THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE, SENCE OF COHERENCE, OPTIMISM AND LIFE SATISFACTION OF STUDENTS

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FOR THE READER'S ATTENTION

The reader is reminded of the following:

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

- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA-style) is used, but the APA guidelines were followed in the construction of tables.

- Each chapter of the mini-dissertation has its own reference list.

PREFACE

I would like to express my gratitude and sincere thanks to the following people for their contribution to this research project:

- I am grateful to my creator, Lord and Saviour, who gave me the talent, opportunity and strength to complete this research.

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SUMMARY

Title: The relationship between emotional intelligence, sense of coherence, optimism and life satisfaction of students

Key words: *Emotional intelligence, wellness, sense of coherence, optimism, life satisfaction, positive psychology and psychological well-being.*

Emotional intelligence is a growing area of behavioural research; it recently grabbed the attention of some of the major organisations world wide.

The objective of this study was to determine the relationship between wellness and emotional intelligence in order to develop a structural model of psychological well-being. The following constructs were looked at, Optimism, Sense of Coherence, Life Satisfaction, Emotional Intelligence are all seen as good indicators of Psychological well-being.

A cross-sectional design was used for this study. The participants (N=324) were students within the field of economic science . The Schutte Emotional Intelligence Scale, the Life Orientation Test Revised, the Satisfaction with Life Scale and the Orientation to Life scale were administered.

Using a principal component analysis, a six-dimension factor structure for emotional intelligence among students emerged, explaining 45,24% of the variance. These factors were labelled positive affect, emotions-others, happy emotions, emotions-own, non-verbal emotions and emotional control.

The most significant correlations found in this study was that Sense of Coherence is significantly positively related to Emotions Management and Life Satisfaction and significantly positively related to Emotions-Own, Happy Emotions, Positive Affect and Optimism. Sense of Coherence was negatively related to Pessimism. Emotions Management is significantly positively related to Emotions-Own, Happy Emotions, Positive Affect, Optimism and Life Satisfaction. Positive affect is significantly positively

related to Optimism. Pessimism is significantly negatively related to Life Satisfaction. Optimism is significantly positively related to Life Satisfaction.

After conducting a second factor analysis on the factors of the SEIS, LOT-R, SOC and SWLS, two factors were extracted, namely interpersonal and intrapersonal mastery. Using these factors, along with the results of the product–moment correlations, a psychological well-being model was designed and compiled.

The results showed that Interpersonal mastery consisted of Positive Affect, Emotional Management, Sense of Coherence, Life Satisfaction and Optimism. Intrapersonal mastery consisted of Emotions-Others, Emotions-Own, Happy Emotions and Non-Verbal Emotions. It is evident from the above that the psychological well-being model consisted of intrapersonal mastery and environmental mastery.

Recommendations for future research were made.

OPSOMMING

Titel: Die verhouding tussen Emotionele intelegensie, koherensie-sin, optimisme en lewenstevredenheid van studente.

Sleutelwoorde : *Emotionele intelegensie, welstand, koherensie-sin, optimisme, lewenstevredenheid, positiewe psigologie, psigologiese welstand.*

Emotionele intelligensie is 'n groeiende area in die gedragswetenskappe, wat onlangs die verbeelding van menigde organisassies wêreld wyd gestimuleer het.

Die doelwit van die studie was om die verwantskap tussen welstand en emosionele intelegensie te bepaal om sodoende `n strukturele model van psigologiese welstand saam te stel. Die volgende konstrukte was na gekyk, Optimisme, Lewenstevredenheid, Koherensie-sin en Emotionele Intelligensie, almal word gesien as goeie indicators van psigologiese welstand.

'n Dwarsdeursnee-opname ontwerp was gebriuk vir hierdie studie. Die deelnemers (N = 324) was studente vanuit die ekonomiese wetenskap velde. Die Schutte Emotionele Intelegnesie Skaal, Hersiende Lewensoriëntasie Toets, die Lewenstevredenheid Skaal en die Oriëntasie tot lewens skaal was afgeneem.

`n Hoofkomponent analise het 'n ses dimensionele faktor struktuur van emosionele intelligensie verkry wat 45,24 % van die variansie verklaar. Die faktore was geetikiteer as positiewe affek, emosies-ander, gelukkige emosies, emosies –self, nie- verbale emosies en emosionele beheer.

Die mees betekenisvolle korrelasies wat gevind is in die studie was dat Koherensie-sin 'n betekenisvolle postiewe verband het met Emosionele Bestuur en Lewenstevredenheid, en 'n betekenisvolle postiewe verband het met Nie-Verbale Emosies, Emosies-Self, Gelukkige Emosies, Positiewe Affek en Optimisme. Emosionele beheer het 'n betekenisvolle postiewe verband met Emosies-Self, Gelukkige Emosies, Positiewe Affek,

Optimisme en Lewenstevredenheid. Positiewe Affek het 'n betekenisvolle verband met Optimisme en 'n betekenisvolle negatiewe verband met Pessimisme. Optimisme het 'n betekenisvolle positiewe verband met Lewenstevredenheid.

'n Tweede-orde faktor analise is gedoen op die faktore van die Emosionele Intelligensie Skaal, Hersiende Lewensoriëtasie Toets, die Lewenstevredenheid Skaal en Oriëntasie tot Lewens Skaal. Twee faktore is onttrek naamlik Interpersoonlike- en Omgewings bemeestering. Die resultate tesame met die produk-moment korelasie was gebruik om 'n psigologiese welstand model te ontwikkel en saam te stel.

Die resultate toon dat die Interpersoonlike-bemeestering uit die volgende bestaan: Positiewe Affek, Emosionele Bestuur, Optimisme, Lewenstevredenheid en Koherensie-sin. Omgewings-bemeestering bestaan uit Emosies-Ander, Gelukkige Emosies, Emosies-Self en Nie-Verbale Emosies. Dit is duidelik uit bogenoemde dat psigologiese welstand uit twee dimensies bestaan naamlik Interpersoonlike en Intrapersoonlike aspekte.

Voorstelle vir toekomstige navorsing is gemaak.

CHAPTER 1

INTRODUCTION

This research study considers the relationship between measures of wellness (sense of coherence, optimism and life satisfaction) and emotional intelligence. The study is conducted in an Economic Sciences faculty in a Higher Education Institute as students in this faculty can be seen as future employees and the business leaders of tomorrow.

1. PROBLEM STATEMENT

Considerable attention has been paid to the personal health and wellness of individuals in communities but less attention was given to the health of the organisation as a whole (Bull, 2003). The major purpose of wellness promotion in the workplace is not only to produce health and wellness benefits, but also, just as importantly, to ensure positive lifestyle health behaviour and prevent the major causes of mortality and morbidity (Green & Kreuter, 1999). Studies revealed that mental illnesses, such as depression, cost organisations billions of dollars each year in lost productivity (Mrazek & Haggerty, 1994).

In this regard health promotion in the workplace can play a vital role (O'Donnell & Harris, 1984). Schaufeli and Bakker (2004) developed a model of well-being at work which could be used when focusing on work wellness. The model of well-being at work (Schaufeli, 2003; Schaufeli & Bakker, 2004) distinguishes between two dimensions, namely contentment at work (i.e. pleasurable versus unpleasurable) and mobilisation of energy. Health promotion in the workplace not only ensures a healthy worker, but also a healthier worker who contributes to work productivity (O'Donnell & Harris, 1984). For individuals to be healthy and well-balanced, they need to learn concrete ways to promote wellness. Wellness programs often help prevent employees from getting sick, missing work and burning out from job related stress, and also assist individuals with their physical, material, mental and spiritual evolution. Psychological well-being, and therefore wellness, can be fostered by the development of positive psychological constructs in the workplace (Seligman & Csikszentmihalyi, 2000).

Wissing and van Eeden (1998) see psychological well-being as multi dimensional with regard to facets of the self that are involved, for example affect, cognition and behaviour. Seligman and Csikszentmihalyi (2000) describe positive psychology as the study of positive subjective experience, positive individual traits and programs that assist in improving an individual's quality of life, while simultaneously preventing, or at least reducing, the incidence of psychopathology. Positive psychology focuses on positive aspects of the self and our systems. The focus can be on subjective experiences such as: feelings of contentment, satisfaction, and well-being with past experiences; optimism and hope for the future; and a general sense of happiness in the present (Seligman & Csikszentmihalyi, 2000). Furthermore, sense of coherence (Antonovsky, 1987), satisfaction with life (Diener, Emmons, Larsen & Griffen, 1985) and optimism (Scheier & Carver, 1987) are seen as good indicators of general psychological well-being (Wissing & Van Eeden, 1998). Psychological well-being and the processes involved can be developed by the application of emotional intelligence (Jonker & Jansen, 2005).

Emotional intelligence is one of the constructs that is proposed to aid in the conceptualisation of psychological well-being and the processes involved in psychological wellbeing (Goleman, 1995). Emotional intelligence, sense of coherence, satisfaction with life and optimism, also form part of the positive psychology domain that can contribute to overall positiveness and wellness (Seligman & Csikszentmihalyi, 2000). Emotional competence is the ability to adapt affect, emotion, and mood in order to have the potential to be effective in a variety of situations.

Emotions are not only intuitive wisdom; they provide us with potentially profitable information every minute of the day. However, the experience of emotions is not enough. One must know how to acknowledge and value feelings in oneself and others and what the appropriate response will be. People who use these qualities are using their emotional intelligence (Schutte, Malouff, Simunek, Mofikenly, & Hollander, 2002). Emotional intelligence is the ability to monitor one's own and other's feelings and emotions, to discriminate amongst them and to use this information to help in the guidance of one's thinking and actions (Salovey & Mayer, 1990)

Various authors have theorised that high emotional intelligence would lead to greater feelings of emotional well-being (Goleman, 1995; Salovey & Mayer, 1990; Salovey, Mayer, Goldman,

Turvey, & Palfai, 1995). Research indicates that high levels of emotional intelligence lead to less depression (Martinez-Pons, 1997; Schutte, et al., 1998), a greater sense of optimism (Schutte, et al., 1998) and life satisfaction (Ciarrochi, Chan & Caputi, 2000; Martinez-Pons, 1997).

