
The relationship between emotional intelligence, perceived stress and academic achievement among hospitality and tourism students-A Study on Manipal University and Mangalore University

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Abstract: The purpose of the study is to assess Emotional Intelligence (EI), Perceived Stress (PS) among the students of Hotel Management, and their relations with their academic achievement. The questionnaire adapted from Philip Hunsaker's "Training in management skills" and stress questionnaire developed by the International Stress Management Association were administered to students of hotel and tourism and results were analyzed using Pearson's Coefficient of correlation, Linear regression, Independent T –Test, Two way ANOVA. The result showed majority of students having lower stress and high emotional intelligence and higher academic achievement. The correlation between Emotional Intelligence and Perceived stress with CGPA was weak and positive. The study also found that 0.007% students out of the total have high stress level which is negligible.

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Keywords: Emotional Intelligence; Perceived Stress; Academic Achievement

1. Introduction

Emotional intelligence (EI) means the ability to understand the meaning of emotion and its relationship as also to logically work out and resolve the problems based on it Mayer (1997). It is basically the capability to understand feelings, grasp the related undercurrents, analyze the reason for such emotional vibrations, and handle them as required. Studies have extensively undertaken the various aspects of emotional intelligence by measuring various concepts, like the ability to adjust to one's dealings in society, interpersonal relationships, mature and effective handling of mental situations and emotional sense etc even much earlier than the phrase 'emotional intelligence' became in common parlance (Mayer, 1997).

The basic factors of emotional intelligence have already been treated as a subject of study with the large scale growth of the Curriculum classified under the area of Self Science as also imparting necessary lessons in areas like "social development," "social and emotional learning," and "personal intelligence," with the purpose of scaling up the pattern of skills related to dealing in society and emotions" (Mayer, 1997). Studies undertaken on social aspects are also found delving deep into fathom the depths of social skills and to discover the correlation of Emotional Intelligence to traits like leadership, community activities, the output of a person, interpersonal/ social exchange, the ability to relate to changing social situations and also undertaking a performance assessment .

Emotional intelligence effectively means a capability to strategically deal with emotional aspects and also to employ such feelings to raise the level and quality of thought. Emotional Intelligence consists basically of the following five characteristics and traits:

Self-awareness—be aware of our emotions, understand and realize the feelings as they occur as also to distinguish the subtle difference

Mood management is the capability to handle feelings so that these emotions are systematically connected to the current circumstances as also our reaction to it in the appropriate mode

Self-motivation—effectively collecting together our feelings and driving oneself towards a fixed goal in spite of negative factors like self-doubt, inertia, and rash quick action

Empathy—understanding the feelings of others and also to recognize their oral and body language messages.

Managing relationships--managing social dealings, problem solving and discussions held in a give and take atmosphere.

The main points for this understanding are confidence, enthusiasm, intentionality, ability to control oneself, how effectively one relates, ability to properly communicate and connect. These traits are all different facets of emotional intelligence. Emotional Intelligence is observed as a better method which helps to predict the achievement of a person's future than other modes like the GPA, IQ and general academic scores (Mayer, 1997). As a result corporations, universities, and schools attach a lot of importance to emotional intelligence on a global level. Emotional Intelligence has acted as a driver for research and curriculum development based on various facilities. A large number of research in this area have repeatedly proven that those people who manage and deal with their own feelings effectively well are more likely to lead a satisfied life (Mayer, 1997). Further, it is also observed that contented people are more likely to keep information efficiently and systematically than discontented people.

2. Materials & Methods

2.1 Participant

Participants were 144 hospitality and tourism students from Manipal University and Mangalore University. All participants were asked to complete a standardized questionnaire adapted from Philip Hunsaker's "Training in management skills" –set of 20 questions in Likert's scale to assess Emotional Intelligence (Hunsake PL., 2001). Perceived Stress was assessed using a stress questionnaire developed by the International Stress Management Association. This contained a set of 20 questions with responses in Likert Scale (ISMA, n.d.). The present research is a descriptive study of were Mean, Standard Deviation, Frequency to find the percentage of respondents and to categorize the students based on the marks. The statistical tools used were Correlation (Pearson's), Two Way ANOVA, T-test, Linear Regression to find the correlation and significance of Emotional Intelligence and Perceived Stress on Academic achievement of the student. The Pearson's were used to find the correlation between Emotional Intelligence and Perceived Stress on Academic Achievement. For academic achievement CGPA/percentage was taken into consideration. Two way Anova test were used to find the relation between Emotional Intelligence, Perceived Stress and academic achievement.

