverthorne, 2008).

## **5.5. Summary**

There are possibly various elements that influence a workers locus of control. This at least, relies upon a worker's need at the time. However, it is a representative's internal locus of control that strengthens with education.

There exists a noteworthy positive connection amongst education and internal locus of control and internal locus of control and job satisfaction.

The next chapter will provide recommendations and conclusions based on this study.

# Chapter Six

## Conclusion and Recommendations

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### 6.1. Introduction

The previous chapter gave a close examination of the objectives from this study gathering important literature and the information acquired during the survey. This chapter will explore the key findings of the study, recommendations based on the study as well as recommendations for future studies to be conducted.

### 6.2. Key findings from the study

The current study investigated a sample size of 63 employees from the target population. This was accomplished by means of random sampling and research questionnaires that were distributed amongst the respondents. An extensive literature review was conducted to provide a more structured approach in analysing and interpreting the findings of the study. A five point Likert Scale was used to evaluate the employee's responses.

The results obtained were used to establish the key findings which aided in accomplishing the research objectives set out in Chapter One. The outcomes from the current study developed the following key findings for each objectives.

#### 6.2.1 Objective 1

Amongst the locus of control factors, employee characteristics ranked the highest of all factors followed by employee control beliefs. The willingness to confront problems ranked the highest with a mean of 4.57 from employee characteristics and the willingness to admit to mistakes ranked the highest with a mean of 4.5079 from employee control beliefs. These factors were found as factors that motivate locus of

control amongst the respondents. Locus of control based on control beliefs had the lowest mean at 3.03 for leadership based on opportunities.

### **6.2.2 Objective 2:**

From the study it was found that education has a significant impact on locus of control. Employees with highest education were discovered to have a greater internal locus of control compared to employees without. Using Pearson chi-squared test with the locus of control and highest education showed that it is statistically significant.

### **6.2.3 Objective 3:**

Locus of control has a significant bearing on job satisfaction, 0.002 level of significance. Statistics show locus of control impacts job satisfaction, R- squared is 14 % which indicates that the model explains 14 % variability of the response data around its mean. Respondents that are satisfied with their employment have an internal locus of control.

## **6.3. Implications for the organisation**

The findings from the study has some very compelling implications for the organization. Most of us lie somewhere along the locus of control continuum, rather than being at one end or the other (Carducci, 2006). People with a high internal locus of control have confidence in their own specific ability to control themselves and impact their general environment. They see their future as being in their own specific hands and that their own particular choices lead to accomplishment or dissatisfaction, these are capable people and can have enormous impact on an organisation.

Rotter (1966) describes the internal locus of control as:

The degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics. Their faith in their capacity to change things may well make them surer and they will henceforth look for data that will help them impact individuals and circumstances. They will, therefore, be more likely roused and achievement orientated. These convictions may even lead them to be more industry dynamic. They will most likely have foresight shifts, where a course of action of relative events is required to have unmistakable results. They tend to be more specific, summing up to less and considering each situation as exceptional. People in middle age tend to have the most raised internal locus of control. A drawback of an internal locus of control is that, in tolerating obligation, the individual needs to likewise acknowledge fault for disappointments. Rotter (1966)

However in this specific organisation accepting fault is a formidable quality. It helps in a more active root cause analysis, diminishing bottlenecks and decreasing occupationally related danger.

This study demonstrated that education positively correlates to an internal locus of control, thus it is critical for the organisation to concentrate on improving the level of education of the representatives. Another finding from this study that supports the hypothesis is that the level of an individual's internal locus of control does develop over time with life experience. Internal individuals have aptitudes that encourage taking control and impacting others. This results in more reasonable and consistent thinking within the organization.

This study also revealed that employees with a higher tertiary education (Masters, Honors) had a higher internal locus of control compared to those without tertiary education and was significantly higher than those who did not have matric. The organization needs to promote tertiary education as this will improve the individual's internal locus of control. Encouraging enough, the organization has a policy that enables and influences employees to further their education. The policy has bursary schemes, educational loans, study leave, monetary inducement, flexible working hours, graduation ceremonies etc. Tertiary education will also be an advantage to

the enhancement of employee skills within the organization. This added accomplishment can be exploited to this organization's competitive advantage. An effect of enhancing tertiary education to improve internal locus of control is to also improve employee job satisfaction.

Employees with more than one person reporting to them were inclined to have a greater locus of control than employees with no one reporting to them. This could be as a result of the link between education and internal locus of control. The organization can adopt a policy that includes an employee development program encompassing succession planning as part of their strategy.

In addition there are some more positive results for the organization through education:

- There is a pool of employees to select from when a senior position becomes available.
- Employees have a better understanding of the organization's objectives.
- Employees see things from the bottom up as well as the top down.
- Employees understanding is broadened to greater lengths regarding their responsibilities as key drivers of the organization.
- Caters for the future of the organization.

It was also discovered that married individuals have a slightly higher internal locus of control than single employees. The organization can cautiously promote traditional family values. These can be included in both wellness programs and organization's policies.

The organization's policies can encourage a family type lifestyle by considering the following:

- Allowing child sick leave. Lucrative maternity and paternity leave.
- Include the entire family when the company has a function.

- Allowing employees the time to go to school if the need arises.

