

Emotional Intelligence and Project Outcomes in Technology

Art Trejo

University of Phoenix, AZ, U.S.A

arttrejo@email.phoenix.edu

[Abstract] The present quantitative correlational research study explored relationships between Emotional Intelligence (EI) competencies, such as self-awareness, self-management, social awareness, and relationship management, and project management outcomes: scope creep, in-budget project cost, and project timeliness. The study was conducted within the context of high technology projects of Hispanic professionals in the United States, as the research study environment. The purpose of the research study was to identify the relationships between the four EI predictor variables and the three project outcomes criterion variables, measuring their strength and direction. Statistical tests were conducted to determine if any of the relationships could support the notion of applying EI could improve the execution of high tech projects by using EI skills to help predict project outcomes. The sample population consisted of 88 Hispanic participants responding to an online survey instrument. Statistical correlational analysis of the collected data indicated the existence of some positive relationships between the identified EI skills and project outcomes existed. The research study conclusions should help understand the benefits of EI in the workplace from the perspective of the Hispanic population and the positive generalization of the study results to other ethnic groups.

[keywords] emotional intelligence; project outcomes; EI competencies; quantitative; project scope; project budget; management; self-management; relationship management; Hispanics

Introduction

Besides managing pressure of meeting the business requirements, the technology sector faces an ever increasing challenge of developing soft skills such as emotional intelligence (EI) to keep projects performing amidst the ever increasing workforce diversity). In this study, the focus was on the Hispanic population because few researchers have conducted studies involving the significant value of EI and project outcomes from the Hispanic perspective. The number of Hispanics in the U.S. work force has increased dramatically and is projected to continue to grow. According to the U.S. Census (2010), 50.5 million Hispanics were living in the United States, approximately 16% of the entire population. By July 1, 2050, the Hispanic population in the United States could reach 132.8 million (U.S. Census, 2010).

Background of the Problem

Technology organizations are trying to minimize the consequences of project challenges while attempting to keep stakeholders satisfied by attempting to achieve project objectives (Project Management Institute, 2008). Zwikael (2008) observed that 70% of the projects in the software industry, when completed, had cost overruns and 30% completed over the planned schedule. Of the projects, 31% were canceled before project completion because of not meeting project standards, such as poorly defined requirements, lack of resources, budget constraints, or outdated information. Zwikael (2008) reported that technology project failures and delays are costing U.S. companies and government 145 billion dollars per year due to the failing projects. Despite the challenges, corporations continue investing in technology projects without a significant change in the project analysis process. Eveleens, and Verhoef (2010) observed that the 2009 study from Standish Group International (2009) reported that only 32% of the surveyed projects were successful, while 44% were challenged, and 24% failed due to lack of proper project management. In this regards, one aspect of improving project management that can be further studied is a soft skills factor such as EI that can help improve team coordination and communication.

Goleman (2006) suggested that EI is the ability of individuals to manage emotions as a means to enhance relationships, interpersonally and socially. EI is important to corporations when individuals are

working in project teams toward a common project goal (Yildirim, 2007). The achievement of project objectives is enhanced because of the emotional competencies shown by individuals when interacting and because of the relationship of EI competencies to the completion of project outcomes (Decker, Landaeta, & Kotnour, 2009; Geoghegan & Dulewicz, 2008).

One way to measure, the effectiveness of the business projects could be to monitor and complete project deliverables in a timely fashion, within the allocated budget, and within the scope of projects (Yazici, 2009). Another option could be to make use of the EI concept; EI has become popular within the management discipline to enhance human capital within the teams in the workplace (Singh, 2010). EI entails the sensitivity to perceive other individuals' emotions as well as the capacity to increase individuals' performance intuitively based on these competencies (Singh, 2010). The contemporary workplace is characterized by teamwork, better communications, and respect among individuals, and by applying EI competencies at the workplace, individuals may understand each other effectively (Landa, Martos, & López-Zafra, 2010; Mostafa, Mehran, & Bijan, 2010). Ghosh and Chakraborty (2008) reported from their research study that EI would be essential for the improvement of employees' performance. The project management methods may not be enough. Turner and Lloyd-Walker (2008) concluded that if organizations develop the EI competencies of the project team members, EI competencies could positively affect the project team and consequently the project outcomes.

