Relationship between Emotional Intelligence and Performance among Software Professionals in Kerala

Dr. Krishna Priya¹, Dr.K.S.Chandrasekar²
¹Assistant Professor in Management Studies, Kannur University, Palayad, Thalassery
smt.krishnapriya@gmail.com
²Professor and Dean, IMK, University of Kerala, Trivandrum
kscnair@gmail.com

Abstract

Over the years, the construct of emotional intelligence has matured and harnessed international recognition. Emotional Intelligence involves the capacity to absorb, appreciate and discerningly manage emotions in relationship to oneself and others. It is one of the most important behavioural constructs, which is considered as a major contributor to performance in the workplace. It is also contended that academic inquiry in the area of emotional intelligence and performance is relatively very low with regard to the software professionals. The main objective of the study was to find out the levels and relationship of emotional intelligence and performance among software professionals. In this study, a descriptive correlational research design was adopted. The research was conducted among 362 software professionals in Kerala. The Assessing Emotions Scale was used to determine the emotional intelligence of the software professionals and the performance of software professionals was measured using the Role Based Performance Scale. The study primarily revealed that there exists a significant relationship between emotional intelligence and performance. The implications of the findings and possible future research areas are also outlined in this study.
Keywords: Emotional intelligence, Emotions, Performance, Role, Software professionals.

1. Introduction

The world is fast emerging to be complex and Vaill (1996) has termed this as the “permanent white waters” with regard to the modern times. New technology has reshaped work activities and there is a shift from manufacturing to services (Adler, 1992). Hence, different measures for assessing the skills of the employees are needed to meet the challenges faced by the employees in the modern organisation context. One such measure, used in recent years, is the concept of Emotional Intelligence (EI). Mayer, Caruso and Salovey (1999) advocates that for a concept such as emotional intelligence to be categorised as a true intelligence it should meet three specific criteria - it should “reflect mental performance rather than simply preferred ways of behaving”; it should “describe a set of closely related abilities that are similar to, but distinct from, mental abilities already described by already-established intelligences”; and it is necessary that “intelligence develops with age and experience”. Afterwards, Boyatzis and Sala (2004) worked on and refined the Mayer, Caruso and Salovey (1999) standards. They stated that “to be classified as an intelligence, the concept should be: related to neural-endocrine functioning; differentiated as to the type of
neural circuitry and endocrine system involved; related to life and job outcomes; sufficiently different from other personality constructs that the concept adds value to understanding the human personality and behaviour” (Boyatzis and Sala, 2004).

The rapid rise to fame of emotional intelligence has resulted in various definitions of emotional intelligence. Goleman (1995) stated that character is the “old-fashioned word for the body of skills that emotional intelligence represents”. Mayer and Salovey (1997) offered a definition that is the most accepted one wherein emotional intelligence is stated as “the ability to perceive emotion, integrate emotion to facilitate thought, understand emotions, and to regulate emotions to promote personal growth”. Bar-On (1997) author of the EQ-i has defined EI as “an array of non-cognitive capabilities, competencies, and skills that influence one’s ability to succeed in coping with environmental demands and pressures”. After further studies on the EI concept, Mayer, Caruso and Salovey (1999) states that it is “the ability to recognize the meaning of emotions and their relationships, and to reason and problem-solve on the basis of them”. Mayer, Salovey and Caruso (2002) also opine that EI is the ability to perceive as well as identify emotions, facilitate thoughts, understand emotions and manage emotions.

