

**THE RELATIONSHIP BETWEEN THE EMOTIONAL  
INTELLIGENCE AND JOB PERFORMANCE OF CALL  
CENTRE LEADERS**

by

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## **DECLARATION**

I declare that this dissertation is my own work. It has not been submitted before for any degree or examination at this or any other university.

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**ABSTRACT**

The purpose of this study was to determine whether there is a relationship between perceived emotional intelligence and job performance among inbound call centre leaders in the medical aid environment. The sample consisted of 268 participants (45 leaders and 223 raters) across different age and race groups. A convenience sample was used, since it was easier to focus on call centre leaders working in the same office. All of the participants completed the 360° Emotional Competency Profiler (ECP) in order to measure emotional intelligence whereas the job performance data were obtained from the management team and an average score of their performance over a one-year period was examined. The research results show that there was no statistically significant relationship between emotional intelligence and job performance among the call centre leaders.

**KEY TERMS**

Emotional intelligence, job performance, leaders

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**TABLE OF CONTENTS**

	<b>PAGE</b>
Title page	i
Declaration	ii
Abstract	iii
Acknowledgements	iv
Table of contents	v
List of tables	x
List of figures	x
<b>CHAPTER 1</b>	
<b>INTRODUCTION TO AND OVERVIEW OF THE STUDY</b>	<b>1</b>
<b>1.1 BACKGROUND</b>	<b>1</b>
<b>1.2 PROBLEM STATEMENT</b>	<b>3</b>
<b>1.2.2 Research question</b>	<b>4</b>
<b>1.3 RESEARCH AIM</b>	<b>4</b>
<b>1.4 THE PARADIGM PERSPECTIVE</b>	<b>5</b>
<b>1.5 RESEARCH DESIGN</b>	<b>6</b>
<b>1.5.1 Research variables</b>	<b>6</b>
<b>1.5.2 Type of research</b>	<b>7</b>
<b>1.5.3 Unit of analysis</b>	<b>7</b>
<b>1.5.4 Methods to ensure reliability and validity</b>	<b>7</b>
<b>1.5.5 Methods to ensure adherence to ethical research principles</b>	<b>7</b>
<b>1.6 RESEARCH METHOD</b>	<b>8</b>
<b>1.6.1 The literature review</b>	<b>8</b>
<b>1.6.2 The empirical study</b>	<b>8</b>
<i>1.6.2.1 Population and sample</i>	<i>8</i>
<i>1.6.2.2 Measuring instruments</i>	<i>9</i>
<i>1.6.2.3 Data collection</i>	<i>9</i>

1.6.2.4	<i>Data processing</i>	9
1.6.2.5	<i>Hypotheses</i>	10
1.6.2.6	<i>Results</i>	10
<b>1.6.3</b>	<b>Conclusions, limitations and recommendations</b>	11
<b>1.7</b>	<b>CHAPTER LAYOUT</b>	11
<b>1.8</b>	<b>CONCLUSION</b>	12
<b>CHAPTER 2</b>		
<b>EMOTIONAL INTELLIGENCE</b>		13
<b>2.1</b>	<b>INTRODUCTION</b>	13
<b>2.2</b>	<b>DEFINITIONS</b>	13
<b>2.2.1</b>	<b>Emotions</b>	13
<b>2.2.2</b>	<b>Intelligence</b>	14
<b>2.2.3</b>	<b>Emotional intelligence</b>	15
<b>2.3</b>	<b>HISTORICAL DEVELOPMENT</b>	16
<b>2.4</b>	<b>EI MODELS</b>	18
<b>2.4.1</b>	<b>Ability-based EI</b>	18
2.4.1.1	<i>Salovey, Mayer and Caruso</i>	18
<b>2.4.2.</b>	<b>Trait-based EI</b>	19
2.4.2.1	<i>Bar-On</i>	19
2.4.2.2	<i>Goleman</i>	22
2.4.2.3	<i>Wolmarans</i>	24
<b>2.5</b>	<b>MEASURING EI</b>	25
<b>2.5.1</b>	<b>Measurement of ability-based EI</b>	26
2.5.1.1	<i>Mayer-Salovey-Caruso Emotional Intelligence Test V2.0 (MSCEIT V2.0)</i>	26
<b>2.5.2</b>	<b>Measurement of trait-based EI</b>	28
2.5.2.1	<i>Emotional Quotient Inventory (EQ-i)</i>	28
2.5.2.2	<i>The Emotional Competency Inventory (ECI)</i>	30
2.5.2.3	<i>360° Emotional Competency Profiler: South African emotional intelligence measure</i>	30

<b>2.6</b>	<b>EI AND LEADERSHIP</b>	32
<b>2.7</b>	<b>CONCLUSION</b>	33
<b>CHAPTER 3</b>		
<b>JOB PERFORMANCE</b>		
		35
<b>3.1</b>	<b>INTRODUCTION</b>	35
<b>3.2</b>	<b>JOB PERFORMANCE</b>	35
<b>3.2.1</b>	<b>Dimensions and criteria of job (work) performance</b>	37
<b>3.2.2</b>	<b>Systems approach to work performance</b>	37
<b>3.2.3</b>	<b>Purpose of work performance assessment</b>	39
<b>3.2.4</b>	<b>Typical versus maximum performance</b>	39
<b>3.3</b>	<b>ORGANISATIONAL PERFORMANCE</b>	40
<b>3.4</b>	<b>INDIVIDUAL PERFORMANCE</b>	41
<b>3.4.1</b>	<b>Factors affecting individual performance</b>	41
<b>3.5</b>	<b>PERFORMANCE MANAGEMENT AND MEASUREMENT</b>	42
<b>3.5.1</b>	<b>Performance management</b>	42
<i>3.5.1.1</i>	<i>Performance management system</i>	43
<i>3.5.1.2</i>	<i>Elements of an effective performance management system</i>	44
<b>3.5.2</b>	<b>Performance measurement</b>	45
<i>3.5.2.1</i>	<i>The balanced scorecard and work performance</i>	46
<i>3.5.2.2</i>	<i>The pyramid of work performance</i>	46
<i>3.5.2.3</i>	<i>Total quality management (TQM)</i>	48
<i>3.5.2.4</i>	<i>Integrated performance measurement</i>	48
<b>3.6</b>	<b>THE RELATIONSHIP BETWEEN JOB PERFORMANCE AND EI OF LEADERS</b>	49
<b>3.6.1</b>	<b>Studies on the relationship between EI and job performance</b>	50
<b>3.6.2</b>	<b>Compensatory model of emotional and cognitive intelligence and job performance</b>	52
<b>3.7</b>	<b>CONCLUSION</b>	53

<b>CHAPTER 4</b>	
<b>RESEARCH METHODOLOGY</b>	<b>54</b>
<b>4.1 INTRODUCTION</b>	<b>54</b>
<b>4.2 OBJECTIVES OF THE STUDY</b>	<b>54</b>
<b>4.3 SAMPLING DESIGN</b>	<b>54</b>
<b>4.3.1 Population and sample</b>	<b>55</b>
<b>4.3.2 Sampling technique</b>	<b>55</b>
<i>4.3.2.1 Nonprobability sampling</i>	<i>55</i>
<i>4.3.2.2 Probability sampling</i>	<i>56</i>
<b>4.4 DATA COLLECTION METHOD</b>	<b>56</b>
<b>4.4.1 The ECP as measuring instrument</b>	<b>57</b>
<i>4.4.1.1 Description of the ECP</i>	<i>57</i>
<b>4.4.2 Procedure</b>	<b>59</b>
<b>4.4.3 Data processing</b>	<b>59</b>
<b>4.4.4 Descriptive statistics</b>	<b>60</b>
<b>4.5 CONCLUSION</b>	<b>60</b>
<b>CHAPTER 5</b>	
<b>RESEARCH RESULTS AND FINDINGS</b>	<b>61</b>
<b>5.1 INTRODUCTION</b>	<b>61</b>
<b>5.2 OBJECTIVES</b>	<b>61</b>
<b>5.3 RESPONSE RATE</b>	<b>61</b>
<b>5.4 BIOGRAPHICAL DATA</b>	<b>62</b>
<b>5.4.1 Gender distribution of the leader sample</b>	<b>62</b>
<b>5.4.2 Ethnic distribution of the leader sample</b>	<b>63</b>
<b>5.4.3 Job level distribution of the sample</b>	<b>63</b>
<b>5.5 DESCRIPTIVE RESULTS</b>	<b>64</b>
<b>5.5.1 Means, standard deviation, minimum and maximum scores for the dimension of EI</b>	<b>64</b>



5.5.1.1	<i>Emotional literacy</i>	67
5.5.1.2	<i>Self-esteem</i>	67
5.5.1.3	<i>Self-management</i>	68
5.5.1.4	<i>Self motivation</i>	68
5.5.1.5	<i>Change resilience</i>	69
5.5.1.6	<i>Interpersonal relations</i>	69
5.5.1.7	<i>Integration of head and heart</i>	70
<b>5.6</b>	<b>HYPOTHESES</b>	73
<b>5.6.1</b>	<b>Hypothesis 1</b>	73
<b>5.6.2</b>	<b>Hypothesis 2 and hypothesis 3</b>	74
<b>5.7</b>	<b>CONCLUSION</b>	77
<b>CHAPTER 6</b>		
<b>CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS</b>		78
<b>6.1</b>	<b>INTRODUCTION</b>	78
<b>6.2</b>	<b>CONCLUSIONS</b>	78
<b>6.2.1</b>	<b>Literature review conclusions</b>	78
<b>6.2.2</b>	<b>Empirical study conclusions</b>	79
<b>6.3</b>	<b>LIMITATIONS</b>	80
<b>6.3.1</b>	<b>Literature review limitations</b>	80
<b>6.3.2</b>	<b>Empirical study limitations</b>	80
6.3.1.1	<i>Dependent variable limitations</i>	81
6.3.1.2	<i>Extraneous variables</i>	81
6.3.1.3	<i>Raters (quantity and variety)</i>	81
<b>6.4</b>	<b>RECOMMENDATIONS</b>	82
<b>6.4.1</b>	<b>Recommendations for the company</b>	82
<b>6.4.2</b>	<b>Recommendations for future studies</b>	82
<b>REFERENCES</b>		84

## LIST OF FIGURES

<b>FIGURE</b>	<b>PAGE</b>
3.1 Work performance as an open system	38
3.2 Performance pyramid	47
3.3 The mean current emotional intelligence (self rating)	71
3.4 The mean current emotional intelligence (raters)	71
3.5 The mean emotional intelligence: importance (self rating)	72
3.6 The mean emotional intelligence: importance (raters)	72

## LIST OF TABLES

<b>TABLE</b>	<b>PAGE</b>
2.1 Bar-On composite scales and subscales	29
2.2 Reliability values for ECP EI dimensions	31
3.3 Job performance dimensions	36
5.1 Response rate	62
5.2 Gender distribution of the leader sample	62
5.3 Ethnic distribution of the leader sample	63
5.4 Job level distribution of the sample	63
5.5 Descriptive analysis of data	65
5.6 Pearson's correlation matrix of EI dimensions versus job performance	75

## **CHAPTER 1**

### **INTRODUCTION TO AND OVERVIEW OF THE STUDY**

#### **1.1 BACKGROUND**

The world of work is changing rapidly on a daily basis as are the companies and people who work for them. Increasing technological change, competition, globalisation, the expansion of the service sector and delivery speed, go hand in hand with increasing performance demands. To deliver outstanding performance employees today are required to be much more involved in their work, not only physically, but also emotionally and mentally (Turner, Barling & Zacharatos, 2002). In order to survive and to retain a competitive edge, organisations put constant pressure on their employees to perform. This pressure is clearly evident within the call centre environment where the need for delivery, speed and customer satisfaction is enormous.

Call centres worldwide have experienced an increasing need for fast turnaround and excellent quality of service (Cox, 1999; Nel & De Villiers, 2004; Queck, 1999; Williams, 2000). Call centres can be described as a setting in which, in order to acquire new business or retain the current relationship, telephones are used to provide telephonic customer services (solving queries or making sales) instead of meeting a person face to face. Nell and De Villiers (2004) said that previous studies conducted in the call centre environment indicated that there is a positive relationship between job performance and emotional intelligence. This study will investigate these findings in the South African context, with a sample of call centre leaders.

Emotional intelligence (EI) as a concept has only received noteworthy attention in the past decade but the traces of concepts relating to it were already discussed as early as the 1920s. According to Goleman (2000), in the 1920s Thorndike became the first psychologist to explore social intelligence, which with time and additional information became known as emotional intelligence. The focus on emotional intelligence started in 1990, when Salovey and Mayer came up with their theory of EI (Goleman, 2000). The public became widely aware of the concept in 1995 after the publication of Goleman's book on the subject (Geher & Renstrom, 2004). The main interest in EI emanated from an increasing awareness that it has an impact on job performance, subjective well-

being, motivation and many other areas of one's life (Bar-On, 2007). EI is important in the work context and should therefore be the focus of any competitive company (Bar-On, 2007). The history of how the concept of emotional intelligence evolved will be addressed in more detail in chapter 2.

Research worldwide and across different industries indicates that top performers can be differentiated from average ones by taking cognisance of their emotional intelligence (Bliss 2000; Cavallo, 2000; Strickland, 2000). According to Colvin (1999) those who are emotionally intelligent follow their values and believe in continuous learning and focus on instilling vision. The importance of emotional intelligence, its direct positive relationship with job performance and its predictive validity regarding future performance (Drucker, 1996; Hooper & Potter, 2000; Nel & De Villiers, 2004; Weisinger, 1998) drove research efforts and encouraged debates on the topic both worldwide and in South Africa. There are two main models of emotional intelligence (Petrides & Furnham, 2000) the ability-based emotional intelligence model (Mayer, Salovey & Caruso, 2000) and the trait-based (mixed) emotional intelligence model (Bar-on, 2005; Goleman, 2000), which was used in this study.

The original ability-based emotional intelligence model (which combines social intelligence and constructive thinking in order to arrive at EI) was first developed by Salovey and Mayer in 1990 (Mayer & Salovey, 1997; Salovey & Mayer, 1990). It describes emotional intelligence as the ability to process emotions efficiently and to use the processed information for oneself and in understanding and dealing with others (Mayer & Salovey, 1995; Salovey & Mayer, 1990). It focuses on the cognitive aptitudes of the individual which can be measured by means of performance-based tests such as MSCEIT (Mayer-Salovey-Caruso Emotional Intelligence Test) (Pérez, Petrides & Furnham, 2005). This model will be further discussed in chapter 2.

The trait-based emotional intelligence model developed by Bar-On is based on a mixture of personal abilities combined with list of personality characteristics (Bar-On, 2007; Vitello-Cicciu, 2002). Bar-on (2007) defines emotionally and socially intelligent people in terms of their ability to recognise and communicate their own emotions and understand others' emotions in order to cope with their lives. Trait-based emotional intelligence can only be measured by the use of personality questionnaires because it is based on self-perception (Petrides, Pita & Kokkinaki, 2007).

Some of the qualitative research results show that selection decisions based purely on cognitive ability, ignoring emotional intelligence, may result in poor decisions (Goleman, 2000; Mikolajczak, Luminet, Leroy & Emmanuel, 2007). Both models discussed above were created on the assumption that cognitive ability (IQ) is not the sole, or even most significant, predictor of success (Mikolajczak, *et al.*, 2007).

Thus far, limited research has been conducted in South Africa on the measurement of the relationship between job performance and emotional intelligence of call centre leaders by using the 360° Emotional Competence Profiler (ECP) (Wolmarans & Martins, 2001). The most widely used tools measuring EI are the MSCEIT, the Emotional Competence Inventory (ECI) and the Bar-On Emotional Quotient Inventory (EQ-i) (Bar-on, 2007) and the majority of the quantitative research on EI in South Africa has been conducted using one of those tools (Herbst, 2003; Herbst & Maree, 2008; Murphy, 2008; Venter, 2006). The ECP was developed in South Africa to measure emotional intelligence in the work context (Coetzee, Martins, Basson & Muller, 2006) and this is one of the reasons why it was used in this study. This study will also add to the existing research conducted on the ECP and the relationship between the job performance and emotional intelligence of leaders.

## **1.2 PROBLEM STATEMENT**

There is an increasing need for call centres in today's client-driven competitive market. Elevated standards, increasingly high performance speed and quality pressure result in call centres' high turnover, and absenteeism and employees' burnout (Hauptfleisch & Uys, 2006), which in turn can be linked to job fit (or lack of it). Research results have shown that job performance is positively related to emotional intelligence (especially to the self- management construct) (Nel & De Villiers, 2004). Problems such as turnover, absenteeism and burnout may be reduced by selecting individuals with higher emotionally intelligence to fulfill roles or by developing the emotional intelligence of current employees and especially leaders (Nel & De Villiers, 2004).

Leaders who possess emotional intelligence can easier guide own behaviours and thinking processes to achieve results (Caruso, Mayer & Salovey, 2002). Emotional intelligence is crucial especially for leaders; it helps the leaders to motivate the team and achieve company's objectives through superior performance of the team.

Emotional intelligence develops throughout one's life and can be increased through training (Coetzee *et al.*, 2006). It is therefore in the best interest of any company to measure current levels of EI amongst their staff, not only to plan for future selection but to pinpoint the most suitable employees for succession planning and to spot those who need to develop their overall emotional intelligence to improve their performance.

### **1. 2.1 Research question**

The research question formulated for this study is as follows:

Is there a statistically significant positive relationship between emotional intelligence traits (as rated by the self and others) and the job performance of call centre leaders in a medical aid administration company?