Organizations increasingly are interested in knowing and assessing employees' emotions at the workplace (Turner & Lloyd-Walker, 2008). Researchers are trying to discover whether individuals with appropriate emotional competencies are likely to be high performers and if they would contribute to greater success and achievements of projects (Muzio & Fisher, 2009; Turner & Lloyd-Walker, 2008). Singh and Manser (2008) defined EI as the ability of the individuals to become aware, express, and influence emotional reactions internally and with others. Employees with high levels of EI respond positively to the stress found at the workplace and react favorably to the behaviors of team members. Individuals' qualities related to EI help them improve their job satisfaction (Singh & Manser, 2008).

Research Method

Using the quantitative research method, the researcher chose the problem to study, asked specific questions, and collected data from the study participants (Borrego, Douglas, & Amelink, 2009; Creswell, 2009; Johnson & Christensen, 2010). The quantitative correlational research study was designed to explore the relationship, if any, that exists between Hispanic employee EI competencies and project outcomes. The identified predictor variables included the worker's EI competencies: self-awareness, self-management, social awareness, and relationship management (Bradberry & Greaves, 2009). The identified criterion variables included the project outcomes: scope creep, in-budget project cost, and project timeliness issues. The correlational analysis helped to establish the relationship between Hispanic employees' EI competencies and the outcomes of project.

Research Questions

RQ1. What is the relationship between the use of EI competencies of Hispanic employees and outcome of projects on which they work?

RQ2. What EI competencies in Hispanic employees are the best predictors of individual project outcomes?

Null and Alternative Hypotheses

H_o1 : There is no statistically significant relationship between a Hispanic employee's use of EI competencies and the project outcomes.

H_a1 : There is a statistically significant positive relationship between a Hispanic employee's use of EI competencies and the project outcomes.

H_o2 : There is no predictive value in the relationship between EI competencies of Hispanic employees as appraised by the Genos EI and the outcomes of projects.

H_{a2} : There is predictive value in the relationship between EI competencies of Hispanic employees as appraised by the Genos EI and the outcomes of projects.

Emotional Intelligence

Organizational leaders acknowledged the need to have skilled workers to keep project losses to a minimum (Fayek, Yorke, & Cherlet, 2006), because skilled labor has an important effect on project outcomes (Fayek et al., 2006). Individuals with high EI competencies could have positive emotions and reduce the negative environment in the organization (Landa et al., 2010). The use of EI influence the way in which individuals interact within the team, shaping team innovation, team effectiveness, and employee behavior, attitudes, and particularly for the research study, the outcome of projects (Othman et al., 2009). If leadership lacks EI, the team's environment would provide inadequate support to sustain team development that would benefit project outcomes (Othman et al., 2009; Ramesar, Koortzen, & Oosthuizen, 2009).

Recent research studies concluded that EI competencies are better predictors of employees' performance than the traditional intelligence quotient (IQ) (Yildirim, 2007). Cherniss (2001) claimed that emotionally intelligent organizations show commitment, dedication, cooperation, and creativity, whereas EI competencies are needed to improve the outcome of the project. Project leaders may be overlooking other competencies among project team members that could help the team to achieve the project's objectives (Turner & Lloyd-Walker, 2008).

Hispanics in the Workplace

Hispanics represent 10.3% of working individuals in the United States (Blancero & DelCampo, 2005). Although this ethnic group is growing, Hispanics are still underrepresented at higher professional levels. According to Blancero and DelCampo, only 3.8% of working professionals are from the Hispanic population, only 4.5% of U.S. managers are Hispanic, and only 1.7% of corporate board positions are held by Hispanics.

The literature is consistent in suggesting the potential of Hispanics to have political and economic power because of their fast-growing numbers. The research study was designed to focus on this ethnic group to understand the contributions of Hispanics on the project teams, particularly related to how their EI may correlate to the project outcomes. Based on the reviewed projections, the number of Hispanics in the technology sector working on team projects likely will continue to increase rapidly. The results of the research study may provide insight regarding the elements of human factors in Hispanics, including EI, that could enhance or detract from a project's success.

EI and Project Management

A major factor of EI is empathy; researchers have known for several years that as an aspect of the human personality, empathy contributes to team success (Webb, 2009). EI requires individuals to know how to show emotions, Webb (2009) stated, including when to show them because simply controlling emotions is not enough to support project team success. Webb concluded that in the workplace, an important factor to improve project team effectiveness is associated with the enhancement of EI competencies for managers and employees. Individuals, who were good at identifying other individuals' emotions, were more successful in the workplace environment as well as in their social lives (Mishra & Mohapatra, 2009). EI is about knowing and understanding how and when to express emotions, including how to control them (Goleman, 2006).

