

## **EMOTIONAL INTELLIGENCE: A KEY HUMAN RESOURCE MANAGEMENT COMPETENCE FOR PROJECT MANAGERS IN THE 21<sup>ST</sup> CENTURY**

**M-L Barry** (Graduate School of Technology Management, University of Pretoria)  
**Y du Plessis** (Department of Human Resources Management, University of Pretoria)

Human resource management and the corresponding soft-skills or competencies are reported to be of significant importance for project management success. One of the measures of these soft-skills, used in recent years, is the concept of emotional intelligence. Emotional Intelligence (EI) is the capacity to understand, value and wisely manage emotions in relationship to oneself and others. This research focused on exploring the concept of emotional intelligence and its importance as competence for project managers in the 21<sup>st</sup> century. The first step was to explore the literature and develop a construct of emotional intelligence that could be applicable to project managers. The second step was to determine whether emotional intelligence, as per said construct, is perceived to be important for project managers. A web-based survey questionnaire was developed and distributed to 5444 project stakeholders across the globe, of which 395 (7.25%) responses were unspoiled. The findings from the statistical data analyses indicate that almost 90% of respondents are of the opinion that emotional intelligence is an important attribute for project managers and the four factor construct of emotional intelligence is applicable to project managers, in especially the 21<sup>st</sup> century.

*Key phrases: Project human resource management, work-skills for project managers, emotional intelligence, project management competencies, project manager, project management success*

### **INTRODUCTION**

One of the toughest challenges, in managing a project in the 21<sup>st</sup> century, is to manage the people involved in delivering the project successfully (Verma 1996:10). For this reason several studies have been done to determine the impact of human resource management skills of a project manager on project management success.

A measure of human resource management competence, developed in recent years, is emotional intelligence. Emotional intelligence can be described as “the capacity to understand, value and wisely manage emotions in relationship to oneself and others” (Bourey 2003:378). Previous studies on emotional intelligence did not investigate whether emotional intelligence, as a human resource management competence, is important for project managers.

This article discusses the development of a construct of emotional intelligence applicable to project managers and indicates whether project managers perceive emotional intelligence as an important attribute in order to manage projects more successfully. The study involved a literature study on human resource management skills and emotional intelligence and its importance to project managers in conducting

successful projects, followed by a survey of project team members, project managers and project executives to measure their perception on the importance of emotional intelligence as important competence in project managers.

## **RESEARCH PROBLEM**

The research problems investigated are:

“What is emotional intelligence and its applicability in the project environment, as important competence for project managers?”

“Do project managers and project team members perceive emotional intelligence to be an important competence for a project manager of the 21<sup>st</sup> century?”

## **RESEARCH METHODOLOGY**

Triangulations or multi-methods were used in this study. A literature study was conducted followed by a web-based survey of project stakeholder perception of the importance of emotional intelligence as competence in project managers. The data was statistically analysed and conclusions and recommendations were made.

## **LITERATURE STUDY**

The literature study is a pivotal part of this research since it forms the framework within which the research question has to be answered. The literature focused on the importance of human resource management skills for project managers, a definition and discussion of emotional intelligence and an investigation into the importance of emotional intelligence as competence for project managers.

In order to determine whether human resource management skills or competencies are important for project managers, one must consider whether these skills contribute to the ultimate success or failure of projects. In a study on the reasons for failure in projects, Kippenberger (2000:30-33) found that inadequate definition, poor or no planning, the wrong leader, inadequate scope definition, inappropriate team, ineffective controls, poor communication and unrealistic time-scale were factors contributing to project failure. This implies that human resource management skills are important for successful project management as leadership and good communication are a subset of these skills.

Factors critical to the project's outcome were investigated by White & Fortune (2002:1-11). Of the nineteen (19) critical factors that they selected from the survey, six of the eight factors found to be the most critical, can be related to human resource management skills. These factors being: a project manager needs to be able to communicate well with the team in order to establish clear goals and objectives; support from senior management, as well as end-user commitment, need to be obtained by a project manager using influencing skills; effective leadership, a flexible approach to change and clear communication channels also relate to how good the human resource management skills of the project manager are.

Project team leader behaviour, use of team building and team member characteristics were investigated by Ammeter & Dukerich (2002:3-8). They found that leader behaviour was a significant predictor of project cost performance while neither team building nor team member characteristics were significant predictors of performance.

