

**The relationship between the Big Three Personality Factors and Graduate Trainees’  
Job Performance**

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## **DEDICATION**

To my beloved mother and late father- this is a bold and unparalleled stride towards complete fulfillment of their vision and dream for me.

## ACKNOWLEDGEMENTS

Profound gratitude goes to my Supervisor, Mr D. Zvomuya, for his sacrifices, patience and insistent support and advice in the completion of this project. His advice and guidance were so enriching and left me more knowledgeable of the subject matter than ever before. I thank him more abundantly for the time he sacrificed to guide and advise me. I also wish to extend to my humble gratitude to the late Mr Clarkson Teveraishe- he was my inspiration and a pillar of strength and encouragement.

*“VaMurinye, I have just phoned to say that you should now complete your project”.*

These were his last words to me when he phoned me, few days before his painful and unforeseen departure. Painful indeed.

Special thanks goes to my lovely wife, Elizabeth, and my kids, Essly and Essien, who had to endure loneliness and late homecoming for a very long period as I had to spend much of my time away from home in order to complete the project. And just as, Marcus Tillius Cecero once said,

*“A thankful heart is not only the greatest virtue but the parent of all other virtues”,*

I wish to thank all revenue trainees and their mentors who participated in this study, colleagues and workmates who wished me good will despite the seemingly insurmountable challenges that I faced to get this far.

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## ABSTRACT

The study investigated the relationship between the Big Three Personality factors (Extroversion, Neuroticism and Psychoticism) and Revenue Trainee's Job Performance. The Alpha coefficients for the Extroversion subscale ( $= 0.37$ ) and the Psychoticism subscale ( $=0.47$ ) were, however, found to be below the conventional standard of 0.70 and no further analysis was performed on them. Only the Neuroticism subscale had a reliable Alpha coefficient of 0.78. Specifically then, the study assessed the link between neuroticism and job performance in its two forms, namely, task and contextual performance. One hundred and ninety three revenue trainees whose age ranged from .... to ... .. and a mean age of 24.90 ( $n=71$  females and  $n=122$  males) participated in the first session of the study but owing to the reduced response rate by mentors (60.10%), one hundred and sixteen revenue trainees with a mean age 25.29 ( $n= 46$  females and  $n=70$  males) candidates eventually participated in both sessions of the study. Data collected were analyzed using the Pearson Correlation. A positive correlation was found between high emotional stability and contextual performance ( $r= 0.247$ ) and low negative correlation was found between emotional stability and task performance ( $r=-0.009$ ). One Way Analysis of Variance indicated that (i) emotional stability had no statistically significant influence on task performance ( $F=.008$ ,  $p>.927$ ). This means there was no significant difference on the task performance of revenue trainees with low and high emotional stability, (iii) emotional stability had a statistically significant influence on contextual job performance ( $F=7.401$ ,  $p<.008$ ) meaning that there was a significant difference on the contextual performance of revenue trainees with low and high emotional stability and finally (iii) that emotional stability had no statistically significant influence on overall job performance. ( $F=2.598$ ,  $p>.110$ ) suggesting that there was no significant difference on the overall job performance of revenue trainees with low and high emotional stability. This study partially confirmed previous research studies and replication of the study with personality instruments with revised reliability levels should assist to ascertain the authenticity of the above findings.

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# **CHAPTER ONE**

## **1.0 INTRODUCTION**

As part of efforts to assess the success of the Zimbabwe Revenue Authority's (ZIMRA) Graduate Traineeship (often called Revenue Trainees) Program this study was done to evaluate the link between the Big Three Personality Factors and the performance of ZIMRA's Revenue Trainees who indiscriminately find themselves having to operate in various work environments. Over the years, many definitions have been proposed for personality. Most of the definitions refer to it as a mental system - a collection of psychological parts including motives, emotions, and thoughts. The definitions vary a bit as to what those parts might be, but they come down to the idea that personality involves a pattern or global operation of mental systems. Notwithstanding existence of the various conceptual definitions of personality this study goes along with Eysenck's (1986) trait based view of personality as the result of internal characteristics that are genetically based. In particular it views personality as an individual's pattern of psychological processes arising from motives, feelings, thoughts, and other major areas of psychological function. Personality is expressed through its influences on the body, in conscious mental life, and through the individual's social behaviour (Mayer, 2005). On the other hand, performance shall be viewed as behavior or simply something done by the employee (Campbell, 1990). It is the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed (Motowidlo, & Van Scotter, 1994). In a contract, performance is deemed to be the fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract.

Generally speaking the relationship between personality and job performance can be categorised into distinct phases. The first phase, which includes studies conducted from the

early 1900s through the mid-1980s, was characterised by primary studies in which researchers investigated the relationships of individual scales from numerous personality measures to various aspects of job performance. The overall conclusion from this body of research was that personality and job performance were not significantly related. In fact, some have sarcastically referred to this as the time when we had no personalities. As Guion and Gottier (1965) noted in their influential review, “there is no generalisable evidence that personality measures can be recommended as good or practical tools for employee selection”. For the most part, this conclusion went unchallenged for the past 25 years (Barrick and Mount & Judge, 2001).

There are several possible explanations for these pessimistic conclusions. First no classification system was used to reduce the thousands of personality traits into a smaller, more manageable numbers. Second, there was lack of clarity about the traits being measured. For example, in some cases researchers were using the same name to refer to traits with different names for traits. A related problem was that researchers did not distinguish between measurement of personality at the construct level and measurement at the inventory scale level. Researchers implicitly treated each individual personality scale as if it measured a distinct construct, rather than recognising that each scale from a personality inventory assessed only one aspect or facet of a larger construct. Further, much of the research at this time was characterised by a ‘shortgun’ approach in which the relationship of all personality scales on personality inventories was correlated with all the criteria investigated in the study. Not surprisingly, researchers found that many of the correlations were near zero (Barrick and Mount & Judge, 2001), ambiguous (Kline, 1993) subjective (Bentall, 1993) and showed low external validity (Furnham, 1987). Of course, this is exactly what one would expect when the presumed personality performance linkages had not been established theoretically or through job analysis). Finally, the reviews of the literature at this time were largely narrative rather

than quantitative, and did not correct for the study artifacts that lead to downwardly biased validity estimates. Understandably these problems made it difficult to identify consistent relationships among personality traits and criteria and consequently, little advancement was made in understanding personality performance relationships.

Currently, the area is experiencing something of a renaissance. The second phase, which covers the period from the mid 1980s to the present is characterised by the use of the Five Factors Model (FFM), or some variant, to classify personality scales. Most of the primary studies conducted since 1990 have used instruments that assess personality traits at the FFM level or have used the FFM to classify individual scales from personality inventories. According to Barrick and Mount & Judge (2001), the second distinguishing characteristic is the use of meta-analytic methods to summarize results quantitatively across studies. By 2001 there had been 15 meta-analytic studies of personality- performance relationships (11 published articles and 4 conferences presentations. The results of both the primary studies using FFM constructs and meta- analytic studies using FFM appear to have led to more optimistic conclusions than those from the prior era, and have helped increase our understanding of personality- performance relationships. Thus, contrary to the previous era it appears there is actually a personality to talk about and that at least some aspects of it are meaningfully related to performance.

Interestingly, the concept of job performance has been similarly viewed from various angles, the consequence of which had been confusion as to what it really entails. What is, however, agreeable amongst most researchers has been the multidimensional view of job performance as a construct composed of more than one kind of behavior. Campbell (1990) chooses to view it as behavior or simply what a person does while other scholars define performance in terms of outcomes or productivity (Campbell and Campbell, 1988). To this end the present

study have found Borman and Motowildo's (1993) view of performance more acceptable, functional and holistic. They distinguish performance as two different clusters of behaviors, that is, in-role behaviours or task performance and extra-role behaviours or contextual performance. In- role or task performance is the incumbent's proficiency when performing technical or services activities while contextual performance is the contribution made by the individual beyond job requirements or simply activities which facilitate Task Performance such as making greater effort, complying with rules and procedures and assisting others) (Borman & Motowildo, 1993).

As Poropat (2005) further noted task performance tends to change substantially from job to job while citizenship or contextual performance tends to be consistent in most jobs. Typical measures of job performance should, according to Borman and Motowildo, include both tasks and contextual performance. What is critical to the current study is that these two dimensions are not related to the same predictors. While task proficiency tend to be related to predictors of knowledge and aptitude such as cognitive ability tests and job knowledge tests, contextual performance tend to be related to motivational predictors such as personality factors. Borman and Motowildo (1997) confirmed this in their examination of personological and individual differences in contextual performance and found that in jobs where incumbents have little room for advancements, contextual performance was predicted by conscientiousness and where advancement is possible, contextual performance is predicted by ambition/ surgency.

Whereas Task performance appears to be closely related to an individual's abilities, contextual performance was originally proposed as an aspect of performance which is influenced by attitudinal and personality variables. Since revenue trainees were initially selected largely on the basis of their cognitive abilities (with psychometric tests which are related to task performance being given a weighting of 0.65 in the final selection decision)

the present study find assessment of revenue trainees' contextual performance more important as it is related to citizenship performance. This goes along with Poropat's (2005) observation that contextual performance largely mediates the relationship between personality variables such as Conscientiousness. A related study by Timmerman (2004), using the Big Five Factors only found agreeableness to be significantly correlated with performance. In his meta-analytic findings from 36 studies carried out in the European community, Salgado (1997) reported Conscientiousness and Emotional Stability to be valid predictors of training success. This finding was also confirmed by Barrick, Mount and Judge (2001). From the accumulation of evidence it does appear that Conscientiousness is the most consistent predictor of performance and this assertion has been supported by Matthews and Dreary (1998) in their assessment of Barrick and Mount (1991)'s data (van den Berg & Feij, 2003).