Goleman (2006) referred to emotional competence as comprising the social and personal skills that contribute to higher performance in the workplace; all were competencies associated with EI. By 1998, Goleman (1998a) claimed that 75% of the success in the workplace and in personal life might be attributed to emotional competencies.

Researchers suggested that EI influences team dynamics, allowing important changes in team transformations, helping at the management level in the decision-making process (Surendra, 2010), and offering organizational leaders the ability to increase the functioning of the team (Wu & Stemler, 2008).

EI has become a popular advising tool because EI could be used to help teams improve performance as well as productivity (Kunnanatt, 2008). Kunnanatt concluded that EI was connected to team performance; higher EI assessment scores were related to higher cognitive performance scores.

EI competencies do not place limits only on English-speaking cultures; the concept is applied to all ethnic groups (Ashkanasy, 2006). Organizational leaders request help in developing and increasing EI competence and skills in the workplace because EI is directly related to effective leadership and, ultimately, to increasing and sustaining business results (Hicks & Dess, 2008). Based upon the results from their study, Ashkanasy & Dasborough (2003) showed that instructing about EI and emotions in leadership management training positively affected the team's performance.

The success of projects is not related only to job abilities such as verbal communications and skills, but includes concepts related to an individual's EI and the use of these competence skills in the workplace. Despite organizational leaders' interest, a small number of studies have been conducted on the way in which EI contributes to job performance and, ultimately, project outcomes. From the management perspective of social behavior, EI is potentially a strong predictor for job performance (Mishra & Mohapatra, 2010). The potential link between EI and job performance supports the motivation to assess employees relative to their project success (Mishra & Mohapatra, 2010).

Findings

Selection criteria required participants to be U.S. citizens of Hispanic origin, and professionals working in a complex technology project environment, and have at least 5 years of professional experience. Participants were also required to have a professional experience that included working with more than five project team members in an organization with more than 15 employees. The calculated sample size for the research study was 84, and 88 participants responded the survey. All 88 responses were considered in the statistical analyses. The results generated from the assessment tools were examined using descriptive statistics; then statistical analyses were conducted to explore the relationships and predictions by calculating the correlational coefficients, and multiple regressions to test the research study hypotheses.

EI Genos Inventory Results

Table 1
EI Reliability Coefficient Scores Administered by Genos International

EI Competency	Reliability
ESA (Emotional Self-Awareness)	0.89
EAO (Emotional Awareness of Others)	0.91
EMO (Emotional Management of Others)	0.85
ESM (Emotional Self -Management)	0.87
Total EI	0.97

Table 2
EI Genos Full Version Means and Standard Deviations

EI Competency	Range	Mean	SD	Skew	Kurtosis
ESA	33	39.28	6.49	-0.56	0.39
EAO	40	36.91	6.91	-0.70	1.57
ESM	37	37.06	6.33	-0.97	2.45
EMO	40	37.45	6.29	-1.02	3.01
Total EI	232	261.34	39.53	-1.05	2.60

Note. For all competencies, $n = 88$, standard error for skew = 0.257, and standard error for kurtosis = 0.508.

As is evident in Table 2, the skew and the kurtosis values mean that the sample does not follow a normal distribution. However, the skew and kurtosis calculated values were considered within reasonable range and provided statistical information about the test performed for the correlational analysis.

Project Outcome Assessment Tool Results

The reliability coefficients values of Project Budget PB and Scope Creep SC met the criteria. The Project Timeliness PT was close to the value .70 and was considered acceptable to use in the statistical analysis. One reason that the Project Timeliness PT value was less than 0.7 could be that the number of questions is low (25), and the instrument was being used for the first time. The Project Outcomes value for Project Timeliness PT, Project Budget PB, and Scope Creep SC of the means and standard deviations are listed in Table 4.

Table 3

Project Outcomes Cronbach's Alpha Reliability Coefficients for Project Timeliness (PT), Project Budget (PB), and Scope Creep (SC)

Project Outcome	Reliability
PT	0.669
PB	0.731
SC	0.779

As is evident in Table 4, the skewness and the kurtosis values mean that the sample does not follow a normal distribution. The Project Timeliness PT and Project Budget PB skewness values mean that the distribution would be negatively skewed to the right, while the value for Scope Creep SC is positively skewed to the left. The skewness and kurtosis calculated values are considered reasonable.