Emotional Intelligence accounts for individual differences that cannot be actually accounted for by general intelligence alone (Petrides, Frederickson and Furnham, 2004). Goleman (1995) points out that emotional intelligence is a major contributor to the success of an individual when compared to the Intelligence Quotient. According to Van Jaarsveld (2003), IQ refers to the assessment of an individual’s intellectual, analytical, logical and rational abilities. It was once thought that having a high IQ was all one needed to be successful and fulfill one’s potential in work and life (Lemann, 1999). On the contrary, the concept of emotional intelligence endorses the theory that cognitive skills are not the only factor related to achieving success in life (Goleman, 1995). Perseverance, self-discipline, achievement and emotional abilities are garnering attention more than a high IQ (Caruso and Salovey, 2004; Goleman, 1998b; Mayer, 2005). Furthermore, emotional intelligence can be taught and its skills modified when compared to IQ, which is believed not to change (Goleman, 1998b). In particular, the construct of emotional intelligence is currently being highlighted as a tool that organisations can harness to improve individual and team performance (Jordan et al., 2002; Fiedeldey-Van Dijk and Freedman, 2007). Performance refers to “the degree to which an individual executes his or her roles with reference to certain specified standards set by the organisation” (Nayyar, 1994). Performance is the most extensively researched criterion variable in both organisational behavior and human resource management literature (Bommer et al., 1995). This interest is driven by the need for organisations to obtain an advantage in an increasingly global and competitive economy (Welbourne, Johnson and Erez, 1998).

In the software industry, where the nature of labour inputs is highly flexible and mobile, emotional intelligence is highly critical for maintaining a harmonious industrial relation in addition to higher productivity and greater efficiency. Since an emotional intelligence based theory of performance has direct applicability to the domain of work and organisational effectiveness (Goleman, 1998b), the emotional intelligence skills are very important for software organisations. Numerous studies shows that personal skills such as self awareness, self motivation, flexibility and integrity and interpersonal skills such as empathy, listening, negotiation and conflict management are very important for a high performance workplace (Boyatzis, 1982; Spencer, McClelland and Kelner, 1997; Spencer and Spencer, 1993). Moreover, individuals having higher emotional intelligence levels are more willing to change and individuals with lower emotional intelligence levels lack the motivation for continued learning and job performance improvements irrespective of age (Cherniss and Adler, 2003).
Although theoretical links have been made regarding the relationship between emotional intelligence and performance, there is still a lack of empirical research in this area (Thi Lam and Kirby, 2002). Moreover, efforts for research in this direction are pertinent in the case of Kerala where software professionals are increasing in number. Therefore, it is imperative to assess whether there is any relationship between emotional intelligence and performance as well as whether this relationship is positive or negative. Moreover, it is also essential to see the effect of emotional intelligence on the performance of software professionals.

2. Literature Review

The data available shows that there exists a relationship between emotional intelligence and workplace performance (McClelland, 1999; Pesuric and Byham, 1996; Spencer and Spencer, 1993; Thi Lam and Kirby, 2002). A study by Boyatzis (1982) of more than two thousand supervisors, middle managers and executives in twelve organisations highlighted that most of the competencies that differentiated star performers from average performers were emotional competencies. While conducting research at Met Life, when the company hired a special group of individuals who scored high on optimism, they sold more than the pessimists during the first year as well as during the second year (Seligman, 1990).

A study by Spencer and Spencer in 1993 (as cited in Cherniss, 1999) found that sales agents chosen through the usual recruiting process sold less than those chosen on the basis of their emotional competencies. Besides, the study revealed that on an annual basis, those selected based on emotional competence sold more than those in the control group did and they had 63 per cent fewer turnovers during the first year than those selected in a typical way (Cherniss, 1999). Pesuric and Byham (1996) stated that when supervisors at a manufacturing plant were provided with training in relation to emotional competencies such as how to listen better and how to help employees resolve problems on their own, there was a significant reduction in lost-time accidents, the formal grievances were reduced and the productivity goals were surpassed. In 1997, Hay/McBer Research and Innovation Group (as cited in Goleman, 1998b) found that sales people at a national furniture retailer hired on the basis of emotional competence had better performance.