Emotional Intelligence

Emotional intelligence is one of the most interesting concepts in the field of business psychology. Peter Salovey and John Mayer (1990, p189) initially defined emotional intelligence as "the subset of social intelligence that involves the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions". More recently Salovey and Mayer have identified the major components of EI as the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in self and others (Mayers, Salovey, & Caruso, 2000). According to Goleman (1998) emotional intelligence is twice as important in contributing to excellence as pure intellect and expertise.

Recent research suggests that graduate students significantly improved their measured Emotional intelligence from the time they entered an MBA program designed to enhance their Emotional intelligence (Cameron, 1999). Studies tracking the students' level of emotional intelligence through the years show that people improve these capabilities as they grow more proficient at handling their empathy and social dexterity (Goleman, 1998). Daniel Goleman (1995) popularised emotional intelligence and extended his observation to establish an overview of emotional intelligence in the workplace and organisation. Research showed that emotions, when properly managed, drive trust, loyalty and team and organisational accomplishments (Cooper, 1998). One of the appealing features of emotional intelligence is that it integrates many skills and quantities known to impact performance (Offermann, Bailey, Vasilopoulos, Graig, & Sass, 2004). A deficiency can lead to the following symptoms in organisations: uncertainty; low morale; lack of initiative, creativity and innovation; poor work team performance; stress and burnout; and poor relationships between employees (Cooper, 1998).

Emotional intelligence also portrays the subset of social intelligence. Emotional intelligence comprises a layout of non- cognitive capabilities, skills that can influence the person's ability to

manage environmental demands and pressures and competencies (Bar-On, 1996). Bar-On (1997) listed fifteen factorial components of emotional intelligence, namely: emotional self-awareness; assertiveness; self-regard; self-actualisation; independence; empathy; interpersonal relationships; social responsibility; problem solving; reality testing; flexibility; stress tolerance; impulse control; happiness and optimism. Emotional intelligence can be seen as the ability to sense, understand and effectively apply the power and acumen of emotions as a source of human energy, information, trust, creativity and influence (Cooper, 1997).

According to Diener, Suh, Lucas and Oishi (1999) emotions and moods can be labelled together to form affect, which represents peoples evaluation of the events that occur in their lives. Psychological well-being has been guided by two primary concepts: the first emphasizes the affective aspect including positive and negative affect; the second conception emphasizes a cognitive component, namely life satisfaction, the key indicator of well-being (Ryff & Keyes, 1995).

Life Satisfaction

Life satisfaction has emerged as a key variable by which to measure perceived well-being (Cummins, 2001). Well-being is comprised of the scientific analysis of how people evaluate their lives for the moment and for longer periods. These evaluations include the emotional reactions people experience, and the moods and judgements they form about their life satisfaction (Diener, Oishi & Lucas, 2003). Satisfaction with life in adults has been associated with health (Willits & Crider, 1988), social interaction (Gibson, 1986), personality (Costa, McCrae & Norris, 1981; Heady & Wearing, 1989; McCrae & Costa, 1991), religion (Koeing, Kvale & Ferrell, 1988), income and social class (George, 1990), and ethnicity (Markides & Mindel, 1987). Satisfaction with life has also been found to inversely relate to negative life events (Murrell & Norris, 1991). Life satisfaction is positively related to competence, general well-being (Feldt, 1997) and sense of coherence (Kalimo & Vuori, 1990)

Sense of coherence

Sense of coherence consists of three important components, namely comprehensibility, manageability and meaningfulness. These three components may also have an underlining

cognitive component. This cognitive component is reflected in various models of wellness, especially models of wellness developed by Crose, Nicholas, Gobble and Frank (1992) and Myers, Sweeney and Witmer (2002).

Strong sense of coherence can be developed through various psychological, social structural and cultural-historical resources, and these resources work against stressors (Antonovsky, 1979). The concept of sense of coherence resonated with the concept of "environmental mastery" that was conceptualised by Ryff and Singer (1996; 1998). Environmental mastery refers to the individual's ability to cope with stimuli from both the external and internal environment, the ability to see demands as challenges and to use the available resources (Ryff & Singer, 1998).

Research indicates that people with a low sense of coherence find it hard to cope with life conflicts and thus feel distressed. In contrast, people with a high sense of coherence tackle life stressors head-on (McSherry & Holm, 1994). A strong sense of coherence is negatively related to anxiety and neuroticism (Frenz, Carey & Jorgensen, 1993) and job stress (Feldt, 1997). Sense of coherence will lead to confidence and an optimistic outlook on life (McSherry & Holm, 1994).

Research indicates that sense of coherence is negatively related to life stress and symptoms of psychological distress such as anxiety, depression and an array of physical elements. Research (Flannery & Flannery, 1990) indicates that sense of coherence is not a depressor but rather a global predisposition in regard to responding to stress. Individuals with a strong sense of coherence use more instrumental and fewer avoidant responses to cope with stressors in their lives (Amirkhan & Greaves, 2003). The conclusion can be drawn that sense of coherence correlates with general health rating, psychological health and self esteem (Antonovsky, 1987). Optimism also contributes to psychological health.

Optimism

Research by Scheier and Carver (1987) suggested that optimism has a beneficial effect on psychological well-being. This view is supported by results of studies by Carver and Gaines (1987) and Fibe and Hale (1978), indicating that optimism is negatively correlated with

depressive symptoms and with anxiety (Harju & Bolen, 1998; Robinson-Whelen, Kim, MacCallum & Kiecolt-Glaser, 1997).

Cassidy (2000) regards optimism as a personality trait that can help people to cope with aspects of life that could lead to negative effects of stress. A number of researchers described this personality trait as a psychological resistance factor, which could be used to conceptualise individual differences and is related to more positive outcomes (Ebert, Tucker & Roth, 2002). Positive outcomes, being predicted by optimism, include 1) coping with major life stresses, 2) adjusting to major life transitions and 3) responses to more minor stresses (Hasan & Power, 2002).

Optimists are "masters of their own fate"; they believe that good things will happen to them and that they can make good things happen (Carver & Scheier, 2002). These authors made a suggestion that the optimist is involved in and commences various activities to provide themselves with the opportunity to acquire knowledge about both the positive and negative consequences of their actions. The optimist seems to be able to control or modify aspects of stressors and does this by seeking information and by being more involved in the planning and positive re-framing (Jackson, Weiss & Lundquist, 2000). The pessimist is known to use strategies such as negative coping, cognitive avoidance disengagement and/or substance abuse (Harju & Bolen, 1998; Jackson et al., 2000). According to Carver and Scheier (2002) optimism is a basic quality of personality. Optimism influences peoples' orientation to certain live events, their subjective experiences regarding the confrontation of problems and the action taken when dealing with these problems. Optimism is therefore an important dispositional quality that could moderate well-being and high emotional intelligence, due to the fact that it could influence a person's motivation and coping behaviour (Carver & Scheier, 2002).

It is clear from the problem statement above that wellness in organisations can have benefits both for the employee and employer. This can be achieved by paying attention to the psychological wellbeing of current- and future employees. Indicators of general psychological wellbeing are emotional intelligence, life satisfaction, optimism and sense of coherence. The last-mentioned indicator forms part of the positive psychology domain. The relationship between these

constructs in a psychological wellness model has not been established in the Economic Sciences Field in Higher Education. Future employees in this field of study are likely to become the business leaders of tomorrow.

Based on the problem statement, the following research questions arise:

- How are emotional intelligence, optimism, life satisfaction, sense of coherence and psychological well-being conceptualised in literature?
- How valid and reliable are the measures of emotional intelligence, optimism, life satisfaction and sense of coherence for a sample of potential future employees in economic sciences professions?
- What is the relationship between emotional intelligence, optimism, life satisfaction and sense of coherence?
- What is the content of a structural model of psychological wellbeing, based on the relationship between wellbeing constructs (emotional intelligence, optimism, life satisfaction and sense of coherence)?

2. RESEARCH OBJECTIVES

This research embraces general and specific objectives.

2.1 General objectives

The general aim of this research is to determine the relationship between wellness and emotional intelligence in order to develop a structural model of psychological wellbeing.

2.2 Specific objectives

- To conceptualise emotional intelligence, optimism, life satisfaction, sense of coherence and psychological well-being from the literature.
- To determine the validity and reliability of measurements of emotional intelligence , optimism, life satisfaction and sense of coherence for a sample of potential future employees in economic sciences professions.

- To determine the relationship between emotional intelligence, optimism, life satisfaction and sense of coherence.
- To determine a structural model of psychological wellbeing based on the relationship between wellbeing constructs (emotional intelligence, optimism, life satisfaction and sense of coherence).
- To make recommendations for future research.

3. RESEARCH METHOD

The research consists of a literature review and an empirical study. The results are presented in the form of a research article.

3.1. Phase 1: Literature Review

In phase 1, a complete literature review regarding the following is obtained: the relationship between emotional intelligence , psychological well-being, optimism, life satisfaction and sense of coherence of university students in the field of economics.

3.2 Phase 2: Empirical study.

Phase 2 consists of empirical study and comprises the research design, the participants and then measuring battery and statistical analysis.

3.2.1 Research design

A cross-sectional design with a survey as the technique of data collection is used to research the objectives of this research. Cross-sectional designs are used to examine groups of subjects in various stages of development simultaneously, while the survey describes a technique of data collection in which questionnaires are used to gather data about an identified population (Burns & Grove, 1993). This design is well suited to the descriptive and predictive functions associated with correlation research, whereby relationships between variables are examined (Shaughnessey & Zachmeister, 1997)

3.2.2 Participants

The participants consist of an availability sample of Economic Science students in a higher education institute in the North West Province and in Gauteng (N=341)

3.2.3 Measuring battery

- *Emotional Intelligence Scale* (Schutte et al., 1998) assesses perception, understanding expression, regulation and harnessing of emotions in the self and others. The brevity of the scale and its accumulating reliability and validity evidence make this scale a reasonable choice for those who are seeking a brief self-report measure of global emotional intelligence. The model of emotional intelligence of Salovey and Mayer (1990) provided the conceptual foundation of the items used in this scale. A factor analysis of a large pool of items suggested a one-factor solution of 33 items. The 33-items scale, developed through factor analysis, showed good internal reliability with two different samples. Two-week-test-retest reliability indicated that the scores were fairly related to eight or nine measures, predicted to be related to emotional intelligence scores predicted their end-of-year grade point average of emotional intelligence, including the determinants of emotional intelligence, the effects of emotional intelligence and whether emotional intelligence can be enhanced (Schutte et al., 1998).