### **1. 3 RESEARCH AIM**

Based on the above research question the study focused on a specific research aim.

The aim was to conduct a detailed literature review focusing on the concepts of emotional intelligence, call centres and job performance in order to provide detailed information on the variables in question and on the previous research which focused on the relationship between the EI and job performance of leaders. Previous research findings will be discussed in order to highlight the impact of biographical factors on EI.

The general empirical objective of this research was to determine whether there is a significant relationship between the different traits of emotional intelligence and job performance of call

centre leaders in a medical administration call centre environment. Furthermore, the aim was to pinpoint the specific EI traits that are most significant in job performance in this environment. Although some biographical data were gathered such as gender and ethnic origin, for the purpose of this study those factors were not used for the analysis. Factors such as gender and ethnic origin were not the main focus of the study therefore to keep the focus of the main aim of the study this was not considered.

The limitations will be discussed and on the basis of these, recommendations will be made for future research in this field.

#### **1.4 THE PARADIGM PERSPECTIVE**

Because of its impact on job performance, decision-making processes and interpersonal relations, emotional intelligence is highly significant for organisational psychology, especially in personnel issues (such as recruitment or promotion) and career counselling. According to Goleman (2001a), emotional intelligence is critical in decision making and plays a significant role in shaping people's behaviours (which result in task performance). Emotions have the power to motivate, regulate one's actions and control one (Brown, Gregory- Curran & Smith, 2003). Understanding such phenomena is therefore critical because of their significant implications.

From the perspective of the humanistic existential approach, everyone has the potential to grow and develop. Assessing one's emotional intelligence and presenting the findings affords one an opportunity to engage in self-exploration which may potentially lead to self-growth and self-actualisation and indirectly lead to improved job performance. In order to support this argument Carl Rogers' theory of self-concept was explored. People who are emotionally intelligent are able to process information logically, cognitively and efficiently, and on the basis of this, make informed decisions and manage themselves (Coetzee *et al.*, 2006). EI has an impact on every aspect of one's life (private and professional) and impacts on communication and interpersonal competencies as well as career decision-making processes and behaviours.

In order to illustrate the relationship between the job performance and EI, a study of Spencer and Spencer (1993) was consulted as well as Gardner's (1983) theory of interpersonal and intrapersonal intelligence. Concepts such as personality and motivation, which have an impact on job performance apart from EI, will also be discussed. To grasp the implications and explore EI's potential use in the organisational setting one needs to look at the two main models of EI, that is, Salovey and Mayer's (1995; 2000) ability-based emotional intelligence and Bar-On's (1997; 2005; 2007) trait-based emotional intelligence. Ability-based EI can be determined by using psychometric tools, whereas trait EI, which is based on self perceptions (such as self-efficacy or self-esteem), can only be determined by self-report (Mikolajczyk *et al.*, 2007).

The aim of this humanistic study was to investigate whether there is a statistically significant relationship (correlation) between the job performance and trait-based EI of call centre agents by using the ECP and performance appraisal ratings. The decision to use the ECP was driven by the fact that it is a South African instrument and through previously conducted studies it has been shown to be valid and reliable (Wolmarans & Martins, 2001).

## **1.5 RESEARCH DESIGN**

### **1.5.1 Research variables**

This research deals with the relationship between an independent variable (also known as a predictor variable) and a dependent variable. The dependent variable measures the consequences of the independent variable being studied (Mouton & Marais, 1992).

In this study, the independent variable was EI and dependent variable, job performance.

The purpose of the study was to determine whether the independent variable (EI) is significantly positively related to the dependent variable (job performance).



### **1.5.2 Type of research**

Since the purpose of this study was to identify whether there is a statistically significant relationship between two variables, descriptive research was used. The research design was a quantitative non-experimental correlational study.

### **1.5.3 Unit of analysis**

While measurement is done at an individual level the unit of analysis (correlational analysis) is based on group results.

### **1.5.4 Methods to ensure reliability and validity**

To ensure the reliability and validity of the study, EI was measured using a valid and reliable instrument (ECP) (Wolmarans & Martins, 2001). To ensure the statistical and practical significance of the correlation results, the probability value  $p \leq 0,05$  (at 95%) was evaluated. The results of this study will be compared to other relevant research findings in chapter 5.

### **1.5.5 Methods to ensure adherence to ethical research principles**

The participants were provided with an explanation of the nature of the study, its purpose and the use of the results. To ensure that the research was conducted ethically all the participants were required to give their verbal or written consent to the researcher. Each participant received a developmental feedback report after the testing in order to contribute towards their self-development. Overall feedback was also presented to the executive team.

## **1.6 RESEARCH METHOD**

This study consists of a literature review and an empirical study. In the literature review, three main concepts are discussed, that is, EI, job performance and leadership (especially in a call centre environment).

The second part deals with the empirical study in which the measuring instrument, population, sample, hypothesis, and data collection and interpretation issues are discussed as well as the limitations of the study and recommendations for future research.

### **1.6.1 The literature review**

Firstly, EI is defined and the various models of EI and research findings discussed in terms of the relevance of EI in the workplace, globally and specifically in South Africa. The trait emotional intelligence concept is discussed in terms of the six subscales, namely, well-being, self control, emotionality, sociability, self motivation and adaptability.

Secondly, job performance is discussed in general, with specific reference to leaders and in a call centre context. The researcher also considered other concepts that may influence job performance.

Thirdly, the focus is on the relationship between EI and leaders' job performance, its importance in South Africa as well as the performance criteria required of successful leaders.

### **1.6.2 The empirical study**

#### *1.6.2.1 Population and sample*

The population comprised 2000 employees at a Johannesburg-based medical aid administration company.

Only 268 people were targeted out of the population of 2000 therefore the sample consisted of 268 participants (45 leaders and 223 raters) across different age and ethnic groups. An availability

sample was used, since it was easier to concentrate on call centre leaders working in the same office.

#### *1.6.2.2 Measuring instruments*

To determine EI the 360° Emotional Competency Profiler was used. It is a multi-rater assessment tool designed to measure trait-based EI in the work context. ECP divides emotional intelligence into seven competencies (Coetzee, 2005) which will be discussed in detail at a later stage.

Job performance was measured in terms of the criteria set out for the annual job appraisals, including product knowledge, team performance and productivity. In the study the overall job performance rating was used since it is the only information which was made available to the researcher by the company. Monthly appraisals were used to determine incentives for the leaders and were accepted by both management and the union.

#### *1.6.2.3 Data collection*

Data were collected through the administration of a paper-and-pencil version and an electronic version of the questionnaire, which comprises a self-administered forced-choice questionnaire in which participants had to respond to statements on a seven-point Likert scale.

The company provided the job performance data for the call centre leaders. Performance records were kept on each employee and the researcher obtained the average performance ratings of each participant over a period of one year. In instances where a participant had not yet been with the company for a period of one year, the average of the period he or she had been with the company was considered.

#### *1.6.2.4 Data processing*

All the questionnaires were scored by the test developer (using the specific software) and the raw scores and stanines made available to the researcher.

Pearson correlation coefficient statistical analysis was conducted to determine the correlation between the overall EI and job performance.

Since the research focused on the relationship between the variables, it was a correlational study and the whole sample group was therefore used for reporting on the results of the study.

#### *1.6.2.5 Hypotheses*

##### **Hypothesis 1**

There is a statistically significant positive correlation between the overall EI and job performance of call centre leaders.

##### **Hypothesis 2**

There is a statistically significant positive correlation between different dimensions of an individual's own perception of his or her EI and the job performance of the call centre leaders.

##### **Hypothesis 3**

There is a statistically significant positive correlation between different dimensions of other raters' perception of the leaders' EI and the job performance of the call centre leaders.

#### *1.6.2.6 Results*

The EI scores were compared with the job performance scores by conducting a correlational study. The relationship between EI and job performance was analysed by examining the whole sample. The relationship between EI and job performance was determined using the total EI score self-rating and others' ratings. The results were further compared to those of other similar past correlational studies in order to support the study and evaluate the results.

### **1.6.3 Conclusions, limitations and recommendations**

In chapter 5, the outcome of the study will be discussed in terms of each hypothesis. Possible reasons for the results will be provided. Chapter 6 will deal with the limitations of the study and make recommendations for future research needs will be made.

The anticipated limitation to the study was that because a convenience sample was used, the results could not be generalised across the whole population or even to the outbound call centre leaders in general.

## **1.7 CHAPTER LAYOUT**

- **Chapter 2**

Chapter 2 comprises of a literature review on the first variable, EI. Two different models are discussed as well as research findings on EI both globally and in the South African context. The discussion is focused on EI and its relationship with job performance in general.

- **Chapter 3**

This chapter focuses on the issue of job performance in general amongst leaders and specifically in the call centre environment. The emphasis is on different theories on the variables that have an impact on job performance, specifically among leaders.

- **Chapter 4**

Chapter 4 presents the research methodology used in the study. The aspects that are included are sampling, measuring instruments, hypotheses, data collection and processing, results and other relevant issues.

- **Chapter 5**

This chapter deals with the research results and findings. All results are presented, discussed and analysed in detail.

- **Chapter 6**

The last chapter concludes the project. Recommendations for future research efforts are made and the limitations of the research highlighted.

## **1.8 CONCLUSION**

This chapter stated the aim, background to, focus of the study, hypotheses and rationale for the study. It also indicated the layout of this research study and predicted limitations. Chapter 2 focuses on the first aspect of the literature review, namely EI.

## CHAPTER 2

### EMOTIONAL INTELLIGENCE

#### 2.1 INTRODUCTION

In this chapter the concept of emotional intelligence (EI) is discussed. Firstly, before presenting the history of the development of the concept and emotional intelligence models, the definitions of emotions and intelligence will be discussed. Thereafter, before concluding the chapter, the measurement of EI will be explained with the focus on the Emotional Competency Profiler (ECP).

#### 2.2 DEFINITIONS

Up to the 1970s, emotions and intelligence were treated and studied as separate concepts. The concept of EI received more attention after increased interest being shown in the impact of emotions on thought process (Mayer, 2001).

##### 2.2.1 Emotions

There is considerable confusion surrounding the definition of emotions (Gross, 1999; Mayer, Salovey, Caruso & Sitarenios, 2001). Many psychologists prefer using the term “emotion” instead of “feeling” because it is perceived to be more objective on account of its biological foundation (Wierzbicka, 1999). Rosaldo (1984, p. 143) believes that “emotions are thoughts somehow ‘felt’ in flushes, pulses, ‘movements’ of our livers, minds, hearts, stomachs, skin. They are embodied thoughts.” Because of the difficulties surrounding the definition of emotions, and its vague and cultural nature, Russell and Barchard (2002) define it by subdividing it into five components:

- (1) **Objectless affect** is described as “Primitive affective feelings ... not necessarily associated with a particular object” (Russell & Barchard, 2002, p. 365).
- (2) **Attributed affect** is defined as “Objectless affect that has been linked to a specific object” (Russell & Barchard, 2002, p. 365). This refers to feeling as a reaction to an event such as feeling angry after a fight.

- (3) **Emotional behaviour** is defined as “any overt activity (instrumental, expressive, physiological) associated with objectless affect or attributed affect” (Russell & Barchard, 2002, p. 365). A hand movement and body language, for instance, would represent emotional behaviour.
- (4) **Perception of affective quality** refers to the ability of a specific object or situation to cause a particular feeling (Russell & Barchard, 2002).
- (5) **Emotional episode** is defined as the “co-occurrence of the above-listed events: Objectless affect attributed to an object (constituting attributed affect) with the object perceived in terms of affective quality and with emotional behaviour directed at the object” (Russell & Barchard, 2002, p. 365).

Emotions subsist in a context, they are related to the situation, and one’s goals, needs and wants. In the work context, there are three main reasons why emotions are important: they motivate a person to act, they control one’s actions, and lastly, they play a role in career development (Brown *et al.*, 2003). Emotions also influence decision making, be it career-related or ordinary day-to-day decision. “Decisions are strongly conditioned by somatic state - bodily sensations - that enable people to make value judgments” (Ashkanasy, Zebre & Härtel, 2002, p. 212). Goleman’s (1995) neurological research, conducted over a period of years, shows the significance of emotions in decision making.

According to Mayer, Caruso and Salovey (1999, p. 267) “emotions are internal events that coordinate many psychological subsystems including physiological responses, cognitions, and conscious awareness”.

### 2.2.2 Intelligence

Intelligence is described as “the ability to profit from experience, acquire knowledge, think abstractly, act purposefully, or adapt to changes in the environment “(Wade & Tavis, 2006, p. 321).



Wechsler (1958, p. 7) define intelligence as “... the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment”.

People with higher cognitive intelligence (IQ) scores are expected to perform better in school (Bar-On, 2007c; Mayer, Salovey & Caruso, 2000). The following questions however can be posed. Does it translate into the work environment as well? Does it result in a better work performance? Is cognitive intelligence (IQ) still a strong predictor of success outside the school environment or is there a more valid predictor for the latter? Regarding variance of performance, Goleman (1998b, p. 19) stated the following: “When IQ scores are correlated with how well people perform in their careers the highest estimate of how much variance IQ accounts for is about 25 percent.” One can therefore not deny the fact that IQ is a significant predictor of job performance but the question that remains is whether that is all there is to it or whether there is perhaps an additional component that would contribute to a more accurate prediction of job performance?

Highly intelligent individuals are not only less destructive, more open and motivated, but also have a tendency to be superior in verbal, social and other intelligences (Mayer *et al.*, 2004). Although it has been found that IQ is a stronger predictor of job and academic performance than EI, it is EI that allows us to distinguish between a potential star and an average leader (Emmerling & Goleman, 2003). Many still argue that EI has a far better predictive validity than IQ (Goleman, 1995; Mayer *et al.*, 2004). According to Bar-On (1997) EI also helps a person to actively and successfully cope with the environment which impacts one’s job performance.

### **2.2.3 Emotional Intelligence**

There are numerous definitions of EI, which are complementary all of them aim to understand the abilities and traits related to one’s own and others’ emotions (Emmerling & Goleman, 2003). Intelligence, such as EI, needs to encompass three criteria in order to be regarded as true intelligence (Mayer *et al.*, 1999; Mayer *et al.*, 2000; Mayer *et al.*, 2004):

- (1) conceptual ( can be described as a set of abilities)
- (2) correlational (the measures correlate with other measures which reflect similar skills and abilities)

(3) developmental (it develops with the age and experience but only up to some point)

A study conducted by Mayer *et al.* (1999) demonstrates that in fact emotional intelligence does meet all three criteria listed above.

Salovey and Mayer (1990, p. 189) view EI as “ the subset of social 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”. In other words, EI involves being able to observe, recognise and understand one’s own emotions and the emotions of others and to make a distinction between one’s own emotions and those of others.

According to Bar-On (2000, p. 2) “people who are emotionally and socially intelligent are able to understand and express themselves, to understand and relate well to others, and to successfully cope with demands of daily life”.

Some of the studies conducted within South Africa which concentrate on the significance of emotional intelligence within the work context also confirm that EI has an impact on performance and leadership success (Hayward, Amos & Baxter, 2008; Murphy, 2008; Murphy & Janeke, 2009; Nel & De Villiers, 2004).

### **2.3. HISTORICAL DEVELOPMENT**

The history of the development of EI concept is not extensive; it dates back to the beginning of the 20<sup>th</sup> century. In the 1920s Thorndike (1921) became the first Psychologist to explore social intelligence, which over time and with additional information became known as emotional intelligence. Social intelligence can be defined as “the ability to understand and manage people” (Thorndike & Stein, 1937, p. 275). At that time the definition was extremely broad and it was difficult to separate social intelligence from different types of intelligence. The difficulty in developing the concept of social intelligence was caused by its high correlation with verbal propositional and spatial performance intelligence (Mayer & Salovey, 1997; Salovey & Mayer,

1990). EI is viewed as an even broader concept than social intelligence but is far more focused on emotions (Mayer *et al.*, 2000).

For the next half century after Thorndike's findings, attention was focused on IQ research. In the 1940s Wechsler (1958) started discussing the nonintellective and intellective factors. He considered the non-intellective abilities as crucial for achieving success in life, but at the same time also continued to develop his IQ test.

In the 1970s, researchers started exploring the impact of emotions on cognition as opposed to treating the concepts as separate entities (Mayer, 1986). The concept started to gain even more popularity when Gardner (1983) described EI in terms of personal intelligences - interpersonal and intrapersonal intelligence. But, it was only in 1990 that the topic became highly popular as a result of Salovey and Mayer (1990) pioneering their theory of ability-based EI. They were the first to develop a tool to measure EI (Salovey & Mayer, 1990). Hence forth numerous articles and books referred to EI (Gottman, 1997; Shapiro, 1997; Simmons & Simmons, 1997).

Goleman (1995, 1998b) made his mark when he wrote his book *Emotional intelligence* in 1995, which to this day is the most popular book on EI (Russell & Barchard, 2002). What makes his theory unique and different from previously developed models, is its focus on EI in the work context and in the light of job performance. His theory suggests that social and emotional competencies are crucial in outstanding job performance (Emmerling & Goleman, 2003).

For the last 10 years, extensive research has been conducted on the concept of EI. Thanks to researchers such as Goleman and Bar-On the concept has been explored in the work context and its influence on school and work performance investigated. It has been determined that EI is a combination of interpersonal and intrapersonal skills, that it changes with age and that it can be developed through training and coaching (Bar-On, 2007b; Goleman, 2001b). A detailed description of different studies and theories will be provided in the next section.