In a study done by Pinto and Prescott (1988:5-18) they concluded that "personnel factor" by which is implied human resource management, was the only factor that was marginal for project success over the four life cycle stages of a project. Belout (1998:21-26) however questions these results on the basis that no effort was made in the study to define the components of project human resource management, their definition of project success lacked rigorous definition and from a methodological perspective many aspects of the study lacked rigour. Belout further concludes that more research in the relationship between project human resource management and project success is required.

Pettersen (1991:99-104) concludes on a review of characteristics of effective project managers, that certain elements seem to emerge most often as basic requirements in project management. These elements include management skills; such as planning, organisation, supervision and follow-up, decision-making skills; communications and human-relationships skills; leadership and team management skills; intellectual capacities needed to understand and analyse organisational phenomena; and a solid technical expertise in the field of project activity. Certain personal qualities are added to this range of basic requirements of which the most often mentioned is the ability to operate under pressure and in a complex environment.

In summary the literature seems to indicate that human resource management skills are important for project management success. The question arises which specific

attributes resorting under human resources management skills are required by the project manager to successfully manage projects and how do these relate to the competencies described by the emotional intelligence literature? The next paragraphs deal with this question.

A survey done by Thite (1999:253-261) to identify key characteristics of technical project leadership found that post-industrial society, is dominated by knowledge workers, working in networked, boundaryless, team oriented and horizontal organisations. Effective leadership of these workers is vital to motivate them to perform to their full potential and beyond ordinary contractual considerations. This calls for leadership qualities that recognise the dramatic changes that are taking place in the workplace and provide outstanding leadership.

Verma (1995:23-24) states that project managers must be very effective in interpersonal relationships and building and nurturing project teams. He lists the following traits that are important for project managers, outside of the technical knowledge and decision-making skills that they require:

- People skills: communication, motivation and negotiation
- Energy, enthusiasm, and even temperament
- Self-confidence, reliability, maturity and emotional stability
- A constructive, positive attitude
- Independence tempered by political awareness
- Flexibility and tolerance for ambiguity and uncertainty

Goleman (1998:93-104) who has popularized the concept of 'emotional intelligence' defines emotional intelligence as 'a capacity for recognising our own and others' feelings, for motivating ourselves, and for managing our emotions, both within ourselves and in our relationships.' In the organisational context, research shows that emotions, properly managed can drive trust, loyalty, and commitment. Emotions properly managed also drive many of the greatest productivity gains, innovations and accomplishments of individuals and teams (Goleman 1998:93-104).

It is a well documented fact that organisations perform projects in order to gain advantage over competitors. Goleman (1998:93-104) states that the emotional intelligence of individuals, gives organisations the three driving forces of competitive advantage namely; building trusting relationships, increasing energy and effectiveness, and creating the future. A framework of emotional intelligence was

developed by Goleman and which was used as base for this study. The current version of the EI framework (Cherniss & Goleman 2001:28) is shown in Figure 1.

Figure 1: Current version of the EI framework

Recognition	<p><b>Self Awareness</b></p> <ul style="list-style-type: none"> <li>•Emotional self-awareness</li> <li>•Accurate self-assessment</li> <li>•Self-confidence</li> </ul>	<p><b>Social Awareness</b></p> <ul style="list-style-type: none"> <li>•Empathy</li> <li>•Service orientation</li> <li>•Organisational awareness</li> </ul>
Regulation	<p><b>Self-Management</b></p> <ul style="list-style-type: none"> <li>•Emotional self-control</li> <li>•Trustworthiness</li> <li>•Conscientiousness</li> <li>•Adaptability</li> <li>•Achievement Drive</li> <li>•Initiative</li> </ul>	<p><b>Relationship Management</b></p> <ul style="list-style-type: none"> <li>•Developing others</li> <li>•Influence</li> <li>•Communication</li> <li>•Conflict management</li> <li>•Visionary leadership</li> <li>•Catalyzing change</li> <li>•Building bonds</li> <li>•Teamwork and collaboration</li> </ul>

Source: Cherniss & Goleman, 2001:28

According to this framework, the four clusters of emotional intelligence are:

- 1 *Self-awareness*. Being aware of your emotions and their significance; having a realistic knowledge of your strengths and weaknesses; having self-confidence in yourself and your capacities.
- 2 *Self-management*. Controlling your emotions; being honest and trustworthy; being flexible and dedicated.
- 3 *Social Awareness*. Being empathetic, being able to perceive another's thoughts and points of view; being aware of and sensing a group's dynamics and inter-relationships; focusing on others' needs, particularly when they are customers.
- 4 *Relationship Management*. Helping others to develop themselves; effective leadership; influencing skills; excellent interpersonal communication skills; change management skills; ability to resolve arguments and discord; ability to nourish and build good relationships; team-player skills.

