

# Effectiveness of Emotional Intelligence among Postgraduate Management and Engineering Students

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**Abstract :** Educational systems around the world are continually changing and reforming, affecting the educational performance of PG students. The impact of Emotional Intelligence on educational achievement among Post Graduate Management and Engineering students is investigated in this study. This study fills a vacuum in the literature by looking into emotional intelligence's effects on post-graduate students' academic performance. The material for this study was gathered using a questionnaire that elicited details on the individuals' educational outcomes as well as their degree of cognition. This study examines the relationships between educational excellence and emotional intelligence (EI), which has four aspects: self-regulation, self-awareness, self-motivation, and social competence. The study found that the level of emotional intelligence and respondent's academic performance was significantly and positively

associated. This study adds to the literature on emotional intelligence by presenting practical management implications for higher education administrators. The study try to prove the strong link between educational performance, self-regulation, self-awareness, self-motivation, social skills and emotional intelligence among post-graduation learners in engineering and management discipline. The study ends with positive results and show how the emotional intelligence will be useful in student's academic performance.

**Keywords:** Emotional Intelligence, academic performance, higher education, self-awareness

## 1. Introduction

Any nation's development is dependent on its educational system. The higher literacy rate is the backbone of the advanced and developed nations. Over the past decade, India's education system has become learner-centered.[8] Any country's success is determined by its commitment to the development of the education sector. When education is pushed in a country, it lowers the rate of illiteracy, which in turn lowers unemployment, which is one of the most serious problems that any country faces.

The educational system also plays an important role in improving the student's performance. They can reduce illiteracy by adopting emotional intelligence

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management. By properly managing emotional intelligence among students, the literacy rate can be enhanced. The ability to control and engage with your own feelings as well as those of others is referred to as emotional intelligence. [15]

“EI is characterized as the capacity to rationally consider emotions and the use of feelings to enhance reasoning requires the capacity to recognize emotions with accuracy, access and produce emotions to support thought, comprehend emotions, have an understanding of emotions, and reflectively control emotions to promote both intellectual and emotional development.” (Mayer, 2004)

Emotional information guides the thoughts and behavior of people with a high EQ. When achieving their objectives, they may quickly modify their emotions to fit their surroundings. The ability to control and engage with your own and other people's emotions is referred to as emotional intelligence and use them to your advantage.[14]

## Emotional Intelligence Dimensions

### Self-Regulations

Self-regulation starts with social factors and progresses through several tiers to incorporate factors from the person. Self-control, stimulates individuals to exert more control over their thoughts, feelings, and performances. Self-management is defined as the ability to keep one's cool in a provocative or confrontational scenario while minimizing defensiveness and, eventually, renovation logic.[1]

### Self-awareness.

Knowing and understanding one's own emotions is a necessary component of self-awareness. Knowing oneself is described as the ability to detect and distinguish one's feelings, to understand what one is feeling and why, and to understand what generated the sensations. Three skills make up self-awareness: emotional self-awareness, accurate self-evaluation, and self-assurance.[5]

### Social skill

People skills, often known as social skills, refer to a person's capacity to manage and establish systems with others. People skills, often known as social skills, refer to a person's capacity to manage and establish

systems in relationships with others. Emotional intelligence helps people be more productive in social situations. The better the social ties, the higher the emotional intelligence.[6]

### Self-motivation

The potential to control one's emotional tendencies to attain one's goals is referred to as emotional self-motivation. The ability to set goals is often referred to as self-motivation. and design a challenging plan and the ability to stay focused and positive in the face of failures.[6]

As a result of this conversation, it is clear that possessing strong emotional intelligence provides individuals with a distinct edge. Emotional intelligence is one of the most essential drivers of success in life, as well as what makes them adaptable employees once they enter the workforce. It is more common in occupations that demand individuals to be emotionally intelligent. In light of what has been thoroughly described previously, the coming section of this article will outline an area of exploration that is crucial to the goal of the current research.

### Statement of the problem

From academic scores to professional performance, emotional intelligence can have an impact on many aspects of life. There is a lot of evidence that being emotionally aware can help people succeed. Emotional information guides the thoughts and conduct of people with a high EQ. When achieving their objectives, they may quickly modify their emotions to fit their surroundings. These people can control their emotions and use them to their advantage. When working in a group, having heightened awareness of others' emotions, as well as being aware of one's own sentiments, provides the individual advantage. Assessing the emotional aspects of any scenario, whether favorable or negative, will keep students interested and allow the teacher to have a better understanding of their behavior and present attitude.[17]

Stress is unavoidable in the realm of education and practical training, thus student instructors inevitably experience some amount of stress as a result of the pressures placed on them to apply diverse knowledge and abilities in a real classroom setting. Therefore, postgraduate students studying engineering and management are also affected. [16] II.