- *The Life Orientation Test-Revised (LOT-R)* (Scheier, Carver & Bridges, 1994), a ten-item measure will be used to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The original Life Orientation Test, as the LOT-R after two-factor structure (optimism and pessimism), was questioned (Harju & Bolen, 1998). Follow-up analysis has demonstrated a one-factor indicating that the LOT-R is measuring a continuum of high average and low optimism/pessimism (Scheier et al., 1994). The LOT-R was found to have adequate internal consistency (Cronbach's alpha = 0,78) and excellent convergent and discriminated validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtain a Cronbach alpha coefficient of 0,75.

- *The Satisfaction with Life Scale (SWLS)* will be used to measure satisfaction with life. The SWLS is a five-item instrument which was developed by Diener et al. (1985) to measure global cognitive judgements of one's life. According to Diener et al (1985, p 71-72) the SWLS is designed around the idea that one should ask respondents about the overall judgement of their life in order to measure the concept of life satisfaction. Participants are asked to indicate their degree of agreement or disagreement on a seven-point Likert scale (1= strongly disagree to 7 = strongly agree). Scores on the SWLS range from 5 to 35 with higher scores indicating greater life satisfaction. Diener et al. (1985, p.72) reported a two month test-retest correlation coefficient of 0. 82 and a Cronbach's alpha coefficient of 0, 87. The inter-item correlation matrix was factor analysed using principal axis factor analysis. According to the eigenvalues a single factor emerged, accounting for 66% of the variance (Diener et al., 1985).

- *Orientation to life scale* was used to measure the extent to which a person has a pervasive, enduring and dynamic feeling of certainty that: the stimuli that bombard people, and which come out of the internal and external environment in the course of living, are structured, predictable and explicable.(Comprehensibility). There are resources available that will help or enable one to manage these stimuli (Manageability). These demands are perceived as challenges in which energy is worthy of being invested (Meaningfulness).The SOC scale that has been used in this research consists of 29 items, which are divided into three components, namely comprehensibility, manageability and meaningfulness. Antonovsky (1993) reports a Cronbach alpha reliability of between 0,78 and 0.93 in 26 studies where the SOC scale has been used. As far as test-retest reliability is concerned, Antonovsky found in 8 research studies a correlation of 0,56 to 0,97. According to Antonovsky (1993) content validity, operational validity and criterion validity of the SOC scale appears to be favourable. The present study reports a Cronbach alpha coefficient of 0,92 for the total group.

3.2.4 Statistical analysis

The statistical analysis is carried out with the SPSS-program (SPSS, 2003). The SPSS-program is used to carry out statistical analysis regarding reliability, validity, descriptive statistics, t-tests, analysis of variance, correlation coefficients and Multiple Regression Analysis.

Descriptive statistics (e.g., means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data.

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

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

The Goodness of Fit Index (GFI) indicates the relative amount of variance and covariance in the sample predicted by estimates of the population. Its value usually varies between 0 and 1 with higher than 0,90 indicating good model fit with the data. The Adjusted Goodness of Fit Index (AGFI) indicates the relative amount of variance accounted for by the model, corrected for the number of parameters that needed to be estimated (degrees of freedom) in the model. Both these values are classified as absolute values, because they compare the hypothesised model with no model at all (Hu & Bentler, 1995).
Even though both indexes vary between 0 and 1, the distribution of AGFI is not known and consequently no critical value can be obtained (Jöreskog & Sörbom, 1986). The Parsimony Goodness of Fit Index (PGFI) adds to a more realistic interpretation of the model, combining the issue of parsimony and goodness of fit by taking the number of variables needed to be

determined into account (Mulaik, James, Van Altine, Bennet, Lindi & Stillwell, 1989). Although this index generally demonstrates lower levels in comparison to the other fit indexes, at the 0,05 level in comparison to values higher than 0,90, values >0,80 are considered to be more appropriate (Byrne, 2001).

The Normed Fit Index (NFI) is used to measure global model fit, giving an indication of the extent to which the hypothesised model compares with the most restricted model, where relationships between variables are zero - in other words a perfectly independent model. This index also varies between 0 and 1 and tends to overestimate fit in smaller samples. The Comparative Fit Index (CFI) also compares the hypothesised and independent models, but takes sample size into account. The Tucker-Lewis Index (TLI) is a relative measure of covariation explained by the hypothesised model which has been specifically designed for the assessment of factor models (Tucker & Lewis, 1973). Critical values for good model fit have been recommended for the NFI, CFI and TLI to be acceptable above the 0,90 level (Bentler, 1992), although recently Hu and Bentler (1999) recommended a cut-off value of 0,95.

Browne and Cudeck (1993) suggested the use of the Root Mean Square Error of Approximation (RMSEA), as well as the 90% confidence interval of the RMSEA, to address the problems associated with sample size. The RMSEA provides an indication of the overall amount of error in the hypothesised model-data-fit, relative to the number of estimated parameters (complexity) in the model. The recommended acceptable levels of the RMSEA should be 0,05 or less and should not exceed 0,08. Hu and Bentler (1999) suggested a value of 0,06 to indicate acceptable fit, whereas MacCallum, Browne and Sugawara (1996) recently suggested values between 0,08 and 1,0 to indicate mediocre fit and values above 1,0 to indicate poor fit.

4. RESEARCH PROCEDURE

The measuring battery is compiled. In co-operation with personnel at the Economics Sciences Faculty of a Higher Education Institute, the measuring battery, together with a letter, explains the background of and motivation for the empirical research and requests their participation.

5. CHAPTER DIVISION

Chapter 1:	Introduction, problem statement and objectives
Chapter 2:	Article: The relationship between emotional intelligence, sense of coherence, optimism, and life satisfaction of students.
Chapter 3:	Conclusions, limitations and recommendations

6. CHAPTER SUMMARY

In this chapter, the problem statement and motivation for this study were discussed. The general and specific objectives were formulated. In chapter two (research article) the relationship between emotional intelligence, sense of coherence, optimism, and life satisfaction of students.

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CHAPTER 2
RESEARCH ARTICLE

THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE, SENSE OF COHERENCE, OPTIMISM AND LIFE SATISFACTION OF STUDENTS.

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ABSTRACT

The objective of this study was to determine the relationship between emotional intelligence, optimism, life satisfaction and sense of coherence, and to compile a psychological well-being model for university students in economic management sciences. A cross- sectional survey design was used. The participants (N=324) were students from economic sciences fields. The Emotional Intelligence Scale, Life Orientation Test Revised, Satisfaction with Life Scale and Orientation to life scale were administered. A factor analysis showed a six-factor structure for the emotional intelligence measurement. A Second Order factor analysis with all the factors of emotional intelligence, optimism, life satisfaction and sense of coherence indicated a two factor model. The model was tested with Structural Equation Modelling (SEM) and indicated that psychological well-being consists of two factors: Intrapersonal- and Environment Mastery

OPSOMMING

Die doelwit van hierdie studie was om die verband tussen emosionele intelegensie, optimisme, lewenstevredenheid en koherensie-sin te bepaal asook om `'n model van psigologiese welstand vir universiteit studente in ekonomiese bestuurs wetenskappe saam te stel. 'n Dwarsdeursnee-opnameontwerp is gebruik. Die deelnemers (N=324) was studente in die ekonomiese wetenskap gebied. Die Emosionele- Intelligensieskaal, Hersiende Lewensorientasietoets, Lewenstevredenheid en Orientasie tot die lewe toets was geadministreer. . `n Faktoranalise het `n ses-faktor sturktuur bewys vir emosionele intelligensie. `n Tweede orde faktor analise met al die faktore van emosionele intelligense, optimisme, lewenstevredenheid en koherensiesin het `n twee faktor model aangedui. Die model is getoets met strukturele-berekings-modellering en het gewys dat psigologiese welstand uit twee faktore bestaan: Intrapersoonlike bemeestering en Omgewingsbemeestering.

A specific need exists for researching well-being in South African organisations. The organisational environment in South Africa has undergone a lot of complex changes. Organisations are forced to downsize, restructure and outsource their services and this can lead to negative effects on employees. Workers are feeling more stressed, misunderstood, undervalued and insecure (Wise, 2001). The diverse employee and young working population, as well as the political climate, contributes to the stress that employees and organisations face in South Africa (Carrell et al.,1998). The future workforce of South Africa consists of university students, thus their psychological well-being should be intact before they enter the workforce. As international competition becomes more intense, organisations in South Africa are under pressure to implement some changes that might lead to stress and burnout (Dwyer, 2001).

In the past, less attention was given to the wellness and personal health of the organisation and more was given to individuals in communities (Bull, 2003). During the last 20 years a growing trend occurred among companies to realise the importance of the human factor (Snyder & Lopez, 2002). Research studies indicated that positive organisations stand apart from businesses that merely turn a profit and increase shareholders' value, because they promote and sustain high levels of employee well-being (Spector, 1997; Warr, 1999). The focus thus lies on total well-being and the wellness of employees (Sheldon & King, 2001). Studies reveal that mental illnesses such as depression cost organisations millions of dollars each year in lost productivity (Mrazek & Haggerty, 1994).