2.2. Measures

Emotional Intelligence Questionnaire

Emotional Intelligence and another one to assess students stress factor .Standardized questionnaire adapted from Philip Hunsaker's "Training in management skills" –set of 25 questions in Likert's scale to assess Emotional Intelligence (Hunsake PL., 2001) a score of 4 and above was allotted for "High EI," 3-3.99 for "Moderate EI," less than 2.99 for "Low EI".

Perceived Stress Scale

Perceived Stress was assessed using a stress questionnaire developed by the International Stress Management Association. This contained a set of 25 questions with responses in Likert Scale (ISMA, n.d.). A score of 4 and above was allotted for "high stress", 3-3.99 "Moderate stress" and less than 2.99 for "low stress".

3. Results

3.1 Descriptive Statistics on Data

3.1.1 Gender of the Respondent

Gender of the respondent				
	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Male	85	59.0	59.0	59.0
	Female	59	41.0	41.0	100.0
	Total	144	100	100.0	

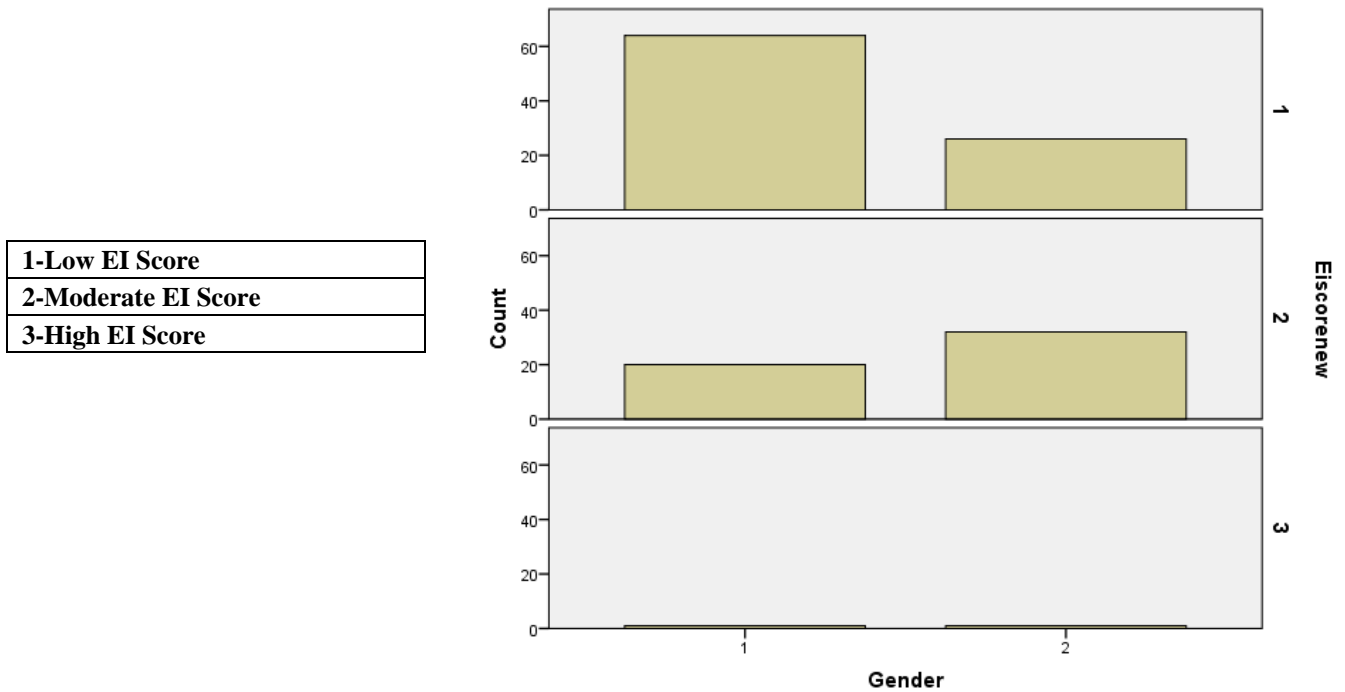
The study was conducted among 144 students of which males were 85 and female were 59. Males comprised 59% and female 41%