In view of the foregoing the present study predicted significantly high correlations between the Big Three personality dimensions and the job performance of revenue trainees. In particular, and following Barrack and Mount' (2001) observations that extroversion and emotional stability predicted performance across jobs, the present study predicted a positive correlations between extroversion and contextual performance as well as between emotional stability and contextual performance and a low negative correlation between emotional stability and task performance. The study further hypothesized that there would be low correlations between either extraversion or emotional stability and task performance. Low and insignificant correlations were expected between psychoticism and either contextual or task performance.

## **1.2 STATEMENT OF THE PROBLEM**

Does a significant relationship exist between the Big Three Personality Factors and revenue trainees' consequent job performance?

## **1.3 JUSTIFICATION OF THE PROBLEM**

This study was prompted by two observations. The first observation was that most organizations (the Zimbabwe Revenue Authority included) reflect a lot of interest in assessing the personality of their employees in order to make correct selection and job placement decisions and yet are still not sure as to whether human personality does indeed affect consequent job performance. Part of the reasons for this confusion largely stems from previous personality studies which are punctuated with conceptual ambiguities (Kline, 1993), subjectivity (Bentall, 1993) and low external validities (Furnham, 1987) when it comes to defining what personality and job performance are - shortcomings usually transferred to the design of instruments that are eventually used to measure the personality and job performance of employees. The second observation was that most of the primary studies conducted since 1990 have used instruments that assess personality traits at the Five Factor Model (FFM) level or have used the FFM to classify individual scales from personality inventories. Despite its causal explanatory potential, very few, if any, attempts have been made to assess the effect of the Big Three Factors on performance.

In fact, the majority of researchers tend to report correlations and predictions of performance based on the Five Factors Model labels. The Big Five Factors Model came about as a compromise to those who believed that Cattell focused on too many traits, while Eysenck focused on too few. While it is beyond doubt that the Five Factors Model (e.g Block, 1995a) does provide a unifying ground in which theorists and practitioners may study and utilize

personality as tool in the workplace, one key limitation of the Five Factors model, has been its failure to provide causal explanations to the observed behavior correlations. Instead, the Big Three Factor Model is so far the only personality model, according to Eysenck (1986), which provides such a basis for explaining observed behavior patterns. It is thus the preferred model for use in this study. The biological basis of these Big Three personality dimensions was expected to provide adequate platform for explaining why employees would behave in certain ways. The results anticipated by this study were expected to significantly (i) leave us more informed about how and whether personality differences do indeed affect the consequent job performance of the employees (ii) inform policy makers on importance of considering personality differences when it comes to employee placement and (iii) engender incorporation of relevant personality characteristics in the design of jobs and selection systems for Graduate's Trainees.

#### **1.4 OBJECTIVES OF THE STUDY**

This study has the following objectives:

- (i) To determine the link between the Eysenck's Big Three Factors (Extroversion, Neuroticism and Psychoticism on Revenue Trainees' job performance (as in task and contextual performances).
- (ii) To establish if the biological basis of the Big Three Factors can be used to explain differences in employee's task and contextual performance.

## 1.6 DEFINITION OF THE TERMS

**Personality** – refers to a dynamic and organised set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations, and behaviors in various situations (Ryckman, 2004). The word "personality" originates from the Latin *persona*, which means mask.

**Five Factor Model (FFM)** or the "Big Five" – refers to a personality model first proposed by Lewis Goldberg in 1981 after reviewing available personality tests of the day and was finally published by Costa and McCrae in 1985. These five factors include (i) **Openness to Experience**, which refers to a the tendency to be imaginative, independent, and interested in variety vs. practical, conforming, and interested in routine (ii) **Conscientiousness**, which refers to the tendency to be organized, careful, and disciplined vs. disorganized, careless, and impulsive (iii) **Extraversion**, which refers to a the tendency to be sociable, fun-loving, and affectionate vs. retiring, somber, and reserved (iv) **Agreeableness**, which refers to the tendency to be softhearted, trusting, and helpful vs. ruthless, suspicious, and uncooperative and **Neuroticism**, which refers to the tendency to be calm, secure, and self-satisfied vs. anxious, insecure, and self-pitying.

**Big Three Factors**– refers to Extroversion, Neuroticism and Psychoticism which, in Eysenck's view, forms the core part of personality.

**Performance** – Campbell (1990) defines performance as behavior. It is something done by the employee. This concept differentiates performance from outcomes. Outcomes are the result of an individual's performance, but they are also the result of other influences. In other words, there are more factors that determine outcomes than just



an employee's behaviors and actions. So, performance is thus summed up as is the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed.

**Task Performance** – refers to obligatory behaviors or work activities that contribute to an organization's technical core (Motowidlo, & Van Scotter, 1994).

**Contextual Performance**- refers to activities or behaviors that do not fulfill specific aspects of the job's required role and yet contribute to the goals of the organisation through their effect on the social and psychological conditions (Motowidlo & Van Scotter, 1994).

**One Way Analysis of Variance (ANOVA)** is a collection of statistical models, and their associated procedures, in which the observed variance in a particular variable is partitioned into components attributable to different sources of variation. In its simplest form ANOVA provides a statistical test of whether or not the means of several groups are all equal, and therefore generalizes **t-test** to more than two groups. ANOVAs are helpful because they possess an advantage over a two-sample t-test.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 Introduction**

With two predominant models of personality in place, the Big Three and the Big Five, progress in assessing the impact of personality on job performance can be made if it becomes clear what it is that constitutes critical terms like personality and job performance. Organizations would then be in a position to recruit employees who can easily fit into available jobs. Clarity on this issue will advance our understanding of the impact of differences in personality on consequent job performance. Hence, the need to look at what has been found and said about each of these factors and the relationships between them.

#### **2.2 The Big Three or the Big Five?**

Several researchers have sought to explain personality but two competing schools of thought seem to have prevailed over the rest. The two schools of thought refer to those who subscribe to the popular view that human personality could be adequately described by the Big Five domains: Neuroticism, Extroversion, Openness to experience, Agreeableness and Conscientiousness (McCrae & Costa, 1987) and those who maintain Hans Eysenck's (1991) view that personality is reducible to three major traits namely Extraversion, Neuroticism and Psychoticism. Though the views of protagonists of these two models differ, the models have been found to compare favorably on a number of respects. For example, each model views its traits as the highest level factors of a hierarchical taxonomy based on the statistical technique of factor analysis- a method which produces factors that are continuous, bipolar and which can be distinguished from temporary states and which can describe individual differences (Goldberg, 1993). Both approaches also extensively use questionnaires, intending

the factors to be orthogonal (uncorrelated) (Eysenck, 1991) though there are often small positive correlations between the factors.

Both approaches seem, however, to clearly share two higher order factors namely extraversion, and neuroticism. Both approaches also broadly accept that extraversion is associated with sociability and positive affect, whereas neuroticism is associated with emotional instability and negative affect (Matthew, Dreary & Whiteman, 2003). Many lower order factors are similar between the two taxonomies. For instance, both approaches contain factors for sociability/ gregariousness, for activity levels and for assertiveness within the higher order factor, extraversion.

The two approaches also differ in the organization and number of factors. First the three factor approach contains nine lower order factors and the five factor approach has six (Matthew, Dreary & Whiteman, 2003). In particular, whatever the causes, psychoticism marks the two approaches apart as the Five Factor Model contains no such a trait. Apart from simply being a different high-level factor and unlike any of the other factors in either approach, psychoticism does not fit a normal distribution curve. Scores are rarely high and thus skewing a normal distribution (Matthew, Dreary & Whiteman, 2003). However, when they are high there is considerable overlap with psychiatric conditions such as antisocial and schizoid personality disorders. Similarly, high scorers on neuroticism are more susceptible to sleep and psychosomatic disorders (Lynam, Caspi, Moffitt, et. al, 2005).

Eysenck 's (1997) psychoticism factor incorporates some of the polar opposites of the lower order factors of openness, agreeableness and conscientiousness. A higher scorer on tough mindedness in psychoticism would score low on tender mindedness in agreeableness. Most of

the differences between the taxonomies stem from the three factor models' emphasis on fewer higher- order factors.

The present study, however, find Eysenck's Three Factors Model more preferable for our understanding of human personality because of the cause – effect explanatory power that it has when compared to other models. It has links to biology. Eysenck suggests that different personality traits are caused by the properties of the brain, which themselves are the results of genetic factors (Eysenck & Eysenck, 1985). In particular, the three factor model identifies the reticular system and the limbic system in the brain as key components with the specific functions of mediating cortical arousal and emotional responses respectively. Eysenck advocates that extraverts have low levels of cortical arousal and introverts have high levels, leading extraverts to seek out more stimulation from socialising and being venturesome. This means they are more likely to perform well when allowed to work in an environment which permits them to socialise and be venturesome. This could easily be during day and not in the evening. Moreover, Eysenck surmised that there would be an optimal level of arousal after which inhibition would occur and that this would be different for each person (Eysenck, 1994).