The importance of each cluster for a project manager is described below.

**Self-Awareness:** The self-awareness cluster of Emotional Intelligence consists of (Cherniss & Goleman 2001:33): emotional self-awareness, accurate self-assessment and self-confidence.

*Emotional self-awareness* is the ability to recognize one's own feelings and how these feelings affect one's performance (Cherniss & Goleman 2001:33).

Most projects have numerous stakeholders that the project manager must interact with. These stakeholders can include top management, the client, the end-user, the project team etc. Frequent interpersonal interactions between the project manager and these stakeholders are necessary for project delivery. Triggering of emotions is inherent in interpersonal interactions. If a project manager is not aware of what triggers him or her, he or she will not know how these emotional triggers will affect his or her performance or that of others.

Due to the constant time, budget and performance pressures on projects, stress is inevitable on projects. The first step in managing stress is to understand and analyze stressors and become familiar with the nature of the stress response (Verma, 1996: 202). A project manager who is not self-aware will not be able to recognise and manage his or her own stress responses.

*Accurate self-assessment* is the ability to accurately assess one's own abilities, seek out feedback, learn from mistakes, know where to improve and know when to work with others with complementary strengths (Cherniss & Goleman 2001:33).

Knowing oneself, especially one's capabilities, strengths and weaknesses is the first step towards successful project management (Kerzner 1998:264).

One of the outputs of the project closure process is gathering of historical information in order to improve future projects (PMBOK Guide 2004:102). This gathering of historical information is typically done using the expert judgment of the project stakeholders during a close-out meeting. A project manager that lacks the competence of accurate self-assessment will obtain limited benefit from the close-out meeting as he or she will not be able to determine where he or she can improve performance in future projects.

Too often, (project) managers will assume that they are 'jacks-of-all-trades' and indispensable to the organisation (Kerzner 1998:264). A project manager who cannot accurately assess him/herself will also not know how to select the project team in such a way that the team members complement his or her own skills.

*Self-confidence* is defined as confidence in oneself and in one's powers and abilities (Cherniss & Goleman 2001:33). During the initiation, planning, execution and control of a project, a project manager needs to make many decisions that will affect the project outcome. A project manager must thus have confidence in his or her own ability to make these decisions.

A project manager also needs self-confidence in order to give presentations on the project to the numerous project stakeholders.

***Self-management:*** The self-management cluster of emotional intelligence consists of: emotional self-control, trustworthiness, conscientiousness, adaptability, achievement drive and initiative (Cherniss & Goleman 2001:34-35).

*Emotional self-control* is the ability to remain unfazed in a stressful situation and the ability to deal with a hostile person without lashing out in return (Cherniss & Goleman 2001:34). A project usually needs to be delivered in a certain time, at a certain cost and with certain deliverables. This implies stress for the project manager. A project manager that possesses emotional self-control will thus not become unduly stressed when things go wrong.

Due to the stressful nature of projects, tempers often run high and project stakeholders can often be at each other's throats. A project manager should remain emotionally in control and deal with irate stakeholders in a calm manner in order to stop tempers from flaring.

*Trustworthiness* is the ability to let others know one's values and principles, intentions and feelings and acting in ways that are consistent with them (Cherniss & Goleman 2001:34). A project manager who does not act in a trustworthy manner will very quickly alienate project stakeholders. Most project stakeholders impact on the final success of the project. It is thus important that the project manager exhibit the same level of trustworthiness to all of the project stakeholders.

If for example a project manager abuses the trust of the team, in order to gain favour with the client, the project will be jeopardised as the project manager needs the support of the project team in order to deliver the project.

*Conscientiousness* is being careful, scrupulous and self-disciplined in attending to responsibilities (Cherniss & Goleman 2001:34). It is important that the project manager set an example for the project team. If the project manager does not scrupulously do what is expected of him/her from the team, he or she cannot expect

the team to deliver as required.

*Adaptability* is the ability to let go of old assumptions and adapt the way in which one operates (Cherniss & Goleman 2001:35). According to the survey done by White & Fortune (2002:1-11) a flexible approach to change is one of the factors critical to a project's outcome. Project managers need to be both change managers and change agents.