Dulewicz and Higgs (1998) stated that the measure of emotional intelligence contributed to around 36 per cent of the variance in organisational advancement while IQ contributed to around 27 per cent and managerial competence’s contribution was around 16 per cent. In another study conducted among 315 managers in Japan and Germany, it was found that the biggest discriminator between the successful executives and the unsuccessful executives was emotional intelligence (Cherniss and Goleman, 2001). In a study of 200 companies and organizations worldwide, Goleman (1998a) found that one third of the difference in performance was due to technical skill and cognitive ability, whereas it was concluded that the remaining were due to emotional competence.

Another study by McClelland (1999) in a large beverage company, which used standard recruitment procedures to hire divisional presidents, found that half of its employees left the organisation within a two-year period, mainly due to substandard performance. After the organisation changed their recruiting procedures to incorporate emotional competencies, it was found that only six percent left within two years of being hired. Besides, it was also found that the divisions managed by leaders who were strong in emotional intelligence competencies outperformed their revenue targets when compared to the divisions with leaders that did not show emotional intelligence competencies. Another study of 100 bank employees by Manila University (as cited in Singh, 2001) showed that emotional intelligence score accounted for 27 per cent of job performance while intelligence quotient scores were unrelated to job performance. Thi Lam and Kirby (2002) found that overall emotional
intelligence and its sub-components contributed positively to individual cognitive-based performance.

A study undertaken by Slaski and Cartwright (2003) revealed that emotional intelligence was positively related to emotional well-being, morale, quality of work life and overall performance rating. Stough and De Guara (2003) conducted a study among fifty-one subordinates from four organisations which showed that no significant relationship exists between any of the emotional intelligence factors and overall performance while a significant relationship was found only between emotional control and team role. Beekie and Raj (2004) conducted a study among financial advisors in the insurance or financial service sector which revealed that a positive relationship exists between emotional intelligence and sales performance. A study by Bhalla and Nauriyal (2004) revealed that emotional intelligence is a determinant that helps to understand and predict individual performance at work; emotional intelligence is relevant in the case of Indians because of their high affiliation need and that emotional intelligence can positively affect productivity.

Jordan and Troth (2004) examined the use of emotional intelligence for predicting individual performance, team performance and conflict resolution styles and their study revealed that there was a positive relationship between emotional intelligence indicators and team performance. A study by Langhorn (2004) was conducted to assess emotional intelligence and performance of restaurant managers wherein their findings showed that the main predictors of manager’s performance are emotional self-awareness, social responsibility, interpersonal relationships and optimism. The study revealed that the emotional intelligence of managers enabled to forecast their performance with a significant degree of accuracy (Langhorn, 2004). Cumming (2005) analysed the relationship between emotional intelligence and workplace performance among employees in insurance companies and opined that a significant relationship exists between emotional intelligence and workplace performance. When Carmeli and Josman (2006) empirically examined the relationship between emotional intelligence and two aspects of work outcomes, the relationship between emotional intelligence and employees’ work outcomes turned out to be positive. Rozell, Pettijohn and Parker (2006) investigated the relationship between salesperson performances with their emotional intelligence and it was not only found that those sales people in the highest performing group had high emotional intelligence score but also that factors of emotional intelligence like emotional awareness and emotional control were found to be significantly related to their performance. A study by Sy, Tram and O’Hara (2006) which measured the interaction effect among the emotional intelligences of managers and employees on job satisfaction and performance revealed that the employees’ emotional intelligence was positively associated with job performance and satisfaction. Bostjancic (2010) found that the sub dimension openness to culture helped the managers to cooperate effectively with their associates and that a negative correlation existed between emotional intelligence and managers’ problem solving, rewarding and supervising performance.

A critical review of literature indicates that most of the studies relating to emotional intelligence and performance showed that a positive relationship exists between emotional intelligence and performance (Beekie and Raj, 2004; Carmeli and Josman, 2006; Slaski and Cartwright, 2003; Sy, Tram and O’Hara, 2006). The review showed that there is paucity in the empirical research regarding the relationship between emotional intelligence and performance among software professionals in Kerala and the present study was designed to learn this gap.
3. Objectives of the Study

The main objective of the study was to examine the levels and relationship of emotional intelligence and performance among software professionals.