## 2.4 MODELS OF EI

There are two main subgroups of EI, that is, ability- and trait-based EI, which some may regard as problematic because, having multiple theories describing one construct may confuse the matter. Others may see it as an opportunity to explore different facets of the construct (Emmerling & Goleman, 2003)

### 2.4.1 Ability based EI

#### 2.4.1.1 Salovey, Mayer and Caruso

As mentioned in chapter 1, Mayer and Salovey (1995) view EI as an ability to process emotions efficiently and being able to use the processed information for oneself and to help one understand and deal with others.

In their early work Salovey and Mayer (1990) defined EI in terms of abilities. The emphasis was placed only on perceiving and regulating emotions. Mayer *et al.* (2004) view EI as a “hot” intelligence which operates on social, practical, personal and emotional information. They also state that emotions hold information about relationships.

The original ability-based EI model was first developed by Salovey and Mayer (Mayer & Salovey, 1995) in 1990. According to Mayer *et al.* (2000) there are four aspects of EI abilities (listed in developmental order from the most basic to the most refined):

- (1) **Appraisal:** This entails evaluation and expression of one’s emotions and being able to recognise own emotions and those of others and act on them appropriately. Salovey and Mayer (1990) suggest that there are two ways through which emotions can be assessed and expressed in self and others:
  - verbal- by speaking about emotions
  - non-verbal- expressions one makes (such as facial expressions). According to Rogers (1951), empathy is one of the central characteristics of EI when it comes to assessing the emotions of others

- (2) **Perception and expression of emotions:** This refers to being able to control own emotions and redirecting it in such a way that one capitalises on them in order to make decisions or facilitate judgments and thinking processes.
- (3) **Utilisation:** This is about understanding emotions (single emotion and those related to each other) and using such knowledge in the best possible analytical way.
- (4) **Regulation:** This involves being open to any kind of feelings, reflecting on them and coping with one's own and others' emotions. Emotionally intelligent people should be able to regulate their own and others' emotions in order to meet their own objectives (Salovey & Mayer, 1990).

#### 2.4.2 Trait based EI models

Trait-based EI can be described as “a concentration of emotional intelligence that includes not only mental abilities related to intelligence and emotion, but also other personality dispositions and traits such as motives, sociability and warmth” (Mayer *et al.*, 1999, p. 399). The mixed models of EI do not only focus on the mental ability (as the ability model) but also take into consideration the personality factors that may have an impact on a person's EI (Mayer *et al.*, 2000).

##### 2.4.2.1 Bar-On

The original influence on the development of Bar-On's model came from Darwin's early work on the significance of emotional expressions for survival (Bar-On, 2007a). Bar-On was further influenced by Thorndike's work and his development of the social intelligence concept, as well as Wechsler's work on noncognitive intelligence and Gardner's observations on interpersonal and intrapersonal intelligence (Bar-On, 2007c).

Bar-on (2007b) defines emotionally and socially intelligent people in terms of their ability to recognise and communicate their own emotions and understand others' emotions in order to cope. He describes emotional intelligence in the context of personality theory (Goleman, 2001b). Goleman (2001b) also believes that emotional-social intelligence (ESI) is a combination of numerous interpersonal, intrapersonal skills and competencies. According to Bar-On (2007b, p. 4)

an emotionally and socially intelligent person has “the ability to be aware of others’ emotions, feelings and needs, and to establish and maintain cooperative, constructive and mutually satisfactory relationships ... to effectively manage personal, social and environmental change ...”

The development of Bar-On’s (2007b) model of emotional and social intelligence followed six steps over a period of 17 years:

- step 1: identifying and grouping relevant competencies that impact on human effectiveness
- step 2: defining the competencies and skills clusters
- step 3: constructing an experimental assessment tool, which initially consisted of over a thousand items
- step 4: cutting down the items to 15 scales and 133 items in the EQ-i
- step 5: creating norms for the EQ-i on 3 831 adults in the USA
- step 6: conducting further validation studies on EQ-i worldwide

Referring to steps 1 and 3, Bar-On came up with as many as 15 competencies which have an impact on one’s EI. Those competencies are: emotional self-awareness (ES), assertiveness (AS), self-regard (SR), self-actualisation (SA), independence (IN), empathy (EM), interpersonal relationship (IR), social responsibility (RE), problem solving (PS), reality testing (RT), flexibility (FL), stress tolerance (ST), impulse control (IC), happiness (HA) and optimism (OP) (Bar-On, 1997b; Bar-On, 2007a).

To simplify it, Bar-On clustered these 15 competencies into the following 5 subgroups: intrapersonal EI (RAeq), interpersonal EI (EReq), adaptability EI (ADeq), stress management emotional intelligence (SMeq) and general mood EI (GMeq) (Bar-On, 2007a; Palmer, Manocha, Gignac & Stough, 2003). Some factors of EI may be more relevant to job performance than others depending on the work environment.

Numerous studies conducted by Bar-On (2006) and others resulted in few findings regarding ESI:

- ESI changes with the age (it increases with age up to a certain point) (Bar-On, 2006; Palmer, Jansen & Coetzee, 2005).

- Research conducted on a normative North American sample (n=3.831) examined the effect of age, gender and ethnicity on EQ-i scores (Bar-On, 1997a). No statistically significant differences were found between female and male overall on ESI, but some differences were observed when looking separately at a few factors being measured by the EQ-i (females tend to be more aware of own feelings, while males tend to manage their emotions more effectively than females).
- The ESI model , as per Bar-On (1997a; 2006) and as described in several predictive validity studies, anticipates numerous aspects of one's performance:
  - According to a study conducted on a sample of North Americans (n=3.571) there is a moderate but significant relationship between a person's physical and psychological health and ESI. Multiple regression analysis was used to derive the correlation between the concept of well-being and EI; the result indicated that there is a high correlation (.76) (Bar-On, 1997b; Bar-On 2006; Bar-On & Fund, 2004; Krivoy, Weyl Ben-Arush & Bar-On, 2000). This indicates that emotionally intelligent individuals generally show better mental and physical health because of their ability to cope with and adjust to the external environment. Research shows that this in turn will result in superior job performance, whilst those with inferior health or mental state may find it difficult to focus all their energy on job performance, resulting in poorer job performance results.
  - There is a significant relationship between ESI and social interaction (Bar-On, 1997b; 2006). In a study conducted in North America (normative sample of 533 participants) the participants were asked to complete the 16PF personality questionnaire as well as the EQ-i. It was found that there is a high, statistically significant correlation between ESI and the 16PF scale of social interaction (Bar-On, 2006).
  - Because ESI has a significant impact on school performance, those who score higher on EQ-i are expected to perform better at school (Bar-On, 2006; Swart, 1996). This finding is based on numerous studies. A study conducted by Parker on 667 Canadian high school pupils reported that the correlation between ESI and school performance is .41, indicating that around 17% of

school performance is a function of ESI in addition to that shown for cognition (Bar-On, 2006; Parker *et al.*, 2004).

- The moderate relationship between ESI and work performance indicates that ESI can indeed predict work performance (Bar-On, 2006). Based on 20 different predictive validity studies conducted on 22,971 participants across the world, the predictive validity of EI for work performance is equal to .59 (Bar-On, 1997b, 2006; Ruderman & Bar-On, 2003).
- There is a statistically significant relationship between ESI and self-actualisation; the higher the ESI the more driven the person is and therefore the more committed and more likely to achieve his or her own goals (Bar-On, 2006). One of the studies that supports this finding was conducted in South Africa on a sample of 67 university students who were asked to complete EQ-i as well as a self-actualisation assessment known as the Personal Orientation Inventory. The results confirmed a significant relationship between ESI and self-actualisation (.64). (Bar-On, 2006).
- Some of the studies conducted in SA also indicate that there is a positive relationship with job performance and it has shown predictive validity regarding future performance (Drucker, 1996; Hooper & Potter, 2000; Nel & De Villiers, 2004; Weisinger, 1998) .

Bar-On's mixed EI model is especially significant in this study since it was his approach and his model which guided and inspired this research and highlighted the importance of the emotional intelligence to leader's performance and success.

#### 2.4.2.2 Goleman

As mentioned previously, Goleman made his mark with his work *Emotional intelligence*, which was later followed by *Working with Emotional Intelligence*, which concentrated on EI in the work context (Goleman, 2001b).

Goleman (2000, p. 2) recognised the dissimilarities between different models but also recognised that all models share one common factor at the most basic level, i.e. they all view EI as “the ability



to recognise and regulate emotions in ourselves and in others". Goleman's (1995, 1998) theory, like that of Bar-On (2005), is founded on social and emotional competencies.

Goleman's model is slightly of a less credence when it comes to the contributions it made to the field of emotional intelligence than the two models discussed above. His views can be viewed more in a supportive light, where his work focused on emotional intelligence within work context using the principles of the models of Bar-On and Salovey and Mayer.

Goleman was previously misrepresented by John Mayer who stated that Goleman believes in EI being twice as important as IQ, as a job performance predictor (Goleman, 2001b). Goleman (1995, 1998a) believes that EI predicts success in all different areas of life. Although his view has not been strongly supported, it does not detract from the fact that EI is significant in the work context and that it has a good predictive validity when compared to, for example, the outcome of interviews or some personality tests (Van Rooy & Viswesvaran 2007). According to Goleman (1998b), the higher the emotional competence, the more superior job performance is.

Goleman (1998b) argued that EI per se is not a strong enough predictor of performance (no specific value can be provided since it will vary depending on the context), but that it is an effective indicator of one's potential to learn the competencies needed for achieving success. Cognitive and emotional qualities always interplay (Emmerling & Goleman, 2003; Goleman, 2001b). EI is a stronger predictor of performance in a small group which was already selected on the basis of different criteria (e.g. minimum experience amongst senior managers), whereas IQ is a better predictor in a large population which has not yet been selected according to any criteria (Goleman, 2001b). Early studies (using numerous tools) reported correlations from .0 to .36 between IQ and EI related to performance (Goleman, 2001b), whereas, according to Bar-On the correlation between IQ and EI is statistically insignificant, and measure between .06 to .12 (Bar-On, 2000).

Goleman (2001b) suggests that there is a difference between EI and emotional competence. As mentioned above, he believes that emotionally intelligent individuals can learn the competencies

needed for successful job performance. Goleman's competence model underwent a number of revisions after it was first developed:

- Goleman's (1998b) first model of EI contained 25 competencies grouped into five clusters (Goleman, 1998b): self-awareness, self-regulation, self-motivation, social awareness and social skills.
- When Goleman's (2001b) model was revised and changes were made on the basis of statistical analysis conducted by Boyatzis, Goleman and Rhee (2000), the five clusters were integrated into the following four dimensions which still form the basis of Goleman's model:
  - (1) self-awareness (knowing oneself, knowing how emotions affect the self and others)
  - (2) self-management
  - (3) social awareness
  - (4) relationship management

#### 2.4.2.3 Wolmarans

Wolmarans (2001) identified the fact that EI entails a unique set of competencies described by mixed models of EI. These competencies were used to develop the Emotional Competency Profiler (ECP) which measures overall EI. The competencies that are measured are based on content analysis of leadership competencies requirements (Wolmarans, 1998). This model is especially relevant since it was developed in a South African context and for this reason was used in this study (Palmer *et al.*, 2006).

Wolmarans's model of emotional competence (which is based on trait models) includes the following seven dimensions (scales):

- (1) **Change resilience:** This is about being flexible and open to new things and change when needed. Those with high change resilience are able to not only cope with but also to thrive in times of turmoil being excited and driven by what is to come (Wolmarans & Martins, 2001).

- (2) **Emotional literacy:** This refers to understanding of the flow of own and others' emotions, what caused it, and how to react to the particular emotion within the specific context (Wolmarans & Martins, 2001).
- (3) **Integration of head and heart:** This refers to being able to use both sides of one's brain in decision making and problem solving. Those who can integrate feelings and facts are able to make informed decisions which are not only based on emotions but also on facts (Wolmarans & Martins, 2001).
- (4) **Interpersonal relations:** This refers to the degree to which one truly cares for others, and their well-being and success. It is about being compassionate and caring towards others. It also refers to how one is able to lead a team and relate to others in a team (Wolmarans & Martins, 2001).
- (5) **Self-management:** This refers to the ability to handle stress and stressful situations without over-reacting. It is about finding a balance between mind, body and soul in order to handle emotions optimally (Wolmarans & Martins, 2001).
- (6) **Self-motivation:** This is about setting own challenging goals for oneself and extending in an effort to achieve them while staying focused and optimistic, regardless of hardships. It is about not giving up but striving towards own goals (Wolmarans & Martins, 2001).
- (7) **Self-esteem/self-regard:** This refers to true assessment of the self and self-respect as a human being. It is about acceptance of own strengths and weaknesses and the ability to laugh at oneself without feeling inferior (Wolmarans & Martins, 2001).

## 2.5 MEASURING EI

The subject of EI has only recently received worldwide interest and assessments are still in an early stage of development. Although there are some effective, valid and reliable tools, much more research needs to be conducted in order to develop new assessments as well as, evaluate and improve existing ones (Van Rooy & Viswesvaran, 2007).

Classic measurement theory (Allen & Yen, 2002), which aims to evaluate the reliability and validity of psychological tests, provides us with guidelines which enable the test developer to

develop powerful assessment constructs such as emotional intelligence. The theory concentrates on particular population scores instead of focusing on individual results (Novick, 1966). The framework suggests that the following steps should be followed (Van Rooy & Viswesvaran, 2007):

- Define the content domain
- Choose the appropriate measurement method (e.g. self-report versus ability tests)
- Develop, analyse and select the items based on a representative sample and evaluate the content
- Assess the psychometric qualities of the assessment measures such as content, construct and predictive validity and reliability

The difficulty in defining the content domain stems the fact that there is no clear, compact definition of what EI really is. There are numerous different definitions as described by the ability model versus the mixed model of EI (Mayer & Cobb, 2000). One should also bear in mind that, regardless of which tool is used to measure EI, the scores tend to increase with age, and females tend to score higher than males on EI tests (Mayer *et al.*, 1999).

### **2.5.1 Measurement of ability based emotional intelligence**

The ability-based models of EI use performance-based answers to arrive at the ability EI scores (Bar-On *et al.*, 2007a). There is currently only one measure of ability-based EI developed by Mayer, Salovey and Caruso (Bar-On *et al.*, 2007a).

#### *2.5.1.1 Mayer- Salovey- Caruso Emotional Intelligence Test V2.0 (MSCEIT V2.0)*

The assessment developed by Mayer, Salovey and Caruso is known as the Mayer-Salovey-Caruso Emotional Intelligence Test V2.0 (MSCEIT V2.0). after having undergone many revisions, the MSCEIT V2 is the most recent version of the test (Mayer, Salovey & Caruso, 2002). The test consists of 141 items grouped into four dimensions, as discussed earlier. These four dimensions became known as the four-branch model. In each of the four branches there is a developmental progression of skills from the more fundamental to the more sophisticated (Mayer & Salovey, 1997).

Different methods can be used to determine the reliability of each branch. One of the methods uses the general consensus of the test-takers to establish the reliability. According to this method, the general consensus should identify the optimal answer to numerous EI questions. The majority of the sample group should easily understand the implication of the message (Mayer *et al.*, 2004).

There are eight tasks - two for each of the EI branches (dimensions) (Mayer *et al.*, 2004):

- Branch 1 is measured by using pictures of faces which express different emotions and landscape pictures. According to the consensus approach (75% of the sample), the reliability of the branch is  $r=0.91$  (Mayer *et al.*, 2004).
- Branch 2, the thought process, is measured using sensations and facilitation. The consensus reliability of the branch is equal to  $r=0.79$  (Mayer *et al.*, 2004).
- Branch 3 is measured by monitoring a person's appropriate reactions to change and blends. The consensus reliability of the branch is equal to  $r=0.80$  (Mayer *et al.*, 2004).
- Branch 4, the most advanced emotions, is assessed by testing emotion management through hypothetical scenarios and the emotion relationship by assessing one's ability to manipulate others' feelings to achieve one's own goals. The consensus reliability of the branch is equal to  $r=0.83$  (Mayer *et al.*, 2004).

MSCEIT V2.0 has been shown to be reliable at the full-scale level (measuring above  $r=.90$ ), while the reliability at the dimension levels ranges from  $r=0.70$  to  $r=0.91$  (as specified above), which is far more reliable than the earlier versions of the test (Mayer *et al.*, 2001; Mayer *et al.*, 2004; Mayer, Salovey & Caruso, 2003).

According to Mayer *et al.* (2004) research findings show that MSCEIT predicts the following:

- **academic performance:** Once demographical factors were controlled, EI proved to be positively related to academic success
- **deviant behavior:** Emotional behaviour differs from bullying, violence, alcohol or drug use (Rubin, 1999)
- **pro-social and other positive behaviours:** the higher the scores the better the interactions with peers and acquaintances

- **leadership and organisational behavior:** in the professions where EI is not necessary for success, EI may decline as one goes higher up the corporate ladder. Nevertheless, it seems to be important within leadership roles.

Empirical studies show that the MSCEIT V2.0. has acceptable content validity (Mayer *et al.*, 2001), factorial validity (Mayer, Salovey, Caruso & Sitarenios, 2001) and discriminant validity (Mayer *et al.*, 2004).

Mayer *et al.* (1999) found that EI self-report and the authentic ability of the individual are modestly correlated (Mayer *et al.*, 2004). Ability tests are more reliable. In saying that, they consider self-report to be extremely significant because people act on their beliefs regarding own abilities instead of focusing on their actual abilities (Mayer *et al.*, 1999).