## 2. Literature Review

The current study provides three interesting EI research methodologies. The individual (other or self) to whom EI dimensions are addressed appears to be important in predicting job success and could have an impact on other factors. Furthermore, examining variations in EI enactment is a promising field that could lead to a clearer picture of the situation's impact on context. Finally, examining the effects of many EI characteristics on job performance may be more representative of emotional processes' dynamics. We anticipate that these new approaches will help to advance the field's understanding of EI. [17]

The study sought to determine which cognitive factors have the most impact on undergraduate business students' academic achievement. The study discovered that while public university students have a low IQ, they have a high EI. However, it is widely accepted that EI in academics without a high IQ would not assist kids in performing well, and that such an approach is too narrow and will impede Professional success and lifelong learning.[8] Private university students, on the other hand, have a fair and sufficient IQ, as well as a high EI, indicating that they will do well in school and in their careers. Private pupils are also the most likely candidates with rational employability abilities on the job market. It also suggests that businesses for new hires at the entry-level, private university graduates can be targeted. Students are shown to require greater emotional intelligence than cognitive intelligence to be more fruitful in academics and professional vocations, as well as to improve the image and reputation of the school from which they graduated.[11]

The findings of this study clearly demonstrate that transitioning from high school to college relies on having strong intrapersonal, adaptability, and stress management skills. The link between academic achievement and these emotional and social competencies is predictable, given the types of problems that develop throughout the transition from high school. The shift from high school to college is a significant one. First-year students experience a variety of unexpected obstacles on the personal and social fronts. Students must adapt their existing links with their parents and friends in addition to establishing new ones (particularly if they are studying a university or college outside of their domain) (e.g., learn to be more independent). They must also acquire excellent study practices.[3]

The study suggests that academic excellence is one of the most important targets and goals for all students, regardless of ethnicity. Apart from effective learning methodologies and well-planned lessons, students should be able to recognise themselves, particularly in terms of self-emotional awareness, so that it does not become a stumbling block to achievement. As a result of the urge to identify themselves, Emotional intellect should be taken into account not constrained to academic objectives, but also for future success in life. Attempts to develop students' emotional intelligence should be incorporated during the teaching and learning process in the classroom with the goal of constructing a resilient and capable human face of globalisation and changing demands.[19]

The main focus of this study is on the elements that influence employee job performance, as well as emotion-based intelligence's impact on staff productivity. While the business world has begun to acknowledge emotional intelligence as a predictor of organizational success, organizations must strengthen their roots with the water of emotionally aware employees.[20]

The association between workplace emotional intelligence performance is investigated in this study. According to the research, people with higher emotional intelligence have better professional relationships.[7] The prominence of emotional intelligence, its immediate positive relationship with job performance, and its predictive validity in terms of future effectiveness drove research efforts and supported arguments on the topic all over the world because it can foster better and positive interactions, which leads to better performance. The sample population of this study is limited because it was chosen from only five service sectors in India, which does not reflect all service sectors.[4]

According to Jiao and Harrison's study on the impact of emotional intelligence on academic work, academics' capacity for using emotion improves performance in all three areas—research, teaching, and service—while their capacity for emotion regulation only improves performance in teaching and service. The study provides evidence in favour of a process-based theory of emotional intelligence, according to which the evaluation of emotion is a crucial step before it can be used and controlled. [9]

### 3. Conceptual Framework and Research Hypothesis



Fig 1: Conceptual Framework

#### Research Hypothesis

Mayer and Salovey suggested a four-branch model of emotional intelligence that includes:

1. accurately sense one's own and others' emotions;
2. use emotions to help you think more clearly;
2. be able to recognize and understand emotions, emotional language, and emotional cues; and
4. control emotions to reach specified objectives (Mayer, 2004).

Goleman's paradigm of emotional intelligence divides emotional intelligence into four categories. The following are the four areas of importance:

- Self-regulation
- Self-awareness
- Self-motivation
- Social ability

The following hypotheses were proposed based on these assertions.

H1: That seems to be a strong link between Emotional Intelligence and Educational Performance among post-graduation students in management and engineering programs.

H1a: That seems to be a substantial correlation

between self-control and academic achievement among post-graduation students in management and engineering programs.

H1b: That seems to be a substantial correlation between self-awareness and academic achievement among post-graduation students in management and engineering programs.

H1c: That seems to be a substantial correlation between Emotional Intelligence and self-motivation among post-graduation students in management and engineering programs.

H1d: That seems to be a substantial correlation between social skill and Educational Performance among post-graduation students in management and engineering programs.

### 4. Research Methodology

#### Research Design

The correlational research design is used to investigate the association between emotional intelligence and educational performance among business management and engineering students. According to Frankel & Wallen (2007), When attempting to describe relationships between variables, descriptive research is another name for correlational research. In correlational research design, the correlation coefficient is used to determine a measure of how closely two or more quantitative variables are linked. As a result, the correlation coefficient was used in this study to evaluate how closely the correlation and regression are related.

The study looks at the relationship between emotional intelligence and academic success among business management and engineering students in Maharashtra. Students' emotive level of intelligence (self-regulation, self-awareness, self-motivation and social skill) is the independent variable whereas the student's educational performance in the form of GPA (Grade Point Average) is the dependent variable. The research is quantitative therefore, the data collection instrument was a questionnaire.