The specific objectives that have been formulated for this study are:-
1. To assess the emotional intelligence and performance of software professionals.
2. To analyze the relationship that exists between emotional intelligence and performance among software professionals.
3. To investigate the impact of emotional intelligence on performance of software professionals.

4. Hypotheses

The following hypotheses in the alternate form are developed in line with the research objectives:-
H1: There is a significant relationship between Emotional Intelligence scores and Total Performance ratings.
H2: There is a significant relationship between Emotional Intelligence scores and Job Role.
H3: There is a significant relationship between Emotional Intelligence scores and Career Role.
H4: There is a significant relationship between Emotional Intelligence scores and Innovator Role.
H5: There is a significant relationship between Emotional Intelligence scores and Team Role.
H6: There is a significant relationship between Emotional Intelligence scores and Organisation Role.
H7: Total emotional intelligence will significantly predict the performance of software professionals.

5. Research Methodology

In pursuance of the objectives and hypotheses, the methodology adopted for conducting the study has been described as follows:-

5.1. Design of the Study

A descriptive correlation research design has been adopted to describe the levels of emotional intelligence and performance in addition to understanding their relationship.

5.2. Population

The population for the study consists of software professionals working in the software sector in Kerala. A further requirement that characterizes the population is including only those software professionals having work experience of more than six months in a software company.
5.3. Sampling Design

In order to conduct the study within a manageable limit, the inclusion of the eligible units is confined to the software companies located in two cities of Kerala i.e. Thiruvananthapuram and Cochin. Only those companies registered with the National Association of Software and Service Companies (NASSCOM), at the time of collection of data were considered for the study. For the survey, 20 software companies from Kerala who were members of NASSCOM were identified. Out of this, 12 were from Thiruvananthapuram and 8 were from Cochin. A list of such companies was compiled and the software professionals working in those companies were accepted as the sample frame for the study. The important factor in the selection of the organisations for the study was the accessibility of the organisation. The selected companies allowed access to 400 respondents. The responses from 362 software professionals are used in this study.

5.4 Data Collection

Primary data were collected from the software professionals working in NASSCOM registered companies at Thiruvananthapuram and Cochin cities in Kerala. Various research journals published in India and abroad were perused in the libraries. Several reports of government agencies and NASSCOM have also been used.

The online survey method was used in the study. The software professionals were required to complete the Assessing Emotions Scale (AES) and a demographic section. The AES is a self-report emotional intelligence scale by Schutte et al. (1998) and based on Salovey and Mayer’s (1990) model. Emotional Intelligence is operationalised according to four dimensions. The instrument contains 33 items. Each respondent has to indicate to what extent the items described them by rating themselves on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Role Based Performance Scale (RBPS) by Welbourne, Johnson and Erez (1998) was used to collect the information from the superiors regarding the performance of the subordinates and it includes a combination of five roles such as job role, career role, innovator role, team role and organisation role. The instrument contains 20 items. The responses were obtained on a Likert scale ranging from 1 (needs improvement) to 5 (excellent).

5.5. Testing the Research Instruments

The pilot study was conducted among 100 software professionals working in two software organisations. The pilot study aimed to evaluate whether each item had relevance to the dimension of the proposed measure and the ease with which the questionnaires could be completed. A final draft was prepared after incorporating minor modification to the online questionnaires.