3.1.2 CGPA in Category

CGPA in Category					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	50-59%	5	3.5	3.5	3.5
	60-69%	51	35.4	35.4	38.9
	70-79%	58	40.3	40.3	79.2
	80-89%	21	14.6	14.6	93.8
	Above 90%	9	6.3	6.3	100.0
	Total	144	100.0	100.0	

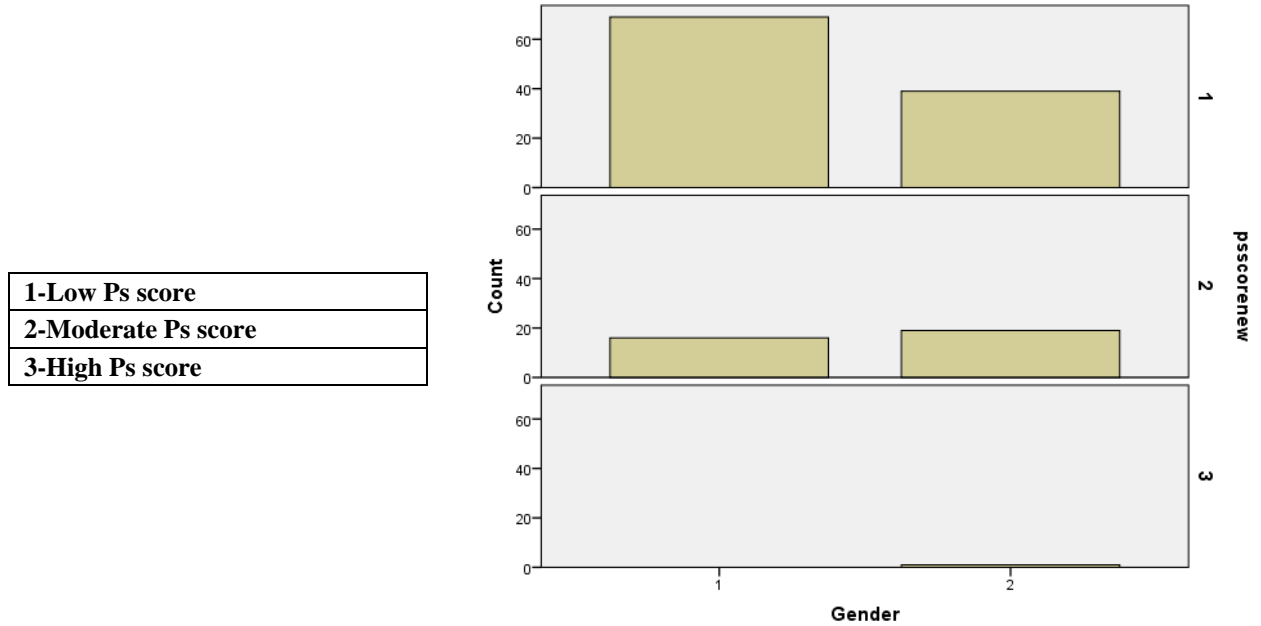
Their CGPA varied from 50% to 90%. The majority of students scored between 70- 79% which was 40.3% of the total. 6.3% students scored above 90% and 3.5% student scored between 50-59% which was the lowest.

GRAPH 3.1.3 Bar Graph on Emotional Intelligence Score And Gender



When assessing the EI scores of students found that 68% of students had a EI of 2 which is moderate. 26% had high EI scores and 6% had low EI

GRAPH 3.1.4 Bar Graph on PS Score And Gender



When assessing the Ps scores of students, found that 47% of students had low stress.53% fell in the moderate stress group. There was no student who fell in the high stress group.