## **2.5.2 Measurement of trait based emotional intelligence**

Trait-based emotional intelligence assessments (mainly self-report tools), measure EI as well as some characteristics of personality and cognitive intelligence (Van Rooy & Viswesvaran, 2007).

### *2.5.2.1 Emotional Quotient Inventory (EQ-i)*

Bar-On (1997a) developed the Emotional Quotient Inventory (EQ-i) over a period of 17 years and it became the first emotional intelligence tool to be available commercially as well as to be widely used and researched. It was also the first emotional intelligence tool to be peer reviewed in the *Buros mental measurement yearbook* (Plake & Impara, 1999). According to Bar-On (2006), EQ-i helped him to optimise his model. The higher the person scores on EQ-i the more effective he or she should be in everyday functioning. It is a self-report tool which consists of 133 items, uses five-point responses and measures five meta-factors (Bar-On, 2007a):

**Table 2.1: Bar-On composite scales and subscales**

COMPOSITE SCALES	SUB-SCALES
Intrapersonal	<ul style="list-style-type: none"> <li>• Self-regard</li> <li>• Emotional self-awareness</li> <li>• Assertiveness</li> <li>• Independence</li> <li>• Self-actualisation</li> </ul>
Interpersonal	<ul style="list-style-type: none"> <li>• Empathy</li> <li>• Social responsibility</li> </ul>
Stress management	<ul style="list-style-type: none"> <li>• Stress tolerance</li> <li>• Impulse control</li> </ul>
Adaptability	<ul style="list-style-type: none"> <li>• Reality testing</li> <li>• Flexibility</li> <li>• Problem solving</li> </ul>
General Mood	<ul style="list-style-type: none"> <li>• Optimism</li> <li>• Happiness</li> </ul>

*Source: Bar-On (2007a)*

Over the 17 years that Bar-On spent developing his model and EQ-i, numerous researchers conducted studies to test the reliability of the tool. These studies showed that EQ-i is a reliable stable measure (Bar-On, 2000; Bar-On, 2006). The norming studies on an American sample indicated an internal consistency coefficient of the EQ-i of .97 and similar findings were reported throughout the world (Bar-On, 2006; Van Rooy & Viswesvaran, 2007). It has a built-in correction factor which lessens the impact of response bias (Bar-On, 2007b). The retest reliability is reported as .72 for males and .80 for females after a six month interval (Bar-On, 1997b; Bar-On, 2006).

It is widely suggested that there are many similarities between the EQ-i and the five-factor model regardless of Bar-On's argument that his measurement tool is designed in such a way that it is distinct from personality measures (McCrae, 2000). However, studies show that the overlap

between EQ-i and cognitive and personality tests does not exceed 20% which shows that EQ-i is indeed distinct from personality measures (Bar-On, 2006; Van Rooy, *et al.*, 2007).

#### *2.5.2.2 The Emotional Competency Inventory (ECI)*

Goleman (1998b), in collaboration with his colleagues, suggested 25 emotional intelligence competencies grouped into five clusters when originally creating the Emotional Competency Inventory (ECI) (Boyatzis *et al.*, 2000). The result of a third revision of Goleman's model, ECI, as well as the model, comprises 18 competencies arranged in four clusters (Goleman, Boyatzis & McKee, 2002).

ECI is designed to measure emotional competence specifically in the work context (Emmerling & Goleman, 2003). It comprises 72 items grouped into the following four clusters (Boyatzis & Sala, 2004):

- (1) self-awareness
- (2) self-management
- (3) social awareness
- (4) relationship management

Because the self-rating scale on ECI tends to be heightened, a correction was built in to adjust the scores downwards (Van Rooy & Viswesvaran, 2007). Individuals tend to score themselves in a more positive light compared to the way others see them.

#### *2.5.2.3 360° Emotional Competency Profiler: South African emotional intelligence measure*

Another tool that measures emotional intelligence and which was used in this study was developed by Wolmarans (Wolmarans & Martins, 2001). The 360° Emotional Competency Profiler (ECP) is a multi-rater, self-administered tool, which affords one the opportunity to see oneself through others' eyes as well as one's own eyes (Hayward, 2005). Two four-point Likert scales are used to measure a person's current emotional competency (skills) as viewed by the self and others and its



importance to the individual and others. If a person rates the importance of a particular emotion highly, it means that this emotion is imperative to the person in determining his or her behaviours (Coetzee *et al.*, 2006). The scores allow one to concentrate on development areas.

ECP adopts the principles of the mixed models of EI since it does not only focus on the mental ability but also takes into consideration the personality factors. ECP constructs can be directly linked to Bar-On's mixed model definition of EI and its components. According to Bar-On (2005) EI is an ability to recognise and express own emotions and the emotions of others. ECP measures this through constructs such as emotional literacy, interpersonal relations and self-management. Well-being construct can be compared to Bar-On's happiness and optimism constructs. There is a close link between ECP and Bar-On's model.

ECP looks at seven dimensions (scales) of EI as previously discussed. It possesses acceptable internal consistency (as presented in table 2.2), and content validity has been built into the instrument. When analysing the results, one should account for the rater bias which is an inherent characteristic of a typical 360-degree assessment. As far as reliability is concerned, it differs for each of the seven emotional intelligence competencies (Palmer *et al.*, 2006):

**Table 2.2: Reliability values for ECP EI dimensions**

<b>COMPETENCE</b>	<b>RELIABILITY</b>
Emotional literacy	0.87
Self-esteem	0.87
Self-management	0.85
Self-motivation	0.91
Change resilience	0.93
Interpersonal relations	0.95
Integration of head and heart	0.90

## 2.6 EI AND LEADERSHIP

There is an increasing interest in the effect of EI on leaders' performance in the workplace (Gardner & Stough, 2002). According to Goleman (1998a, p. 94): "To be leaders, is more art than science ... most effective leaders are alike in one crucial way: they all have a high degree of what has come to be known as emotional intelligence." This does not imply that IQ is irrelevant; it means that without EI, regardless of the IQ, one cannot become a successful leader.

Emotions have the capacity to have both a positive and a negative impact on a person. EI enables one to handle emotions appropriately and therefore reduces the consequences of overreacting in particular situations (Bagshaw, 2000). If properly managed, emotions can lead to successful outcomes. However, when leaders cannot control their own emotions while fighting their inner battle, the quality of work, thinking process and interaction with others may be sabotaged (Palmer *et al.*, 2006).

It is mainly through emotions that leaders establish trust, integrity and flexibility in a team (Palmer *et al.*, 2006). Human beings are energised and often motivated by emotions. Hence, those who are emotionally intelligent are better equipped to positively motivate their own actions and those of their subordinates (Palmer *et al.*, 2006). Gardner and Stough (2002) also believe that emotionally intelligent leaders are thought to

- be happier
- be more committed
- use positive emotions in order to visualise improvements in the company
- be more successful
- be superior performers
- use positive emotions (emotional literacy) in decision making to enhance the quality of these decisions

Numerous studies have demonstrated that there is a relationship between EI and job performance (Bar-on, 1997b, 2007c; Goleman, 2001a; Handley, 1997; Mayer *et al.*, 2001; Ruderman & Bar-On, 2003). Based on a study conducted in the US Air Force, it was found that the most successful

recruiters scored significantly higher in the EI competencies. EI predictive validity has also been shown in three different leadership studies (Bar-On, 2007b; Bar-On, Handley & Fund, 2005).

Many authors believe that EI is critical for leaders (Goleman, 1998a; Riggio & Lee, 2007; Stuart & Paquet, 2001). The higher the position, the more crucial EI becomes. In the case of leadership positions, it accounts for about 85% of all the competencies needed to be successful (Goleman, 2001b).

Emotional intelligence not only allows one to predict a leader's performance but also to recognise development areas and make decisions about hiring or promoting in the work context (Spencer & Spencer, 1993).

In the classic study conducted by Boyatzis in 1982 on over 2 000 leaders, middle managers and executives, 14 out of 16 competencies which separated top from average performers were emotional competencies (Goleman, 2001b). Another example is a study by Spencer and Spencer (1993) that analysed almost 300 companies. Eighteen out of 21 competencies specified in the generic models of the companies researched, and which discriminated between top and average performers, were EI competencies. EI is therefore vital to leaders' success and job performance.

## **2.7 CONCLUSION**

There is a wealth of research on the concept of emotional intelligence, but there are also a large number of factors that merit further study. Research shows that EI develops with age (Bar-On, 2007b; Mayer *et al.*, 1999) and that it can be developed in the work environment at any age, through training and coaching. It is therefore important to emphasise EI in order to enhance job performance, especially among leaders (Cherniss, Goleman, Emmerling, Cowan & Adler, 1998).

This chapter dealt with EI, starting with the definitions of emotions, intelligence and EI as well as the history of the development of the EI concept. The discussion then focused on EI with reference to two major subgroups of EI models. Salovey and Mayer's model of ability-based EI was

discussed first. Salovey and Mayer believe that ability-based EI meets the criteria of other intelligences and should be measured with the use of ability tools (Salovey *et al.*, 2002). The second category of EI theories, called trait based emotional intelligence, was discussed next. In this section, two main theories were pinpointed as well as the theory developed by a South African (Wolmarans, 2001). Firstly, Bar-On's EI model was discussed and highlighted the fact that emotionally and socially intelligent people have the ability to recognise and communicate their own emotions and to understand others' emotions in order to cope (Bar-On, 2006). The second model pinpointed was Goleman's model of emotional and social intelligence. Goleman (2001a) strongly believes that EI is critical for success, especially among leaders. This was followed by a discussion of a model used in this study which was developed in the South African work context by Wolmarans (2001).

Once all the models had been presented, different EI measurement tools were discussed. Firstly, the only available ability test was discussed, namely the tool developed by Mayer, Salovey and Caruso known as the Mayer-Salovey-Caruso Emotional Intelligence Test V2.0 (MSCEIT V2.0). Measures of trait-based EI were then introduced such as Bar-On's (1997) Emotional Quotient Inventory (EQ-i) and, Goleman's (1998) Emotional Competency Inventory (ECI).

The last tool that discussed that was a 360° Emotional Competency Profiler (ECP) developed by Wolmarans (2001). Although ECP is not one of the main or best-known EI tools it was discussed in detail because it was used for this research project.

In conclusion, EI was discussed in the leadership context with a focus on its significance to leaders' success (Gardner & Stough, 2002).

## **CHAPTER 3**

### **JOB PERFORMANCE**

#### **3.1 INTRODUCTION**

This chapter deals with the concept of job performance. Firstly, the different definitions, approaches to and dimensions of job performance will be explored. Thereafter, organisational performance will be discussed before moving on to performance management, performance appraisal and individual performance. Lastly, the relationship between job performance and EI will be outlined, specifically, its importance for leaders (since this study focuses on leaders). Before summarising the chapter, the importance and the relationship between EI and job performance among leaders will be discussed while exploring different theories and research findings.

#### **3.2. JOB PERFORMANCE**

The word “performance” is used frequently in companies, among human resources personnel and in industrial psychology and management. Regardless of its importance and popularity, it is seldom clearly defined (Neely, Gregory & Platts, 1995).

Job performance is usually described in terms of observable and nonobservable behaviours which can be appraised (Viswesvaran, Ones & Schmidt, 1996). It is a multidimensional concept which describes how one completes a task, focusing on efficiency, skills used, initiative and utilised resources (Rothmann & Coetzer, 2003). Job performance is an action that involves process and product (final output). The individual process can be influenced by an organisation’s overall performance. It is not only actions that determine one’s performance but also external factors such as resources, organisational culture and economic, political and social factors (Van der Linde, 2005).

According to Viswesvaran (1993) job performance consists of 10 dimensions. Depending on the nature of the job, certain dimensions are more important than others. Those dimensions mostly

overlap with the eight dimensions highlighted by Campbell, McCloy, Oppler and Sager (1993) and which are generally well accepted. The dimensions are as follows:

**Table 3.3: Job performance dimensions**

<b>10 DIMENSIONS (Viswesvaran, 1993)</b>	<b>8 DIMENSIONS (Campbell <i>et al.</i>, 1993)</b>
<ul style="list-style-type: none"> <li>• Overall job performance</li> <li>• Productivity</li> <li>• Communication</li> <li>• Effort</li> <li>• Job-related knowledge</li> <li>• Interpersonal skills</li> <li>• Quality</li> <li>• Leadership</li> <li>• Rule following</li> <li>• Administrative skills</li> </ul>	<ul style="list-style-type: none"> <li>• Job-specific task proficiency</li> <li>• Nonjob-specific task proficiency</li> <li>• Written and oral communication</li> <li>• Demonstrating effort</li> <li>• Maintaining personal discipline</li> <li>• Facilitating peer and team performance</li> <li>• Supervision/leadership</li> <li>• Management/administrative</li> </ul>

According to Ivancevich, Konopaske and Matteson (2005) the following three main factors impact on performance:

- (1) willingness to perform (motivation)
- (2) opportunity (organisational factors such as resources and tasks)
- (3) capacity to perform (skills, abilities and knowledge).

Grote (2002) explained work performance from a behavioural perspective. By concentrating on work-related observable activities, one is able to evaluate job performance more objectively, thus eliminating rating bias. This is only achievable in an environment in which, the outputs and criteria are clearly defined.

### 3.2.1 Dimensions and criteria of job (work) performance

Job performance is evaluated in terms of the criteria. Criteria are standards used to measure a person's success on the job (Cascio & Aguinis, 2005). The multidimensional quality of job performance makes allowance for distinguishing between different levels of performance. There are three dimensions of criteria (Cascio & Aguinis, 2005), namely

- (1) **Static dimensionality.** This involves looking at performance at a single point in time using one criteria and assuming that one's performance was described accurately.
- (2) **Dynamic dimensionality.** This is connected to an assumption that all employees learn as they gain on the job experience.
- (3) **Individual dimensionality.** This refers to a unique contribution an employee makes to a company's performance. Although two individuals may perform the same job equally well, the nature of their contribution to the organisation may be very different.

In order to develop correct criteria, the following three challenges need to be addressed (Cascio & Aguinis, 2005):

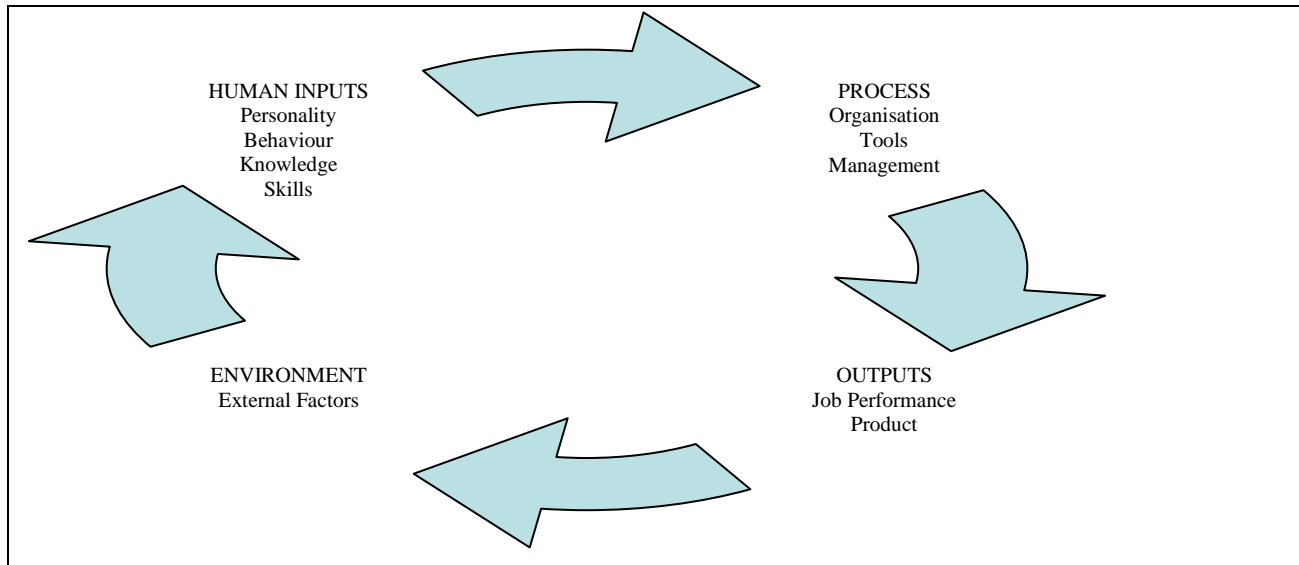
- (1) **Job performance (Un)reliability.** This is the consistency of job performance over a period of time. Would the top performer of today emerge as a top performer in six months' time? One needs to account for intrinsic (personal factors) and extrinsic (external sources affecting the job demands on one's behaviour) factors affecting reliability.
- (2) **Job performance observation.** The consistency of observation methodology needs to be addressed. Different methods of observation may lead to different conclusions.
- (3) **Dimensionality of job performance.** When looking at the criteria, one should analyse job performance according to the different levels of performance on each criteria.

### 3.2.2 Systems approach to work performance

The systems approach views organisations as a set of interdependent fundamentals and work performance as comprising three factors, namely: input, process and output, which are influenced by the external environment. Job performance is based on gathering information on three changeable components namely skills and knowledge (capacity), motivation (willingness) and

work volume, and tools and climate (opportunity, external factors) (Lewis, Goodman & Fandt, 1998).