To see whether the responses were similar across all sub-scales, both the AES and the RBPS questionnaires were subject to reliability testing. The average Cronbach’s alpha reliability coefficient for the AES was found to be 0.86 which is good. The Cronbach’s alpha reliability coefficients for each of the subscale were also found to be good and are given as follows: Perception of Emotion=0.89; Managing Own Emotions=0.89; Managing Others’ Emotions=0.87 and Utilisation of Emotion=0.86. Therefore, for this research, the AES is deemed as a reliable measure. The finding regarding the average Cronbach’s alpha reliability coefficient supports the research conducted by Schutte et al. (1998) and Thingujam and Ram (2000).
The average Cronbach’s alpha reliability coefficient for the RBPS was found to be 0.76, which is acceptable. The Cronbach’s alpha reliability coefficient for the job role and career role was acceptable while for the innovator role, team role and organisation role, it was found to be good. The coefficient for each of the subscales is given as follows: Job Role=0.73; Career Role=0.78; Innovator Role=0.85; Team Role=0.84; and Organisation Role =0.84. Therefore, for this research, the RBPS is considered as a reliable instrument for measuring performance. The internal consistency of the job role was similar to the results reported by Welbourne, Johnson and Erez (1998).

6. Analysis and Discussion

A demographic section was included in the emotional intelligence questionnaire to collect information about the respondent’s gender, age, level of education and total work experience. The mean response scores for the statements of each emotional intelligence dimension and performance role are analysed. The hypotheses are tested using inferential statistics such as Pearson correlation coefficient and regression analysis.

Regarding the classification based on gender, 69 per cent of the software professionals were male and 31 per cent were female. This shows that a significantly large proportion of males participated in the study. The mean age of the 362 software professionals was 25.41 years and their age varied from 22 years to 33 years. Majority of the respondents (91.44 per cent) were graduates and 4.14 per cent of the respondents were postgraduates. Besides, 4.42 per cent of the respondents have diploma as their educational qualification. Majority of the software professionals (75.41 per cent) have 1-5 years of work experience followed by those having 6-10 years of work experience (19.89 per cent). Table 1 shows the means and standard deviations for emotional intelligence and performance of the software professionals.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (Total)</th>
<th>Mean (per statement)</th>
<th>Std. Deviation (Total)</th>
<th>Std. Deviation (per statement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of Emotion</td>
<td>39.64</td>
<td>3.96</td>
<td>3.21</td>
<td>0.32</td>
</tr>
<tr>
<td>Managing own Emotions</td>
<td>37.97</td>
<td>4.22</td>
<td>2.49</td>
<td>0.28</td>
</tr>
<tr>
<td>Managing Others’ Emotions</td>
<td>35.31</td>
<td>4.41</td>
<td>1.92</td>
<td>0.24</td>
</tr>
<tr>
<td>Utilisation of Emotion</td>
<td>22.40</td>
<td>3.73</td>
<td>2.30</td>
<td>0.38</td>
</tr>
<tr>
<td>Total Emotional Intelligence</td>
<td>135.33</td>
<td>4.10</td>
<td>6.35</td>
<td>0.19</td>
</tr>
<tr>
<td>Job Role</td>
<td>16.72</td>
<td>4.18</td>
<td>1.31</td>
<td>0.33</td>
</tr>
<tr>
<td>Career Role</td>
<td>16.17</td>
<td>4.04</td>
<td>1.35</td>
<td>0.34</td>
</tr>
<tr>
<td>Innovator Role</td>
<td>17.01</td>
<td>4.25</td>
<td>1.44</td>
<td>0.36</td>
</tr>
<tr>
<td>Team Role</td>
<td>16.95</td>
<td>4.24</td>
<td>1.29</td>
<td>0.32</td>
</tr>
<tr>
<td>Organisation Role</td>
<td>15.62</td>
<td>3.91</td>
<td>1.22</td>
<td>0.31</td>
</tr>
<tr>
<td>Total Performance</td>
<td>82.47</td>
<td>4.12</td>
<td>3.29</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Source: Primary data
It can be inferred from the Table 1 that the mean total score for emotional intelligence is 135.33 with a standard deviation of 6.35. The score per statement related to total emotional intelligence has a mean of 4.10. The maximum score per statement is for the dimension of others emotions management followed by managing their own emotions and perception of emotion. The least score is obtained for utilisation of emotion. The mean total score for performance is 82.47 with a standard deviation of 3.29. The score per statements related to performance has a mean score of 4.12. The maximum score per statement is for the innovator role followed by team role and job role. The least score is obtained for organisation role.