A decrease in organisational well-being occurs when employees experience burnout. Based on the holistic model of work wellness, burnout and work engagement could be regarded as an outcome of job stress (Nelson & Simmons, 2003). Burnout is recognised as a phenomenon found in a variety of occupational groups (Cordes & Dougherty, 1993). According to Cordes and Dougherty (1993) burnout is a persistent, negative work-related state of mind in "normal" individuals, primarily characterised by emotional exhaustion and accompanied by distress, a sense of reduced effectiveness, decreased motivation and the development of dysfunctional attitudes and behaviours at work.

There are a lot of factors that contribute to employee burnout and stress. Burnout can result from too much involvement in one task (Cherniss, 1980; Freudenberger, 1974), little or no support by friends, family or colleagues (Etzion, 2001), work and social environment (Burke, Shearer & Deszca, 1984), work overload (Landsbergis, 1998), feedback, control and clarity, social support, personal expectations about work (Maslach & Jackson, 1986) and career concerns such as lack of career progress (Ivancevich & Matteson, 1990). Burnout and stress does not only have negative outcomes for the individual, but also for the organisation, including absenteeism, lower turnover and poor productivity (Schaufeli & Enzmann, 1998). Wellness at work can be viewed in both a positive and negative manner, namely engagement and burnout (Rothmann, 2003). Wellness at work, originally viewed from a negative perspective, can be viewed from a positive perspective (Kalloway & Barling, 1992).

Positive psychology in burnout research literature has long since been called for. Empirical studies revealed that some employees, regardless of high job demands and long working hours, do not develop burnout in comparison with others but seem to find pleasure in hard work and dealing with high job demands (Schaufeli & Bakker, 2001). Schaufeli and Bakker (2001) state that these individuals could be described as engaged with their work. Work engagement can be defined as a positive, fulfilling, work-related state of mind characterised by vigour, dedication and absorption (Schaufeli, Salanova, Gonzáles-Romá & Bakker, 2002).

Employees who have a sense of engagement, have a sense of energy and effective connection with their jobs (Schaufeli et al., 2002). Engagement promises to yield new perspectives on interventions to promote healthy perceptions, beliefs and physical well-being (Salovey, Rothman, Detweiler & Steward, 2000), and to lighten burnout (Maslach, Schaufeli & Leiter, 2001). The positive psychology paradigm helps to explain the relationship between the individual and work more clearly, and more specifically, goal-orientated, structured activity, and psychological well-being (Kalloway & Barling, 1992).

Psychological well-being is seen as multidimensional with regards to certain aspects of the self, for example affect, cognition and behaviour (Wissing & Van Eeden, 1998). *Satisfaction with life* (Diener, Emmons, Larsen & Griffen, 1985), *sense of coherence* (Antonovsky, 1987), and

optimism are seen as good indicators of general *psychological well-being* (Wissing & Van Eeden, 1998). One of the constructs that is proposed to aid in the conceptualisation of psychological well-being, and the processes involved, is emotional intelligence (Goleman, 1995).

Emotional intelligence

Many attempts by psychologists have been made over the years to categorise as well as define intelligence. Emotional Intelligence (EI) is a great contributing factor in the understanding of human intelligence, as it expands the capacity to measure one's general and overall intelligence (Bar-On, 1997a). When looking at human intelligence it was found that emotional intelligence as a dimension, forms part of the human intelligences domain (Kaplan & Sadock, 1991). Emotional intelligence addresses the emotional, personal, social and survival dimensions of intelligence, and these are sometimes more important for the daily functioning than the more traditional cognitive aspects of intelligence (Salovey & Mayer, 1990).

Goleman (1998) provides a useful scope of the construct of emotional intelligence:

- knowing what you are feeling and having the ability to handle and control those feelings without them overwhelming you;
- having the ability to motivate yourself in getting the jobs done, being creative and performing at your best; and
- sensing what others are feeling and handling relationships effectively.

Martinez (1997, p.72) structured a more concise definition that refers to emotional intelligence as being: "*...an array of non-cognitive skills, capabilities and competencies that influence a person's ability to cope with environmental demands and pressures.*"

Mayer, Caruso and Salovey (2000) developed the Multifactor Emotional Intelligence Scale. Mayer et al. followed the conceptualisation developed by Salovey and Mayer (1990) and defined Emotional Intelligence as "a set of interrelated skills that can be classified within the following four dimensions:

- the ability to perceive accurately, appraise, and express emotion;
- the ability to access and/or generate feelings when they facilitate thought;

- the ability to understand emotion and emotional knowledge; and
- the ability to regulate emotions to promote emotional and intellectual growth" (Mayer and Salovey, 1997, p. 10).

Two streams of emotional intelligence are found in the literature: the mixed and ability models (Mayer, Salovey & Caruso, 2000). Emotional intelligence involves the abilities to *"perceive, appraise and express emotion to access and/or generate feelings when they facilitate thought to understand emotions and emotional knowledge and to regulate emotions to promote emotional and intellectual growth"* (Mayer & Salovey, 1997, p.10). Mayer and Salovey (1997) developed an ability model consisting of different branches. The first branch of the model is Identifying Emotions. Included in this branch are a number of skills such as the ability to identify feelings, to express emotions accurately and to differentiate between real and phoney emotional expressions.

The second branch, Emotional Facilitation of Thought (or using Emotions), includes the ability to use emotions to redirect attention to important events, to generate emotions that facilitate decision making, to use mood signs as a means to consider multiple points of view and to harness different emotions to encourage different approaches to problem solving. The third branch, Understanding Emotions, is the ability to understand complex emotions and emotional "chains" (how emotions transition from one stage to another), the ability to recognise the cause of emotions, and the ability to understand relationships among emotions. The fourth branch of the ability model is Managing Emotions. This includes the ability to stay aware of one's emotions, even those that are unpleasant, the ability to determine whether a motion is clear or typical, and the ability to solve emotion-laden problems without necessarily suppressing negative emotions (Mayer, et al, 1999; Roberts, Zeidner, & Matthews, 2001).

The ability model places EI within the sphere of intelligence in which emotion and thought interact in meaningful and adaptive ways. Mixed models blend various aspects of personality in what is often a theoretical manner. This research makes use of the definition of Mayer and Salovey (1997) for the application and measurement of emotional intelligence.

An individual's EI is an indication of how he or she perceives, understands and regulates emotions. Thus EI is a form of intelligence that involves "*the ability to monitor one's own and others' feelings and emotions to discriminate among them and to use this information to guide one's thinking and actions*"(Salovey & Mayer, 1990, p.189). Emotional intelligence ranges from an ability for processing information that is applied to emotions, subject to principles governing the intellect (Mayer, et al., 2000), to a complex interaction of qualities of emotions, mood, personality and social orientation applied in both interpersonal and intrapersonal situations (Bar-On, 2000). Thus Mayer and Salovey (1997) construed Emotional Intelligence as the capacity to reason about emotions.

The emphasis of emotional intelligence falls on understanding one's self and others, relating to people and adapting to and coping with environmental demands (Bar-On, 1997b). According to Salovey and Mayer (1990) emotions are primarily motivating forces that arouse, direct and sustain activity. A unique set of competencies is needed to handle emotional life either with greater or lesser skills. A person with high EI would be less affected by his or her emotions, be able to direct emotions in a positive direction and would have lower chances of feeling depressed. EI also includes a dimension of understanding others' emotions (Mirowsky & Ross, 1990).

Emotional intelligence has been found to be positively correlated with variables such as empathy, verbal intelligence, and extroversion, openness to feelings, self-esteem and life satisfaction (Ciarrochi, Chan, & Caputi, 2000; Mayer, Caruso, & Salovey, 1999).

Life Satisfaction

Theoretically, life satisfaction should be positively related to Emotional Intelligence. Intrapersonal emotional recognition and management helps an individual deal with his or her emotions. A person with high EI should be able to recognise his or her emotions, to regulate those emotions, and to use them to facilitate performance. As a result, this person should be happier, as a whole, in life. Several empirical studies have provided evidence of this positive relationship (Wong & Law, 2002; Wong, Wong & Law, 2002).

Satisfaction is a state of mind, an evaluative appraisal of something (Saris, Veenhoven, Scherpenzeel & Bunting, 1996). Satisfaction of life is defined by Veenhoven (1988, p.334) as "*the degree to which an individual judges the overall quality of his/her life, as a whole, favourably*". Veenhoven (1988) supported his definition by adding that the degree to which an individual feels that his/her aspirations have been met, his/her new-found contentment with life and the most important of all, the degree to which one feels that he/she has successfully achieved what was wanted in life, points to life satisfaction.

Life Satisfaction is as a cognitive judgment of the degree of positivity of a person's overall life or with specific life domains, such as family or school experiences (Raphael, Rukholm, Brown, Hill-Bailey & Donato, 1996). According to Cramer (1995) life satisfaction is as an assessment of the overall conditions of existence as derived from a comparison of the individual's aspirations to his/her actual achievement. There are certain factors that contribute to life satisfaction as well as positive and negative life events.

Looking at adults, research has demonstrated that positive and negative life events have an effect on life satisfaction (Headey & Wearing, 1989). In addition to major life events, daily events such as everyday hassles, or chronic daily stressors at work and home, can contribute to how an individual rates his or her satisfaction with life. However, life satisfaction was found to be strongly influenced by personality characteristics (Huebner, 1991). More so, life satisfaction appears to be moderately influenced by life events (Ash & Huebner, 2001; McCullough, Huebner & Laughlin , 2000).

According to Lazarus (1991) life satisfaction is a positive appraisal style, thus life satisfaction may act as a buffer against the effect of stressful life events. As Lazarus (1991) suggests, with an overall positive belief about life, one may be better able to cope and adjust to daily stressors and negative events that would most likely have a greater negative impact on an individual. Although objective life circumstances are important in individual determinations of the quality of one's life, it is one's subjective interpretations and evaluations of one's experiences that are most crucial (Day & Jankey, 1996). Similarly, as stated by Csikszentmihalyi (1990), subjective experience is not just one of the dimensions of life, it is life itself.