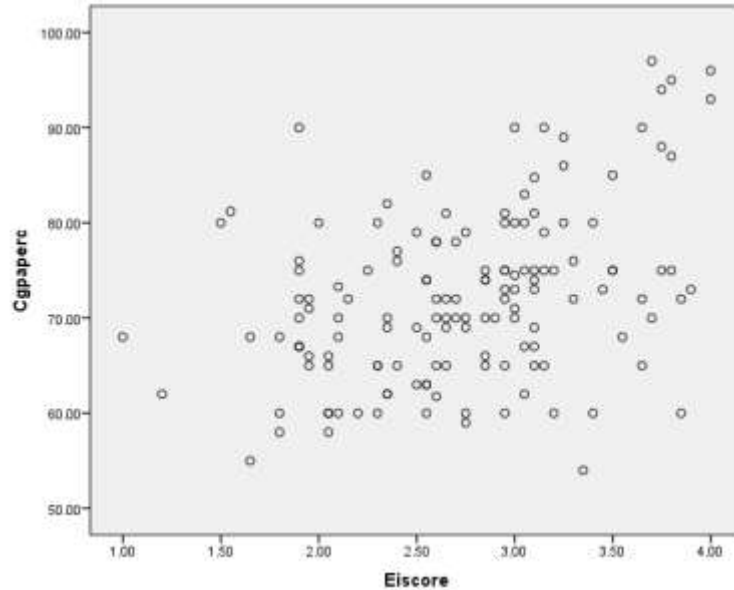
3.2 The relation between emotional intelligence and their academic achievement

Correlations			
		CGPA/Percentage	Emotional Intelligence Scores
CGPA/Percentage	Pearson Correlation	1	.384**
	Sig. (2-tailed)		.000
	N	144	201
Emotional Intelligence Scores (EiScore)	Pearson Correlation	.384**	1
	Sig. (2-tailed)	.000	
	N	144	144
*. Correlation is significant at the 0.05 level (2-tailed).			

“There is a positive correlation between the two variables, $r = 0.384$, $n = 144$, $p = 0.000$.”
(Since r closer to 0 and positive and $p < 0.05$)

“Overall, there is a weak, positive correlation between Eiscors and CGPA. Increase in Ei score is correlated with increases in CGPA.”

GRAPH 3.2.1



The graph shows that the slopes goes upward from zero, so we can conclude that there is a positive weak correlation between Eiscors and CGPA . Increases in Eiscors is correlated with increases in CGPA and vice versa. “A Pearson product-moment correlation coefficient was computed to assess the relationship between the Eiscors and CGPA. There was a positive correlation between the two variables $r = 0.384$, $n = 144$, $p = 0.000$. A scatterplot summarizes the results (Figure 1) Overall, there was a weak, positive correlation between Eiscors and CGPA. Increase in Eiscors were correlated with increase in CGPA.

3.3 The relation between perceived stress and their academic achievement

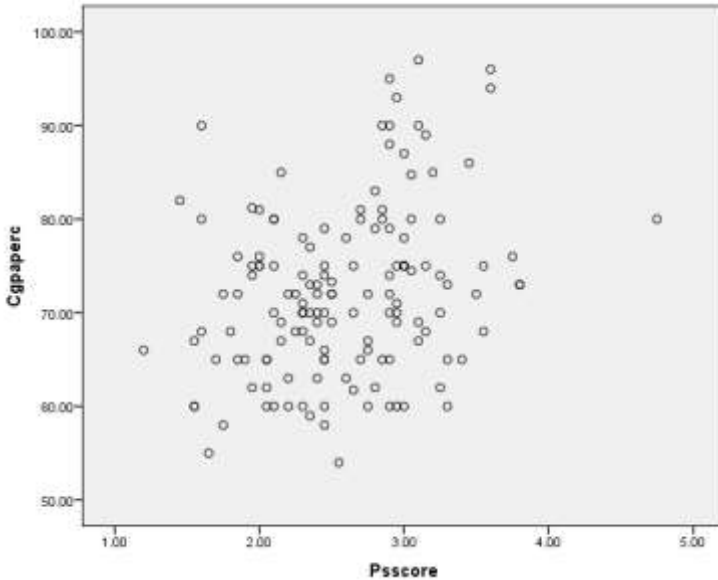
Correlations			
		CGPA/Percentage	psscore
CGPA/Percentage	Pearson Correlation	1	.270**
	Sig. (2-tailed)		.001
	N	144	144
psscore	Pearson Correlation	.270**	1
	Sig. (2-tailed)	.001	
	N	201	201

“There is a positive correlation between the two variables, $r = 0.270$, $n = 144$, $p = 0.001$.”