Along this vein the three factor approach theorizes that neuroticism is mediated by levels of arousal in the limbic system with individual differences arising because of variable activation thresholds between people (Eysenck, 1994). Therefore highly neurotic people when presented with minor stressors, will exceed this threshold, whereas people low in neuroticism will not exceed normal activation level, even when presented with large stressors. This means such people highly require working in an environment which requires minimal stimulation for them to perform. By contrast the Five Factors Model assumes a role of genetics and environment but offer no explicit casual explanation. By reducing our understanding of

personality to the Big Five factors we run the risk of viewing and measuring personality on the basis of socially constructed concepts which may vary from culture to culture. Because it encompasses other social constructs, the five factors model tends to lose the orthogonal structure between factors (Block, 1995). This is the reason why Hans Eysenck had to content that fewer factors were superior to a larger number of partly related ones (Matthew, Dreary & Whiteman, 2003). The Three Factor Model offers a detailed causal explanation. Though the causal properties of the third state, Psychoticism, are not well defined, Eysenck has suggested that psychoticism is related to testosterone levels and is an inverse function of the serotonergic system (Eysenck 1992). He later revised this, linking it instead to the dopaminergic system (Eysenck 1997).

Those who argue in favor of using the Big Three factors contend that because of their huge heritability, the Big Three reflect considerable external validation. For example, Kline (1993) has observed, that all personality factors should be identified, not from their factor loadings but from their correlation with external criteria. Unlike the Big Five, the Big Three restricts our understanding and measurement of personality to factors with a biological basis. Such a thrust enables researchers to screen out the bloated specifics. It also makes it difficult for all researchers to view factors or traits as some kind of statistical artifact or simply a group of semantically similar items if there is a relatively large heritability index (Kline, 1993). Given that the Eysenck factors are heritable and provide a reliable and consistent hierarchical structure of personality beyond the Big Five (Clark & Watson, 1994), we can better achieve a fair understanding of the personality of ZIMRA' revenue trainees' using Eysenck's Big Three than when using the Big Five Factors.

## **2.2 Biological Basis of Extroversion, Neuroticism and Psychoticism**

It is Eysenck's (1986) contention that both Extroversion and Neuroticism are heritable and so must relate to differences in identifiable systems. Extroverts appear to have a level of cortical arousal which is 'too low much of the time' so they seek experiences which will increase that stimulation. When given tasks one would expect extroverts to put more effort and go an extra mile in reflecting prosocial behaviours which may not be directly rewarded. This seem to contrast with introverts who are easily aroused and shy away from stimulation may be contented with completing the given core tasks proficiently. On the other hand Neurotics have a more arousal autonomic nervous system than stable people and this impairs performance since biological instability leads to state of psychological instability (Conley, 1984).

Evidence from large scale twin studies suggests that about 40-50 per cent of the variance on the Eysenck P, E, N and L scales is genetic with little detectable effect of shared rearing environment on personality (Eaves et. al, 1989). It has thus been noted that while most of the researches that assessed the link between personality and job performance (Hogan, 1998, Barrick, Mount & Judge, 2001; Gray & Watson, 2002) were quite informative they tended to overlook the possible biological basis of personality traits (Eysenck, 1995) and how this could interact with one's optimal performance. The tendency in measuring workers' personality has been to use instruments which regard personality traits as a social product of the reciprocal interaction of three personality components: mainly the actor, the observer and the self-observer (Hampson, 1988). In this regard traits are expressed not only through the behaviour of the actor, but also through the social meaning that the observer assigns to the actor and to each other's reactions. Personality traits are thus taken to reflect the mutually – negotiated construction of the meaning of acts within this dynamic social interaction. The

shortcoming of this social constructivist approach, as Weiner (1990) noted, is that personality traits become contextually bound and more importantly influenced by the different value systems and beliefs that people bring to a social interaction (Furnham, 1987). Such contextual influences may also render knowledge inaccessible or inapplicable as it generates various person- situation interactions (Higgins, 1990).

However, more apparent here is the fact that such an approach fails to recognise that human personality itself connotes heritability, as it refers to structures, processes and propensities inside a person that explain why he or she behaves in a characteristic way (Hogan, 1991) or enduring characteristics of an individual that are significant for interpersonal behavior (Goodstein and Lanyon, 1975). While major in-road seems to have been made by using the Big Five (Neuroticism, Extroversion, Openness to Experience, Agreeableness and Conscientiousness) to assess and describe human personality (Barrick & Mount, 1991), the problem, however, is that the Big Five Factors seems also to have been a product of this same tendency to describe persons (Cantor & Mischel, 1979), use behavioural acts (Buss & Craik, 1983) and behavioural traits (John et. al 1991), albeit at a super ordinate level. Although these dimensions are described as natural kinds, the labels used to designate them suggest that their interpretation has been tainted by investigators' values (Bentall, 1993).

Given that the individual who is anxious, introverted, reserved, noncompliant and not achievement- oriented stands condemned as a lesser human being, most people will have a clear idea of where they would like to find themselves on the dimensions of "openness", "agreeableness" and "conscientiousness" (Bentall, 1993). Because of this, the present researcher find Eysenck's Big Three (Extraversion, Neuroticism and Psychoticism), which are rooted in the genetic makeup of human beings, more plausible as they seem to explain the cause-effect of human personality in a more consistent way. This, however, is not to suggest

that the other dimensions from the Big Five do not exist, but that they exist simply as super-ordinate social labels with no known genetic foundations. Hence, the need to concentrate on the Big Three namely, ‘Extraversion’, ‘Neuroticism’ and ‘Psychoticism’.

Also because personality has strong biological basis which strongly influences behavior one can argue that you cannot validly come to conclusive remarks about revenue trainees’ job behavior or performance without giving due regard to issues such as personality. Such critical factors determine the performance behaviours one would reflect at any given moment. The present study feels this can only be done if instruments for assessing personality are grounded on Eysenck’s Big Three- (Extraversion, Neuroticism and Psychoticism) which, being grounded on biology, provide a cause-effect explanation to behaviors, seem more informative and useful for measuring personality.

As already noted, apart from other factors such as knowledge, skills and abilities, work schedule and age differences, levels of motivation and know-how or aptitude, differences in workers’ performance can be explained by their personality differences (McElroy & Mosteller, 2006). It is well known and backed by decades of research that personality is key to our understanding of why individuals would behave differently (Bentall, 1979). Yet ZIMRA’s selection and placement systems seem to overlook this. Where glaring differences in performance of such revenue trainees are evident no plausible explanation is given with the consequent difficulties in coming up with the right dosage for the problems.



### **2.3 Relations between the Personality Traits and Job Performance.**

Most of personality researches were based on the Five Factor Model taxonomy and this has enabled previous studies to develop specific hypotheses about the predictive validity of personality constructs at work. Prior meta-analytic evidence suggests some FFM traits are related to overall job performance in virtually all jobs, whereas other traits are related to performance in only a few jobs. For example, while agreeableness may be a useful predictor of service orientation and teamwork, extraversion and openness to experience appear to be related to training proficiency.

Most of the meta-analyses have suggested that two of the FFM – conscientiousness and emotional stability- are positively correlated with job performance in virtually all jobs (Anderson & Viswesvaran, 1998; Barrick and Mount, 1991; Salgado, 1997; Tett. Et.al, 1991). Of these two most meta- analyses have suggested that conscientiousness is somewhat more strongly related to overall job performance than is emotional stability. Indeed it is hard to conceive of a job where it is beneficial to be careless, irresponsible, lazy, impulsive and low in achievement striving (low conscientiousness). Therefore employees with high scores on conscientiousness should also obtain higher performance at work. Similarly being anxious, hostile, personally insecure and depressed (low emotional stability) is unlikely to lead to high performance in any job. Thus one would expect that conscientiousness and emotional stability would be positively related to overall performance across jobs. These two personality dimensions are also expected to be related to some specific dimension of performance. First, both conscientiousness and emotional stability are expected to influence team work (Hough 1992; Mount, Barrick and Stewart, 1998). In job involving considerable interpersonal interaction, being more dependable, thorough, persistent and hard working (high on conscientiousness) as well as being calm, secure and not depressed or hostile (high

in emotional stability) should result in more effective interactions with co-workers or customers. Second, employees who approach training in a careful, thorough, persistent manner (high on conscientiousness) are more likely to benefit from training (Barrick & Mount, 1991). With the Big Three in mind, and based on these findings, conscientiousness and emotional stability were expected to be positively related to performance in training.

The other dimensions have been found to be valid predictors of performance only in some occupational groups or for specific criteria. For example, extroversion has been found to be related to job performance in occupations where interactions with others are a significant portion of the job (Barrick & Mount, 1991; Mount et al, 1998). In such jobs as sales and management being sociable, gregarious, assertive, energetic and ambitious is likely to contribute to success on the job. Furthermore if working in a team comprises an important component of the work, higher scores on extraversion would be expected to be related to more effective team work.

A modest correlation between personality and performance should be expected if attempts to correct for such conceptual ambiguities are made. Based on 494 studies and 97 independent samples with a total N of 13,521, Tett, Jackson & Rothstein (1991) later found a more modest corrected estimate of the relation between personality and job performance to be 0.24 (that is, 6% only). Where low correlations are found it has been found to be a result of conceptual ambiguities inherent in the constructs used to measure both personality and job performance. It is such ambiguities which resulted in Schmitt, Gooding, Noe and Kirsh (1984) have since finding a relatively low weighted mean correlation coefficient between personality and job performance of 0.21 (5% only), when compared to those found for assessment centre evaluations (0.43), work samples (0.32) and biodata (0.32). It is such low correlation which

probably affirmed Blinkhorn and Johnson (1990) and lately Gomes, Tavers and Azervedo's (2002) contentions that there were low correlations between personality and job performance.