When individuals experience life satisfaction it is mostly associated with ethnicity (Markides & Mindel, 1987), income and social class (George, 1990), social interaction (Gibson, 1986), personality (Costa, McCrae & Norris, 1981; Heady & Wearing, 1989; McCrae & Costa, 1991), religion (Koeing, Kvale, & Ferrell, 1988) and health (Willits & Crider, 1988). According to Lane (1994) the number of friends a person has is a much better predictor of satisfaction with life than income. Level of satisfaction with life as a whole can also be regarded as synonymous with quality of life.

An individual's sense of life satisfaction links multiple health parameters that form an umbrella affect named Health Related Quality of Life (HR-QOL) (Hlatky, Boothroyd & Vittinghoff, 2002). HR-QOL consists of physical capabilities, mental and emotional status, self-rated health, social involvement, and global life satisfaction. A high HR-QOL means a person is able to function independently and maintain high levels of physical and mental health. Emotional well-being and vitality, along with a supportive social network, also contribute to high HR-QOL (Amarantos, Martinez & Dwyer, 2001). The conclusion can be made that mental, physical and emotional well-being plays an important role with regards to life satisfaction and quality of life.

The sources of well-being can be divided into two categories: external circumstances such as available community services or family life and internal disposition such as self-esteem or the sense that one controls one's own fate (Lane, 1994). Research results by Murrell and Norris (1991) indicated that satisfaction with life is related to negative life events. According to McSherry and Holm (1994) people that tackle life head-on have a high sense of coherence, while people who find it hard to cope with life conflicts and feel distressed have a low sense of coherence.

Sense of coherence

Antonovsky (1991) developed the construct sense of coherence. When looking at sense of coherence it can be described as a global orientation that expresses the extent to which one has a pervasive, enduring and dynamic feeling of confidence that:

(1) the stimuli deriving from one's internal and external environment are predicted and that there is a high probability that things will work out as well as can be reasonably expected;
(2) each person has the necessary resources to meet these demands posed by these stimuli; and that
(3) these demands are challenges that the individual will find worthwhile when investing and engaging in them (Antonovsky, 1987).

Sense of coherence originated from the concept of "environmental mastery" defined by Ryff and Singer (1996; 1998). It refers to the individual's ability to cope with stimuli from both the external and internal environment, the ability to see demands and challenges and to use the available resources. According to Antonovsky (1979) life experiences are important in the development of sense of coherence among children, adolescents and adults. He further explains that the life experiences should not only be predictable but also rewarding and sometimes they should present frustration and punishment. When looking at the above it is clear that sense of coherence is developed from childhood and it strengthens from early adolescence to late adolescence (Antonovsky, 1979).

The definition of sense of coherence consists of three components namely: comprehensibility, manageability and meaningfulness (Antonovsky, 1987). A deeper understanding is necessary of these components and their implications (Antonovsky, 1987; Strümpfer, 1990).

- ***Comprehensibility***

  The degree to which one perceives that both internally and externally sourced stimuli are structured, ordered, consistent and clear. An expectation will be facilitated that these stimuli will in the future be orderable and even predictable, thus these stimuli are preserved as making sense (Antonovsky, 1987; Strümpfer, 1990).

- ***Manageability***

  To manage the demands, posed by the stimuli one may confront, with perceived available resources. These resources, viewed subjectively, can be seen as sufficient to deal with the

life events a person experiences. The control of these resources could be under the person's direct control or the control of others (spouse, friends, a physician etc.) who will use these resources on the person's behalf (Antonovsky, 1987; Strümpfer, 1990).

- ***Meaningfulness***

  The extent to which the person feels life makes sense on an emotional level and not just a cognitive one. Thus it's a motivational factor in the sense that a person feels the time and effort spent on challenges was worthwhile (Antonovsky, 1987; Strümpfer, 1990). Meaning is also about the cognisance of order, coherence, and purpose in one's existence (Antonovsky, 1979). Studies on the construct of meaning of life have consistently shown significant correlations between meaning and psychological wellness (Zika & Chamberlain, 1992). Lack of meaning has been found to be associated with a lack of well-being; the less the sense of meaning the greater the severity of psychopathology (Debats, 1999; Debats, Drost & Hansen, 1995).

Antonovsky (1987) found that these components are highly intercorrelated but that it was possible that differences between the components could be found within individuals. Due to the fact that these components are interdependent, it is clear to see that all three are necessary for the maintenance of a consistently high sense of coherence. It was found that these components have an underlining cognitive component. When looking at this component it can be said that it features in various models of wellness, especially models of wellness that were developed by Myers, Sweeney and Witmer (2002) and Crose, Nicholas, Gobble and Frank (1992).

Antonovsky (1979) postulated that since psychological, cultural, historical and social structural resources work against stressors, these resources contribute to the development of a strong sense of coherence. Antonovsky realised that there is something apart from the inner disposition, that is sense of coherence, that enables people to cope with stressful life events (Antonovsky 1979). Flannery and Flannery (1990) found that sense of coherence is not a depressor but a global predisposition in regard to responding to stress. Sense of coherence has been found to have a moderating effect between: adverse characteristics of emotional exhaustion (Feldt, 1997); emotional job strain and burnout (Söderfeldt, Söderfeldt, Ohlson, Theorell & Jones, 2000); and

conflict at work and stress symptoms (Albertsen, Neilsen & Berg, 2001). Sense of coherence predicts effective coping measures against stressful conditions (Antonovsky, 1996). Wissing and Van Eeden (2002) found a general psychological well-being factor in which sense of coherence, satisfaction with life and affect balance plays an important role.

Sense of coherence can thus be defined as a global orientation that expresses the extent to which one has a pervasive, enduring and dynamic feeling of confidence, that one's internal and external environment are predictable and that there is a high probability that things will work out as well as can reasonably be expected (Antonovsky, 1988). A person with strong sense of coherence would be described as resilient and optimistic.

Optimism

When an individual looks at the brighter side of life, even when faced with some kind of adversity, that individual can be classified as an optimist (Bar-On, 1997b). When optimistic, an individual assumes a measure of hope in life. They take on a more positive approach to daily living (Bar-On, 1997b). Studies conducted by Carver and Gaines (1987) and Fibe and Hale (1978) indicated that optimism is negatively correlated with depressive symptoms and with anxiety (Harju & Bolen, 1998). This supports the view of Scheier and Carver (1987) whose results show that optimism has a beneficial effect on psychological well-being.

Within the last decade, researchers have begun to investigate a host of positive psychological factors (e.g. optimism, spirituality, social support) that have been shown to influence general well-being. In particular, optimism is linked to desirable outcomes such as good morale, achievement, improved health, and coping with adversity (Chang, 1996).

The positive impact of optimism on physical and psychological health and the attendant characteristics of perseverance, achievement and motivation, resulting in academic, athletic and occupational successes, are well documented (Luthen, 2002). Optimism is seen as a sort of psychological resistance factor that is more related to positive outcomes (Ebert, Tucker & Roth, 2002). These positive outcomes, which are predicted by optimism, include some of the following:

- coping with major life stressors;
- adjusting to major life changes and transitions that may occur; and
- adjusting the responses given to more minor stressors (Hasan & Power, 2002).

Pessimists are known to use certain strategies that are harmful to them such as negative coping, cognitive avoidance disengagement and some times even substance abuse (Harju & Bolen, 1998; Jackson, Weiss & Lundquist, 2000). Pessimism is known to lead to passivity, failure, social estrangement and, in its extreme, depression and death (Luthen, 2002). The early abusive or traumatic events in your life are compounded by a relentless media barrage of images of war, terrorism, famine and natural disasters that teach one to be pessimistic.

Murray and Fortinberry (2004) believe that the transition from pessimism to optimism is possible. Carver and Scheier (2002) believe that optimism is part of the individual's basic type of personality. When being optimistic in the way you experience certain events, your confrontation with regards to problems and the action you choose to take, in dealing with these problems, will influence an individual's orientation of certain life events. Thus optimism could moderate well-being and high EI, because of its influence on individual's motivation and coping behaviour.

From the literature review it is evident that EI, optimism, sense of coherence and life satisfaction contribute to psychological well-being. The goal of this study was to determine the relationship between these constructs in a psychological wellness model within a population of Economic Science Students.

RESEARCH METHOD

Research design

A cross-sectional survey design was used to reach the objectives of this research. Cross-sectional designs were used for simultaneously examining groups of subjects in various stages, while the survey describes a technique of data collection in which questionnaires were used to gather data about the identified population (Burns & Grove, 1993). This design is well suited for the descriptive and predictive functions associated with creational research, whereby relationships between variables are examined (Shaugnessey & Zachmeister, 1997).

Participants

A sample of 341 students of the economical sciences was taken from higher education institutions in the North-West and Gauteng provinces. 324 of the responses could be utilised (95%). Table 1 gives the particulars of the participants.

Table 1

Characteristics of the Participants (n =324)

Item	Category	Frequency (percentage)
Age	16 - 18 years	174 (53, 70%)
	19 - 21 years	128 (39, 50%)
	22 - 25 years	9 (2, 70%)
Gender	Male	155 (47, 80%)
	Female	169 (52, 20%)
Language	Afrikaans	201 (62, 00%)
	English	17 (5, 20%)
	African Languages	106 (32, 70%)
Province	North-West	207 (63, 90%)
	Gauteng	117 (36, 10%)
Degree	Economical Sciences	52 (15, 90%)
	Accountancy	236 (72, 80%)
	Business Economics	14 (4, 30%)

The sample consisted mainly of Afrikaans speaking (62,00%) students from the North-West Province (63,90%). Most of the participants were studying accounting (72,80 %). The mean age of the students was between 16 and 18 years.

Measuring Battery

The following questionnaires were utilised in the empirical study:

- *Emotional Intelligence Scale* (Schutte et al., 1998) assesses perception, understanding expression and regulation and harnessing of emotions in the self and others. The brevity of the scale and its accumulating reliability and validity evidence make this scale a reasonable choice for those who are seeking a brief self-report measure of global EI. The model of EI of Salovey and Mayer (1990) provided the conceptual foundation of the items used in this scale. A factor analysis of a large pool of items suggested a one-factor solution of 33 items. The 33-items scale developed through factor analysis, showed good internal reliability with two different samples. Two-week-test-retest reliability indicated that the scores were fairly related to eight or nine measures, predicted to be related to EI scores and predicted their end-of-year grade point average of EI (including the

determinants of EI, the effects of EI and whether EI can be enhanced) (Schutte et al., 1998).