(Since r closer to 0 and positive and $p < 0.05$)

“Overall, there is a weak, positive correlation between Psscore and CGPA . Increase in psscore is correlated with increases in CGPA

GRAPH 3.3.1



The graph shows that the slopes goes upward from zero, so we can conclude that there is a positive weak correlation between Psscores and CGPA . Increases in Psscores is correlated with increases in CGPA and vice versa.

“A Pearson product-moment correlation coefficient was computed to assess the relationship between the Psscores and CGPA. There was a positive correlation between the two variables

$r = 0.270$, $n = 144$, $p = 0.001$. A scatterplot summarizes the results (Figure 1) Overall, there was a weak, positive correlation between Psscore and CGPA. Increase in Psscores were correlated with increase in CGPA

3.4 Linear regression on Academic achievement with Emotional Intelligence and Perceived Stress

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.399 ^a	.159	.147	.862

a. Predictors: (Constant), psscorenew, Eiscorenew

3.4.1 Descriptive Statistics of CGPA

Model	Unstandardized Coefficients		Sig.
	B	Std. Error	
(Constant)	1.839	.234	<.001
Eiscore	.715	.168	<.001
psscore	.012	.191	.952

Correlation and multiple regression analysis were conducted to examine the relationship between Cgpa with Eiscore

Levene's Test of Equality of Error Variances ^a			
Dependent Variable: Cgpaperc			
F	df1	df2	Sig.
1.674	6	137	.132

and Psscore. The correlation of Cgpa with Ei score was $r = 0.384$ and Cgpa with Psscore was $r = 0.270$

A multiple linear regression was performed to find relation of Eiscore and Psscore with CGPA. A significant relation was found with adjusted $R^2 = .159$. Eiscore and Psscore is responsible for 15.9% of variation in CGPA. The fitted regression model is of the form $CGPA = 1.839 - 0.715 * EISCORE + 0.012 * PSSCORE$. For unit increase in Eiscore, there was an exponential increase of 0.715. For unit increase in PSSCORE, there was an exponential increase of 0.012.

The significance constant value is .000 which is less $< .001$

There is an overall significant relation between CGPA with Eiscore and PSSCORE.

3.5 Independent T test on Emotional Intelligence and perceived stress based on Gender of the respondent

	Gender of the respondent	Independent T -test						t	df	Sig. (2-tailed)	Mean Difference
		N	Mean	Std. Deviation	Std. Error Mean	F	Sig.				
Eiscore	Male	85	2.5653	0.62669	0.06797	1.167	0.282	-4.075	142	0.000	-.41098
	Female	59	2.9763	0.55641	0.07114						
pssscore	Male	85	1.1882	0.55838	0.06056	.322	0.571	-3.350	142	0.001	-.31747
	Female	59	1.3559	0.56040	0.07296						

Ei Score

There is significant difference in the scores of Male (Mean = 2.5653, Standard Deviation = 0.62669) and female (Mean = 2.9763, Standard Deviation = 0.55641), condition; $t(142) = -4.075$, $p = 0.000$ which is less than 0.05

Pss scores

There is significant difference in the scores of Male (Mean = 1.1882, Standard Deviation = 0.5558) and female (Mean = 1.355, Standard Deviation = .560), condition; $t(142) = -3.350$, $p = .001$ which is less than 0.05

The study showed both emotional intelligence and perceived stress is more in male than female respondent

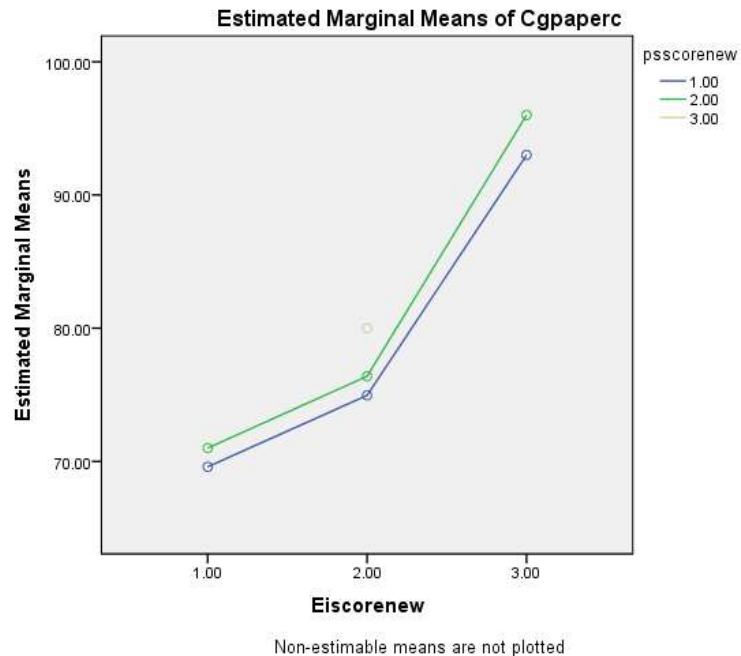
3.6 The relation between emotional intelligence, perceived stress and academic achievement (Two Way Anova)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2320.865 ^a	6	386.811	5.708	.000
Intercept	61560.922	1	61560.922	908.370	.000
Eiscorenew	1197.352	2	598.676	8.834	.000
psscorenew	33.146	2	16.573	.245	.783