**Figure 3.1: Work performance as an open system**



Source: Ivancevich, Konopaske & Matteson (2005, p. 22)

Once an organisation brings in resources from the external environment, these are processed (through work performance) into final output, be it services or products. Each system is influenced by numerous factors, such as the interdependence between the company and its environment (Coetzee, 2003). Some of the factors that influence the system are: competition, economic situation, employees' characteristics (personality and skills), interdependence and opportunities (Lewis *et al.*, 1998).

In order to define or measure performance, one needs to establish performance criteria which will be used in the evaluation of the work outputs. The performance criteria need to be developed by adopting a holistic approach – that is, when measuring performance one needs to look at the whole system. For example, an employee's work output is influenced by the context and his or her interdependence on other systems (Lewis *et al.*, 1998).



### 3.2.3 Purpose of work performance assessment

According to Grote (2002), the following are some of the main reasons for work performance assessments:

- **Feedback generation for the employees on their performance.** Performance assessments feedback creates a learning experience and affords employees an opportunity to develop themselves and improve their work performance.
- **Downsizing and retrenchment decisions.** Using assessment feedback, the company is able to distinguish between top, average and weak performers, which will help decision making on who to retain and who to dismiss.
- **Promotional reasons.** Assessment feedback provides the management team with the data needed to support promotion decisions. It reveals employees' strengths, weaknesses and potential.
- **Performance improvement and recognising training and development needs at organisational and individual level.**
- **Motivating, setting goals, counselling poor performers and promoting top players.** Assessments feedback supplies the management team with information on employees' strengths and weaknesses based on which realistic and appropriate goals can be set. Employees can receive counselling on their weaknesses and determine a plan of action for development where the strengths of top performers can be used to enhance the organisation's overall performance.
- **Improving individual and organisational performance.**
- **Recognising a gap between typical and superior performance.** Once such gaps have been identified, development and coaching plans can be put in place.

### 3.2.4 Typical versus maximum performance

According to Cronbach (1960), two factors influence one's performance, namely ability and personality factors. Some find motivation (direction, level and persistence of motivation) to be a strong factor contributing to job performance in addition to ability and personality. Sackett, Zedeck and Fogli (1988) argue that it is motivation that allows one to move from average to maximum

performance. In order to improve performance, both motivation and ability need to be present (Klehe & Anderson, 2005).

According to Vroom (1964), expectancy theory hypothesises that people will be more motivated to perform more effectively when they associate the performance outcome with a desired reward. This shows that abilities alone are not enough to take one to the next level of performance; people need to feel that there is an incentive for them, be it monetary, growth, challenge or recognition.

Both motivation and personality factors contribute to the shift from average to maximum performance in some situations. Personality traits such as conscientiousness, reliability or interpersonal skills can make a person a superior performer even if motivation is low at times. Through superior interpersonal qualities, a person can motivate his or her team to perform the tasks that contribute to their overall success. In summary, it is clear that not only ability impacts the performance (Klehe & Anderson, 2005).

### **3.3 ORGANISATIONAL PERFORMANCE**

Organisational performance worldwide has been deeply affected by the ever-changing environment, competition, new challenges, economics and globalisation (Hayward, 2005). Employees play a massive role in organisational performance, because without them there is no organisation (Hayward, 2005). However, one needs to bear in mind that the nature of performance is dictated by the organisation and the environment, and not by the individuals involved (Mullins, 1999).

Human resources can play key role in helping a company gain a competitive edge (e.g. through selection, recruitment, training or strategies) (Brewster, Carey, Doling, Grobler, Holland & Wörnich, 2003). However, what makes the company outstanding and competitive, is its leadership

- superior leaders have the capacity to optimise the performance of their personnel. This, in turn impacts on organisational performance in general (Hayward, 2005).

### 3.4 INDIVIDUAL PERFORMANCE

Individual performance can be defined as actions and behaviours individuals carry out which are linked to company goals (Campbell, et al., 1993). In order for any company to reach its goals and strategic objectives, individual performance needs to be managed effectively and efficiently (Amos, Ristow & Ristow, 2004). It is through the individuals (their attitudes and actions) that the company is able to achieve a competitive edge (Sutherland, De Bruin & Crous, 2007). Individual performance is in fact the most critical component impacting companies' success (Meihem, 2004).

#### 3.4.1. Factors affecting individual performance

Individual performance is influenced not only by employees' behaviour and personal characteristics but also by external circumstances. Six main external factors influence one's performance (Cascio & Aguinis, 2005):

- (1) environmental and organisational characteristics (situational factors): factors, such as turnover or absenteeism, empowerment, policies and role clarity can potentially have a significant impact on one's performance, especially those in leadership positions (Cascio & Aguinis, 2005; Funder, 1994; Sutherland *et al.*, 2007)
- (2) environmental safety: accidents and injuries may affect outputs
- (3) life space variables: circumstances (such as life stability, personality match with a direct report) that surround an employee on and off the job
- (4) job and location: factors such as policies and practices of an organisation
- (5) leadership: managers may impact on individual performance by encouraging competence and creating a culture in which competence is valued (Cascio & Aguinis, 2005)

Dispositional factors such as personality, attitude, motivation, ability, EI and behaviour also play a significant role in employees' performance. Research shows that where personality is concerned, conscientiousness has the greatest impact on a person's performance (Johnson, 2003; Sutherland *et al.*, 2007). In a study of organisational factors, empowerment was identified as one of the main factors influencing individual performance (Liden, Wayne & Sparrowe, 2000; Spreitzer, 1995).

Awareness of the different factors that impact on work performance helps one to consider different ways of managing and measuring performance.

### **3.5 PERFORMANCE MANAGEMENT AND MEASUREMENT**

In order to measure performance, one needs to examine the units of output. Nowadays, despite all the research, many companies still focus on financial performance measures. This could relate to the fact that quantifiable criteria can be easily measured (Tangen, 2004). However, the performance measurement systems used by companies should also measure the human performance factor. People are companies' main asset and should therefore be given primary attention (Hayward, 2005).

#### **3.5.1 Performance management**

Performance management is a continuous process which forms a critical part of human resource management. Its aim is to improve the effectiveness and efficiency of employees' performance, which in turn will lead to superior organisational outputs or take the company closer to achieving its goals and objectives (Hellriegel *et al.*, 2004). Most employees believe that they can improve their own performance and that those around them should be able to do so as well (Temple, 2002).

Many consider performance management to entail the following:

- using performance measure results to make a positive impact on organisational culture, processes and move closer to attaining the desired goals
- allocating resources
- guiding the management team on the need to change or stabilise policies in order to come closer to achieving goals
- providing performance feedback directed at chasing set goals (Minty & Bennett, 2001; Tangen, 2004)

### 3.5.1.1 Performance management system

If performance management is to succeed, a system needs to be put in place. Such a system has to be followed and supported not only by the employees but also by management. In order to be successful, the performance management system should be viewed as fair (with achievable targets in place) for all and should be focused on development and reward instead of being associated with negative consequences (Hendrey, 1995).

Performance management systems can serve a number of purposes (Cascio & Aguinis, 2005):

- **Strategic function.** This facilitates linking activities and performance of the employees with the company's strategic goals.
- **Communication.** This provides employees with feedback on their performance, which in turn enables them to learn and develop. It affords an employee an opportunity to learn what the organisational expectations are. Based on such information, employees can develop the areas most relevant to their performance.
- **Employment decisions.** This facilitates promotion, transfer and termination processes. The information helps to predict employees' future performance and can also be used to establish formal reward and punishment systems.
- **Development.** Through feedback (positive and negative) employees are given a chance to develop, focusing on the particular need or interest.
- **Facilitating organisational diagnosis.** Assessment feedback provides information on skills level as well as skills shortages in the company. It discriminates between effective and ineffective performance and therefore enables the company to actively prepare for the future instead of merely being reactive.

The main purpose of a performance management system is to motivate personnel. Two other purposes are operational and cultural (creating an open communication culture and creating awareness of the company's goals and mission) (Temple, 2002). Performance management systems do not only empower the employees, but (if properly handled, supported and implemented) can move the company towards its goals. For any performance management system

to be successful it needs to be practical, specific, meaningful, inclusive, thorough and fair (Cascio & Auguinis, 2005; Stiffler, 2006).

### *3.5.1.2 Elements of an effective performance management system*

Performance appraisal (a description of job-related strengths and flaws) is one of the main elements of performance management (Cascio & Aguinis, 2005; Minty & Bennett, 2001). Performance appraisal is the work-related feedback (based on observation and judgment) one receives when strengths and weaknesses are addressed (Cascio & Auguinis, 2005).

Performance management is more than only a process or a performance appraisal - it is a culture. It needs to be constantly monitored, communicated and reinforced. There are five critical fundamentals to performance management (Stiffler, 2006):

- (1) **Alignment.** The different elements of the organisation need to be in line. The goals, opportunities, procedures, objectives of the different departments and individuals need to be aligned before performance management can be addressed. The company needs to align its staff appropriately to the opportunities in the company.
- (2) **Measurement.** Every organisation measures performance at individual and organisational level. The measures used should be fair, appropriate and based on the relevant criteria and the company's goals. To ensure the best measurement practice, one should use 360° performance measures.
- (3) **Reward.** Employees should be rewarded for their performance. Reward should be based on fair performance measurement information. Incentives can be financial, promotional or recognition. High performance should be rewarded with a superior reward.
- (4) **Reporting.** Organisational and individual performance needs to be reported on and communicated to the relevant parties across the company. The report should focus not only on the financial and organisational issues, but also on individual factors.
- (5) **Analysis.** Measuring and reporting on performance is not sufficient - one needs to analyse the information gathered in order to optimise future performance. The individual and organisational strategies should be analysed according to the model used.

Only once a performance management system is in place and all the elements have been agreed on, can one start selecting and effectively implementing performance measurement tools (Tangen, 2004).

### 3.5.2 Performance measurement

In order to measure individual performance one can subdivide it into two components:

- (1) **Contextual performance.** This involves the activities one engages in that are not part of the job description (e.g. volunteering to perform extra tasks, supporting others and following procedures) but essential for accomplishing the company's goals (Beatty, Murphy & Cleveland, 2001). It can be predicted by personality characteristics, such as conscientiousness and emotional intelligence (Sutherland *et al.*, 2007).
- (2) **Task performance.** Job-related activities are performed to transform inputs into outputs (products and services) (Beatty *et al.*, 2001).

Measuring performance may be complicated. According to Furnham (1997), performance measures can be divided into three types:

- (1) quality: the excellence of the products and services delivered
- (2) quantity: how much output is generated
- (3) accidents and rejects: the sum of unacceptable products

Selection of the performance management technique is often based on convenience rather than determining the best practice (Murphy, 2002). Different measures have different biases and limitations, but in order to maximise the quality of the job performance management, the most suitable technique should be selected (Furnham, 1997).

Because of the importance of the human factor in the company's success, individual performance management measures need to be put in place (Bartlett & Ghoshal, 1995). The balanced scorecard, developed by Kaplan and Norton (1996), is one of the most popular organisational performance measures and provides an overall measure of a company's performance.

### 3.5.2.1 *The balanced scorecard and work performance*

Kaplan and Norton (1996) believe that each company should use a balanced set of measures when evaluating performance to provide a broad view of overall performance. Performance should be viewed from the following four perspectives:

- (1) financial: the company's outlook on and regard for the stakeholders
- (2) business: looking at company's priorities and what it needs to stand out (internal factors)
- (3) customer: analysing who the target group is when it comes to the company's products and processes (looking at the external factors)
- (4) innovation and learning: focusing on training, self-improvement and organisational improvement

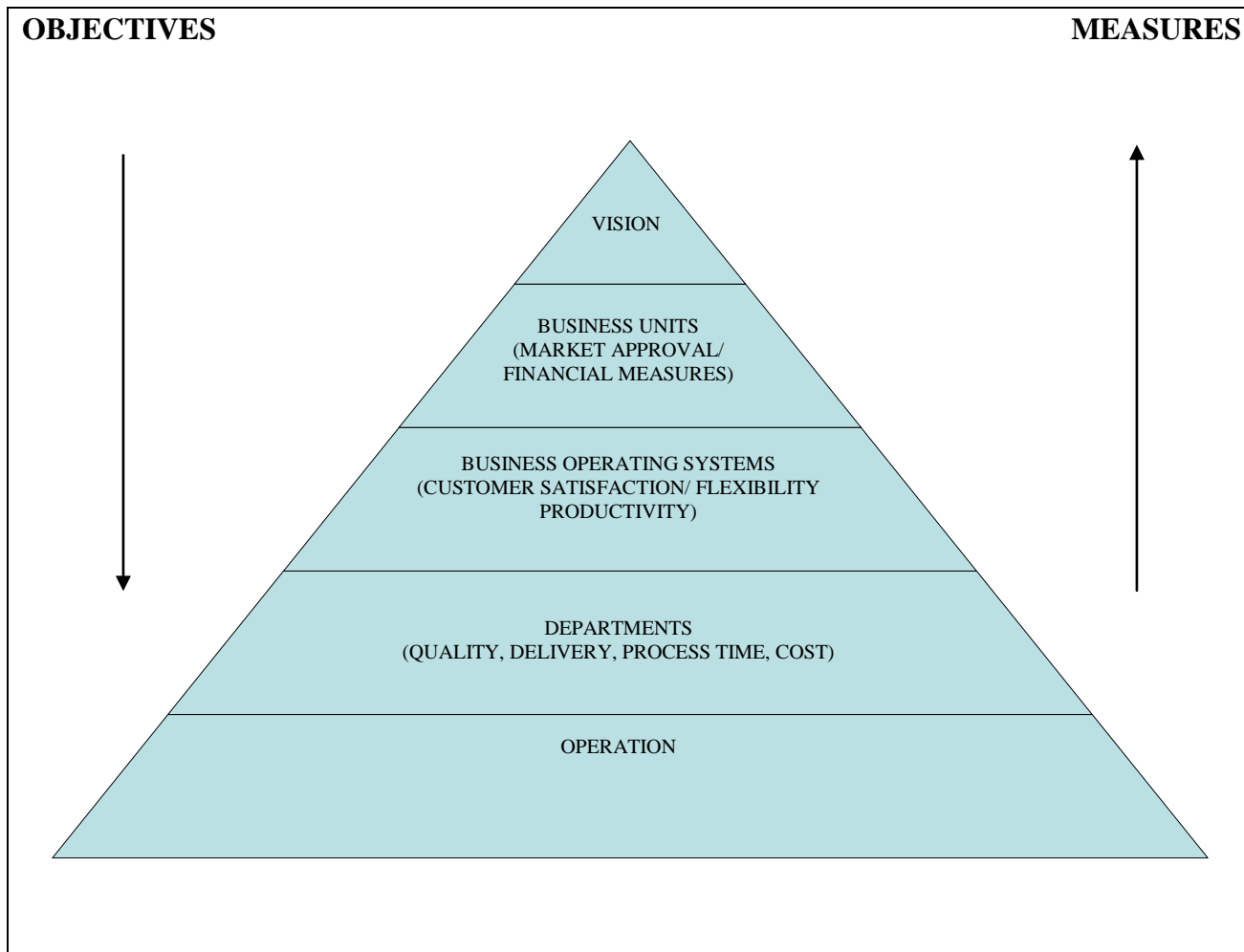
Balanced scorecards differ across various organisations since the measures used are grounded in the organisational strategic vision. Each manager selects a few measures which are critical to goal achievement. This helps the team to focus on the goal, monitor progress and plan actions accordingly to ensure future success. The main disadvantage of the scorecards is that they focus on business units and cannot be applied to measure performance at company level, implying that each unit needs to be looked at separately (Gattorna, Ogulin & Reynolds, 2003).

The main objective of the balanced scorecard is to provide a framework that will allow the company to transform its strategy and goals into measurable objectives. The next performance measure is based on the same objective (Gattorna *et al.*, 2003).

### 3.5.2.2 *The pyramid of work performance*

Cross and Lynch (1995) developed the pyramid of work performance to link organisational strategy and operations. To this end, they came up with a set of objectives that are filtered from the bottom upwards. The model is based on the assumption that strategy and operations are linked by the conversion of objectives from the top in achieving the final vision and implementation of appropriate measurement tools from the bottom up.



**Figure 3.2: Performance pyramid**

Source: Cross & Lynch (1995)

The pyramid consists of five levels. At the first level (corporate level), strategy is defined. At the second level, short-term (profitability) and long-term goals (growth) are defined; the goals are tailored accordingly to fit the company's goals and vision. The third level, business operating systems, defines all the activities, procedures, processes, and systems that need to be implemented in order to support the strategy. The fourth level focuses on local operating performance, thus emphasising quality and delivery (external measures), and process time and cost (internal measures). The fifth level of pyramid involves supporting operational measures. The performance measures are selected and defined on the basis of customer service objectives (Cross & Lynch, 1995).

Once cut-off requirements have been defined for different departments, measures are implemented across different levels. These measures do not only focus on the current performance but also on what can be improved in the future (Cross & Lynch, 1995). Although the performance pyramid provides an effective breakdown of different functions and measurement needs for different organisational functions, it is somewhat limiting and does not take into consideration a wider spectrum of factors affecting performance (Gattorna *et al.*, 2003).

#### *3.5.2.3 Total Quality Management (TQM)*

The TQM model focuses on quality as defined by customers, improvements, employee empowerment, measurement-based management and comprehensive feedback. According to this model only once decisions have been made should the financial implications be considered (Tangen, 2004).

#### *3.5.2.4 Integrated performance measurement*

Dixon, Nanni and Vollmann (1992) devised the integrated performance measurement system in order to establish performance direction. This model, as with the scorecards and pyramid, concentrates on linking the company's performance to its actions and measures, and correspondence between the three should be in place at all times (Gattorna, *et al.*, 2003).