Dewberry (1994) noted that such weak relationships are found between personality and job performance largely because of lack of a definite personality structure (Dewberry, 1994) or proper persuasive conceptual models or theories to explain why personality measures were correlated with job performance (Hogan and Shelton, 1998). Apparently, even personality questionnaires used were designed to measure dimensions other than the Big Five- extraversion, agreeableness, conscientiousness, neuroticism (vs emotional stability) and openness to experience (Dewberry, 1994), which have come to be regarded as the core personality dimensions (Digman, 1989, Digman and Inouye, 1986,; Goldberg, 1990, 1992, 1993; John, 1990; McCrae and Costa, 1989; Trapnell and Wiggins, 1990). This has led to overall correlation between the Big Five dimensions and job performance being as low as .10, with conscientiousness showing the strongest correlation of 7% for subjective criteria and 2% for objective criteria (Barrick and Mount, 1991).

High correlation coefficients could be recorded if, instead of correlating all of the dimensions measured by a particular personality questionnaire with job performance, only those dimensions which are perceived to be relevant to the job in question are correlated with it (Dewberry, (1994). This study is of the view that such dimensions should be those which can explain the cause of certain behavior and hence the consequent job performance. Tett et al (1991) found that when they examined all personality dimensions and specific traits to a particular job, the correlation coefficient rose from 0.12 to 0.29 and. 38 for traits selected after job analysis. The indication here is that a higher correlation is expected between personality and job performance if specific traits are selected to predict performance on

specific jobs, particularly if those traits are selected on the basis of job analysis (Dewberry, 1994) and more so if they have some known biological basis.

By virtue of differences in their biological make up extraverts were found to generally perform better under stressful or arousing conditions such as noise, whereas introverts perform relatively better in low arousal conditions. (Corcoran, 1972). Improvements on such factors have seen recent studies finding moderate correlations between conscientiousness, workplace and academic performance and (Poropat, 2005). Buoyed by the strong biological foundations of the Big Three as well as the aforementioned findings from the foregone researches, the present study anticipate higher correlations on the relationship between personality and job performance if personality measurement models are restricted to the Big Three and also if the factors for measuring job performance are restricted to job related factors for Task and Contextual Performances.

#### **2.4 The biological link between the Big Three Factors and Job Performance**

Eysenck (1967) argues, through his **Psychoticism, Extroversion and Neuroticism (PEN)** model, that differences in human personality have biological basis and can best be explained by his arousal theory. Eysenck (1967) content that personality is comprised of three major descriptive dimensions, namely extraversion, neuroticism and psychoticism, which have psychophysiological roots in which cortical arousal causes extraversion, visceral brain activation causes neuroticism and gonadal hormones and enzymes cause psychoticism (Jang, 2010).

In Eysenck's view the Extroversion (E) trait is represented by a bipolar scale that is anchored at one end by sociability and stimulation seeking and at the other end by social reticence and stimulation avoidance. Extroversion is hypothesized to be dependent upon the baseline

arousal level in an individual's neocortex and mediated through the ascending reticular activating system (ARAS) (Eysenck, 1967, 1977, 1997). The difference in basal arousal between introverts and extraverts is evident in research on their differential response to drugs. Claridge (1995) reviews drug response studies that demonstrate introverts require more of a sedative drug than do extraverts to reach a specified level of sedation. This finding is explained by the higher basal level of cortical arousal in introverts. To this end, Eysenck's arousal theory content that there is an optimal level of cortical arousal and performance which deteriorates as one becomes more or less aroused than this optimal level. Such arousal can be measured by skin conductance, brain waves or sweating. At very low and very high levels of arousal performance is low and is maximised at a more optimal mid level.

The thinking behind this theory is that extroverts, who are characterised by being outgoing, talkative, high positive affect and feeling good are chronically under-aroused and bored requiring external stimulation to bring them to an optimal level of performance. They can therefore perform well only if not under aroused. On the contrary, because introverts who are chronically over aroused and jittery, requiring peace and quiet to bring them to an optimal performance, may only perform well only not over-aroused. Under high arousal conditions introverts are found to work slowly but accurately whereas under low arousal extroverts would work rapidly and erroneously. The tonic or resting levels of arousal for introverts is higher than that of extroverts and so introverts are viewed to be more responsive and more physiologically affected by arousing stimuli than extroverts (Brody, 1988).

Eysenck (1997) views the second factor Neuroticism (N) trait as anchored at one end by emotional instability and spontaneity and by reflection and deliberateness at the other end. This trait's name is based on the susceptibility of individuals high on the N trait to anxiety-based problems. Neuroticism is hypothesized to be dependent upon an individual's emotional

arousability due to differences in ease of visceral brain activation, which is mediated by the hypothalamus and limbic system (Eysenck, 1977, 1997). Consequently individuals high on neuroticism are easily nervous or upset as they tend to experience high levels of negative affect such as depression and anxiety owing to their inability to inhibit or control their emotional reactions in the face of very minor stressors while those emotionally stable have high activation thresholds and good emotional control are calm and collected under pressure and tend to experience negative affect only in the face of very major stressors. The expectation would be that emotionally stable revenue trainees with good emotional control, would be more collected under pressure and consequently be able to perform better across jobs. On the other hand, highly neurotic people will be easily nervous or upset, experience negative affect such depression and consequently perform badly across tasks.

Lastly, Eysenck views the third personality dimension, Psychoticism (P), as anchored at one end by aggressiveness and divergent thinking and at the other end by empathy and caution. The label for this trait is based on the susceptibility of a significant sub-group of individuals high on the F trait to psychotic disorders (Eysenck, & Eysenck, 1976). Psychoticism is hypothesized to be a polygenic trait (Eysenck, 1997). Polygenic refers to a large number of genes each very 'small' individual effect. Each of these "small effect" genes is additive, so that the total number inherited determines the degree of the P trait in the personality.

Eysenck contents that changes in gonadal hormones and enzymes cause psychoticism which is associated not only with the ability to have a psychotic episode (or break with reality) but also with aggression, tough-mindedness, non conformity, inconsideration, recklessness, hostility, anger and impulsiveness. Testosterone is believed to be the physiological basis of such behaviour with higher levels of psychoticism being associated with higher levels of testosterone. For the present study the prediction was that highly psychotic people have

higher testosterone levels and low monoamine oxidase (MAO) levels. Given that impulsivity and aggressiveness were negatively correlated with MAO, with low MAO a marker of impulsivity, it was predicted that less psychotic people would perform better than those highly psychotic people on both task and contextual performance.

## **2.5 Job performance and its measurement**

It has not been quite clear as to what performance entailed until probably over the past fifteen years when a major reconsideration of job performance occurred. Part of the reason why difficulties often prevailed in assessing job performance has been the ambiguity of that which would be measured as performance and partly due to the tendency to concentrate on laboratory based work assessments because comparability of working conditions between staff shifts is difficult to find in the work situation (Harrington, 2001). Various models to explain job performance have thus come up but one which seems to be an advancement beyond the rest is the one by Borman and Motowildo (1993) which distinguishes performance as two different clusters of behaviors, that is, in-role behaviours or task performance and extra-role behaviours or contextual performance. As noted on in- role or task performance is the incumbent's proficiency when performing technical or services activities while contextual performance is the contribution made by the individual beyond job requirements or simply activities which facilitate Task Performance such as making greater effort, complying with rules and procedures and assisting others) (Borman & Motowildo, 1993).

This performance model has been previously investigated in workplace settings with some valid results (Poropat, 2005) and therefore seems to provide a more reasonable construct for measuring the performance of ZIMRA's Revenue trainees who are the target group in this study. Also because participants in the present study were graduate trainees who were still

learning and being groomed for future leadership roles the current study preferred assessing their performance in terms of that behaviour in the job that affects performance (competencies) over other criteria stipulated by Armstrong (2009) such as achievements in relation to objectives, level of knowledge and skills possessed (competencies or technical competencies, and the degree to which behaviour upholds the core values of the organisation. For this study performance was taken to refer to behaviour or something done by the employee (Campbell, 1990). This concept differentiates performance from outcomes. Outcomes are the result of an individual's performance, but they are also the result of other influences. In other words, there are more factors that determine outcomes than just an employee's behaviors and actions.

The present study therefore felt that revenue trainees' job performance can therefore be adequately assessed by following Borman and Motowildo's (1993)'s breakdown of contextual performance as falling into five taxonomies namely (i) persisting with enthusiasm and extra effort where necessary to complete one's task, or activities successfully, (ii) volunteering to carryout task activities that are not formally part of ones' job (iii) helping and cooperating with others (iv) following organizational rules and procedures and (v) endorsing, supporting and defining organisational objectives and eight taxonomies of task performances namely (i) understanding, supporting and defending organizational systems and objectives(ii) taking order well and communicating well, both with colleagues and senior staff members ((iii) being relied upon to do tasks with minimal supervision(iv) timeously attending to most of the client' queries with very minimal challenges (v) attending to all clients requiring services during his /her shift per day (vi) completing given tasks with minimal errors vii) correctly following laid down steps and procedures all the time and (viii) meeting the daily target/ expectations all the time. Interestingly, a number of tasks that revenue trainees perform as part of their duties are measurable in terms of quantity, quality,



timeliness, and error rate suggesting that they can as well be assessed in terms of both task performance and contextual performance.