Eiscorenew * psscorenew	1.205	2	.602	.009	.991
Error	9284.589	137	67.771		
Total	763222.205	144			
Corrected Total	11605.453	143			

A two-way analysis of variance was conducted on the influence of two independent variables (Eiscores, Psscores) on CGPA. All effects were not statistically significant at the .05 significance level except for Psscores. The main effect for Eiscore type yielded an F ratio of $F(2, 137) = 8.834, p < 0.05$, indicating that the effect for Eiscore is significant. The main effect for Psscore yielded an F ratio of $F(2, 137) = .245, p > .05$, indicating that the effect for Psscore is not significant. The interaction effect has no significance, $F(2, 137) = .009, p > 0.05$.

GRAPH 3.6.1



- 1=lower stress (Blue)
- 2=moderate stress (green)
- 3=High Stress

From above graph, it can be seen that, in students with lower stress level, the overall CGPA increase with higher Emotional Intelligence scores.

For moderate stress students also, it can be seen that, the overall CGPA increase with higher Emotional Intelligence scores.

There is only one student who has high stress level and whose Eiscore and psscore is moderate

The study also found that 0.007% students out of the total have high stress level which is negligible. This implies that students doing undergraduate courses in hotel management and tourism are not highly stressed during their studies.

4. Discussion

The correlation between emotional intelligence (EI) score and CGPA (the score secured by the student in the course based on examination, viva voce etc) showed a positive correlation in the study. It means that those students who maintain a very balanced mental state of mind and cultivate a positive attitude in their general behavior and interpersonal relations invariably achieve better academic distinction. The more the EI score, the better is their CGPA.

The perceived stress (PS) score and CGPA showed a correlation which means that the PS scores and CGPA are strictly related to each other. We might state that EI score and Ps score has significant effect on the academic performance of the student.

The EI score * PS score interaction has no significant effect on CGPA in the study and is hence considered not significant and relevant.

It is observed that the ability to understand the meaning of emotion and its relationship as also to logically work out and resolve the problems is on a comfortable level in students of hotel and tourism management. These students possess the ability to understand feelings and the related underlying facts. They can analyze the reason for such emotional variations and can smoothly handle them suitably as required. It reiterates the study conducted by Kattekar (2010). He concluded that a positive relationship existed between emotional intelligence and academic achievement of students.

Students with a high level of emotional intelligence can excel in their academic arenas. Students with a lesser level of emotional intelligence may experience difficulty to meet failure when it takes place which can upset their mental balance and motivation for further academic attainment. Emotions are found to be a supporting mechanism for learning process. Emotional Intelligence (EI) can thus be considered as a vital tool of any educational social interaction and successful behavior in classroom as well (Grehan, 2011). The following skills viz.(a) emotional acknowledgement and control (b) control over oneself (c) having a fixed goal (d) responsibility to the society (e) empathy, (f) problem resolution (g) conflict settlement and (h) skills required for leadership and beneficial participation in group activity are needed as part of EI.

It further establishes that perceived stress and academic accomplishments are not related, or in other words, perceived stress (PS) has no noticeable bearing on the proficiency level of students in the hospitality stream.

The study has indicated that the students, who after their successful graduation in hotel and tourism management, will certainly be able to traverse their career path with a balanced attitude and conduct themselves well in the proactive customer orientation field where they are going to work in.

The emotional intelligence level would stand them in good stead as successful future hospitality management personnel.

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