Table 2
Pearson Correlation Coefficients of Emotional Intelligence scores with Total Performance ratings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Performance</th>
<th>Job Role</th>
<th>Career Role</th>
<th>Innovator Role</th>
<th>Team Role</th>
<th>Organisation Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Emotional Intelligence</td>
<td>0.58*</td>
<td>0.19*</td>
<td>0.02</td>
<td>0.52*</td>
<td>0.26*</td>
<td>0.45*</td>
</tr>
<tr>
<td>Perception of Emotion</td>
<td>0.61*</td>
<td>0.08</td>
<td>0.06</td>
<td>0.65*</td>
<td>0.15*</td>
<td>0.58*</td>
</tr>
<tr>
<td>Managing own Emotions</td>
<td>0.48*</td>
<td>0.24*</td>
<td>-0.01</td>
<td>0.36*</td>
<td>0.32*</td>
<td>0.28*</td>
</tr>
<tr>
<td>Managing Others’ Emotions</td>
<td>0.20*</td>
<td>0.08</td>
<td>0.02</td>
<td>0.20*</td>
<td>0.10</td>
<td>0.08</td>
</tr>
<tr>
<td>Utilisation of Emotion</td>
<td>0.06</td>
<td>0.09</td>
<td>-0.04</td>
<td>-0.01</td>
<td>0.07</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.01 level (two-tailed)
Source: Primary data

It can be inferred from the above table that there was significant positive correlation between total emotional intelligence and total performance ($r=0.58$, $p<0.01$); between perception of emotion and total performance ($r=0.61$, $p<0.01$); between managing own emotions and total performance ($r=0.48$, $p<0.01$) and between managing others’ emotions and total performance ($r=0.20$, $p<0.01$). However, the correlation between utilisation of emotion and total performance ($r=0.06$, ns) was not found to be significant. This result supports claims made by Goleman (1998) that emotionally intelligent employees are the ones who perform well at work. A study by Slaski and Cartwright (2003) revealed that emotional intelligence was significant in performance rating. Cumming (2005) also suggested that there existed a significant relationship between emotional intelligence and performance. Regarding the emotional intelligence dimensions, similar results were reported by Thi Lam and Kirby (2002) wherein they found that the total emotional intelligence and its various dimensions such as perceiving emotions and regulating emotions influenced an individual’s cognitive-based performance. Another study by Rozell, Pettijohn and Parker (2006) found that factors of emotional intelligence like emotional awareness and emotional control significantly related to performance. Hence, Hypothesis H1 that “There is a significant relationship between Emotional Intelligence scores and Total Performance ratings” is accepted in the case of total emotional intelligence, perception of emotion, managing own emotions and managing others’ emotions. However, it is rejected for the dimension of utilization of emotion.

Table 2 reveals that there was significant positive correlation between total emotional intelligence and job role ($r=0.19$, $p<0.01$) and between managing own emotions and job role.
(r=0.24, p<0.01). However, the correlation between perception of emotion and job role (r=0.08, ns); between managing others’ emotions and job role (r=0.08, ns) and between utilisation of emotion and job role (r=0.09, ns) was not statistically significant. In the present study, a limited relationship exists between emotional intelligence and job role and this might be due to the reason that software professionals are involved in the design and manufacturing of customised software and so they require more cognitive intelligence when compared to emotional intelligence. These results are in line with the previous studies. Cumming (2005) reports that only a limited relationship existed between emotional intelligence and job role as the study found only a significant relationship between emotional control and the job role. Hence, Hypothesis H2 that “There is a significant relationship between Emotional Intelligence scores and Job Role” is accepted in the case of total emotional intelligence and managing own emotions. However, it is rejected for the dimensions of perception of emotion, managing others’ emotions and utilization of emotion.