Table 4

Project Outcome Means and Standard Deviations

Project Outcome	Range	Mean	SD	Skew	Kurtosis
PT	11	7.26	2.80	-0.47	-0.65
PB	12	6.82	3.07	-0.25	-0.63
SC	20	8.65	3.80	0.38	0.61

Note. For all outcomes, $n = 88$, standard error for skew = 0.257, and standard error for kurtosis = 0.508.

EI and Project Outcomes

The EI concept at the workplace is an important aspect for leaders seeking to achieve positive outcomes in the organization (Garrido & Repetto Talavera, 2008). If EI competencies are employed accordingly, EI competencies could help enhance the social competencies considered important for individuals' success in the workplace, in their lives, and within the project team settings (Garrido & Repetto Talavera, 2008). Goleman (2006) described emotional competence as a trait composed of the social and personal skills that conduce to higher performance in the work environment.

Four EI competencies were considered as the predictor variables for the research study. The EI competencies included Emotional Self-Awareness (ESA), Emotional Self-Management (ESM), Emotional Awareness of Others (EAO), and Emotional Management of Others (EMO). Three Project Outcomes were considered as criterion variables. The Project Outcomes included Project Timeliness (PT), Project Budget (PB), and Scope Creep (SC). The conclusions from the predictor and criterion variables are discussed in the following paragraphs.

Emotional Self-Awareness and Project Outcomes

From the research study results, the findings showed that the ESA EI competency is positively correlated to Project Timeliness PT and Project Budget PB, while the correlation was positive weak to Scope Creep SC. From these findings, the conclusions are that when Hispanics show the ESA competency, has positive influences in contributing to the completion on time of the high tech projects, including the contribution of to keeping these projects within budget. When Hispanics are showing ESA EI competency, they could have a positive effect on the team because team members are more aware of their emotional interpersonal abilities.

From the Scope Creep SC perspective, the research study findings showed that the correlations were weak, therefore suggesting that at the working team level, there is a weak positive relationship between EI and Scope Creep SC. Project managers need to negotiate the scope creep and inform stakeholders about the effect on the project if the project scope is modified. As a result, scope creep would be decided between project stakeholders and project managers, and not by project team members. At a higher level from the working level, the project scope is modified, meaning that working team members could not have an active or controlling involvement in scope modifications.

Based upon the findings from multiple regression analyses, ESA was significant predictor for Project Timeliness PT, indicating Hispanics with ESA EI competency, could be a predictor for the completion on time of the high tech projects, including contributing to keeping these projects within budget. ESA was found to be the core of other members' skills such as mentoring abilities, communication skills, and interpersonal abilities because EI starts when emotive information enters the individual's perceptual scheme (Hansen, 2009).

When Hispanics are showing ESA EI competency, they could have a positive effect on the team because team members are more aware of their emotional interpersonal abilities. ESA reflects the congruity between one's own perceptions with the perceptions of other individuals regarding performance and behavior (Young & Dulewicz, 2007). Hispanics with ESA could be better prepared in demonstrating their mentoring abilities and communications skills among the team members. If Hispanic project team members show ESA skills, their presence could a predictor that high tech projects could be completed before or on schedule. With ESA, individuals are aware of their own feelings and possess the capacity to understand, acknowledge, and manage these emotions in a manner so that individuals believe they are in control (Mayer, Caruso, & Salovey, 2000a).

Emotional Self-Management and Project Outcomes

Based upon the research findings the ESM EI competency is positively correlated to Project Timeliness PT, and Project Budget PB, correlation was weak to Scope Creep SC. From these findings, the conclusions are that ESM has positive consequences in contributing to the completion before or on schedule of the high tech projects, including contributing to keeping these projects under or on budget. Individuals' learned proficiencies could be used in a calculated fashion to modify their thoughts, actions, and emotions, and individuals who employ ESM may solve more problems, make fewer mistakes, engage in less aggressive behavior, and behave appropriately with other team members (Barker, Martin, & Zournazi, 2008). When Hispanic project team members have ESM, they have better self-control, which relates to individuals' actions that regulate their own behavior. The behavior could be used in a calculated fashion to modify their thoughts, actions, and emotions. ESM techniques compensate for the issues related to external control and bring to the individuals the possibility of improved behavior modification (Barker et al., 2008).

ESM from an organizational perspective is composed of strategies for individuals to manage their own behavior to minimize deviations from accepted work standards (Mezo, 2009). ESM demands that individuals associate or dissociate from their own emotions based on the usefulness of a given scenario (Mayer & Salovey, 1997). Thus, Hispanic employees with ESM would solve more problems, make fewer mistakes, engage in less aggressive behavior, and behave appropriately with other team members.