This study was concerned with assessing the link between personality and revenue trainees' eventual job performance as a departure from most of the previous studies linking personality to performance which used (FFM and) college students and not real workers (Bernstein, 1977; DeYoung, Hasher, Djikic, Criger & Peterson, 2007). With the all the foregoing in mind, it was hypothesized that there would be a positive correlation between the Big Three Personality Factors and job performance. Firstly, it was predicted that high emotional stability would be correlated with both task and contextual performance of the revenue trainees. Given that employees who are high on neuroticism (low emotional stability) tend to be easily nervous or upset as they tend to experience high levels of negative affect such as depression and anxiety owing to their inability to inhibit or control their emotional reactions in the face of very minor stressors significantly low scores on both task and contextual performance were expected. As such, emotionally stable were expected to perform well on both task and contextual performance as they have high activation thresholds, good emotional control, are calm and collected under pressure and tend to experience negative affect only in the face of very major stressors. The performance of revenue trainees high on extroversion was expected to significantly correlate with contextual performance and not with task performance. Lastly and in view of psychotic revenue trainees' impulsivity and aggressiveness, it was predicted that less psychotic people would perform better than those highly psychotic people on both task and contextual performance. In other words no significant correlation with performance was expected.

## **CHAPTER THREE**

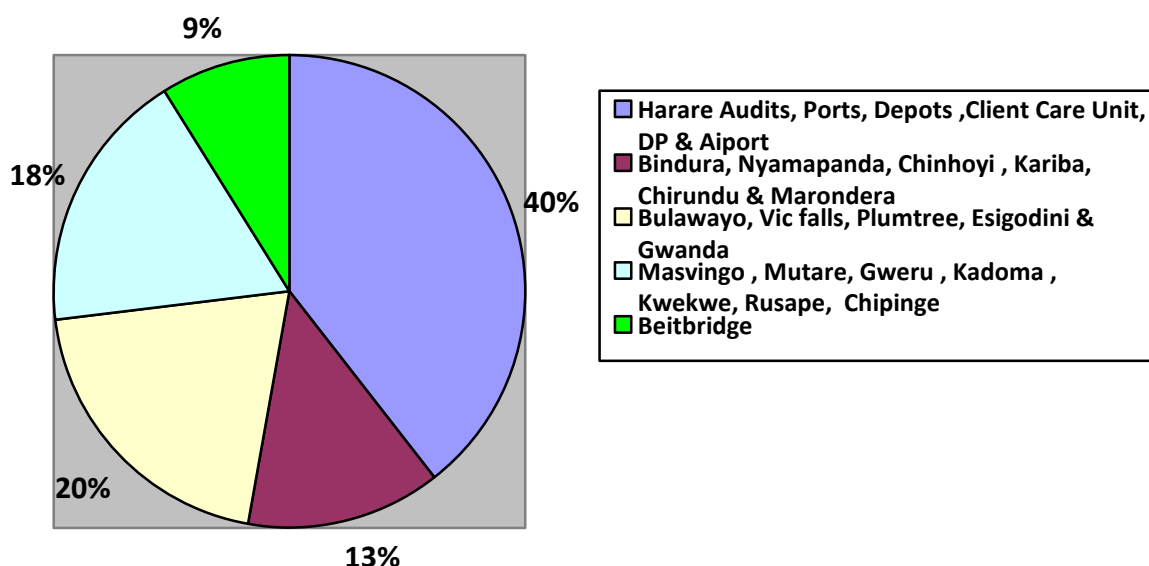
### **3.0 METHODOLOGY**

#### **3.1 Design**

Initially the study took the form of a multifactor multilevel between subjects design and was conducted in two sessions. Owing to the low reliability of the Extroversion and Psychoticism subscales which were dropped from further analysis, the design of the study changed to a single factor multilevel between subjects design.

#### **3.2 Participants**

One hundred and ninety three revenue trainees with a mean age of 24.90 (women = 71 and men =122) who had just finished a 6-week revenue training programme run by the ZIMRA Training School and were about to depart to their new stations deployed to various ZIMRA stations in Zimbabwe participated in the first session of the study. The participant's age ranged from 22 to 30 years. Owing to failure by some mentors to complete the Job Performance Rating Scale and email it back to the researcher, 116 revenue trainees, that is, 46 females with a mean age of 224.91 and 70 males with a mean age of 25.66, eventually participated in all sessions of the study. All the participants had got engaged by ZIMRA after successfully passing a battery of selection instruments which included psychometrics tests, in- basket exercises, role plays administered by a registered psychologist and interviews conducted by qualified and experienced ZIMRA Managers and Human Resources Practitioners. Most (39.38 %) of the 193 revenue trainees had been deployed in Greater Harare, with the rest, 13.47 % in Region 1, 19.17% in Region 2, and 17.10% in Region 3 and 5.18% in Beitbridge. Figure.1 below shows in more detail how the revenue trainees had been deployed to each Region.



**Figure 1: Distribution of ZIMRA Revenue Trainees who participated in the study**

In the first session the researcher approached 193 revenue trainees in a classroom just before they departed to their new work stations where they had been deployed to, explained the purpose of the study and requested them to participate in the study. They complied and 193 Eysneck Personality Questionnaires (*see Appendix 1*) were distributed to each of them for completion. It had 48 questions. It took them a maximum of 20 minutes to complete the Questionnaires. All the 193 revenue trainees participated in the first sessions of the study, that is, they all completed the Eysneck Personality Questionnaire.

The revenue trainees then proceeded to their various work stations where they had been deployed to. In ZIMRA performance reviews are normally conducted after every quarter (that is, after every 3 months). So the third session took off after 12 weeks. In the interim the researcher requested for and was given by the ZIMRA Training School a list of all the stations to which each revenue trainee had been deployed to. Thereafter the researcher sent an email (*see Appendix 2*) to various ZIMRA Regional HR Offices requesting for names of the mentors of these revenue trainees. The Regional HR Offices were told that there was some official information that the researcher wanted about the revenue trainees from their mentors. After 12 weeks the researcher then emailed a memo (*see*

*Appendix, 3)* requesting all mentors to complete the attached copy of the Job Performance Rating Scale (JPRS) (*see Appendix 4*) and email it back to the researcher. A total of 116 revenue trainees (70 males and 46 females) completed Job Performance Rating Scale forms out of a possible total of 193 forms that had been emailed to mentors were eventually received by the researcher implying a response rate of 61.66 %. This means the researcher was left with scores for 116 revenue trainees who had participated in all the three sessions of the study and were thus amenable for correlation analysis and one way analysis of variance using the **Statistical Package for Social Sciences (SPSS) Version 13.0.**

### **3.3 Instruments**

Two instruments namely, Eysenck Personality Questionnaire (EPQ) and the Job Performance Rating Scale (JPRS) were used in this study.

#### **(i) Eysenck Personality Questionnaire**

This is a self reported questionnaire (Eysenck et. al, 1985). It has 48 items, 12 for each of the traits neuroticism, extraversion and psychoticism and 12 for the lie scale. Each question has a binary response 'yes' or no. For the present study the researcher used the English version which was a product of the back to back translation of the Croatian version into English by IJD and IR (who is fluent in both Croatian and English). Each dichotomous item was scored 1 or 0, and each scale had a maximum possible score of 12 and a minimum of zero. Eysenck *et al.* (1985) reported reliabilities for males and females respectively of 0.84 and 0.80 for neuroticism, 0.88 and 0.84 for extraversion, 0.62 and 0.61 for psychoticism, and 0.77 and 0.73 for the lie scale. In the current study, the Alpha Coefficient for the Eysenck Personality Questionnaire were found to be as follows:- E= 0.37, L = 0.47; P=0. 47 to N=0.78. According to Kline (1993) any Alpha coefficient below 0.7 would be too low. Notably, for this study only the Neuroticism subscale was above the conventional minimum of 0.7. Hence only the relationship between the personality dimension of neuroticism and job

performance was eventually assessed in this study. Evidently, the Extraversion subscale and the Psychoticism subscale had very low reliability coefficients when compared to the reliability coefficients of the original Eysneck Personality Questionnaire whose reliability coefficient ranged from 0.61 to 0.88. They were therefore dropped from further analysis.

## **(ii) Job performance Rating Scale (JPRS)**

This was developed and designed in the form of a 5-point Likert Scale derived from Borman and Motowildo's (1993) theory which recognizes job performance as behavioral, episodic, evaluative and multidimensional. In particular, the Job Performance Rating Scale was made up of 13 questions which sought to assess the various taxonomies of job performance as espoused in Borman and Motowildo's (1993) theory. This theory recognises the importance of distinguishing between task and contextual performance for us to be able to identify and define underlying dimensions of the behavioral episodes that make up the performance domain. It contents that the kinds of knowledge, skills, work habits, and traits that are associated with task performance are different from the kinds that are associated with contextual performance. Contextual performance is largely voluntary in nature and in the present scale it was assessed by eight of the dimensions which, according to Borman and Motowildo (1997) make up contextual performance, that is, (i) persisting with enthusiasm and extra effort to complete own tasks successfully, (ii) volunteering to carry out task activities that are normally not part of own job, (iii) helping and cooperating with others, (iv) following organisational rules and procedures, (vi) endorsing, supporting and defending organizational objectives, (vii) interpersonal facilitation, job dedication and (viii) being relied upon to do tasks with minimal supervision. Task performance is, however, prescribed by formal in-role job behaviours and in the scale it was assessed by five of the dimensions namely (i) speed and accuracy, (ii) timeliness (iii) efficiency, (iv) quantity of output and (v) quality of output.