*Achievement drive* is an optimistic striving to continually improve performance (Cherniss & Goleman 2001:35). This is a very important competence for a project manager. A project manager must strive to improve his or her own as well as the team's performance in order to ensure that the organisation's projects remain competitive.

*Initiative* is the ability to act before being forced to do so by external events (Cherniss & Goleman 2001:35). A project manager who for example takes initiative and implements new project management tools and techniques or technologies on a project, can ensure that he or she remains ahead of the pack. Such a project manager further has the ability to sort out problems with the new tools, techniques and technologies before external factors force him/her to implement them.

**Social Awareness:** The social awareness cluster of Emotional Intelligence consists of: empathy, service orientation and organisational awareness (Cherniss & Goleman 2001:35-36).

*Empathy* is an astute awareness of the emotions, concerns and needs of others. An empathetic individual can read emotional currents, picking up on nonverbal cues such as tone of voice or facial expression. This sensitivity to others is critical for superior job performance whenever the focus is interactions with people (Cherniss & Goleman 2001:35).

Empathy is thus a very important characteristic for a project manager to have. A project manager must be aware of the emotional currents in the team. He or she must be able to read the non-verbal cues of the client as well as those of the executives and team members.

*Service-orientation* is the ability to identify the client's often un-stated needs and then match them to products or services. It also means taking a long-term perspective, sometimes trading off immediate gains in order to preserve customer relationships (Cherniss & Goleman 2001:36).



Service-orientation is an important ability for a project manager. The output of a project is normally a service or a product that must meet the requirements of a client. It is thus very important for a project manager to be able to identify the un-stated needs of the client and match them to the product or service provided by the project.

Although projects are of limited duration, it is important that project managers take a long-term view when executing projects. Organisations that perform projects also need to build long term customer relationships in order to ensure follow up business.

*Organisational awareness* is the ability to read the currents of emotions and political realities in groups, which allows individuals to form networks and wield influence no matter what their professional role (Cherniss & Goleman 2001:36). According to White *et al.* (2002: 1-11) top management support is one of the critical project success criteria. The political climate and power dynamics of a project must be assessed in order to formulate appropriate strategies for managing the project itself, its environment and its participants (Verma 1995:239). A project manager without organisational awareness will not be adept in doing this.

***Relationship management:*** The relationship management cluster of Emotional Intelligence consists of: developing others, influence, communication, conflict management, visionary leadership, catalyzing change, building bonds, and teamwork and collaboration (Cherniss & Goleman 2001:36-38).

*Developing others* involves sensing people's developmental needs and bolstering their abilities (Cherniss & Goleman 2001:36). Belout (1998:21-26) states that one of the criteria of project success should be the personal growth of team members. A project manager must encourage team members to grow their technical as well as interpersonal skills.

*Influence* is the ability to handle and manage emotions effectively in other people and so be persuasive (Cherniss & Goleman 2001:37). This is a practical form of power in a project environment where project managers have little formal authority (Verma 1996:234).

*Communication* is the ability to be effective in the give-and-take of emotional information, to deal with difficult issues in straightforward ways, to listen well and to foster open communication and to stay receptive to good as well as bad news (Cherniss & Goleman 2001:37).

According to Kippenberger (2000:30-33), one of the reasons found for project

management failure is poor communication. According to White *et al.* (2002:1-11), clear communication channels is one of the critical project management success factors. Belassi & Tukel (1996:141-151) found effective co-ordination and communication to be one of the indicators of project management success.

*Conflict management* is the ability to spot trouble as it is brewing and to take steps to calm those involved (Cherniss & Goleman 2001:37).

The project manager has often been described as a conflict manager (Kerzner 1998:373). White *et al.* (2002:1-11) found conflict resolution to be one of the critical project management success factors. According to Verma (1996:113) the ability to manage conflict is one of the most important skills a project manager must possess. As leader of the project team, the project manager must often settle disputes between the team members and between the team and the client. Without skills in conflict management, the project manager becomes very ineffective. Due to the dynamic and sometimes unpredictable nature of projects, a substantial amount of management time is dedicated to resolving conflicts (Verma 1996:131).

*Visionary leadership* is the ability to inspire others to work together toward common goals. It is further the ability to articulate and arouse enthusiasm for a shared vision and mission, to guide performance of others while holding them accountable and to lead by example (Cherniss & Goleman 2001:37). Kippenberger (2000:30-33) found the use of the wrong leader to be one of the reasons for project management failure.