This model adopts the strategic management cycle steps developed by Shank (1989):

- step 1: creating strategy
- step 2: communicating the strategy
- step 3: developing ways to implement the strategy effectively
- step 4: developing and implementing measures to monitor strategy achievement and success rate

As the company moves forward and new information is gathered, the four steps should be reconsidered and adjusted accordingly. This approach helps the company adjust and move forward

in line with the changing world and new challenges. For this approach to be effective, one must ensure that the strategy being followed is actually correct (Gattorna *et al.*, 2003).

Being able to manage and measure performance is not enough to ensure superior performance. The employees need to have what it takes to succeed in a particular role and to follow the company's strategy. Job performance is not only dependent on having clear goals and direction, skills, abilities and motivation - in many instances employees need emotional intelligence as well (Stein & Book, 2006).

### **3.6 THE RELATIONSHIP BETWEEN THE JOB PERFORMANCE AND EI OF LEADERS**

Before moving on to a discussion of the relationship between EI and leaders' performance, it is crucial to highlight the magnitude of the effect of high-quality leadership on performance of the team members and the company as a whole. To be successful a company needs effective leadership (Bass, 1997; Fiedler & House, 1988). An effective leader is able to influence subordinates in such a way that their performance contributes towards achieving organisational goals and strategy (Jones & George, 2000).

EI is crucial to a leader's success (Goleman, 2001; Vitello-Cicciu, 2002). According to McClelland (1998), it is as though it is based on the competencies above the tipping point (the peak at which the potency of a competence has an immense effect on one's performance) that one is able to distinguish average from top players. In his research, Boyatzis (1999) demonstrated that in order to reach or exceed the tipping point, one needs to have at least three out of four components of EI as per Goleman's definition. When it comes to job performance, IQ measures fail to explain differences relating to the performance and career success of leaders and top management. One needs more than IQ measures to predict the performance of leaders; EI needs to be taken into account as well (Emmerling & Goleman, 2003). According to Bachman (1988) the emotional tone that managers put in place will have an effect on the team throughout.

### 3.6.1 Studies on the relationship between EI and job performance

Thus far, numerous studies have been conducted on the relationship between job performance and EI (Landy, 2005). The findings do not always support one other, but each study adds new and valuable information into the mix. Unfortunately this lack of consensus leads to questions about the scientific status of EI (Cote & Christopher, 2006; Landy, 2005). Some studies demonstrate a positive relationship between EI and job performance (Lam & Kirby, 2002; McClelland, 1998; Sue-Chan & Latham, 2004; Wong, Law & Wong, 2004), while other researchers argue the opposite, stating that there is no relationship or an inconsistent one between these two variables (Austin, 2004; Petrides, Frederickson & Furnham, 2004; Sosik & Megerian, 1999). Mayer and Salovey (1997) and Goleman (1998) support the view that EI accounts for variance in job performance which cannot be explained by constructs such as cognitive intelligence.

A two-year study conducted at Johnson and Johnson clearly illustrates the relationship between EI and leadership success (Gowing, O'Leary, Brienza, Cavallo & Crain, 2006). This afforded the company an opportunity to develop the leadership team and provided guidance for future recruitment, selection and promotion processes (Gowing *et al.*, 2006). A study conducted across different insurance companies in the USA, which focused on chief executive officers (CEOs), also confirmed that better performing companies (financially) were headed by CEOs with higher EI (Williams, 1994).

Another study that supports the predictive validity of EI in differentiating between high and average performers in the workplace was that of Kelley and Caplan (1993) conducted at Bell Laboratories (Dulewicz & Higgs, 2000). Kelley and Caplan (1993), in collaboration with other experts, developed a checklist of noncognitive actions on which people received training. The study covered 600 out of 5 000 workers at Bell Laboratories. After the study was concluded, the participants became facilitators who trained others on noncognitive skills (Crawford, 1994).

According to Bar-On *et al.* (2006), there are two major studies that illustrate the significant relationship between EI and job performance - one conducted in the US Air Force (USAF), and the second in the Israeli Defence Force (IDF):

- The USAF case study was based on the data gathered in the selection and recruitment process; the EQ-i scores of 1 171 USAF recruits were used and compared (Bar-On *et al.*, 2005). Once performance criteria had been developed to distinguish between average and top performers, discriminant functional analysis was conducted. The analysis confirmed that on the basis of EQ-I scores one could fairly accurately distinguish between average and high performers. In this study, the relationship between emotional and social intelligence (ESI) and performance was equal to .53. (Bar-On *et al.*, 2005).
- In the IDF study, EQ-i scores were compared to externally rated performance for a sample of 335 combat soldiers and 240 soldiers from an elite unit. In the study with the combat soldiers, the predictive validity coefficient was .55, while in the second study it was .51 (Bar-On *et al.*, 2005).

Nel's (2001) study conducted among call centre agents in a major insurance company in South Africa, also confirmed these findings and reported a statistically significant positive relationship ( $r=0,534$ ) between total EI and job performance in the call centre environment. In the study, the ECI (self version) was administered to 135 participants out of 153 who received the questionnaire (88.2% response rate). The participants were also rated by 35 leaders. This study also indicated that EI is a predictor of job performance and leadership potential (Nel, 2001; Sala, 2006).

Even though numerous studies have been conducted, within and outside of South Africa, this particular study is adding to the existing findings in numerous ways. The South African study conducted by Nel concentrated on call centre agents as oppose to leaders. Emotional intelligence becomes more crucial as one becomes more senior and leads people hence the focus of the study is on leaders. This study was also conducted using a 360° measure providing us with an insight and differences between self-rating and the ratings of others and its impact on overall performance.

Although numerous studies indicate that there is a relationship between EI and job performance, cognitive intelligence cannot be overlooked. According to Wagner's meta-analysis, cognitive intelligence accounts for approximately 6% of variance in work performance, and based on six studies conducted by Bar-On (such as the two discussed above), EI is responsible for about 30% of

variance in performance. EQ therefore accounts for about five times more variation than IQ (Bar-On *et al.*, 2005).

### **3.6.2 Compensatory model of emotional and cognitive intelligence and job performance**

A compensatory model views EI as a type of intelligence. It seems to be higher among individuals with higher cognitive intelligence, but the relationship is not linear. Individuals who are raised in a household in which the parents speak openly about their feelings are more likely to have higher EI.

Amongst those with low cognitive intelligence and high EI the room for improvement is significant. According to this model there are a few ways in which EI may enhance, the job performance of a person with low cognitive ability (Cote & Christopher, 2006):

- Performance that is not accomplished through IQ may be reached through EI. The interpersonal skills may be more significant than cognition for success.
- By regulating his or her emotions, a person is able to improve the quality of social relations and thus enjoy more constructive reactions from co-workers (Wong & Law, 2002).
- By influencing the way in which a person thinks and behaves, his or her emotions can be managed in such way that they improve decision making and motivation (Wong & Law, 2002).

Although EI may compensate for low cognitive intelligence and improve one's performance, it is believed that the higher the cognitive intelligence the smaller the impact of EI will be on a person's already superior job performance. To summarise, emotional and cognitive intelligence compensate for each other in the context of job performance (Cote & Christopher, 2006).

The findings of a study by Cote and Christopher (2006) indicate that the research which found a relationship between EI and job performance used a sample with a lower cognitive intelligence than the sample that may have been used for studies that reflect no such relationship (Cote & Christopher, 2006). This is merely one way of looking at this argument which may perhaps be too broad and simplistic.

### **3.7 CONCLUSION**

This chapter dealt with job performance, starting with definitions of the concept (individual and organisational). The discussion then focused on different performance management and measurement systems. Once the concept of job performance had been clearly defined and discussed it was linked to EI in leaders. Research findings were presented and discussed to illustrate the relationship between EI and leaders' performance.

## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **4.1 INTRODUCTION**

The research methodology will be addressed in this chapter by outlining the objectives of the study, the sampling design, the data collection method and the data analysis techniques.

#### **4.2 OBJECTIVES OF THE STUDY**

The main objective of this study was to determine whether there is a statistically significant relationship between the EI and job performance in leaders, in terms of the self and observer ratings.

The secondary objectives of the study were as follows:

- to conduct a literature review on EI and job performance
- to determine whether there is a relationship between the EI and job performance of call centre leaders in a medical aid administration company
- to determine whether there is a relationship between the different traits of EI and job performance of call centre leaders in a medical aid administration company
- to make recommendations

#### **4.3 SAMPLING DESIGN**

Sampling is a procedure that selects a fraction of the elements in a population, and using the information obtained, draw conclusions about the entire population (Cooper & Emory, 1995). Sampling design therefore, includes the target population and the sampling methods to be used.



### **4.3.1 Population and sample**

A population consists of the entire group of people the researcher wishes to investigate (Sekaran, 2000). This research project was conducted at a South African medical aid administration company. The research was conducted at the company's head office. The population comprised all the employees of a Medical Aid Administrator in Johannesburg, which totalled 2 000 employees.

The employees work in teams allocated according to the product range. The nature of the business exposes the leaders and their subordinates to constant interactions with one another and with the clients who are often extremely demanding. This made it a suitable setting for assessing emotional intelligence and its impact on performance.

The sample consisted of a nonrandom convenience (availability) sample of 45 leaders and 223 raters. Seven leaders had to be excluded from the study because they failed to complete the self-assessment questionnaires resulting in the elimination of 30 rater responses. Twenty eight raters never completed the questionnaire, and the final sample thus comprised of 38 leaders and 165 raters, making the total sample equal to 203 participants.

### **4.3.2 Sampling technique**

Two different sampling techniques were used in this study. A nonprobability availability sample was used to select leaders to participate in the study and thereafter systematic probability sampling was used to select the raters per leader.

#### *4.3.2.1 Nonprobability sampling*

Because nonprobability sampling does not involve random selection, nonprobability samples cannot depend on the rationale of probability theory. Although random sampling methods are considered to be more accurate, they may not always be feasible and practical. There are two broad types of nonprobability sampling methods, namely (1) accidental or haphazard and (2) purposive (Trochim, 2002b).

Convenience sampling is a method whereby the sample of subjects selected is based on convenience and includes individuals who are readily available (Christensen, 1994). Examples would be using college students in psychological research or calling for volunteers (Trochim, 2002a). In this study, a nonprobability convenience sample was used to select leaders to participate. All the leaders who were easily accessible and willing to cooperate were selected to participate in the study.

An invitation letter was e-mailed to 268 employees (study subjects and raters) of the company after the leader sample had been identified and selected. The leaders were informed via an e-mail about the purpose of the study and asked to fill in a self report questionnaire on EI. Prior to completing the questionnaire all the participants were asked to sign a consent form. The raters received an e-mail with a request to rate their particular peer or leader, depending on the relationship between the rater and the ratee.

#### *4.3.2.2 Probability sampling*

In this type of sampling, every member of the population has an equal chance of being selected for the study. Six probability sampling strategies are typically used in psychological research: simple random sampling, systematic sampling, stratified random sampling, proportionate sampling, cluster sampling, and multistage sampling. In this study, in order to select the raters per leader, systematic probability sampling was used. After the required sample size had been calculated, every Nth record was selected from a list of sample members (Thomson, 2005).

## **4.4 DATA COLLECTION METHOD**

Data were collected over a period of two months by administering paper-and-pencil questionnaire and electronic versions of the questionnaire. Prior to data collection, all the relevant leaders were addressed in groups. They were informed in detail of the purpose of the study, the importance of EI and the process to follow. During these discussions, all the participants consented verbally and in

writing to participate in the study and also agreed to the researcher using the questionnaire results for the study.

The 360° ECP is a self-administered forced-choice questionnaire in which the items need to be responded to on a four-point Likert scale. A paper-and-pencil version of the questionnaire was used in instances where the participants did not have internet access. The paper version of the questionnaire was handed out to each participant and they were supervised while completing it. Those who did have an access to internet (all the leaders) were sent an e-mailed containing an internet link with a login and password. They were asked to complete the questionnaire on-line.

The company supplied the job performance data for all the leaders in the sample. Statistical records are kept on each employee and the researcher obtained the average performance ratings of each participant over a period of 12 months. Where a participant had not yet been with the company for a year, the average of the period the person had been with the company was used.

#### **4.4.1 The ECP as measuring instrument**

The measuring instrument used in this study is known as the 360° ECP. A detailed description is provided below.

##### *4.4.1.1 Description of the ECP*

###### *(a) Aim and structure of the questionnaire*

The ECP is a multirater assessment designed to measure trait-based emotional intelligence in the work context. It consists of 46 items and subdivides emotional intelligence into seven competencies (Coetzee, 2005) - change resilience, emotional literacy, integration of head and heart, interpersonal relations, self-management, self-motivation and self-esteem/self-regard (Wolmarans & Martins, 2001).

###### *(b) Administration and interpretation*

The questionnaire takes approximately 30 minutes to complete. The difference between the self rating and rater rating sections are described below.

- ***Self-rating section.*** In this section, the subject rates himself or herself.
- ***Rater rating section.*** This section requires each subject (leader) who participated in the self-rating section to be evaluated by at least two raters. The raters were given exactly the same questionnaire as the participants. The researcher confirmed with each rater that he or she knew the person well enough to rate him or her. The names of the raters were known only to the person who administered and scored the test.

All the participants were required to respond to 46 four-point Likert type items. The 46 items had to be completed on one of the two four-point Likert scales (one measuring current emotions and the second measuring the importance of such emotions) (Martins & Coetzee, 2007). On the four-point scale, 4 means strongly agree (current behaviour) and very important (importance of such emotion), 1 means strongly disagree (current behaviour) or insignificant (importance of such emotion). If one explains the mean scores, 1 is a lowest score, 2 and 3 medium scores and 4 a high score.

*(c) Reliability and validity of the ECP*

The questionnaire was developed by I.S. Wolmarans and has shown acceptable validity and reliability in the South African context. The overall reliability on ECP was found to be 0.981 with acceptable content (internal) validity (Coetzee, 2005).

The construct validity of trait EI is consistent with models of differential psychology (Petrides, Furnham, Mavroveli, 2007), and previous research established the discriminant and incremental validity of trait EI against the big five and giant three personality dimensions (Petrides, Furnham & Frederickson, 2004).

#### **4.4.2 Procedure**

After obtaining permission from the company to conduct the study, the questionnaire was either administered personally to individuals or electronic versions were e-mailed. The subjects were free to ask questions prior to completing the questionnaire. The questionnaires were completed by 233 individuals, but only 203 responses were used in the study for the reasons indicated earlier.

The ratings were divided into two groups – for the leaders and the raters representatively. The group ratings were all added together and reported on per dimension of EI.

For the sake of confidentiality, the questionnaire is not included here.

#### **4.4.3 Data processing**

All the questionnaires were scored by the test developer (using the specific software) and the raw scores were then sent to the researcher. Computerised scoring was done after capturing the answers on the completed questionnaires in an Excel spreadsheet form. All the data (test scores and the job performance ratings) were made available for statistical analysis.

In order to analyse the data, Pearson correlation coefficient statistical analysis was conducted to determine the correlation between overall EI and job performance in order to evaluate the statistical significance of the relationship between the EI and job performance as per the self and others' rating.

Since the research focused on the relationship between the variables, it was a correlational study and the whole sample group was therefore examined while reporting on the results of the study.

#### **4.4.4 Descriptive statistics**

Descriptive statistics refers to the collection of methods for classifying and summarising numerical data. There are three types of descriptive statistics - frequencies, measures of central tendency and measures of dispersion (Trochim, 2006a). In this study the measure of central tendency was used.

Measures of central tendency are methods of measuring the average score for the sample. This study focused on the mean (the arithmetic average of a group of numbers) (Christensen, 1994), because it gives the overall representation of the sample.

To illustrate the relationship between EI (self and other rating) and job performance, the Pearson correlation coefficient was used. A coefficient of correlation is a number that illustrates to what extent two variables are related and to what extent variations in the one relate to variations in the other (Fruchter & Guiford, 1978).

#### **4.5 CONCLUSION**

In this chapter the research methodology was explained, and the statistical methods used to analyse the data obtained from the questionnaire were clarified. The objectives of the study were formulated, the sampling design and the characteristics of the sample discussed and the method for data collection and analysis explained. The next chapter deals with the results.

## **CHAPTER 5 RESEARCH RESULTS AND FINDINGS**

### **5.1 INTRODUCTION**

In this chapter the results of the study are presented and discussed in detail. This includes the measures of central tendency, correlations analysis for the relationship between job performance and EI as reported by self and others. The results are aligned to the methodology presented in chapter 4 of the study.

### **5.2 OBJECTIVES**

The main objective of the study was to determine whether there is a statistically significant relationship between the EI and job performance of leaders, according to self and others' ratings in a medical aid administration company. The significance of this relationship was discussed with the focus on overall EI and each of the seven dimensions.

### **5.3 RESPONSE RATE**

The sample consisted of a nonrandom sample of convenience of 45 leaders and 223 raters in a medical aid administration company. Seven leaders had to be excluded from the study because they failed to complete the self-assessment questionnaires. Thirty rater responses therefore had to be eliminated. Twenty eight raters never completed the questionnaire and the final sample therefore totalled 38 leaders and 165 raters, bringing the total sample to 203 participants.

**Table 5.1: Response rate**

	<b>Leaders</b>	<b>Raters</b>	<b>Total</b>
<b>Target sample</b>	45	223	268
<b>Realised sample</b>	38	165	203
<b>Response rate</b>	84.4 %	74 %	75.7 %

## 5.4 BIOGRAPHICAL DATA

The biographical data gathered were the participants' gender, ethnic origin and job level. Gender and ethnic information was only gathered for the leaders since the raters' responses were kept anonymous in order to assure the raters that their responses would remain confidential.