- *The Life Orientation Test-Revised* (LOT-R) (Scheier et al., 1994), a ten-item measure was used to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The original Life Orientation Test, as the LOT-R after two-factor structure (optimism and pessimism), was questioned (Harju & Bolen, 1998). Follow-up analysis has demonstrated a one-factor, indicating that the LOT-R is measuring a continuum of high, average and low optimism/pessimism (Scheier et al., 1994). The LOT-R was found to have adequate internal consistency (Cronbach's alpha = 0,78) and excellent convergent and discriminated validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtain a Cronbach alpha coefficient of 0,75.

- *The Satisfaction with Life Scale* (SWLS) was used to measure satisfaction with life. The SWLS is a five-item instrument which was developed by Diener et al. (1985) to measure global cognitive judgements of one's life. According to Diener et al. (1985) the SWLS is designed around the idea that one should ask respondents about the overall judgement of their life in order to measure the concept of life satisfaction. Participants are asked to indicate their degree of agreement or disagreement on a seven-point Likert scale (1= strongly disagree to 7 = strongly agree). Scores on the SWLS range from 5 to 35 with higher scores indicating greater life satisfaction. Diener et al. (1985) reported a two month test-retest correlation coefficient of 0,82 and a Cronbach's alpha coefficient of 0,87. The inter-item correlation matrix was factor analysed using principal axis factor analysis. According to the eigenvalues a single factor emerged, accounting for 66% of the variance (Diener et al., 1985).

- *Orientation to life scale* was used to measure the extent to which a person has a pervasive, enduring and dynamic feeling of certainty that: The stimuli that bombard people and which come out of the internal and external environment in the course of living is structured, predictable and explicable.(Comprehensibility). There are resources

available to one that will help or enable one to manage these stimuli (Manageability), these demand are perceived as challenges in which energy is worthy of being invested (Meaningfulness). The SOC scale that has been used in this research of 29 items, which are divided into three components, namely comprehensibility, manageability and meaningfulness. Antonovsky (1993) reports a Cronbach alpha reliability of between 0,78 and 0,93 in 26 studies where the SOC scale has been used.As far as test-retest reliability is concerned, Antonovsky (1993) found in 8 research studies a correlation of 0,56 to 0,97. According to Antonovsky (1993) content validity, operational validity and criterion validity of the SOC scale appears to be favourable. The present study reports a Cronbach alpha coefficient of 0,92 for the total group.

Statistical Analysis

The statistical analysis was carried out with the SPSS-program (SPSS, 2003). The SPSS-program was used to carry out statistical analysis regarding reliability, validity, descriptive statistics, t-tests, analysis of covariance, correlation coefficients and multiple regression analysis.

Descriptive statistics (e.g., means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. Pearson correlation coefficients were computed to determine the relationship between variables.

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

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

Covariance analysis or Structural Equation Modelling (SEM) methods, as implemented by AMOS (Arbuckle, 1997), was used to construct and test the structural model of psychological wellness. Hypothesised relationships were tested empirically for goodness-of-fit with the sample data. The χ^2 and several other goodness-of-fit indices summarise the degree of correspondence between the implied and observed covariance matrices. However, because the χ^2 statistic equals $(N-1)F_{min}$, this value tends to be substantial when the model does not hold and the sample size is large (Byrne, 2001). Researchers addressed the χ^2 limited by developing goodness-of-fit indices that take a more pragmatic approach to the evaluation process.

A value <2 for χ^2 /degrees of freedom ratio (CMIN/*df*) (Wheaton, Muthen, Alwin & Summers, 1977) indicates acceptable fit (Tabachnick & Fidell, 2001). The Goodness-of-Fit Index (GDF) indicates the relative amount of variance between 0 and 1, and a result of 0,90 or above indicates a good model fit. The Adjusted Goodness-of-Fit Index (AGFI) was a measure of the relative amount of variance accounted for by the model, corrected for the degrees of freedom in the model, relative to the number of variables. Both these values were classified as absolute values because they compare the hypothesised model with no model at all (Hu & Bentler, 1995). Although both indices vary between 0 and 1, the distribution of the AGFI is unknown, and consequently no critical value can be obtained (Jöreskog & Sörbom, 1986). The Parsimony Goodness-of-Fit Index (PGFI) addresses the issue of parsimony in SEM (Mualik, et al., 1989). Although this index generally demonstrates lower levels in comparison to other fit indices, at the 0,50 level in comparison to values higher than 0,90, values > 0,80 are considered to more appropriate (Byrne, 2001).

The Normed Fit Index (NFI) was used to measure global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index was normed to fall on a 0 to 1 continuum and tends to overestimate fit in smaller samples. The Comparative Fit Index (CFI) also compared the hypothesised and independent models, but took sample size into account. The Tucker-Lewis Index (TLI) was a relative measure of covariation explained by the hypothesised model, which had been specifically designed for the assessment of factor models (Tucker & Lewis, 1973). Critical values for good model fit had been recommended for the NFI, CFI and TLI to be acceptable above the 0,90 level (Bentler, 1992),

although recently Hu and Bentler (1999) recommended a cut-off value of 0,95. The Root Mean Square Error of Approximation (RMSEA) estimated to overall amount of error; it was a function of the fitting function value relative to the degrees of freedom (Browne & Cudeck, 1993). Hu and Bentler (1999) suggested a value of 0,06 to indicate acceptable fit, whereas MacCallum, Browne and Sugawara (1996) recently suggested that a value of between 0,08 and 1,0 indicated mediocre fit and a value above 1,0 indicated poor fit.

RESULTS

A simple factor analysis was done on the SEIS. Six factors (with eigenvalues higher than 1) were extracted explaining 45,24% of the variance. These factors were labelled Positive Affect, Emotions-Others, Happy Emotions, Emotions-Own, Non-verbal Emotions, and Emotional Management.

The descriptive statistics and alpha coefficients of the SEIS, LOT-R, SWLS, and SOC are given in Table 2:

Table 2

Descriptive Statistics and Alpha Coefficients of the SEIS, LOT-R, SWLS and SOC

Item	Means	SD	Skewness	Kurtusis	α
SEIS					
Positive Affect	33,64	4,91	-0,94	1,13	0,73
Emotions-Others	28,28	5,47	-0,25	0,04	0,67
Happy Emotions	17,41	3,37	-0,54	0,16	0,63
Emotions-Own	20,72	4,52	-0,73	0,51	0,63
Non-Verbal Emotions	11,43	3,11	-0,12	-0,47	0,56
Emotional Management	18,20	3,57	-0,87	1,11	0,54
LOT-R					
Optimism	11,56	2,02	-0,37	0,10	0,52
Pessimism	8,28	2,47	-0,02	-0,21	0,54
SWLS					
Life satisfaction	20,19	5,56	-0,63	0,26	0,75
OLQ					
Sense of coherence	130,91	19,6	-0,1	0,71	0,80

Table 2 shows that acceptable Cronbach alpha coefficients were obtained, which compare reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large portion of the variance is explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994), except for Emotional Management, Non-Verbal Emotions,

Optimism and Pessimism. It is evident from Table 2, that most of the scales of the measuring instrument have relatively normal distributions, with low skewness and kurtosis.

The product-moment correlation coefficients between emotional intelligence, optimism, satisfaction with life and sense of coherence are given in Table 3.

Table 3

Product-Moment Correlation Coefficients between the SEIS, LOTR, SWLS and SOC

Item	1	2	3	4	5	6	7	8	9	10
1. Sense of Coherence	·	·	·	·	·	·	·	·	·	·
2. Emotions Management	0,55*++	·	·	·	·	·	·	·	·	·
3. Non-Verbal Emotions	0,30*	0,30*	·	·	·	·	·	·	·	·
4. Emotions-Own	0,35*+	0,34*+	0,33*+	·	·	·	·	·	·	·
5. Happy Emotions	0,44*+	0,38*+	0,32*+	0,38*+	·	·	·	·	·	·
6. Emotions-Others	0,28*	0,26*	0,29*	0,43*+	0,43*+	·	·	·	·	·
7. Positive Affect	0,43*+	0,49*+	0,31*+	0,43*+	0,42*+	0,35*+	·	·	·	·
8. Pessimism	- 0,45*	- 0,30*	-0,26*	- 0,20*	-0,18*	- 0,18*	--0,30*	·	·	·
9. Optimism	0,45*+	0,42*+	0,21*	0,32*	0,31*+	0,14*	0,54*++	-0,25*	·	·
10. Life Satisfaction	0,53*++	0,32*+	0,23*	0,30*	0,28*	0,30*	0,29*	-0,31*+	0,33*+	·

*$p \leq 0.05$ – statistically significant

+r > 0.30 – practically significant (medium effect)

++ r >0.50 – practically significant (large effect)

Inspection of Table 3 indicated that Sense of Coherence is significantly positively related (large effect) to Emotions Management and Life Satisfaction and significantly positively related (medium effect) to Emotions-Own, Happy Emotions, Positive Affect and Optimism. Sense of Coherence is negatively related (medium effect) to Pessimism.

Emotions Management is significantly positively related (medium effect) to Emotions-Own, Happy Emotions, Positive Affect, Optimism and Life Satisfaction. Non-Verbal Emotions are significantly positively related (medium effect) to Emotions-Own, Happy Emotions and Positive Affect.

Emotions-Own is significantly positively related (medium effect) to Happy Emotions, Emotions-Others, Positive Affect and Optimism. Happy Emotions is significantly positively related

(medium effect) to Emotions-Others, Positive Affect and Optimism. Emotions-Others is significantly positively related (medium effect) to Positive Affect.

Positive Affect is significantly positively related (large effect) to Optimism. Pessimism is significantly negatively related (large effect) to Life Satisfaction. Optimism is significantly positively related (medium effect) to Life Satisfaction.