White *et al.* (2002:1-11) found effective leadership to be one of the critical project management success factors. She also found setting clear goals and objectives to be important for project success. Ammeter *et al.* (2002:3-8) found the leadership behaviours to be one of the main themes that indicated project success. Leban & Zulauf (2004) have demonstrated linkages between the project manager's emotional intelligence abilities and transformational leadership styles under a systems thinking and project management approach. They have also provided evidence that project managers using a transformational leadership style, and not a transactional leadership style, connected to emotional intelligence abilities do enhance actual project performance.

The project manager has to lead and inspire the project team to reach the goals and objectives of the project.

*Catalysing change* is the ability to recognise the need for change, to remove barriers, challenge the status quo and enlist others in the pursuit of new initiatives (Cherniss &

Golema, 2001 38). White *et al.* (2002 1-11) found a flexible approach to change to be one of the critical project success management factors. The project manager needs to take a big picture view and challenge the project team that often get caught up in the technical detail of the project and to change where appropriate.

*Building bonds* is the ability to choose people with a particular expertise or resource to be part of a network (Cherniss & Golema, 2001 38). Networking is a very important skill for project managers. As stated before, project managers do not often have positional power within an organisation. Project managers often do not manage to staff their projects with the resources that they would prefer. For this reason, a project manager should have a network of co-workers that he or she can call on to help him or her when aspects of the project start going wrong.

*Teamwork and collaboration* is the ability to work co-operatively with peers (Cherniss & Goleman 2001:38). Projects are normally executed by project teams. The size of the team may vary but the necessity for the team to work together remains. According to Ammeter *et al.* (2002:3-8) two of the main indicators of project success are team orientation and team communication. Both of these factors are related to teamwork and collaboration. Not only must a project manager be able to work well in a team, he or she must also be able to successfully build the team spirit.

In conclusion, the literature studied showed that human resource management skills are important for project managers. It was further elaborated that a subset of these competencies, could fit into the emotional intelligence framework of Cherniss and Goleman (2001:28), that are also important for project management success.

### **Development of survey instrument**

A survey questionnaire was compiled using the framework of emotional competencies as developed by Cherniss and Goleman (2001:28). The questionnaire focused on asking the respondents questions related to each of the four emotional intelligence clusters as pertaining to project management. Between 11 and 13 questions were compiled for each cluster.

The questionnaire started off by gathering demographic information according to the factors, which the researchers felt would influence the analysis of the data.

The first sixteen questions of the questionnaire were based on four typical scenarios that occur in projects. Respondents were then asked questions about how the project manager should react in these situations. The way that the project manager reacts in

these situations are an indication of his or her emotional competence.

The last thirty-four questions of the questionnaire asked questions that relate to the emotional competencies required by a project manager, as indicated by the literature. The responses were captured based on a five point Likert-scale ranging from “strongly disagree” to “strongly agree”.

The questionnaire was web-based and the domain name (url) for the site was sent to the respondents by e-mail.

### **PILOT STUDY**

Before the web site was made live to the sample group a pilot study was done. During the pilot study ten individuals, who have experience in projects and project management, were asked to complete the questionnaire and comment on the construct and question contents. For the pilot study, space was left after each question for the respondents to enter comments.

Six of the ten persons that were requested to complete the questionnaire complied and 8 of the questions were modified before the final web site went live.

### **FINAL QUESTIONNAIRE**

The final respondents were selected from a population of 5444, which included project stakeholders that work closely with project managers and were not just limited to project managers. The purpose of this approach was to also include people who work closely with project managers and thereby limiting possible biased responses. The sample groups that the questionnaire was sent out to are shown in Table 1. A total of 395 completed questionnaires were received unspoiled.

Table 1: Data collection sample and responses

Group	Sample group
Council for Scientific and Industrial Research (CSIR) Groupwise list	1852
Masters in Project Management (MPM) students at the University of Pretoria	197
Masters in Engineering Management (MEM) students at the University of Pretoria	199
Masters of Business Administration (MBA) students at the University of Pretoria	356
Project Management Institute South Africa (PMSA) list server	1000
Women in Project Management (WiPM) Yahoo group	1640
Institute for Electrical and Electronic Engineers (IEEE) South African chapter Engineering Management Society (EMS) list server	200
<b>Total</b>	<b>5444</b>
<b>Responses</b>	<b>395 (7.25%)</b>