The findings also suggest apart from other influences that internal locus of control seemed to correlate better with education as per the research objective. This implies that intelligent individuals will possess an internal locus of control (Maslow's higher level of needs and Herzberg's motivators). The organization needs to develop the internal locus of control of their employees using the drivers of locus of control such as education. This will result in an increase in job satisfaction.

It must be highlighted to the organization that the relationship investigated in this study is one of correlation. This means that as education increases so does internal locus of control and job satisfaction. This does not necessarily mean that the relationship is one of causation where education causes an increase in internal locus of control.

#### **6.4. Conclusion**

Organizations need to dependably create competitive advantages to staying economical. One of the key assets of an organization are the employees and the dynamic way of these workers makes a test for managers to constantly propel these people. Arguably employees are the most notable assets that give the organization favorable position over its rivals. The company needs to keep on appraising this asset and find extraordinary procedures to draw from the internal locus of control.

The motivation behind this study was to examine the relationship of education levels to internal locus of control with respect to job satisfaction. Management can utilize the findings and recommendations from this study to further the organization's competitive advantage. By including the key findings in the human capital strategic planning, it could possibly lead to optimising the use of this valuable asset.

## **6.5. Recommendations that emerge from the study**

In view of the results from this study, the following are recommended:

- i. The organization should wield the overwhelming variables of internal locus of control as a component of a vital arrangement to increase representative fit.
- ii. The organization should consider the usage of worker wellbeing programs, representative progression arranging, representative abilities improvement and fiscal motivating forces as a constituent of their approaches.
- iii. The organization needs to keep on establishing elements that can, in any event, keep up or enhance its position in this focused environment.
- iv. The organization should consider introducing strategies that advance education, programs that start dynamic internal locus of control.

## **6.6. Recommendations for future studies**

The following are recommendations that can be used by researchers for future studies:

- I. Investigate to a greater extent the level of education and its bearing on internal locus of control and job satisfaction.
- II. Conduct as a differing approach a qualitative study over a particular timeline to evaluate the progress in education versus internal locus of control and job satisfaction.
- III. Instead of using a sample use the entire population since the difference between the two is insignificant and the possible gains in terms of getting a full picture as opposed to a partial one overcome any conceivable gains made by the former over the latter.

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## Appendix 1

Number	Question -Source: adabted from Rotter, J. B. (1966)							
1	Which department are you based	Admin	Plant	Both				
2	Number of years employed at Zetachem	1	2-5years	6-10years	11-20years			
3	Age (years)	Under 20	20-25	26-30	31-35	36-40	older than 40	
4	Gender	Male	Female					
5	Race	Black	White	Coloured	Indian	Other		
6	Mariatal status	Single	Married	Other				
7	Level in Organisation	Manager	supervisor	operator	other			
8	How many employees Reporting to you	None	Less than 5	Bet 5-10	Bet 11-25	more than 25		
9	Highest Education achieved	Matric	No Matric	Diploma	Degree	Artisan		
10	Post Grad Qualification	Honors	Masters	Doctrate				
11	My job is very important to the success of the organisation	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
12	I am responsible for my actions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
13	I understand clearly what is expected of me in the job	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
14	My work enviroment is very pleasant	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
15	My job is challenging	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
16	I can easily grow within the organisation	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
17	Employees work as team to ensure that work is completed	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
18	My salary is market related and Fair	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
19	I am going to continue to study and educate myself	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
20	I have a strong desire to achieve my goals in life	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
21	I am ever willing to confront my problems	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
22	I am very persistant in achieving my goal	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
23	I am willing to do whatever it takes to be successful	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
24	Many of the unhappy things in peoples lives are partly due to bad luck	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
25	Peoples misfortunes result from the mistakes they make	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
26	With out the right breaks one cannot be an effective leader	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
27	Heredity plays the major role in determining ones personality	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
28	one should always be willing to admit mistakes	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
29	What happens to me is of my doing	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		

## Appendix 2

<b>Informed Consent Letter 3C</b>
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**UNIVERSITY OF KWAZULU-NATAL  
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP**

Dear Respondent,

**MBA Research Project**

**Researcher:** Mr F. Khan (0842515235)

**Supervisor:** Dr M.E. Hoque (082 592 84 88)

**Research Office:** Ms. P Ximba 031-2603587

I, Fuzala Khan an MBA student, at the Graduate School of Business and Leadership, of the University of KwaZulu-Natal, invite you to participate in a research project entitled, An Investigation of the Level of Education as a Measure of Internal Locus of Control in the employment hierarchy.

**The aim of this study is to:**

To measure the locus of control of each employee based on their level of education. Through your participation, I hope to understand how factors of locus of control impact on job satisfaction. The results of the focus group are intended to contribute to management's decision making. Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this survey/focus group. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Graduate School of Business and Leadership, UKZN.

If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me or my supervisor at the numbers listed above.

The survey should take you about 10 minutes to complete. I hope you will take the time to complete this survey.

**Yours Sincerely**

Investigator Signature \_\_\_\_\_ Date \_\_\_\_\_

**UNIVERSITY OF KWAZULU-NATAL  
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP**

**MBA Research Project**  
**Researcher:** Mr F. Khan (0842515235)  
**Supervisor:** Dr M.E. Hoque (082 592 84 88)  
**Research Office:** Ms P Ximba 031-2603587

**CONSENT**

I..... (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT

DATE

.....

**This page is to be retained by researcher**

## Appendix 3