### 5.4.1 Gender distribution of the Leader sample

Table 5.2 illustrates the gender distribution of the leader sample.

**Table 5.2: Gender distribution of the leader sample**

<b>GENDER</b>	<b>N</b>	<b>PERCENTAGE OF SAMPLE</b>
<b>Male</b>	13	34.2 %
<b>Female</b>	25	65.8 %
	N=38	100%

Of the total sample of 38 leaders, 13 were male and 25 female. This was not totally representative of the leader population but since the convenience sampling method was used to select the participants, it was not possible to control how many males versus females would be participating in the study.



#### 5.4.2 Ethnic distribution of the Leaders' sample

Table 5.3 illustrates ethnic distribution of the leader sample.

**Table 5.3: Ethnic distribution of the leader sample**

<b>ETHNIC ORIGIN</b>	<b>N</b>	<b>PERCENTAGE OF SAMPLE</b>
<b>Black</b>	10	26.3 %
<b>Coloured</b>	3	7.9 %
<b>Indian</b>	10	26.3 %
<b>White</b>	15	39.5 %
	N=38	100%

The ethnic distribution of the sample indicates that the largest portion of the sample consisted of white participants (15 of whom accounted for 39.5% of the sample). There was an equal number of black and Indian participants at 10 per ethnic group (26.3% accordingly), and only three coloured participants.

#### 5.4.3 Job level distribution of the sample

Table 5.4 illustrates job level distribution of the whole sample.

**Table 5.4: Job level distribution of the sample**

<b>Job level distribution</b>	<b>N</b>	<b>PERCENTAGE OF SAMPLE</b>
<b>Leader</b>	38	18.7 %
<b>Subordinate/ peer</b>	165	81.3 %
	N=203	100%

## 5.5 DESCRIPTIVE RESULTS

Measures of central tendency were used to measure the average score for the sample (Trochim, 2006a). In this study, the mean was used to calculate the average score for the sample.

### 5.5.1 Means, standard deviation, minimum and maximum scores for the dimension of EI

At individual level, the minimum score was 1 and the maximum score 4 on the four-point Likert scale. In this study, the minimum and maximum values were examined at group level. For the self-rating, all 38 minimum and 38 maximum scores for the leader group were combined for all the questions relating to each of the seven dimensions and the leader group mean was calculated per dimension. For the raters' results, all 163 minimum and 163 maximum responses were combined for all the questions relating to each of the seven dimensions, and divided by the number of raters in order to obtain the rater group minimum and maximum scores and the rater group mean. The mean value was analysed at group level.

The number of questions per dimension was as follows:

- emotional literacy: six questions
- self-esteem: six questions
- self-management: six questions
- self-motivation: six questions
- change resilience: seven questions
- interpersonal relations: nine questions
- integration of head and heart: six questions

The measures of central tendency and the mean score per different dimension of EI (current and importance) as per leaders and the group who rated the leaders are indicated in table 5.5 and figures 5.1 to 5.4. Table 5.5 also displays the statistical significance of the difference between dimension mean score of self rating (leader group) and dimension mean scores of others ratings (rater group). Practical significance of the results in terms of the effect sizes are also provided.

**Table 5.5: Descriptive analysis of data**

	Self rating					Others rating					Sig.(2-tailed)	d Stat
	N	Min	Max	Mean	SD	N_r	Min_r	Max_r	Mean_r	SD_r		
<b>Emotional literacy: current</b>	38	2.67	4.00	3.3088	.40207	38	2.19	4.00	3.0625	.43093	.017*	0.59
<b>Emotional literacy: importance</b>	37	2.67	4.00	3.5495	.38060	38	2.57	4.00	3.3561	.29632		
<b>Self esteem: current</b>	38	2.67	4.00	3.4912	.35291	38	2.25	4.00	3.1182	.37649	.000**	1.02
<b>Self esteem: importance</b>	37	2.50	4.00	3.5315	.38457	38	2.86	4.00	3.3619	.27269		
<b>Self management: current</b>	38	2.33	4.00	3.1333	.47980	38	2.17	4.00	3.0826	.46305	.628	0.11
<b>Self management: importance</b>	37	2.00	4.00	3.4324	.45890	38	2.79	4.00	3.3812	.25369		
<b>Self motivation: current</b>	38	2.50	4.00	3.4167	.43515	38	2.34	4.00	3.1951	.39912	.026*	-0.15
<b>Self motivation: importance</b>	37	2.50	4.00	3.5396	.38239	38	2.89	4.00	3.4032	.29957		
<b>Change resilience: current</b>	38	2.71	4.00	3.3722	.40206	38	2.00	4.00	3.0803	.39767	.002**	0.84
<b>Change resilience: importance</b>	37	2.57	4.00	3.5676	.38757	38	2.75	4.00	3.3717	.26282		
<b>Interpersonal relations: current</b>	38	2.78	4.00	3.5117	.39308	38	2.20	4.00	3.1241	.45995	.000**	0.58
<b>Interpersonal relations: importance</b>	37	3.00	4.00	3.6445	.34728	38	2.77	4.00	3.4517	.30222		
<b>Integration of head and heart: current</b>	38	2.43	4.00	3.2932	.44306	38	2.07	4.00	3.0814	.46182	.067	0.95
<b>Integration of head and heart: Importance</b>	37	2.29	4.00	3.4942	.43068	38	2.83	4.00	3.4021	.25879		
<b>Valid N</b>	37					38						

Note: N\_r, Min\_r, Max\_r and SD\_r refer to rates' scores. \*for p < 0.05 \*\* for p < 0.01

Table 5.5 was interpreted by using the minimum, maximum and mean value of each dimension with regard to the current ratings and importance of the EI dimensions as per self-ratings and others-ratings ( $\bar{r}$ ). Theoretically, the maximum score of any dimension could be 4 and the minimum 1. The mean between 1 and 2 represents low EI, 2.5 to 3.5 represents medium EI and between 3.5 and 4, including 4, high EI.

- Focusing on the **mean scores of self-ratings versus others ratings** in general, self-rating mean scores for each dimension, on current and importance scales, are higher than the others' ratings. This may have been caused peoples' tendency to see themselves in a more positive light.
- The mean scores (self and others) on all seven dimensions are scored lower on **current behavior when compared to the importance** of such behavior.
- The effect size results for comparing the practical significance of differences between the means of the two groups compared indicated that there is a medium **effect size** for emotional literacy ( $d=0.59$ ) and interpersonal relations ( $d=0.58$ ) dimensions and high effect size for self esteem( $d=1.02$ ), change resilience ( $d=0.84$ ) and integration of head and heart ( $d=0.95$ ) dimensions.
- The maximum dimension value for self-rating and raters' ratings (for current and importance) was 4 for all EI dimensions. The minimum values for each dimension were as follows:
  - *emotional literacy*: 2.67 and (for current and importance as per self rating) and 2.19 for current and 2.57 for importance according to raters scores
  - *self esteem*: 2.67 (self) and 2.25 (raters) for current and 2.50 (self) and 2.86 (raters) for importance
  - *self management*: 2.33 (self) and 2.17 (raters) for current and 2 (self) and 2.79 (raters) for importance
  - *self motivation*: 2.5 (self) and 2.34 (raters) for current and 2.5 (self) and 2.89 (raters) for importance

- *change resilience*: 2.71 (self) and 2.0 (raters) for current and 2.57 (self and raters) for importance
- *interpersonal relations*: 2.78 (self) and 2.2 (raters) for current and 3 (self) and 2.77 (raters) for importance
- *integration of head and heart*: 2.43 (self) and 2.07 (raters) for current and 2.29 (self) and 2.83 (raters) for importance

One of the participants on the self rating scale did not respond to the importance part of the questionnaire.

#### *5.5.1.1 Emotional literacy*

The mean score ( $M=3.3088$  and  $M_r=3.0625$ ) for emotional literacy dimension (current) indicated that the subjects showed moderate levels of emotional literacy as per the self-rating and raters' ratings. The statistical significance score (current) for the raters dimension mean and others dimension mean was reported at  $p=0.017$  indicating that there was a statistically significant difference between the two rater groups. The standard deviation ( $SD=.40207$  and  $DS_r=.43093$ ) showed that there was a low variation in the levels of emotional literacy among leaders. This was confirmed by examining the minimum and maximum dimension scores. The minimum dimension scores were 2.67 (self) and 2.19 (raters), while the maximum scores were 4. Looking at the importance of emotional literacy as reported by the leaders and raters, the mean scores indicated that the raters considered emotional literacy to be moderately important ( $M=3.5495$ ), whereas the leaders deemed it to be highly important ( $M=3.3561$ ). On the importance scale the mean score for raters was moderate, whereas the mean score for leaders was slightly higher. The minimum scores were of a similar value. This indicates that the leaders viewed emotional literacy to be significant, whereas others regarded it as moderately important.

#### *5.5.1.2 Self-esteem*

The mean scores ( $M=3.4912$  and  $M_r=3.1182$ ) for self-esteem (current) indicated that the subjects showed moderate levels of self-esteem. The standard deviations ( $SD=.35291$  and  $SD_r=.37649$ )

showed that there was noticeably low variation in the levels of self-esteem among leaders as reported by self and raters and the comparison of the two dimension means (current) shows that there is a statistically highly significant difference between the self and the raters dimension ( $p=0.000$ ). This was confirmed by examining the minimum and maximum scores. The minimum scores were 2.67 (self) and 2.25 (raters), while the maximum scores were 4. Looking at the importance of self-esteem, the mean scores ( $M=3.5315$  and  $M_r=3.3619$ ) indicated that leaders considered self esteem to be more important than others do.

#### *5.5.1.3 Self-management*

For the dimension of self-management, the current scores ( $M=3.1333$  and  $M_r=3.0826$ ) indicated that the subjects showed moderate levels of self-management. The self-rating mean was the lowest out of the seven dimensions of EI indicating that the greatest link seemed to be between current and the importance of self-management as reported by the leaders. This will be illustrated at a later stage. The standard deviations ( $SD=.47980$  and  $DS_r=.46305$ ) showed that, according to the self-reports and the raters, there was a low variation in the levels of self-management amongst leaders. Comparing the dimension means (current) for self and others ratings it can be observed that there is no statistically significant difference between the two mean scores of the two groups ( $p=0.628$ ). The minimum dimension scores were 2.33 (self) and 2.17 (raters), while the maximum dimension scores were 4. If one looks at the importance of self-management, the mean scores ( $M=3.4324$  and  $M_r=3.3812$ ) indicated that the leaders and the raters both considered self-management to be moderately important for job performance.

#### *5.5.1.4 Self-motivation*

The mean scores ( $M=3.4167$  and  $M_R=3.1951$ ) for current self-motivation indicated that the subjects showed reasonable levels of self-motivation. The standard deviations ( $SD=.43515$  and  $SD_r=.39912$ ) indicates a small variation in the levels of self-motivation among leaders. Comparing the dimension mean scores (current) for self and others ratings there is a statistically significant difference between the two ( $p=0.026$ ). The minimum scores were 2.5 (self) and 2.34 (raters), while the maximum scores were 4. If one looks at the importance of self-motivation for

leaders and raters, the mean score ( $M=3.5396$  and  $M_r=3.4032$ ) indicated that the leaders and the raters considered self-motivation to be highly important. The minimum and maximum scores for the importance were the same as for current behavior, according to the self rating.

#### *5.5.1.5 Change resilience*

For the dimension of change resilience, the current scores ( $M=3.3722$  and  $M_r= 3.0803$ ) indicated that the subjects showed moderate levels of change resilience. Comparing the dimension mean scores (current) for self and others ratings it can be observed that there is a statistically significant difference between the two ( $p=0.002$ ). The standard deviations ( $SD=.40206$  and  $SD_r=.39767$ ) showed that, according to the self-reports and the raters' reports there was a low variation in the levels of change resilience among leaders, which means that most leaders considered themselves to be resilient to change. The minimum scores were 2.71 (self) and 2 (raters), while the maximum scores were 4. If one looks at the importance of change resilience, the mean scores ( $M=3.5676$  and  $M_r=3.3717$ ) indicated that the leaders considered change resilience to be highly important for job performance. The standard deviations ( $SD=.38757$  and  $SD_r=.26282$ ) indicated that there was a low variation in the scores on importance of change resilience among leaders.

#### *5.5.1.6 Interpersonal relations*

The dimension mean scores for the current dimension of interpersonal relations ( $M=3.5117$  and  $M_r=3.1241$ ) pointed to moderate levels of interpersonal relations skills among leaders and the comparison of the two means indicated that there is no statistically significant difference between the two rater groups on this dimension. The standard deviations ( $SD=.39308$  and  $SD_r=.45995$ ) showed that there was a fairly low variation in the levels of interpersonal relations ratings among leaders, which means that most of them and the raters considered themselves and where considered by others to be competent in dealing with others. The minimum scores were 2.78 (self) and 2.20 (raters), while the maximum scores were 4. Looking at the importance of interpersonal relations as reported by the leaders and the raters, the mean scores ( $M=3.6445$  and  $M=3.4517$ ) indicated that leaders considered interpersonal relations to be highly important for job performance, whereas the raters deemed it to only be slightly less important. The lowest score on a

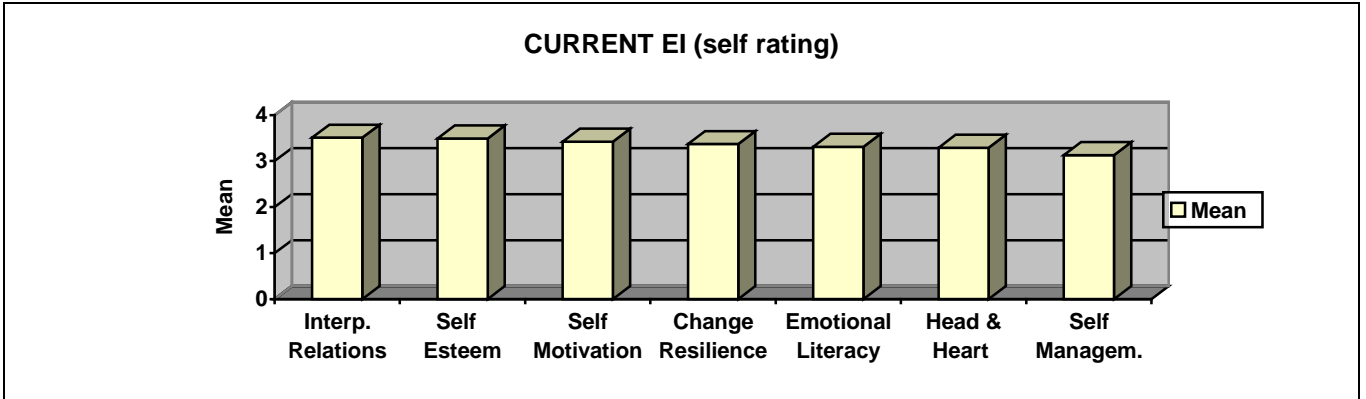
self-rating scale for importance (3.00) indicated that such a dimension was fairly important. The standard deviations ( $SD=.34728$  and  $SD_r=.30222$ ) indicated that there was an extremely low variation in the scores on the importance of interpersonal relations among leaders.

#### *5.5.1.7 Integration of head and heart*

The last dimension was the integration of head and heart. The dimension mean scores for the dimension (current behaviour) ( $M=3.2932$  and  $M_r=3.0814$ ) indicated moderate levels of integration of head and heart abilities among leaders. The statistical significance score (current) for the raters dimension mean and others dimension mean was reported at  $p=0.067$  indicating that there was no statistically significant difference between the two rater groups. The standard deviations ( $SD=.44306$  and  $SD_r=.46182$ ) showed that there was a fairly low variation in the levels of integration of head and heart ratings. The minimum scores of 2.43 (self) and 2.07 (raters) showed low levels of integration of the head and heart dimension while the maximum scores of 4 indicated high levels of it. If one looks at the importance of such a measurement, the mean scores ( $M=3.4942$  and  $M_r=.25879$ ) indicated that the leaders considered it to be moderately important, whereas the raters deemed it to be highly important for job performance.

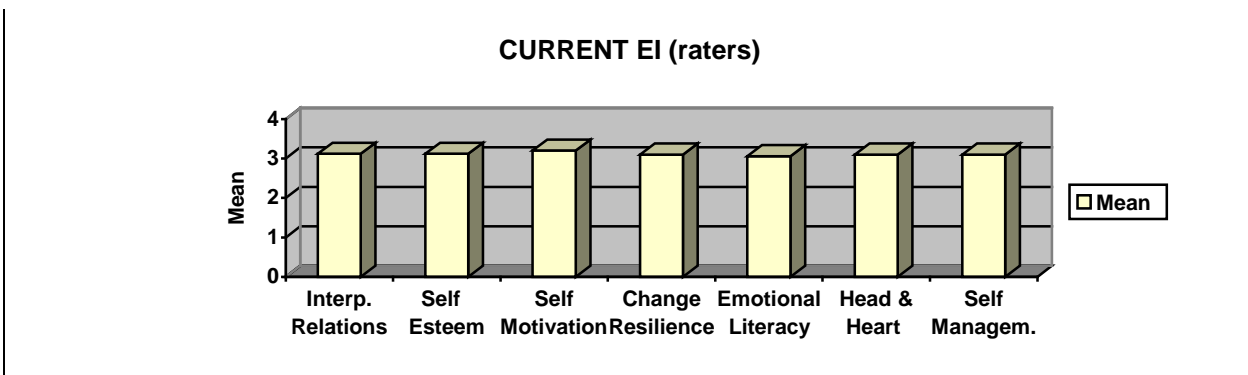
Figures 5.1 to 5.4 illustrate a graphic representation of the current levels and importance of EI among the leaders as per the self-rating and raters' ratings, as discussed above. The figures 5.1 to 5.4 visually summarised the values provided in table 5.5, which provides the descriptive analysis of data.