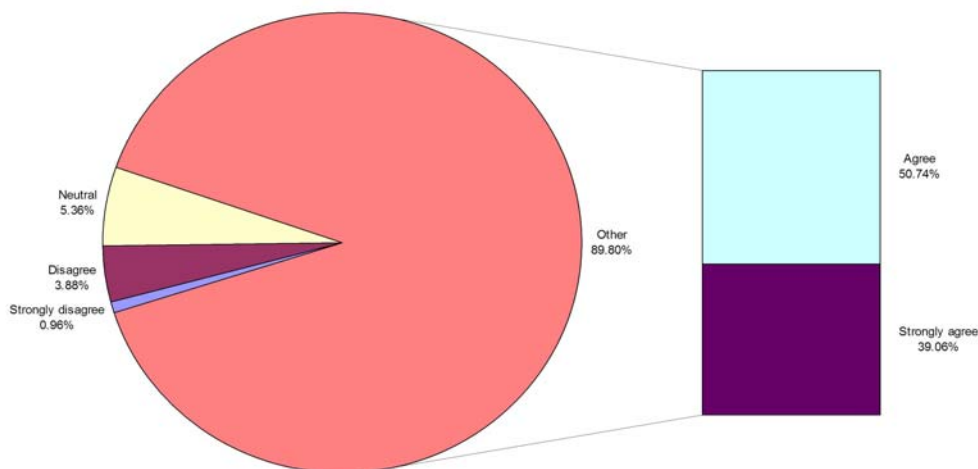
## DATA ANALYSIS AND RESULTS

The responses to each question on the five point Likert-scale were analysed statistically using Excel and SAS, 1997. The nature of the survey was such that, after compensating for negatively stated questions, the responses indicated what the perception of each respondent was in terms of the importance of emotional intelligence for project managers. A response of strongly agree indicates that the respondent feels that emotional intelligence is very important for a project manager.

The data obtained from each respondent for each question were analysed by counting the number of responses for each of the five points on the Likert-scale namely "strongly disagree", "disagree", "neutral", "agree" and "strongly agree".

The data for all the questions is shown in a pie chart format in Figure 3. The category "other" in the pie chart is a summation of all the "agree" and "strongly agree" responses. This figure indicates that 89,8% of respondents have the perception that emotional intelligence is important for project managers given that this percentage of respondents selected either "agree" or "strongly agree" for the questions.

Figure 3: Pie chart of responses for all questions



The same analysis of the data was done for each of the clusters of emotional intelligence in order to determine whether the respondents perceived any of the clusters to be of higher importance than the others. The pie charts of responses, for each of the clusters, is shown in Figure 4 to Figure 7.