### **Scoring**

For scoring, the highest numbers indicated above average performance (that is, 1 SD above the mean) and the lowest numbers indicated below average performance (that is, 1 SD below the mean where  $\bar{x} = 56.11$ ;  $SD = 5.82$ ). Between values indicated average performance, that is, lie below 1SD above and below the mean of 56.11. The scores were then added together and the sum converted into three -point Job Performance Rating Scale as shown in Table 2.

**Table 1: Job Performance Rating Scoring Scale (JPRSS)**

<b>Key</b>	<b>Score</b>
Below average performance	38.00 -50.28
Average performance	50.29 – 61.93
Above average performance	61.94- 65.00

The Job Performance Rating Scoring Scale (JPRSS) instrument was found to be highly reliable with a reliability Alpha coefficient of 0.92. The reliability Alpha coefficient of Task Performance Scoring sub- scale was found to be 0.83 while that for the Contextual Performance Scoring sub- scale was 0.87. In spite of the Job Performance Rating Scoring Scale' (JPRSS) high reliability Alpha coefficient of 0.92, and contrary to expectations, results of the factor analysis (*see Appendix 5*) reflects minimal variation between factors that make up Task Performance Subscale and Contextual Performance Subscale.

### **3.4 Data Analysis**

A Pearson Correlation analysis was done to establish if there was any relationship between emotional stability and job performance. This was followed by a One Way Analysis of Variance (ANOVA) meant to establish the statistical significance of the observed differences between the job performance of revenue trainees with low and high emotional stability. A post hoc analysis was

finally performed to gauge the interaction effects of low emotional stability and high emotional stability on task and contextual performance.

## CHAPTER FOUR

### 4.0 RESULTS

#### 4.1 The effect of emotional stability on job performance

The mean figures and typical deviations for all measurements taken with respect to the effect of emotional stability on job performance are shown in Table 2.

**Table 2: Descriptive statistics on the effect of emotional stability on job performance**

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Task performance	Low emotional stability	19	2.00	.333	.076	1.84	2.16	1	3
	High emotional stability	97	1.99	.468	.047	1.90	2.08	1	3
	Total	116	1.99	.447	.042	1.91	2.07	1	3
Contextual performance	Low emotional stability	19	1.63	.496	.114	1.39	1.87	1	2
	High emotional stability	97	2.05	.635	.065	1.92	2.18	1	3
	Total	116	1.98	.632	.059	1.87	2.10	1	3
Overall job performance	Low emotional stability	19	1.84	.688	.158	1.51	2.17	1	3
	High emotional stability	97	2.10	.637	.065	1.97	2.23	1	3
	Total	116	2.06	.650	.060	1.94	2.18	1	3

Results show that only 16.38% of the revenue trainees had low emotional stability and the rest 83.62% had high emotional stability. The revenue trainees with high emotional stability had the highest mean score ( $\bar{x}=2.10$ ) on overall job performance when compared with scores for either contextual performance which was ( $\bar{x}=2.05$ ), or task performance which was ( $\bar{x}= 1.99$ ).

Revenue trainees with low emotional stability had the lowest mean score ( $\bar{x}=1.63$ ) on contextual job performance when compared with scores for either task performance which was ( $\bar{x}=2.00$ ), or overall job performance which was ( $\bar{x}= 1.84$ ).



Overall revenue trainees with high emotional stability performed better on contextual performance ( $\bar{x}=2.05$ ) than on task performance ( $\bar{x}=1.99$ ).

## 4.2 Correlations between Emotional Stability and Job Performance

**Table 3. SPSS output on Pearson correlations for emotional stability and job performance**

		Level of emotional stability	Task performance	Contextual performance	Overall job performance
Level of emotional stability	Pearson Correlation	1	-.009	.247(**)	.149
	Sig. (2-tailed)		.927	.008	.110
	N	116	116	116	116
Task performance	Pearson Correlation	-.009	1	.276(**)	.481(**)
	Sig. (2-tailed)	.927		.003	.000
	N	116	116	116	116
Contextual performance	Pearson Correlation	.247(**)	.276(**)	1	.807(**)
	Sig. (2-tailed)	.008	.003		.000
	N	116	116	116	116
Overall job performance	Pearson Correlation	.149	.481(**)	.807(**)	1
	Sig. (2-tailed)	.110	.000	.000	
	N	116	116	116	116

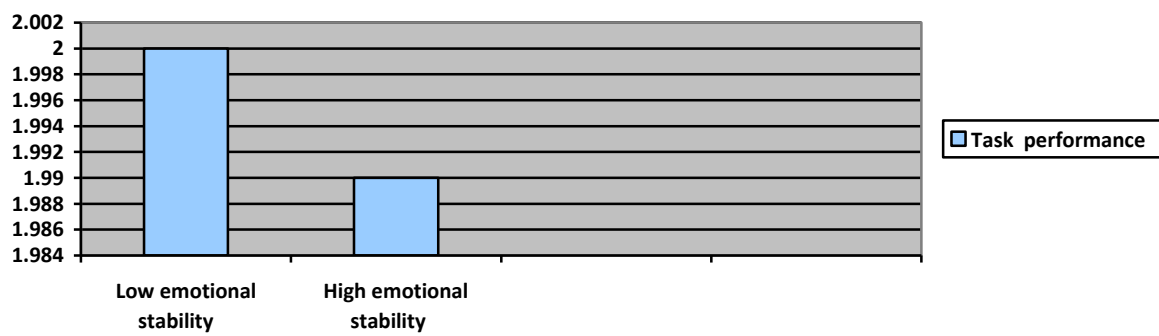
\*\* Correlation is significant at the 0.01 level (2-tailed).

The results indicate existence of a weak negative correlation between task and emotional stability ( $r=-.009$ ) and a positive but weak correlation between contextual performance and emotional stability ( $r=.247$ ), significant at ( $p < 0.001$ ).

## 4.3 Main effects of emotional stability on job performance

The main effects of emotional stability on task performance and contextual performance are shown in Figure 2a and 2b respectively while the main effects of emotional stability on

overall job performance are as shown in Fig. 2c.



These results suggest that the significant main effects of emotional stability on task performance were due to the fact that revenue trainees with low emotional stability appeared to perform better than those with high emotional stability.

Figure 2a: The main effects of emotional stability and task performance

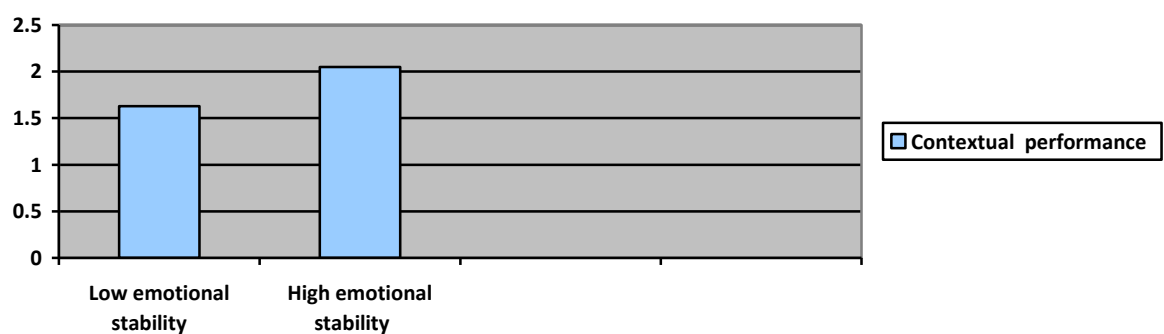
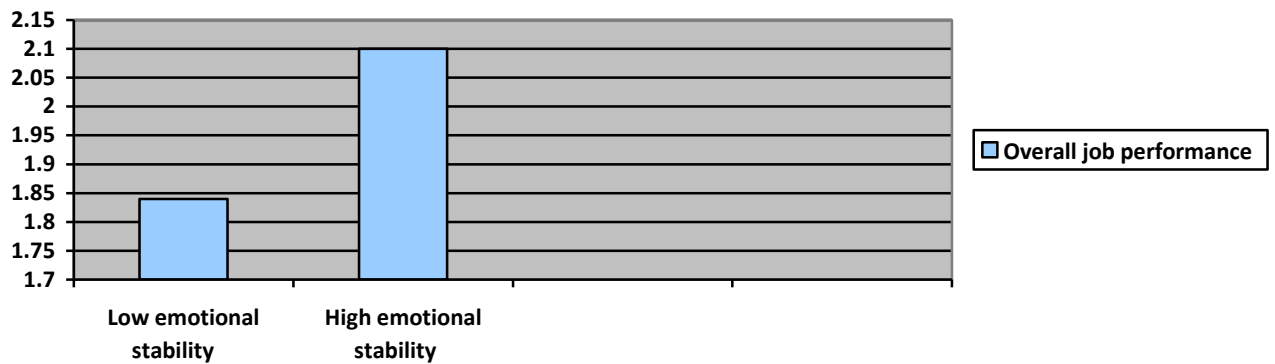


Figure 2b: The main effects of emotional stability and contextual performance.