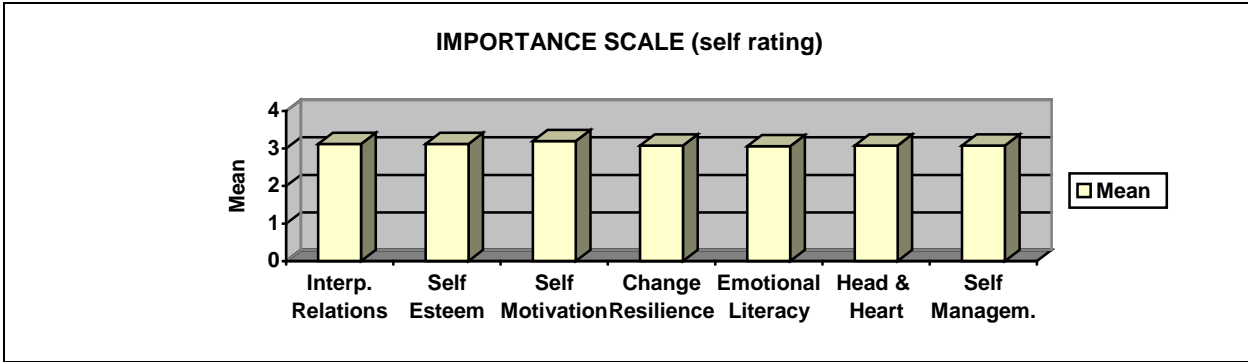
**Figure 5.1: The mean current EI (self-rating)**

Figure 5.1 graphically depicts the mean of the leaders' self-scores for each of the seven EI dimensions. It clearly indicates that there were no clear differences between the way leaders scored themselves on different dimensions of EI. This indicates that the leaders viewed themselves as relatively emotionally intelligent across all dimensions of EI.



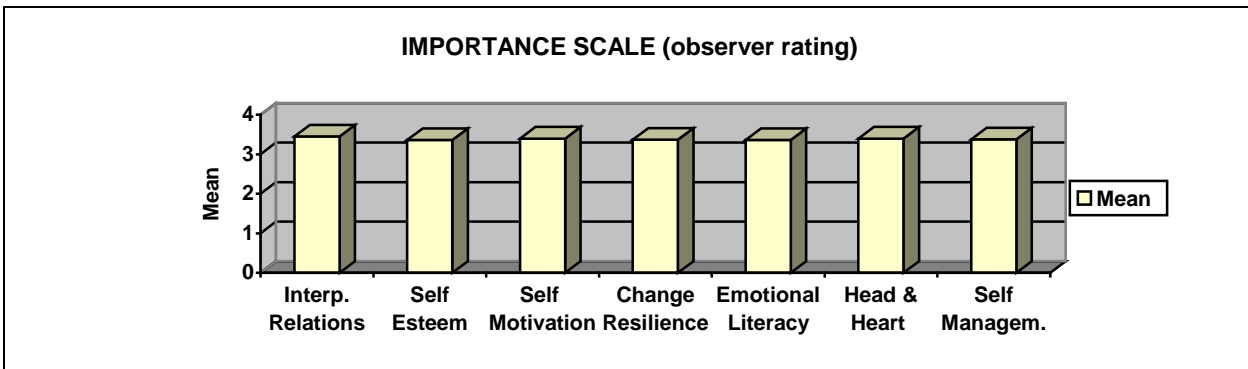
**Figure 5.2: The mean current EI (raters)**

Figure 5.2 illustrates graphically the mean of the raters' scores for each of the seven EI dimensions. It clearly indicates that there were no observable differences between the way how raters scored the leaders on different dimensions of EI. This indicates that the raters viewed the leaders as relatively emotionally intelligent across all dimensions of EI. Saying that, it can be observed that the raters did rate the leaders slightly lower on each dimension of EI than the leaders rated themselves.



**Figure 5.3: The mean EI: importance (self-rating)**

Figure 5.3 depicts the mean of the leaders self-scores on the importance of each of the seven EI dimensions to job performance. It clearly indicates that there were no major differences between the importance of the different dimensions of EI to leaders. The mean scores were reported for emotional literacy, self-esteem, self-motivation, change resilience and interpersonal relations, which indicates that the leaders considered those dimensions to be the most important for job performance.



**Figure 5.4: The mean EI: importance (raters)**

Figure 5.4 illustrates the mean of the raters' ratings of the importance of each of the seven EI dimensions to job performance. It clearly indicates that there were no clear differences between the importance of the different dimensions of EI on six out of seven dimensions. This indicates that the raters viewed most of the EI dimensions as equally significant. The raters reported that integration of head and heart as the most important for job performance of leaders.

## **5.6 HYPOTHESES**

The general objective of this research was to determine whether there was a statistically significant positive relationship between the EI and job performance of call centre leaders in a medical administration call centre environment. A further aim was to pinpoint the specific EI traits that were most important for job performance in this environment. Although biographical data such as gender, ethnicity and qualifications were gathered, for the purpose of this study, the overall result of EI for the total sample of leaders was considered.

Only the correlation between the independent and dependent variables of minimum 0.3 and 0.5 was considered to be practically significant according to Cohen's guidelines (Cohen, 1992). In terms of the statistical significance of the correlation results, the probability value  $p < 0.05$  (at 95%) was set.

### **5.6.1 Hypothesis 1**

There is a statistically significant positive relationship between the overall EI and job performance of call centre leaders.

The EI scores were compared to the job performance scores by correlating the two sets of scores. The results showed that there was no statistically significant relationship between the emotional literacy and self-esteem dimensions and job performance, while there was a statistically significant positive relationship between self management dimension (current) and job performance as per raters. Leaders' ratings (current and importance) indicated that there was a statistically significant negative relationship between self management, change resilience and interpersonal relations, and job performance as well as current integration of head and heart and job performance. The relationship between EI and job performance was analysed by focusing on the whole sample. The relationship between EI and job performance was determined using the EI scores based on self rating and others' ratings respectively.

The job performance was rated on a scale 1 to 3, the minimum rating being 1 and the maximum 3, allowing the raters assign in between scores with up to two decimal values. For the leaders' sample (N=38) represented in this study, the minimum job performance rating was equal to 1.67 and the maximum rating equal to 2.98. This means that out of 38 leaders who participated in the study, no one received a minimum or maximum job performance rating. All the leaders scored from average to above average, which would indicate that they all met or exceeded the job performance requirements.

The results of both the self-ratings and raters' ratings indicated moderate levels on all seven EI competencies. This implies that the leaders perceived themselves to have moderate levels of EI in general and as did those who had rated them.

A possible reason for the scores of all the dimensions of EI being moderate was that the participants failed to make proper use of the whole rating scale. The middle ratings were mainly selected. This may have had an impact on the overall finding of the study as restriction of range impacts on the magnitude of correlation values.

### **5.6.2 Hypothesis 2 and hypothesis 3**

#### **Hypothesis 2**

There is a statistically significant positive correlation between the dimensions of an individual's own ratings (perception) of his or her EI and the job performance of the call centre leaders.

#### **Hypothesis 3**

There is a statistically significant positive correlation between the dimensions of other raters' perception of leader's EI and the job performance of the call centre leaders.

The correlations are indicated in Table 5.6.

CORRELATIONS: EI DIMENSIONS VS JOB PERFORMANCE	SELF RATING		OTHERS' RATING	
	Current	Importance	Current_r	Importance_r
Emotional literacy	-.182	-.184	.128	.019
Self-esteem	-.014	-.187	.160	.084
Self-management	-.105	-.214	.255*	-.001
Self motivation	-.264*	-.281*	.099	-.093
Change resilience	-.275*	-.297*	.179	.062
Interpersonal relations	-.243*	-.272*	.111	-.028
Integration of head and heart	-.292*	-.227	.187	.106

**Table 5.6: Pearson's correlation matrix of EI dimensions versus job performance**

\* Correlation was significant ( $p < 0.05$ )

Referring to table 5.6., according to the self-ratings, there was no significant relationship between job performance and overall EI. A number of negative relationships were reported on particular dimensions.

There was a statistically significant negative correlation (at the 0.05 level) between current job performance and the following EI dimensions: self motivation (current at -.264 and importance at -.281), change resilience (current at -.275 and importance at -.297), integration of head and heart (current at -.292), and interpersonal relations (current at -.243 and importance at -.272).

Based on the observers' ratings, there was a significant positive correlation (at the 0.05 level) between one of the current EI dimensions, namely self-management and job performance (at .255). There was no statistically significant relationship with the other six dimensions. This may have been a result of the raters not making use of the whole scale of ratings, as well as the lack of differentiation between the job performance ratings among the sample.

The correlation results for current EI versus job performance indicated that there was a difference in the relationship between EI and job performance for the leaders and raters. The data indicated that there is a negative relationship between certain EI dimensions and job performance for the leader group (using self-rating for EI), versus the relationship indicated by the data using raters reports on EI. Raters reports on EI indicated no significant relationship for six out of seven EI dimensions and job performance.

There was no statistically significant relationship between the importance of EI and job performance as per the leaders and raters on two out of seven EI dimensions. There was a statistically significant positive relationship between current self management and job performance as per raters' ratings and a statistically significant negative relationship between self-motivation, change resilience, interpersonal relations and integration of head and heart EI dimensions and job performance (leader ratings, current behaviour). According to the leaders the results for the importance of EI were reported to be negatively correlated to job performance for the following dimensions: self-motivation, change resilience and interpersonal relations. According to the raters, integration of head and heart was important to the job performance of leaders.

Similar findings were reported in a study conducted by Hayward, Amos and Baxter (2008), who also used the ECP assessment to measure emotional intelligence. According to their findings the ECP is a reliable measure of emotional intelligence and there is a negative significant relationship between performance and emotional intelligence (Hayward, *et al.*, 2008).

The study conducted in South Africa by Nel and De Villiers (2004), using a different EI assessment tool, determined that there is in fact a positive relationship between emotional intelligence and job performance (Nel & De Villiers, 2004). The differences in the research results may be a result of numerous external factors as well as the tools used and the size of the sample. Nel and De Villiers (2004) used a significantly larger sample. Some of the limitations of this particular study are discussed in chapter 6.

The differences in correlations between the leaders' and raters' scores were substantial. Furthermore, the results reported did not support the hypotheses.

## **5.7 CONCLUSION**

This chapter presented the results of the study objectively. This enabled the researcher to identify significant relationships or lack thereof, and the differences between the variables in the study. It also helped to highlight areas requiring improvement.

## **CHAPTER 6**

### **CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

#### **6.1 INTRODUCTION**

The aim of this study was to determine whether there was a statistically significant positive relationship between the EI and job performance of leaders in a medical aid administration company. In this chapter, the results provided in chapter 5 will be interpreted and the findings of the study discussed in the context of the literature review and empirical study. The limitations of this study will be pinpointed and recommendations made for the company and possible future research.

#### **6.2 CONCLUSIONS**

This chapter concludes the literature review and the empirical study. The limitations of the literature review and empirical study are discussed separately and recommendations made for future research.

##### **6.2.1 Literature reviews conclusions**

A literature review was conducted on both EI and job performance, which enabled the researcher to make assumptions about the hypotheses that were tested and compare the findings of previous research with the findings of the present study.

Chapter 2 concentrated on the concept of EI. It was defined in terms of two different models. The ability EI model defines EI as “ the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p. 189). According to Bar-On (2000, p. 2) and trait-based emotional intelligence, “people who are emotionally and socially



intelligent are able to understand and express themselves, to understand and relate well to others, and to successfully cope with demands of daily life”.

Chapter 2 addressed the difference between IQ and EI, different studies conducted to research the concept as well as different EI measuring tools. Previous research has shown that EI, as opposed to IQ, can be developed and improved throughout one’s life (Bar-On, 1997b; Cherniss *et al.*, 1998).

Chapter 3 addressed job performance in general and examined leaders in particular. Job performance was defined as a concept which describes how one completes a task, focusing on efficiency, the skills used, initiative and utilised resources (Rothmann & Coetzer, 2003).

### **6.2.2 Empirical study conclusions**

Based on the results of this study, it can be concluded that there is no statistically significant relationship between overall EI (as per the self-rating and rater ratings) and job performance. The research hypothesis was not supported by the data collected for the study. Numerous other studies have suggested that there is no relationship or an inconsistent one between EI and job performance (Austin, 2004; Day & Carroll, 2004; Hayward, 2005; Janovics & Christiansen, 2001). It should be noted that although other studies have also reflected the lack of a statistically significant relationship between EI and job performance this may have been caused by different factors or limitations of the study such as sample size.

The results of this study show that the self-management dimension (as per the observer ratings) displays the strongest relationship with job performance. This indicates that others believe that managing one’s emotions is the most important factor contributing to their leader’s job performance. Based on the self-ratings, there is a negative relationship between job performance and self-motivation, change resilience and integration of head and heart.

## **6.3 LIMITATIONS**

There were numerous limitations in the literature review and empirical study, some of which are indicated below.

### **6.3.1 Literature reviews limitations**

One of the main limitations of the literature review was that there was too little information on the EI tool used in this study. Since it is a recently developed South African tool, only limited research has been conducted and reported on, especially in the context relevant to this study.

### **6.3.2 Empirical study limitations**

The job performance was rated on a scale of 1 to 3. Ideally, the minimum score is equal to 1 and the maximum score 3, in between scores included scores with up to two decimal values. The minimum rating for the sample (N=38) was equal to 1.67, and the maximum rating 2.98. This means that of the 38 leaders who participated in the study, no one received a minimum or maximum job performance rating. All the leaders scored from average to above average, which would indicate that all leaders met or exceeded the job performance requirements. Since all the performance ratings of the sample were average and above average, this could be a limitation of the study since such restriction in range for variables used in correlations would affect the magnitude of the correlations. None of the leaders in this sample were underperformers.

Another shortfall of the population representation was that the sample included more females than males. Previous studies indicated that although there were no differences between males and females regarding overall EI, there were some differences in respect of specific dimensions.

The results cannot be generalised to the entire company (or to the South African population) since only Johannesburg-based employees in the specific company participated in the study and on account of the sampling method used.

#### *6.3.2.1 Dependent variable limitations*

The job performance rating system that the particular company use in its performance appraisals may have impacted on the results of the study. The job performance ratings were focused on task delivery and did not account for factors such as leadership success or interpersonal relations. The leaders were closely monitored on a monthly basis, leaving limited room for underperformance. This is perhaps why all the leaders who were included in this study were rated average to high on their performance. It is recommended that future studies examine a more differentiated sample when it comes to performance scores, and that some soft skills ratings should be added to the job performance measures.

Another limitation related to job performance was that the research was only given overall job performance ratings therefore the information provided was limited and in turn in limited the analysis.

#### *6.3.2.2 Extraneous variables*

One of the extraneous variables which may have affected some of the observer ratings and were not accounted for in this study is the fact that a few of the departments used in a sample are going through some changes. Such changes created some tension within the departments and may have affected the observer ratings. It is recommended that future studies are conducted in a stable and more neutral environment to improve the reliability of the study by eliminating some of the extraneous variables.

#### *6.3.2.3 Raters (quantity and variety)*

There was a significant difference in the ratings between the leaders and the raters, as reported in chapter 5. The leaders ratings indicated that there was a negative relationship between some of the EI dimensions and job performance, whereas the raters ratings pointed out positive relationships. These differences could have been caused by numerous factors.

To increase the objectivity of the observer ratings, future studies should use more raters per participant. Because of the time constraints and availability of the raters some leaders were only rated by two people, whereas others were rated by up to 10 individuals. Wider sample of raters should be used in future studies. This study focused on two categories of raters, namely subordinates and peers. It is suggested that future studies include leaders' managers as well.

It would also be interesting for future research to examine whether the age of the raters would influence the ratings they assign.

## **6.4 RECOMMENDATIONS**

### **6.4.1 Recommendations for the company**

It is recommended that the company should add a soft skills category as part of its performance appraisal of the leaders. A leader's success is not only based on reaching the targets, but also on the development of his or her team and their interactions with others. A previous study indicated that the leader-subordinate exchange is related to job performance (Gerstner & Day, 1997).

It is also recommended that since self-management emerged as an important factor impacting on job performance, the leadership team should be coached on self-management skills.

### **6.4.2 Recommendations for future studies**

Further studies should include larger and broader samples that are more representative of the population, examining factors such as ethnicity, performance rating and gender. Employees at different levels in the organisation (leaders, senior managers and executives) should be included in the study. The literature suggested that there is a difference in the raters' ratings and self ratings of high-level employees, but that this difference is not generally evident when assessing low-level employees (Church, 1997). Further research could be conducted to test this hypothesis.

The results of this study could serve as a useful source of information in further research even though these results may be industry and environment specific. It is recommended that similar studies should be conducted in economic sectors other than the medical aid sector in order to broaden the relevance of the results on the relationship between the EI and job performance of leaders.

Overall, it is recommended that future research should:

- include a larger sample
- include more diversified raters
- study the impact of extraneous variables on the research findings.

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