It can be observed from Table 2 that there was no significant relationship between total emotional intelligence and career role (r=0.02, ns); between perception of emotion and career role (r=0.06, ns); between managing own emotions and career role (r=-0.01, ns); between managing others’ emotions and career role (r=0.02, ns) and between utilisation of emotion and career role (r=-0.04, ns). The finding of this study is similar to the results reported by Cumming (2005) wherein no significant relationship was found to exist between emotional intelligence dimensions and career role. Hence, Hypothesis H3 that “There is a significant relationship between Emotional Intelligence scores and Career Role” is rejected in the case of total emotional intelligence, perception of emotion, managing own emotions, managing others’ emotions and utilization of emotion.

In Table 2, it can be seen that there was significant positive correlation between total emotional intelligence and innovator role (r=0.52, p<0.01); between perception of emotion and innovator role (r=0.65, p<0.01); between managing own emotions and innovator role (r=0.36, p<0.01) and between managing others’ emotions and innovator role (r=0.20, p<0.01). However, the correlation between utilisation of emotion and innovator role (r=0.01, ns) was not statistically significant. These findings supports Cumming’s (2005) and Stough and DeGuara’s (2003) results that a significant relationship exists between emotional recognition, expression as well as understanding emotions and innovator role. Hence, Hypothesis H4 that “There is a significant relationship between Emotional Intelligence scores and Innovator Role” is accepted in the case of total emotional intelligence, perception of emotion, managing own emotions and managing others’ emotions. However, it is rejected for the dimension of utilization of emotion.

It can be inferred from Table 2 that there was significant positive correlation between total emotional intelligence and team role (r=0.26, p<0.01); between perception of emotion and team role (r=0.15, p<0.01) and between managing own emotions and team role (r=0.32, p<0.01). However, the correlation between managing others’ emotions and team role (r=0.10, ns) and between utilisation of emotion and team role (r=0.07, ns) was not found to be significant. The finding from this study supports previous research (Goleman, 1995) that in order for effective team communication and cohesion to occur team members must have the ability to control their emotions. This is particularly true in the case of the software professionals who work in a project team with a deadline for completing the projects. This results also supports claims by Stough and DeGuara (2003) whose research gave ample evidence of relationship between emotional control and team role. A study by Jordan and Troth (2004) also revealed that there was a positive relationship between emotional intelligence indicators with team performance. Hence, Hypothesis H5 that “There is a significant relationship between Emotional Intelligence scores and Team Role” is accepted.
However, it is rejected for the dimensions of managing others’ emotions and utilization of emotion.

Table 2 reveals that there existed a significant positive correlation between total emotional intelligence and organisation role ($r=0.45$, $p<0.01$); between perception of emotion and organisation role ($r=0.58$, $p<0.01$) and between managing own emotions and organisation role ($r=0.28$, $p<0.01$). However, the correlation between managing others’ emotion and organisation role ($r=0.08$, ns) and between utilisation of emotion and organisation role ($r=0.05$, ns) was not statistically significant. These findings support the results of previous studies (Cumming, 2005) wherein a significant relationship was found to exist between emotional control and the organisation role. Hence, Hypothesis H6 that “There is a significant relationship between Emotional Intelligence scores and Organisation Role” is accepted in the case of total emotional intelligence, perception of emotion and managing own emotions. However, it is rejected for the dimensions of managing others’ emotions and utilization of emotion.

The impact of emotional intelligence on performance was analysed using bivariate regression model. The performance score was taken as the criterion variable and the scores of total emotional intelligence was taken as the predictor variable. Table 3 presents the Analysis of Variance (ANOVA) table for regression of performance of software professionals on their total emotional intelligence.