The results also indicate that the significant main effects of emotional stability on contextual performance were due to the fact that revenue trainees with high emotional stability appeared to perform better than those with low emotional stability.



**Figure 2c:** The main effects of emotional stability and job performance.

The results reflects that the significant main effects of emotional stability on overall job performance were due to the fact that revenue trainees with high emotional stability appeared to perform better than those with low emotional stability.

Overall this suggests that the main effects of emotional stability was specifically due to the fact that revenue trainees with high emotional stability appear to perform better than revenue trainees with low emotional stability on job performance.

#### 4.4 One Way Analysis of Variance (ANOVA)

Results of the one way analysis of variance done to establish if the correlations differences between mean job performance of revenue trainees with low and high emotional stability levels were statistically significant are shown in the ANOVA Table below.

## ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Task performance	Between Groups	.002	1	.002	.008	.927
	Within Groups	22.990	114	.202		
	Total	22.991	115			
Contextual performance	Between Groups	2.802	1	2.802	7.401	.008
	Within Groups	43.163	114	.379		
	Total	45.966	115			
Overall job performance	Between Groups	1.082	1	1.082	2.598	.110
	Within Groups	47.495	114	.417		
	Total	48.578	115			

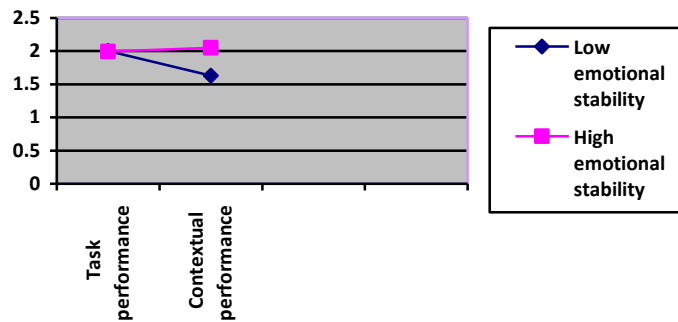
First, the results also indicate that emotional stability has no statistically significant influence on task performance ( $F=.008$ ,  $p>.927$ ). In other words there is no significant difference on the task performance of revenue trainees with low and high emotional stability.  $F_{obt} = .008$  is smaller than  $F_{crit} = 3.92$  and so we fail to reject the null hypothesis and safely conclude that differences in levels of emotional stability have no significant effect on the task performance of revenue trainees.

Second, the results indicate that emotional stability has a statistically significant influence on contextual job performance ( $F=7.401$ ,  $p<.008$ ). In other words, there is a significant difference on the contextual performance of revenue trainees with low and high emotional stability.  $F_{obt} = 7.401$  is bigger than  $F_{crit} = 3.92$  and so we reject the null hypothesis and safely conclude that differences in levels of emotional stability have a significant effect on the contextual job performance of revenue trainees.

Lastly, the results indicate that emotional stability has no statistically significant influence on overall job performance. ( $F=2.598$ ,  $p>.110$ ). In other words there is no significant difference on the overall job performance of revenue trainees with low and high emotional stability.  $F_{obt} = 2.598$  is smaller than  $F_{crit} = 3.92$  and so we fail to reject the null hypothesis and safely conclude that differences in levels of emotional stability have a significant effect on the job performance of revenue trainees.

## 4.5 Post Hoc Analysis

### 4.5.1 Interaction effects of emotional stability on job performance



*Figure 3 : Interaction between neuroticism (emotional stability) and job performance*

The results in Figure 2 suggests that the difference in mean performance of revenue trainees is highest at the point where the contextual performance of revenue trainees with high emotional stability is compared to that of revenue trainees with low emotional stability.

## CHAPTER FIVE

### 5.0 DISCUSSION

This chapter includes a discussion of the findings, limits and weaknesses, implications, conclusion and recommendations for policy implementation and further research.

The main objective of the study was to assess the relationship between the Big three Personality Factors and job performance. However, owing to the low reliability coefficients of the Extroversion subscale ( $E=.37$ ) and Psychoticism subscale ( $P=.47$ ) they were dropped from further analysis. Only neuroticism which had a relatively high reliability coefficient of 0.78 was used in the final analysis. Low reliability coefficients for the Extroversion and Psychoticism subscales were probably a result of the circumstances under which the Eysneck Personality Questionnaire was administered and completed by the participants. It was administered on revenue trainees who had just completed a 6-week revenue training programme run by the Zimbabwe Revenue Authority Training School and were about to depart to be deployed to various ZIMRA stations in Zimbabwe. Given that the participants had gone through a series of tests which included psychometric tests, in- baskets, role plays and interviews for them to be given the job there is some possibility that the participants could have perceived the Eysneck Personality Questionnaire as one of the instruments meant to assess their suitability for deployment. Hence, they could have felt they had to give responses that would enable them to get favourable evaluations. It would appear the reliability coefficients of these personality subscales could have been different if the participants had a different perception of the instrument.

The fact that revenue trainees with high emotional stability had the highest mean score ( $\bar{x}=2.10$ ) on overall job performance when compared with scores for either contextual

performance which was ( $\bar{x}=2.05$ ), or task performance which was ( $\bar{x}= 1.99$ ) seem to suggest that after all it may not be very necessary to parcel performance into task and contextual performance, as highlighted by Bowman and Motowildo (1998). Does it mean that the correlation between emotional stability and job performance falls if performance is delineated into task and contextual performance? Further verification of this point may be required.

In the final analysis the results were largely in line with the common contention that task proficiency is more related to predictors of knowledge and aptitude such as cognitive ability tests and job knowledge tests while contextual performance tend to be related to motivational predictors such as personality factors. The positive correlations ( $r=.247$ ) between emotional stability and contextual job performance may not be quite different from what Barrick and Mount, (1991) found in their meta- analytic review of the relationship between personality and job performance wherein they found equally low correlation coefficients for the relationship between extroversion ( $r=.14$ ), or conscientiousness ( $r=.26$ ) and job performance. This is in sync with the common view of emotional stability as associated with self efficacy (Judge & Bruno, 2002) which is correlated with (job) performance (Robbins et. al 2004). In some way the results were also in sync with Barrick and Mount's (1991; 2001) observation that neuroticism (the opposite of emotional stability), together with conscientiousness, tended to measure performance across all jobs.

The low negative correlations ( $r = -0.009$ ) suggest that high emotional stability will be associated with a decrease in task performance. This is not in tandem with earlier observations by Tyler and Newcombe (2006) and Barrick and Mount's, (2001) who found emotional stability and extroversion to be correlated with performance across all jobs. In this case the correlation coefficient of  $-0.009$ , is, however, just too low to suggest existence of any significant negative relationship with task performance. That there was low correlation

between task performance and emotional stability could be because people who are low on emotional stability are more anxious and tend to focus on their emotional state and self talk, thus interfering with attention to given job tasks, thereby reducing performance (De Raad & Schouwenburg, 1996).

## **5.2 Limitations**

The study was largely done using revenue trainees with known levels of psychometric performance scores which were above the minimum cut-off threshold. The interpretation and application of these results should thus be restricted only to those graduate trainees and probably other employees whose cognitive ability lie above the .47 minimum thresholds used in ZIMRA. With employees of lower cognitive ability the findings could be different.

Results of Factor Analysis (*see Appendix 5*) showed that the Job Performance Measure was largely made up of factors which largely measured contextual performance. This could have largely contributed to the insignificant correlation between emotional stability and task performance ( $F = .008$ ;  $p > .110$ ). The generalizability of the results was also limited by the low reliability of the personality measure. So in a way, results of this study partially conformed to what is on the ground and more insight could be gained if these limitations were addressed.

## **5.3 Implications**

The results of this study were not conclusive owing to the fact that the Extroversion subscale and the Psychoticism subscales were eventually dropped from further analysis owing to their low reliability levels. Notwithstanding this unfavorable development, the analysis done on the relationship between emotional stability and job performance were also not conclusive but seem to indicate that ZIMRA and other related organizations may consider the employee differences in personality characteristics in the design of jobs and selection systems for their



Graduate's Trainees. What is more apparent is that revenue's trainees contextual performance may indeed be influenced in some meaningful way by the employees' levels of emotional stability and hence the need to design jobs that are compatible with employees' particular personality characteristics. This should be done after a properly conducted job analysis. As already shown, those with low emotional stability may fail to deliver on contextual performance - and probably perform better if their jobs were designed in ways which enabled them to principally focus on task performance.

By and large these results were not conclusive and leave room for further research. The movement towards breaking down performance into task and contextual performance seem more progressive but was not well supported by findings of this research. There is, however, some need to strictly use job performance and personality measurements instruments whose validity and reliability levels are beyond reproach.

## **5.5 Conclusions/ Recommendations**

The current study only managed to show existence of a significant positive correlation between high emotional stability and contextual performance ( $r=.247$ ). This correlation coefficient was low and yet well above the overall mean correlation between the Big Five Dimensions and job performance ( $r=.10$ ) as noted by Barrick and Mount, (1991). The results seem to suggest that indeed there is indeed a positive link between emotional stability and contextual performance. Though the objectives of the study were somehow compromised by the low reliability of the Extroversion and Psychoticism subscales, findings on the link between emotional stability and contextual job performance amount to a complete rebuttal of earlier findings by Guion and Gottier, (1965) which found no links between personality and work performance.