Hispanic employees with ESM would assist in creating a healthy working environment and help to complete high tech projects before or on schedule.

The study results for Scope Creep SC indicated that Scope Creep SC had positive weak correlations. The results suggested that at the working team level, Hispanics showing the ESM EI competency could not be used to help manage scope creep of the project.

Emotional Awareness of Others and Project Outcomes

From the research study results, the findings showed that the EAO EI competency is positively correlated to Project Timeliness PT and Project Budget PB; the correlation was weakly positive to Scope Creep SC. Based upon the research findings, one can conclude that EAO has positive consequences in contributing to the completion before or on schedule of the high tech projects, including contributing to keeping these projects under or on budget. When Hispanic employees are showing EAO EI competency, these individuals are maintaining work relationships with other team members and the families of their own and other team members, and friends. The individuals could be seen as authentic individuals opening communication, which is needed in organizations to facilitate carrying out the project data and information flow, which is important for team success. The EAO EI competency could help projects to be completed before or on schedule and to have better control of under or on in-budget project cost.

From the Scope Creep SC perspective, findings showed that Scope Creep SC had positive weak correlations. Based upon the study research results about Scope Creep SC, the conclusions are that at the working team level, Hispanics with EAO could not be used as predictor nor having an influence about controlling scope creep or deciding about the modifications of the project scope. Multiple regression analyses showed that EAO was not a significant predictor for Project Timeliness PT, Project Budget PB, and Scope Creep SC. The conclusion is that when Hispanics use the EAO EI competency, one cannot predict if the high tech project will be completed before or on schedule, under or on budget, or subject to control of scope creep. Project managers wanting to predict project outcomes might want to consider all the other EI competencies to have some understanding in predicting the completion of projects before or on schedule and under or on budget.

Emotional Management of Others and Project Outcomes

Based upon the research findings, the conclusions are that EMO has positive consequences in contributing to the completion before or on schedule of the high tech projects, including keeping these projects under or on budget. When Hispanics use EMO EI competency, they are displaying the ability to use the awareness of their own emotions and those of other individuals to manage interactions and emotions successfully. Hispanic employees with EMO EI competency have skill in relationship management or emotional management of others, which ensures that communications among project team members are effective and clear.

Hispanic employees with EMO EI competency also would be the bond that team members are building over time through their interactions and relationships, because individuals see the benefits of connecting to different individuals, inside and outside the organization. The EMO EI competency could help projects to be completed before or on schedule and to have better control to complete under or on in-budget project cost. The study research results about Scope Creep SC suggested that at the working team level, Hispanics with EMO could not be used a predictor about managing the scope creep or deciding about the project scope.

From the research study results, the findings indicated that the EMO EI competency is positively correlated to Project Timeliness PT and Project Budget PB, while the correlation was positive weak to Scope Creep SC. Multiple regression analyses showed that EMO was a significant predictor for Project Timeliness PT and Project Budget PB. From these findings, the conclusions are that EMO has positive consequences in contributing to the completion before or on schedule of the high tech projects, including contributing to keeping these projects under or on budget. When Hispanic employees are showing EMO EI competency, these individuals are displaying the ability to use the awareness of their own emotions and those of other individuals to manage interactions and emotions successfully.

From the Scope Creep SC perspective, the findings indicated that Scope Creep SC had positive weak correlations. The study research results for Scope Creep SC indicated that at the working team level, no positive influence about controlling or managing scope creep or deciding about the project scope of high tech projects. Multiple regression analyses showed that EMO was a significant predictor for Project Timeliness PT and Project Budget PB. The conclusions are that Hispanic employees showing EMO EI competency could be used to predict that projects could be completed before or on schedule and under or on budget. On the contrary, from the Scope Creep SC criterion variable perspective, Hispanic employees with EMO EI competency could not be used to predict that they could control or manage the scope creep in high tech projects.

Hypothesis 1

Research findings indicated that relationships existed between EI competencies ESA, ESM, EAO, EMO and project outcomes Project Timeliness PT, Project Budget PB, and Scope Creep SC. Hispanic employees with higher EI competencies would have positive effects on completing projects before or on schedule, keeping projects under or on budget, and in some instances, potentially deal with scope creep.