Figure 4: Pie chart of responses for Self Awareness

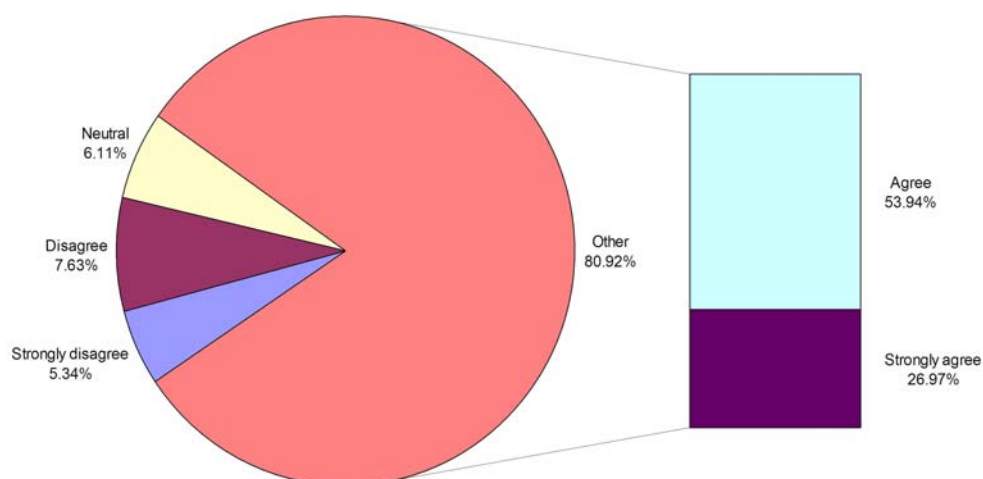


Figure 5: Pie chart of responses for Self Management

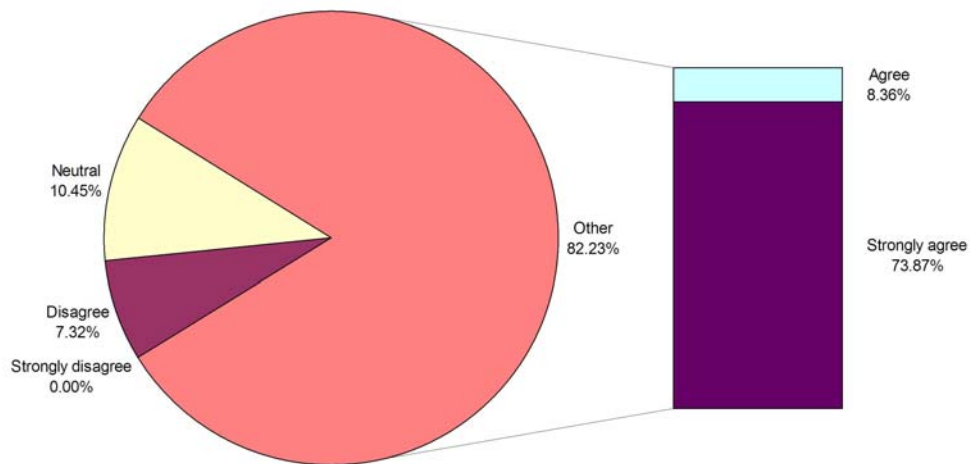
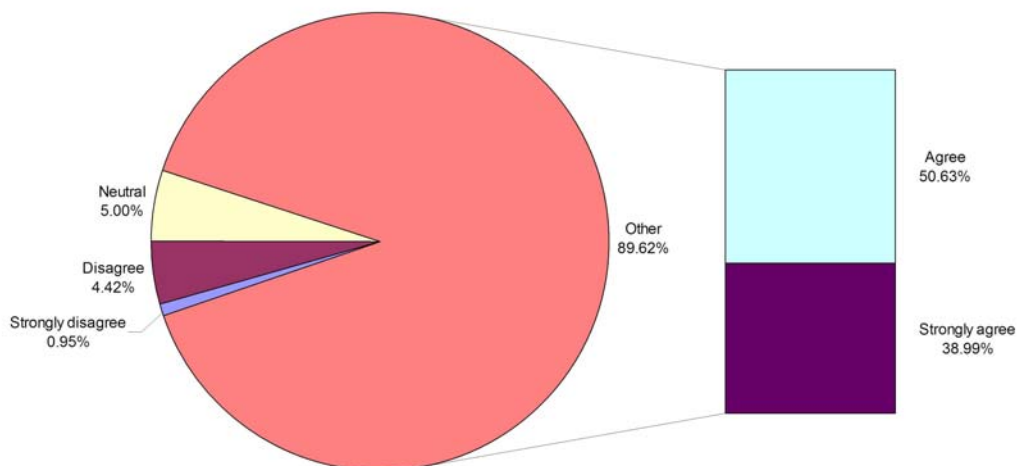


Figure 6: Pie chart of responses for Social Awareness



A summary of the above data is given in Table 2. From the data it is clear that all the clusters of emotional intelligence are important with self management and relationship management being the most important.

Table 2: Summary of "Agree" and "Strongly agree" responses

Emotional Intelligence Cluster	% "Agree"	% "Strongly agree"	% "Agree" + % "Strongly agree"
Self Awareness	53.94%	26.97%	80.92%
Self Management	50.63%	38.99%	89.62%
Social Awareness	8.36%	73.87%	82.23%
Relationship Management	50.63%	38.99%	89.62%

Cronbach's alpha is an index of reliability associated with the variation accounted for by the true score of the underlying construct. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. The alpha value for each cluster is above 0.7 as shown in Table 3. This is an indication that the construct of the questionnaire is reliable.

Table 3: Table of Cronbach's alpha

	Self Awareness	Social Awareness	Self Management	Relationship management
Cronbach's Alpha	0.842	0.815	0.753	0.800

## DEMOGRAPHIC ANALYSIS

The demographics of the respondents are summarised for the highest indicators in Table 4.

Table 4: Respondent demographics for highest indicator

Demographic	Highest indicator	Number	Percentage
Region	Africa	309	78%
Industry	IT	84	21%
Organisational size	101 to 3001 employees	208	54%
Project role	Project manager	250	64%
Number of projects	20 to 50 projects	124	32%
Age	31 to 40	171	44%
Gender	Male	228	58%

The data is mostly applicable to Africa. The respondents came from diverse industries with IT having the highest representation. Most of the respondents work in organisations with between 101 and 3000 employees. In terms of project role, most of the respondents are programme managers, project managers, project co-ordinators or team leaders.