Nevertheless, in view of the apparent weaknesses in the Job Performance Rating Scale most of whose components for task performance and contextual performance were not significantly different, there is room for getting higher correlation if the instruments are refined. Thus while these results may not be conclusive enough they suggest a positive improvement on earlier related studies by Barrick and Mount, (2001) who found a low correlation of  $r = 0.05$  between which emotional stability and contextual performance.

The study did not eventually analyse the link between either extroversion or psychoticism and job performance because these two subscales were found to have very low reliability coefficients of  $E = 0.37$  and  $P = 0.47$ . Hence this study does not provide any basis for making comments on these two. Instead, just as Barrick and Mount (1994) noted, future studies should seek to ensure that the validity and reliability levels of the instruments that they use for assessing personality and job performance are up to scratch. Finding ways to accurately measure job performance is far from straightforward and so failure to do so would lead to distorted and subjective conclusions. Factors pertaining to roles of the rater (the rater's sex, race, experience with rating, job performance and whether she is a peer or supervisor of the ratee) and ratee (eg sex of the ratee in relation to the sex stereotype of the job and tenure and to the context in which the rating is carried out (ratings made for administrative purposes are more lenient than those made for research) may compromise the reliability of the performance measurement. In the present study the fact that the Personality Questionnaire was administered on revenue trainees who were just about to be deployed into the field could have induced a different perception which affected their responses to the questions asked. Further research may need to control for this.

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## Appendix 1: EYSNECK PERSONALITY QUESTIONNAIRE

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### UNIVERSITY OF ZIMBABWE

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Full Name----- Current Post -----Station-----

Marital Status ----- Sex ----- Age -----

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#### Instruction to candidates

Below are some 48 questions about who you are. Put a cross (X) on '**YES**', OR '**NO**' for each one. It is usually best to stay with your first reaction. So don't spend too long thinking about how to respond.

	Item	Responses	
1	Does your mood often go up and down?	Yes	No
2	Do you take much notice of what people think?	Yes	No
3	Are you a talkative person?	Yes	No
4	If you say you will do something, do you always keep promise no matter how much inconvenient it might be?`	`Yes	NO
5	Do you ever feel' just miserable' for no reason?	Yes	No
6	Would being in debt worry you?	Yes	No
7	Are you rather lively?	Yes	No
8	Were you ever greedy by helping yourself to more than your share of anything?	Yes	No
9	Are you an irritable person?	Yes	No
10	Would you take drugs which may have strange or dangerous effects?	Yes	No
11	Do you enjoy meeting new people?	Yes	No
12	Have you ever blamed someone for doing something you knew was really your fault?	Yes	No
13	Are your feelings easily hurt?	Yes	No
14	Do you prefer to go your own way rather than act by	Yes	No

	rules?		
15	Can you usually let yourself go and enjoy yourself at a lively party?	Yes	No
16	Are all your habits good and desirable ones?	Yes	No
17	Do you often feel 'fed up'?	Yes	No
18	Do good manners and cleanliness matter for much to you?	Yes	No
19	Do you usually take the initiative in making new friends?	Yes	No
20	Have you ever taken anything (even a pin or button) that belonged to someone else?	Yes	No
21	Would you call yourself a nervous person?	Yes	No
22	Do you think marriage is old fashioned and should be done away with?	Yes	No
23	Can you easily get some life into a rather dull party?	Yes	No
24	Have you ever broken or lost something belonging to someone else?	Yes	No
25	Are you a worrier?	Yes	No
26	Do you enjoy cooperating with others?	Yes	No
27	Do you tend to keep in the background on social occasions?	Yes	No
28	Does it worry you if you know there are mistakes in your work?	Yes	No
29	Have you ever said anything bad or nasty about anyone?	Yes	No
30	Would you call yourself 'tense' or 'highly strung'?	Yes	No
31	Do you think people spend too much time safeguarding their future with savings and insurance?	Yes	No
32	Do you like mixing with people?	Yes	No
33	As a child were you very cheeky to your parents?	Yes	No
34	Do you worry too long after an embarrassing experience?	Yes	No
35	Do you try not to be rude to people?	Yes	No
36	Do you like plenty of bustle and excitement around you?	Yes	No
37	Have you ever cheated at a game?	Yes	No

38	Do you suffer from nerves?	Yes	No
39	Would you like other people to be afraid of you?	Yes	No
40	Have you ever taken advantage of someone?	Yes	No
41	Are you mostly quiet when you are with other people?	Yes	No
42	Do you often feel lonely?	Yes	No
43	Is it better to follow society' rules than go your own way?	Yes	No
44	Do other people think of you as being very lively?	Yes	No
45	Do you always practice what you preach?	Yes	No
46	Are you often troubled about feelings of guilt	Yes	No
47	Do you sometimes put off until tomorrow what you ought to do today?	Yes	No
48	Can you get a party going?	Yes	No

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## Appendix 2: Email/Memo to Regional HR Offices

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**Good Afternoon**

In an attempt to keep in touch with Revenue Trainees's on the job performance we do request for a list of all **Level 1 Revenue Trainees** recently posted to your region and full names and title of their current mentors. There are documents that we wish to forward to these mentors for completion.

You may send your details in the format below-:

<b>Revenue Trainee's name</b>	<b>Station</b>	<b>Names of mentor</b>	<b>Designation</b>

We will be very grateful to get such information from you.

Simon Murinye  
**Human Resources Officer**  
**Human Resources Head Office,**  
**ZB Centre, 6<sup>th</sup> Floor**  
**Harare**  
**Tel. 04-753775/0712401149**

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### Appendix 3: Email/Memo to mentors of the revenue trainees

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Good Day

After receiving confirmation from our Regional HR Offices that you are the Mentor of one of our Revenue Trainees during his or her stint there we kindly request that you complete the attached **Job Performance Rating Scale** and email it back to **S. Murinye**.

The breakdown of Revenue Trainees that fall under your mentorship as given by our Regional HR Office is as shown below:-

REVENUE TRAINEES' NAME	STATION	NAME OF MENTOR	DESIGNATION

We do request that you be as objective as possible –your ratings should not be shown to the Revenue Trainees – we feel that your assessment is going to work as adequate feedback in our efforts to come up with instruments that will best gauge and monitor Revenue Trainee' Job Performance.

We would be very grateful if we could get the feedback from you.

Thank You.

**Simon Murinye**  
**Human Resources Officer**  
**ZB Centre, Head Office**  
**Harare**

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## Appendix 4

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# University of Zimbabwe

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Name of Mentor ..... Trainees' full Name.....

Station.....Current Working Hours: (Time): ..... From..... to .....

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## JOB PERFORMANCE RATING SCALE (JP RS)

### Instruction to candidates

Below are some 13 questions statements seek to objectively gauge the performance of our new Revenue Trainees during the period that you have interacted with them so far.

Put a cross (X) under your preferred rating on how each of the Revenue Trainees' performance best approximates each of the under listed statements.

NB: May you please be as objective as possible – your ratings are purely of organisational interest and will not be used for any other purposes. They should, therefore remain private and confidential and should not be shown to the trainees.

		Least agree				Strongly agree
(i)	Works persistently and enthusiastically and puts extra effort to complete given tasks	1	2	3	4	5
(ii)	Voluntarily does more than the job requires to help others and contribute to organisational effectiveness	1	2	3	4	5
(iii)	Takes difficult work assignments enthusiastically	1	2	3	4	5
		Least agree				Strongly agree
(iv)	Volunteers for additional duty	1	2	3	4	5

(v)	Tirelessly follows organisational rules and procedures	1	2	3	4	5
(vi)	Understands, supports and defends organisational systems and objectives	1	2	3	4	5
(vii)	Takes order well and communicates well, both with colleagues and senior staff members	1	2	3	4	5
(viii)	Can be relied upon to do tasks with minimal supervision	1	2	3	4	5
(ix)	Timeously attends to most of the client' queries with very minimal challenges	1	2	3	4	5
x)	Attends to all clients requiring services during his /her shift per day	1	2	3	4	5
xi)	Completes given tasks with minimal errors	1	2	3	4	5
(xii)	Correctly follows laid down steps and procedures all the time	1	2	3	4	5
(xiii)	Meets the daily target/ expectations all the time	1	2	3	4	5
(xiv)	<b>This RATING SCALE correctly and adequately gives an honest assessment of Revenue Trainees.</b>					

## Appendix 5: Factor Analysis of Job performance Factors

Component Matrix (a)

Job Performance Rating Scale Factors	Component	
	Task performance	Contextual performance
Works persistently and enthusiastically and puts extra effort to complete given tasks	.695	.000
Voluntarily does more than the job requires to help others and contribute to organisational effectiveness	.636	.111
Takes difficult work assignments enthusiastically	.760	-.078
Volunteers for additional duty	.603	.538
Tirelessly follows organisational rules and procedures	.771	-.107
Understands, supports and defends organisational systems and objectives	.667	.191
Takes order well and communicates well, both with colleagues and senior staff members	.704	-.221
Can be relied upon to do tasks with minimal supervision	.760	.101
Timeously attends to most of the client' queries with very minimal challenges	.683	.485
Attends to all clients requiring services during his /her shift per day	.733	-.243
Completes given tasks with minimal errors	.766	-.190
Correctly follows laid down steps and procedures all the time	.707	-.468
Meets the daily target/ expectations all the time	.730	.031

Extraction Method: Principal Component Analysis.  
a 2 components extracted.