Hypothesis 2

Research findings showed that some EI competencies, such as ESA, and EMO, were statistically significant predictors and these EI competencies could be used as predictors for the project outcomes Project Timeliness PT and Project Budget PB.

Implications

The implications of the research study from the study findings are evident, and these results could potentially be used by organizational leaders working on high tech projects who employ Hispanics. Corona (2010) asserted that in countries where the population consists of multi-ethnic groups, as in the United States, to understand the influence of ethnic culture on the relationship between leadership and EI is important. Studying the Hispanic group in relation to EI competencies and project outcomes provided information to the leadership body of knowledge about the Hispanic ethnic group and the contributions they make to project deliverables.

The current research study results could support EI research communities, where these findings could be generalized to a more diverse workforce. Research studies should be conducted to include additional ethnic groups, to increase the leadership body of knowledge about the ethnic groups and their contributions to project deliverables. From the sample selected, it was clear that EI competencies might be used as predictors for project outcomes, based on the criterion variables selected, Project Timeliness PT, Project Budget PB, and Scope Creep SC.

The research study findings indicated that EI competencies possessed by the participants, even these not fully developed, could contribute to the successful completion of a high tech project. If project team members received formal EI training before the execution of the projects, EI skills could most likely significantly improve the outcomes of the projects, improving project team effectiveness and productivity as well (Nelson, et al., 2007).

The multiple regression analyses showed that some EI competencies, such as, EMO and ESA pairing with Project Timeliness PT, and EMO pairing with Project Budget PB, could be used as predictors of project outcomes. The results of the research study indicated that EI has a direct effect on project outcomes. From the perspective of leaders and research communities, the research study results may increase the body of leadership and management knowledge about the relationship between EI and project outcomes. EI is certainly not the only solution to project management issues.

Implications for Hispanics

The implications of the current research study findings are clear and these could be potentially beneficial to the high tech industry organizations and to the research communities of EI focusing on diverse populations. From the perspective of Hispanic project team members, those who develop stronger EI

competencies might also help improve their relationship behaviors within inside and outside the organization. Developing EI competencies may support their mentoring abilities and their skills as project team leaders, assisting them in increasing the possibilities of project success.

Recommendations

For project managers and project stakeholders of high tech projects employing a diverse workforce, a significant recommendation is to explore the possibilities of integrating EI in the employee development curriculum for project teams. Project managers should explore means to make EI training a routine part of employee development. Managers might also practice EI skills in their daily interactions with project team members inside and outside the organization. For the short term, the employee development programs could include EI training for selected team members, then prioritize the critical projects, which could benefit from an EI trained workforce. Then, for the long term, the deployment of EI development programs could be implemented in stages throughout the organization.

The success of projects is not related only to job abilities such as verbal communications and technical skills, but includes concepts related to an individual's EI and the use of EI competencies in the workplace. The research findings of the study will provide additional support to the use of EI in the workplace, showing a solid value of EI competencies in the workplace, and the uniqueness of EI in Hispanic employees. The results may also support further study of EI by the research communities and the deployment of EI development programs by industry leaders to improve their opportunities for project success rate.

Summary

The research study included two hypotheses derived from the research questions. Based upon the results obtained from the statistical analyses, the two null hypotheses were rejected. Research findings indicated that statistically significant positive relationships existed between the EI competencies and project outcomes, with the exception of a weak relationship with Scope Creep SC. Based upon the research study findings, the two EI competencies, ESA and EMO, were statistically significant predictors. ESA and EMO could be used as predictors for the project outcomes, such as completing projects before or on schedule and under or on budget.

Finally, the research study findings should provide useful information to support the development and deployment of EI in the organizations and the creation of EI development programs for all project team members, including Hispanics. The EI concept would integrate the development programs and job-related training provided to employees to improve their skills, providing a foundation for practicable knowledge. Having EI-trained project team members should produce better and cohesive teams, providing them with the tools needed to improve their opportunities to complete successfully the projects assigned to them. Other benefits include nurturing communication among team members and improving the flow of information among them, inside and outside the organization.

While the research study results were found from studying the specific targeted population, Hispanics, and industry selected, high tech, these findings may provide some insight and value to other industries and populations. The findings may also be generalizable to organizations located in other countries. Based upon the research study findings and previous research studies findings, the EI construct definitely has a place in work organizations. The EI concept may be applied to many industries and populations, providing potential benefits to leaders, to managers, and to employees in their attempts to improve the success rate of projects in the organizations.