A second order factor analysis was done on the factor of the SEIS, LOT-R, SOC and SWLS. Two factors were extracted explaining 51,84% of the variance. These results were used along with the results of the product-moment correlations, to compile psychological well-being model. This model was tested with SEM analysis. These factors were named Intrapersonal and Interpersonal constructs.

Results indicated that the model did not fit the data adequately. Further modification of the model was thus required. Inspection of the Modification Indices (MI) revealed that the fit between the model and the data could be further improved if correlation was allowed between measurement errors. It is important to note that items with identical rating scales often have correlating measurement errors (Byrne, 1989). It should be noted that the second order factor analysis indicated that positive affect and emotional control loaded on positive constructs and as such can the measurement errors be allowed to correlate. This means that the fit of the proposed model can be improved if the measurement errors between positive affect and optimism (MI = 22,31) are allowed to correlate. The revised model – including covariation – shows a good fit (χ^2 = 45,601, GFI = 0,97, RMSEA = 0,55, CFI = 0,97, IFI = 0,97 and TLI = 0,96). The final model is given in Figure 1.

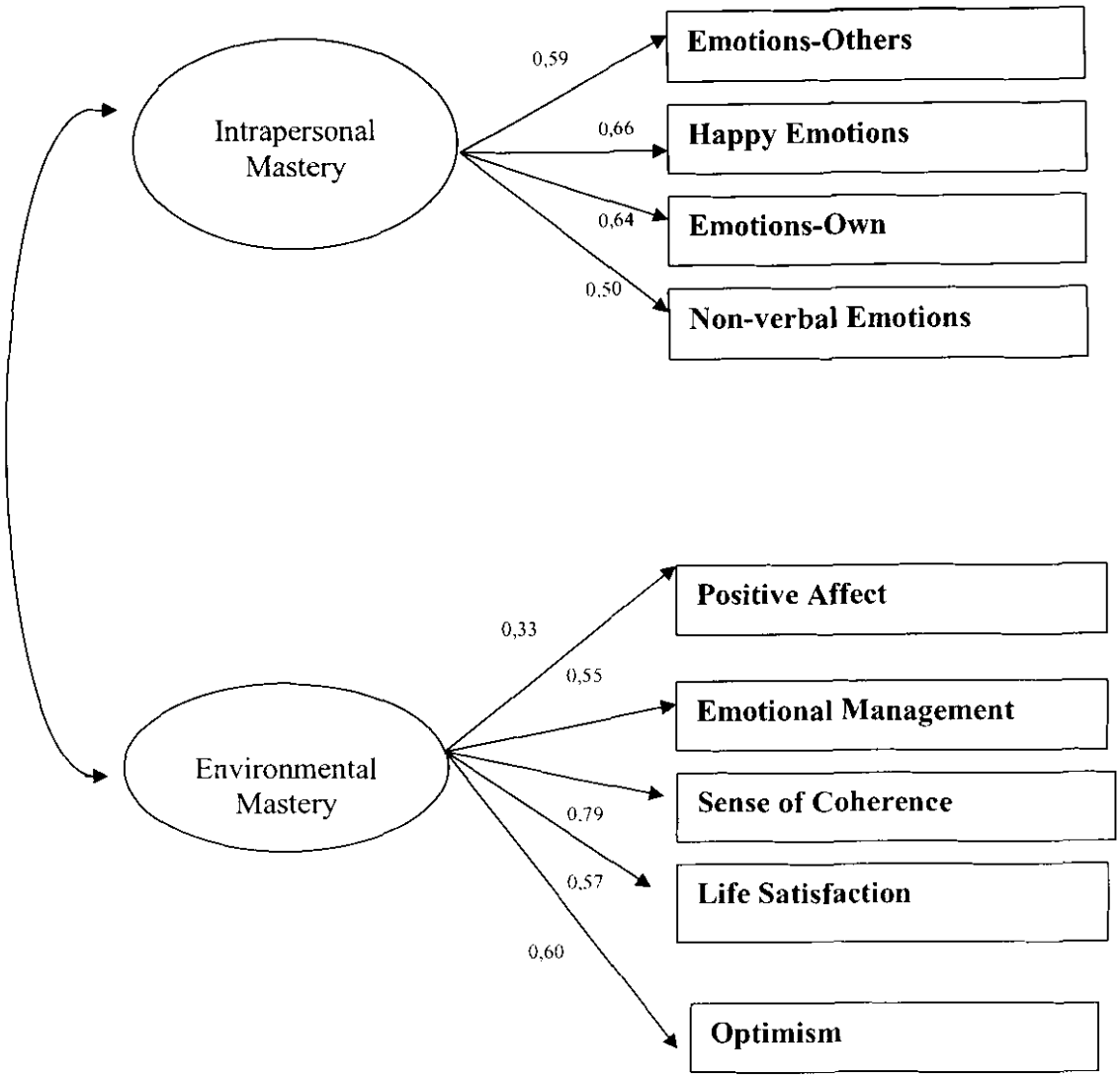

Figure 1

Psychological well-being model

As can be seen in Figure 1, Psychological well-being comprised of two factors namely: Intrapersonal Mastery and Environmental Mastery. Intrapersonal Mastery consisted of Emotions-Others, Happy Emotions, Emotions-Own and Non-verbal Emotions. Factors loading on Environmental Mastery were Positive Affect, Emotional Management, Sense of Coherence, Life Satisfaction and Optimism. This is an indication that people with emotional intelligence

competencies are able to be aware of emotions in the self (Emotions-Own) and others (Emotions-Others) and are able to perceive emotions successfully in the self (Happy Emotions) and others (Non-verbal emotions). This can lead to mastery of the intrapersonal challenges that one has to face on a day to day basis. Mastery of the intrapersonal aspects is necessary to master the environment. It seems as though the emotionally intelligent person is able to channel and foster happy emotions in order to interact positively with the environment. The psychologically well person is able to be positive about coping with stressors from the environment and can manage emotions well in the self and in others (Emotional Management). Psychological well-being also means that one is, overall, satisfied with life and is optimistic about the environment. It seems as though happiness and positiveness are crucial in order to cope with challenges in the self and the environment in order to achieve a state of psychological well-being.

DISCUSSION

A simple factor analysis was done on the SEIS. Six factors (with eigenvalues higher than 1) were extracted explaining 45,24% of the variance. These factors were labelled positive affect, emotions-others, happy emotions, emotions-own, non-verbal emotions and emotional control.

Previous research indicated a one factor (Cakan & Altun, 2005), three factor (Austin, Saklofske, Haung & Mckenny, 2004) or four factor structure (Chan, 2004) of the Emotional Intelligence Scale. The current study found a six factor structure for the Emotional Intelligence Scale.

All the instruments used in the current study were found to be reliable. It was shown that acceptable Cronbach alpha coefficients were obtained, which compares reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large portion of the variance is explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994), except for Emotional Management, Optimism and Pessimism. It is evident that most of the scales of the measuring instruments have relatively normal distribution, with low skewness and kurtosis.

Sense of Coherence was significantly positively related (large effect) to Emotions Management and Life Satisfaction and significantly positively related (medium effect) to Emotions-Own, Happy Emotions, Positive Affect and Optimism. Sense of Coherence was negatively related (medium effect) to Pessimism.

Emotions Management was significantly positively related (medium effect) to Emotions-Own, Happy emotions, Positive Affect, Optimism and Life Satisfaction. Non-Verbal Emotions was significantly positively related (medium effect) to Emotions-Own, Happy Emotions and Positive Affect.

Emotions Own was significantly positively related (medium effect) to Happy Emotions, Emotions-Others, Positive Affect and Optimism. Happy Emotions was significantly positively related (medium effect) to Emotions-Others, Positive affect and Optimism. Emotions-Others was significantly positively (medium effect) related to Positive Affect.

Positive affect was significantly positively related (large effect) to Optimism. Pessimism was significantly positively related (large effect) to Life satisfaction. Optimism was significantly positively related to Life Satisfaction (medium effect).

The findings above confirmed the expected conceptual relationship between emotional intelligence and sense of coherence. The conclusion can be drawn that individuals with emotional intelligence competencies would be better equipped to manage, make sense of and derive meaning from stimuli from internal and external environments. The management of a state of positiveness (inclusive of Happy Emotions, Positive Affect and Optimism) will influence sense of coherence in a positive way. Sense of coherence also correlated positively (large effect) with Life Satisfaction. This can be an indication that if one is, overall, satisfied with life, this state of satisfaction and positiveness contributes to a feeling that one can cope with the external environment.

After conducting a second factor analysis on the factors of the SEIS, LOT-R, SOC and SWLS, two factors were extracted, namely interpersonal and intrapersonal. Using these factors along

with the results of the product–moment correlations, a psychological well-being model was designed and compiled. The psychological well-being model consisted of intrapersonal mastery and interpersonal mastery.

The overall results indicated that students who are psychologically well possess the feeling of purpose in life, feel that life has meaning and that there is a sense of direction to life, all of which contribute to the feeling that life is meaningful (Ryff, 1989). The sense of purpose is reflected in emotionally intelligent individuals who are more likely to identify purpose and meaning in their own functioning, as opposed to less emotionally intelligent individuals who may have difficulty understanding the purpose of emotions in themselves and others (Matthews, Zeidner & Roberts, 2002).

Psychological well-being requires that one continues to develop one's potential, to grow and expand as a person (Ryff, 1989), to self-actualise (Maslow, 1968) and to be open to experience (Rogers, 1961). Emotional intelligence literature has increasingly indicated the development and growth potential of emotional intelligence (Caruso & Wolfe, 2001), implying, together with numerous benefits of being emotionally intelligent (Megerian & Sosik, 1996), that personal growth from an emotional expression, management and regulation perspective is not only possible, but highly desirable, to enhance positive psychological functioning and well-being is general as well as in the work context.