The number of projects that the respondents have worked on is evenly distributed with the largest percentage of respondents having worked on 20 to 50 projects. In terms of age, most of the respondents are between the ages of 31 and 40 followed by the respondents between 41 and 50. Most of the respondents are male.

## **RESEARCH CONCLUSION**

The research problem was addressed in that emotional intelligence was defined from the literature. Its applicability in the project environment for project managers was first determined by examining the project management literature to determine whether human resource management skills are important for project managers. An examination of the components of each of the emotional intelligence clusters indicated that each cluster is important in project management.

This study contributed to project management theory as it was the first formal study to determine the construct of emotional intelligence in project environment and whether emotional intelligence is an important competence for project managers. The study showed that emotional intelligence is perceived as an important competence for project managers in the 21<sup>st</sup> century, as most of the respondents (89.79%) felt that emotional intelligence is important, and that each of the constructs of EI is equally important as well.

The main implications for and contributions to project management practice are as follows:

- 1 This research shows emotional intelligence is an important competence for project managers and therefore needs more attention in selection and development of project managers.
- 2 According to the literature, emotional intelligence is something that can be learned and improved. Emotional intelligence should thus be taught to project managers.

## **RECOMMENDATIONS**

It is recommended that the research be performed on a bigger sample in order to confirm the findings. The following data needs to be confirmed in specifically the following demographic contexts:

- 1 Respondents from outside of Africa.

- 2 Respondents were from a diverse range of industries but there is not enough data to infer specific results for a specific industry.
- 3 The data is most applicable for medium sized enterprises (101-3000 employees). Confirmation is thus needed for bigger and smaller organisations.
- 4 A high percentage of respondents were project managers or equivalent. The data opinions of more team members, senior executives and support staff should be sought.
- 5 A high percentage of respondents were 31 to 50 years of age. It should be considered whether the data should be checked with a younger group as a younger sample might consist of less experienced people whose perceptions might not add value.

## BIBLIOGRAPHY

- AMMETER, A.P. & DUKERICH, J.M. 2002. Leadership, Team Building, and Team Member Characteristics In High Performance Project Teams. *Engineering Management Journal*. 14(4):3-8.
- BELASSI, W. & TUKEL, O.I. 1996. A new framework for determining critical success/failure factors in projects. *International Journal of Project Management*. 14(3):141-151.
- BELOUT, A. 1998. Effects of human resource management on project effectiveness and success: toward a new conceptual framework. *International Journal of Project Management*. 16(1):21-26.
- BOUREY, J. 2001. Do you know what your emotional IQ is?. Athena Miller. PM. *Public Management*. Washington. 83(9):378.
- CHERNISS, C. & GOLEMAN, D. 2001. *How to Select for, Measure and Improve Emotional Intelligence in Individuals, Groups and Organisations* In *Emotionally Intelligent Workplace*. Jossey-Bass.
- GOLEMAN, D. 1998. What Makes a Leader? *Harvard Business Review*. 76(6):93-104.
- KERZNER, H. 1998. *Project Management A Systems Approach to Planning, Scheduling and Controlling*. John Wiley and sons inc. 6<sup>th</sup> edition.
- KIPPENBERGER, T. 2000. Management's role in project failure. *The Antidote*. 5(4):30-33.
- LEBAN, W. AND ZULAUF, C. 2004. Linking emotional intelligence abilities and transformational leadership styles. *The Leadership & Organization Development Journal*. 25(7):554-564.
- NUNNALLY, J. 1978. *Psychometric theory*. New York: McGraw-Hill.
- PETTERSEN, N. 1991. What do we know about the effective project manager? *International Journal of Project Management*. 9(2):99-104.
- PMBOK. 2004. *The PMBOK® Guide – Third Edition*. PMI Standards committee. PMI.
- PINTO, J.K. AND PRESCOTT, J. 1988. Variations in success factors over the stages in the project life cycle. *Journal of Management*. 14(1):5-18.
- THITE, M. 1999. Identifying key characteristics of technical project leadership. *Leadership and Organisation Development Journal*. 20(5):253-261.

VERMA, V.K. 1995. *Organising projects for success - the human aspect of project management Volume 1*. Upper Darby: PMI.

VERMA, V.K. 1996. *Human resource skills for the project manager - the human aspect of project management Volume 2*. Upper Darby: PMI.

WHITE, D. & FORTUNE, J. 2002. Current practice in project management-- an empirical study. *International Journal of Project Management*. 20(1):1-11.