### Table 3
**Analysis of Variance (ANOVA) Table for Regression of performance of software professionals on their Total emotional intelligence**

<table>
<thead>
<tr>
<th>Values</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1311.56</td>
<td>1</td>
<td>1311.56</td>
<td>181.28</td>
<td>0.00</td>
</tr>
<tr>
<td>Residual</td>
<td>2604.60</td>
<td>360</td>
<td>7.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3916.17</td>
<td>361</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data

The F-value is found to be 181.28 which is significant at 5 per cent level of significance. As the F-value is found to be significant, it can be inferred that the regression model fit better to the sample data and it can be used for predicting the performance of the software professional.

### Table 4
**Coefficients for Regression of performance of software professionals on their Total emotional intelligence**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>41.836</td>
<td>3.021</td>
<td>13.847</td>
<td>0.000</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>0.300</td>
<td>0.022</td>
<td>0.579</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Primary data

R Square = 0.335
The R Square of the regression of performance of software professionals on their total emotional intelligence is 0.335, which means that 33.5 per cent variation in the performance of software professionals is determined by total emotional intelligence. The regression coefficient of emotional intelligence is found to be 0.300, which indicates that every unit increase in the score of emotional intelligence increases the score of total performance by 0.300. The regression equation is given as follows:

\[ \hat{P} = 41.836 + 0.300EI \] \…………………(1)

Where \( \hat{P} \) is the estimate of total performance score and \( EI \) is the score of total emotional intelligence. The equation (1) can be used for estimating the total performance of software professional with total emotional intelligence score.

A study by Dulewicz and Higgs (1998) while investigating the association of work performance with cognitive competencies and EI competencies similarly found that their measure of emotional intelligence accounted for 36 per cent of the variance in work performance. Another study on bank employees by Manila University (as cited in Singh, 2001) showed that emotional intelligence score accounted for 27 per cent of job performance. Bhalla and Nauriyal (2004) revealed that emotional intelligence helps in finding out individual performance at work. Similarly, a study by Langhorn (2004) revealed that emotional intelligence helped to predict performance with a significant degree of accuracy. Hence, Hypothesis H7 that “Total emotional intelligence will significantly predict the performance of software professionals” is accepted.

7. Implications

As Emotional intelligence proves to be a contributing factor to successful performance, it would be beneficial to assess an individual’s level of EI during the selection process. Such an assessment of EI abilities during the selection process will not only benefit the organization but also help the software professional to succeed in his job. The present study has identified the need to inculcate emotional intelligence skills among the software professionals through an effective programme of training and development. The strengths and weakness of the professionals should be prepared to find out where the improvements are required. Moreover, there should be an ongoing effort to build EI skills at the individual and group level.

Employee evaluation may serve to identify those employees who need to be trained according to the individual’s circumstances. Besides, considering the emotional competencies of potential team members before organizing a team increases the chance of building teams with compatible members. This study contributes to knowledge in the areas of emotional intelligence and performance. The predictability power of emotional intelligence with regard to the value of performance is another contribution of this study.

8. Conclusion

This study was carried out to analyze the levels and the relationship between emotional intelligence and performance among software professionals. For addressing the objective of the study, software professionals working in Kerala was chosen as the research context. In order to achieve the objectives of the research, seven hypotheses were formulated. The findings of the research confirmed the influence of emotional intelligence on the performance of software professionals in Kerala. For organizations, the knowledge this research provides may serve to introduce a change in the selection,
training and evaluation practices. In addition to this, the return on the investment for the efforts to increase the software professional’s emotional intelligence will be substantial to the organization. As only a few studies have attempted to elucidate on the relationship between emotional intelligence and performance, more research in this area is needed in order to draw definite conclusions. Future studies may incorporate the psychological variables such as work-life balance, satisfaction at work, motivation etc. amongst many others. Moreover, the future researchers may also find it useful to examine the effects of intervening variables on the relationship between emotional intelligence and performance. A longitudinal study maybe conducted to explore the relationship between emotional intelligence and performance of software professionals. Therefore, this study helps to build a research that contributes to enhancing knowledge on how emotional intelligence is connected to performance among the software professionals and substantiates that emotional intelligence improves the workplace performance in organizations.

References