Salovey and Mayer's (1990) definition reflects the importance of an individual's adaptive coping with emotions in the self and others. Salutogenesis acknowledges that humans are continually bombarded with stressors and traumatic experiences, and that healthy psychological functioning is incorporated in one's capacity to successfully cope with these stressors on an ongoing basis. This acknowledgement of a form of adaptive coping by the salutogenic paradigm further strengthens the conceptual link between emotional intelligence, optimism, satisfaction with life and sense of coherence (Stone, 2004).

Positive Emotions serve as markers of flourishing or optimal well-being. The overall balance of people's positive and negative emotions (in this study measured by optimism and pessimism) has

been shown to predict their judgement of subjective well-being (in this study measured by satisfaction of life). This is confirmed by the findings of Diener, Sandvik and Pavot, (1991). Positive affect prompts individuals to engage with their environment and partake in activities, many of which are adaptive for the individual (Fredrickson, 2001), and this fosters coping with the environment.

RECOMMENDATIONS

The Study sample was very homogeneous. All the students in the sample were first-year students. Future studies should focus on the valuable contribution that a study can make if focused on undergraduate students, post graduate students, and entry level employees and on the impact of such information on the organisation. Larger samples should also be included in future studies. The role of happiness and positive emotions as emotional coping mechanisms should be investigated further.

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CHAPTER 3

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

In this chapter recommendations will be drawn taking into consideration the literature review and the empirical study, we will also look at the limitations of the study and recommendations will be made for future studies.

3.1 CONCLUSION

In this section conclusions will be drawn in terms of specific theoretical objectives and the results of the empirical study.
A literature study was undertaken to establish the compilation of emotional intelligence and wellness. Through broadening the knowledge, and understanding the relationship between these factors, a model could be developed to define this relationship.

The *first objective* of this study was to conceptualise psychological well-being, emotional intelligence, life satisfaction, sense of coherence, optimism, and psychological well-being, as pertaining to potential future employees in sciences professions

Psychological well-being

Psychological well-being is seen as multidimensional with regards to certain aspects of the self (Wissing & Van Eeden, 1998). Psychological well-being assists in improving an individual's quality of life and focuses on positive aspects of the self and our systems. These positive aspects can be related to the individual's feelings of contentment and satisfaction with past experiences and optimism for the future (Seligman & Csikszentmihalyi, 2000). Good indicators of psychological well-being are emotional intelligence, life satisfaction and optimism (Wissing & Van Eeden, 1998). The positive psychological paradigm helps understand the relationship between the individual and work more clearly, and more specifically, goal-orientated, structured activity, and psychological well-being (Kalloway & Barling, 1992).

Emotional intelligence

Emotional intelligence is the ability to monitor one's own and others' feelings and emotions, to discriminate amongst them and to use this information to help in the guidance of one's thinking and actions (Salovey & Mayer, 1990). When individuals know how to acknowledge and value feelings in themselves and others and what the appropriate response should be, they are using their emotional intelligence (Schutte, Malouff, Simunek, Mofikenly & Hollander, 2002). Various authors have theorised that high emotional intelligence would lead to greater feelings of emotional well-being (Goleman, 1995; Salovey & Mayer, 1990; Salovey, Mayer, Goldman, Turvey & Palfai, 1995).

Life Satisfaction

Life satisfaction is a state of mind; the way a person evaluates his/her aspirations (Saris, Veenhoven, Scherpenzeel & Bunting, 1996). Cramer (1995) defined life satisfaction as an assessment of the overall conditions of existence as derived from a comparison of the individual's aspiration to his/her actual achievement. More so life satisfaction appears to be moderately influenced by life events (Ash & Huebner, 2001; McCullough, Huebner & Laughlin, 2000). Life events can play an integral part in an individual's life satisfaction, whether positive or negative (Heady & Wearing, 1989).

Sense of Coherence

Sense of coherence is defined as global orientation that expresses the extent to which one has a pervasive, enduring though dynamic, feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected (Antonovsky, 1988).

Life experiences, positive or negative, play an important role in the development of individuals' sense of coherence. Sense of Coherence is the individual's ability to cope with stimuli from both external and internal environments, to see demands and challenges and to use the available resources (Ryff & Singer, 1996; 1998).

Optimism

Individuals that see the brighter side of situations are seen as optimistic (Bar-On, 1997). Through being optimistic, no matter what the situation, the individual will develop a measure of hope; this will help the individual cope with certain life events (Bar-On, 1997). Optimism is seen as a sort of psychological resistance factor that is more related to positive outcomes (Ebert, Tucker & Roth, 2002).

Emotional intelligence, life satisfaction, sense of coherence and optimism, can all be linked to each other and psychological wellness. An individual with high emotional intelligence, life satisfaction, cense of coherence and optimism will generate a high level of psychological wellness/well-being. This can be found throughout the literature study, all of the above is linked to the wellness of an individual.

The *second objective* of this study was to determine the validity and reliability of measurements of emotional intelligence, optimism, life satisfaction and sense of coherence. Regarding emotional intelligence, previous research indicated a one factor (Cakan & Altun, 2005), three factor (Austin, Saklofske, Haung & McKenny, 2004) or four factor structure (Chan, 2004) of the Emotional Intelligence Scale. The study done on a sample of South African students resulted in a confirmation of a six-factor structure; this may be due to the fact that validation of the measurement instrument differs from population to population. The Validity analysis revealed that all the alpha scores were relatively acceptable. A conclusion can be made that SEIS, a six-factor model, as developed in this research, is a reliable and valid measuring instrument for students.

Regarding Optimism, Life orientation Test –Revised was developed by Scheier, Carver and Bridges (1994): a ten-item measure used to measure dispositional optimism. Optimism and pessimism were seen to underlie the original two factor LOT-R. With an acceptable alpha value as well as an adequate mean we can confirm the reliability and validity of this measuring instrument.

The Satisfaction with Life Scale, a five-item instrument, was developed by Diener, Emons, Larsen and Griffen (1985) to measure global cognitive judgments of one's life. The factor analysis of the SWLS resulted in a single factor; this is consistent with the developers of this instrument. This instrument is also shown to be valid and reliable.

The Orientation to Life Scale was developed by Antonovsky (1993) to measure the extent to which a person has a pervasive, enduring and dynamic feeling of certainty that looks at the following components: Comprehensibility, Manageability and Meaningfulness. With an acceptable alpha coefficient, the reliability and validity of this measuring instrument can be confirmed.

The *third objective* of this study was to determine the relationship between emotional intelligence, optimism, life satisfaction and sense of coherence.

The results indicated that Sense of Coherence was significantly positively related (large effect) to Emotions Management and Life Satisfaction and significantly positive related (medium effect) to Emotions-Own, Happy Emotions, Positive Affect and Optimism. Sense of Coherence was negatively related (medium effect) to Pessimism.

Emotions Management was significantly positively related (medium effect) to Emotions-Own, Happy Emotions, Positive Affect, Optimism and Life Satisfaction. Non-Verbal Emotions was significantly positively related (medium effect) to Emotions-Own, Happy Emotions and Positive Affect.

Emotions-Own was significantly positively related (medium effect) to Happy Emotions, Emotions-Others, Positive Affect and Optimism. Happy Emotions was significantly positively related (medium effect) to Emotions-Others, Positive affect and Optimism. Emotions-Others was significantly positively related (medium effect) to Positive Affect.

Positive Affect is significantly positively related (large effect) to Optimism. Pessimism is significantly positively related (large effect) to Life Satisfaction. Optimism is significantly positively related to Life Satisfaction (medium effect).

The *fourth objective* of this study was to determine a structural model of psychological well-being after conducting a second factor analysis on the factors of the SEIS, LOT-R, SOC and SWLS. Two factors were extracted, namely interpersonal and intrapersonal. Using these factors along with the results of the product–moment correlations, a psychological well-being model was designed and compiled. The psychological well-being model consisted of intrapersonal mastery and environmental mastery. Intrapersonal mastery consisted of Emotions-Others, Happy Emotions, Emotions Own and Non-verbal Emotions. Factors loading on Environmental Mastery were Positive Affect, Emotional Management, Sense of Coherence, Life Satisfaction and Optimism.

3.2 LIMITATIONS

This study however also has some limitations that should be considered. With the use of the cross-sectional design couldn't causal inferences be drawn, so the causal relationships between the variables were interpreted rather than established. It made it difficult to examine the more complex relationships between the variables. A further limitation of the cross-sectional design is the short period of time needed to gather information. If more time were available, could it have been possible to study the inter-correlations between the variables more thoroughly and in-deptly. Prospective longitudinal studies and quasi-experimental research designs are needed to further validate the hypothesised causal relationship, and thus deal with the limitation set by using a cross-sectional design.

The study was also conducted on students and the results obtained can't therefore be generated to the whole public. This research was conducted in a homogenous sample consisting of individuals from a specific field of study, namely economic sciences with the majority of accounting students.

3.3 RECOMMENDATIONS

3.3.1. Recommendations for the Organisation

- Once organisations determine the level of emotional intelligence and well-being of future and current employees, interventions should be implemented to increase work engagement and, as a result, increase the well-being, performance and work productivity of their employees.

- From the literature it is evident that psychological well-being and emotional intelligence are related (Seligman & Csikszentmihalyi, 2000). Wellness programs often help prevent employees from getting sick, missing work and burning out from job related stress. They also assist individuals with their physical, material, mental and spiritual evolution. Health promotion in the workplace not only ensures a healthy worker, but also a healthier worker that contributes to work productivity (O'Donnell & Harris, 1984).

3.3.2 Recommendations for Future Research

- Future research should focus on final year students and employees entering the workforce; to determine what impact their emotional intelligence will have on their over-all psychological well-being.
- Further studies should be done to determine the difference between the relationship of emotional intelligence and psychological well-being of final year students and new employees who have 6 months working experience.
- This study can be repeated in the organisation, focusing on current employees and their psychological well-being.
- More research should be done to determine what other factors may influence well-being and what factors underlie life satisfaction, optimism and sense of coherence.
- A comparative and cross-culture study should be done on optimism, life satisfaction and sense of coherence within different occupations and sectors.

- Future research should be done on the validity of measures within the diverse culture setting of the South African context.
- Research should be done to investigate the role of the happiness factor in psychological well-being

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