References

- Ashkanasy, N. M. (2006). Emotional intelligence: An international handbook. *Personnel Psychology*, 59(2), 464–467. Retrieved from <http://www.blackwellpublishing.com/journal.asp?ref=0031-5826&site=1/>

- Ashkanasy, N. M., & Dasborough, M. T. (2003). Emotional awareness and emotional intelligence in leadership teaching. *Journal of Education for Business*, 79(1), 18–22. doi:10.1080/08832320309599082
- Barker, C., Martin, B., & Zournazi, M. (2008). Emotional self-management for activists. *Reflective Practice*, 9(4), 423–435. doi:10.1080/14623940802431457
- Blancero, D., & DelCampo, R. (2005). Hispanics in the workplace: Experiences with mentoring and networking. *Employment Relations Today*, 32(2), 31–38. doi:10.1002/ert.20061
- Borrego, M., Douglas, E., & Amelink, C. (2009). Quantitative, qualitative, and mixed research methods in engineering education. *Journal of Engineering Education*, 98(1), 53–66. Retrieved from <http://www.jee.org/>
- Bradberry, T., & Greaves, J. (2009). *The emotional intelligence 2.0*. San Diego, CA: TalentSmart.
- Cherniss, C. (2001). Emotional intelligence and organizational effectiveness. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 3–12). San Francisco, CA: Jossey-Bass.
- Corona, M. (2010). The relationship between emotional intelligence and transformational leadership: A Hispanic American examination. *Business Journal of Hispanic Research*, 4(1), 22–34. Retrieved from <http://www.nshmba.org/bjhr>
- Creswell, J. W. (2009). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle Valley, NJ: Pearson Education.
- Decker, B., Landaeta, R., & Kotnour, T. (2009). Exploring the relationships between emotional intelligence and the use of knowledge transfer methods in the project environment. *Knowledge Management Research & Practice*, 7(1), 15–36. Retrieved from <http://www.palgrave-journals.com/kmrp/index.html>
- Eveleens, J., & Verhoef, C. (2010). The rise and fall of the chaos report figures. *IEEE Software*, 27(1), 30–36. doi:10.1109/MS.2009.154
- Fayek, A., Yorke, M., & Cherlet, R. (2006). Workforce training initiatives for megaproject success. *Canadian Journal of Civil Engineering*, 33(12), 1561–1570. doi:10.1139/L05-125
- Garrido, M., & Repetto Talavera, E. (2008). Estado de la investigación en España sobre Inteligencia Emocional en el ámbito educativo. *Electronic Journal of Research in Educational Psychology*, 6(2), 401–420. Retrieved from <http://www.investigacion-psicopedagogica.org/revista/new/english/index.php>
- Geoghegan, L., & Dulewicz, V. (2008). Do project managers' leadership competencies contribute to project success? *Project Management Journal*, 39(4), 58–67. Retrieved from <http://www.pmi.org/Knowledge-Center/Publications-Project-Management-Journal.aspx>
- Goleman, D. (1998a). *Working with emotional intelligence* (1st ed.). New York, NY: Bantam Books.
- Goleman, D. (2006). *Emotional intelligence: Why it can matter more than IQ*. New York, NY: Bantam Books.
- Ghosh, S., & Chakraborty, S. (2008). Emotional intelligence: The next step in knowledge process outsourcing. *Vision*, 12(1), 19–30. http://www.mdi.ac.in/intellect_capital/vision.asp?id=3
- Hansen, J. (2009). Self-awareness revisited: Reconsidering a core value of the counseling profession. *Journal of Counseling & Development*, 87(2), 186–193. Retrieved from <http://www.counseling.org>
- Hicks, R., & Dess, G. (2008). A question of leadership: Are there any potential downsides to emotional intelligence for executives, and if so, what are they? *Leadership in Action*, 28(5), 18–24. doi:10.1002/lia.1264
- Johnson, B., & Christensen, L. (2010). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Kunnanatt, J. T. (2008). Emotional intelligence: Theory and description. A competency model for interpersonal effectiveness. *Career Development International*, 13(7), 614–629. doi:10.1108/13620430810911083

- Landa, J., Martos, M., & López-Zafra, E. (2010). Emotional intelligence and personality traits as predictors of psychological well-being in Spanish undergraduates. *Social Behavior and Personality*, 38(6), 783-793. Retrieved from <http://www.sbp-journal.com/>
- Mayer, J. D., Caruso, D. R., & Salovey, P. (2000a). Emotional intelligence as zeitgeist, as personality, and as a mental ability. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school and in the workplace* (pp. 92-118). New York, NY: Jossey-Bass/Wiley.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.). *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York, NY: Basic Books.
- Mishra, P., & Mohapatra, A. (2009). Emotional intelligence in the occupational settings: A literature-based analysis of the concept and its measurement. *South Asian Journal of Management*, 16(3), 86-103. Retrieved from <http://www.amdisa.org/publica.html>
- Mishra, P., & Mohapatra, A. (2010). Relevance of emotional intelligence for effective job performance: An empirical study. *Vikalpa: The Journal for Decision Makers*, 35(1), 53-61. Retrieved from <http://www.vikalpa.com/>
- Mostafa, N., Mehran, N., & Bijan, N. (2010). Teamwork approach: An investigation on Iranian teamwork attitudes. *Canadian Social Science*, 6(3), 104-113. Retrieved from <http://www.cscanada.net/index.php/css>
- Muzio, E., & Fisher, D. (2009). Soft skill quantification (SSQ): Human performance vs. metric. *Cost Engineering*, 51(3), 26-31. Retrieved from <http://www.aacei.org/>
- Nelson, D., Low, G., & Ellis, R. (2007). Emotional intelligence: A transformative theory and applied model of positive personal change. *Annals of the American Psychotherapy Association*, 10(4), 30-35. Retrieved from <http://www.americanpsychotherapy.com/annals/>
- Othman, A., Abdullah, H., & Ahmad, J. (2009). The influence of work motivation on emotional intelligence and team effectiveness. *Vision*, 13(4), 1-14. Retrieved from http://www.mdi.ac.in/intellect_capital/vision.asp?id=3
- Project Management Institute (2008). *A guide to the project management body of knowledge (PMBOK guide)* (4th ed.). Newton Square, PA: Author.
- Ramesar, S., Koortzen, P., & Oosthuizen, R. (2009). The relationship between emotional intelligence and stress management. *SAJIP: South African Journal of Industrial Psychology*, 35(1), 39-48. doi:10.4102/sajip.v35i1.443
- Singh, K. (2010). Developing human capital by linking emotional intelligence with personal competencies in Indian business organizations. *International Journal of Business Science & Applied Management*, 5(2), 29-42. Retrieved from <http://www.business-and-management.org/>
- Singh, P. P., & Manser, P. (2008). Relationship between the perceived emotional intelligence of school principals and the job satisfaction of educators in a collegial environment. *Africa Education Review*, 5(1), 109-130. doi:10.1080/18146620802144834
- Standish Group International. (2009). *CHAOS Summary 2009*. West Yarmouth, MA: Author.
- Surendra, A. (2010). Aristotelian-Thomistic virtue ethics, emotional intelligence and decision making. *Advances in Management*, 3(4), 7-13. Retrieved from http://www.managein.net/main_management.htm
- Turner, R., & Lloyd-Walker, B. (2008). Emotional intelligence (EI) capabilities training: Can it develop EI in project teams? *International Journal of Managing Projects in Business*, 1(4), 512-534. doi:10.1108/17538370810906237
- U.S. Census. (2010). Facts for features: Hispanic heritage month. Retrieved from <http://www.census.gov/>
- Webb, K. (2009). Why emotional intelligence should matter to management: A survey of the literature. *S.A.M. Advanced Management Journal*, 74(2), 32-41. Retrieved from <http://www.samnational.org>
- Wu, M. B., & Stemler, S. E. (2008). Resident advisor general intelligence, emotional intelligence, personality dimensions, and internal belief characteristics as predictors of rated performance.

- National Association of Student Personnel Administrators Journal*, 45(4), 528-559. Retrieved from <http://www.naspa.org>
- Yazici, H. (2009). The role of project management maturity and organizational culture in perceived performance. *Project Management Journal*, 40(3), 14-33. doi:10.1002 /pmj.20121
- Yildirim, O. (2007). Discriminating emotional intelligence-based competencies of IT employees and salespeople. *Journal of European Industrial Training*, 31(4), 274–282. doi:10.1108/03090590710746432
- Young, M., & Dulewicz, V. (2007). Relationships between emotional and congruent self-awareness and performance in the British Royal Navy. *Journal of Managerial Psychology*, 22(5), 465–478. doi:10.1108/02683940710757191
- Zwikael, O. (2008). Top management involvement in project management: A cross country study of the software industry. *International Journal of Managing Projects in Business*, 1(4), 498-511. doi:10.1108/17538370810906228