#### Population and sampling

To carry out this research, 856 populations were selected from master's degree students in business

management and various engineering disciplines from Maharashtra, India. Students are enrolled in a range of programs, including Business Management, Textile Engineering, Electronics and Communication Engineering and computer engineering. among the 856-student population, 265 sample size was selected as representative of the research. A simple random sampling method was used for the selection of the participant as each student get an equal chance to be a selection of participant. According to Krejcie and Morgan ,23% students were selected from each programme. From the business management programme 28 students were selected, 14 students were selected from Textile Engineering, 10 students were selected from Electronics & Communication Engineering and computer engineering also 10 students were selected.

#### Instrumentation

The information was gathered through the use of a questionnaire., it was selected as data collection instrument because it is the easy and most appropriate method for data collection. Sections A and B make up the two sections of the questionnaire. Participants' age, gender, programme, and GPA are all addressed in section A. Section B contains questions related to educational performance (Emotional Intelligence). Each variable has five items, marked at 1 for "Strongly Agree" and 5 for "Strongly Disagree" for each item on a 5-point likert scale. The responses gathered in Section B are used to estimate each student's level of emotional intelligence.

#### Data collection procedure

To ensure that respondents understand what is expected of them, they were given brief training on how to react to the 5-point Likert scale items. respondents were given a summary of the research's objective and contribution to the field of education and they were informed that they had been chosen randomly for the current research. To achieve a high response rate, the questionnaire was distributed, the respondents had given half an hour time to complete it, and it was collected the same day.

#### Data Analysis Procedures

For statistical analysis, all of the gathered SPSS was used for analysis and interpretation (Statistical Package for Social Sciences). Descriptive research was carried out to assess the respondents'

demographic build as well as their emotional intelligence level. Referential analysis, on the other hand, was employed to assess the degree to which the dependent and independent variables are correlated using the correlation coefficient. Percentages, averages, and standard deviations are used to assess performance. Tables and graphs are used to illustrate the findings, which are accompanied by descriptions that explain the findings.

#### Data analysis and findings

Respondents expressed their reactions on a 1-to-5-point Likert scale for the items in the questionnaire. Low replies are those with a mean score of 0.00 to 2.60, moderate responses are those with a mean score of 2.60 to 3.40, and high responses are those with a mean score of 3.40 to 5.00. High in this study. Males account for 57(21.50%) of the 265 respondents in the survey, while females account for the remainder (78.49%). The biggest percentage of people are between the ages of 21-23 (54.33%), followed by 24-26 (37.73 %). The highest Grade point average of the students is at average (49.81%), 26.03% of students' performance is high.

#### Demographic information of Respondent's

**Table 1: Gender, Age, CGPA, and Programs Distribution and Percentage of Respondents (n=265)**

Respondent's profile	Frequency	Percentage (%)
<b>Gender</b>		
Male	57	21.50
Female	208	78.49
<b>Age</b>		
21-23	144	54.33
24-26	100	37.73
26>	21	7.9
<b>Average scholastic performance</b>		
Low (< 3.00)	37	14.33
Average (3.00 – 3.49)	132	49.81
High (3.50 – 4.00)	67	26.03
<b>Programs</b>		
Business Management	120	45.28
Textile Engineering	52	19.62
E&TC Engineering	48	18.11
Computer Engineering	45	16.98
Total	265	100

Reliability Analysis

The reliability analysis of the research variables is set out In table 2 Internal model is characterized by Cronbach's Alpha, which spans from 0.70 to 0.80.

**Table 2: Analysis of Reliability**

Variables	No.of items	Cronbhach's alpha
Emotional Intelligence	26	0.874
Self -regulation	6	0.714
Self -awareness	7	0.732
Self – motivation	7	0.823
Social skill	6	0.703
Educational performance	7	0.814

Correlation analysis

The two metrics have a strong, positive association, according to the analysis with high emotional intelligence related with high educational

**Table 3: Correlation of several metrics**

	Emotional intelligence	Self-regulations	Self-awar enes s	Self- moti on	Soc ial skil l	Edu catio nal perf orm ance
Emotional intelligence	1	.615*	.619*	.795**	.809**	.431*
Self-regulations	.615**	1	.224*	.406**	.265**	.209*
Self-awareness	.619**	.224*	1	.326**	.412**	.252*
Self-motivation	.795**	.406*	.326*	1	.568**	.389*
Social skill	.809**	.265*	.412*	.568**	1	.532*
Educational performance	.431**	.209*	.252*	.389**	.532**	1

\*\* At the threshold of 0.01, the correlation is significant (2-tailed).

**Table 4: Hypothesis testing summary**

No.	Hypothesis	Remark
H1	There is a strong link between Emotional Intelligence and Educational Performance among post-graduation learners in management and engineering majors.	Accepted

H1: a	There is a strong link between self-regulation and Educational Performance among post-graduation learners in management and engineering majors.	Accepted
H1: b	There is a strong link between self-awareness and Educational Performance among post-graduation learners in management and engineering majors.	Accepted
H1:c	There is a strong link between Emotional Intelligence and self-motivation among post-graduation learners in management and engineering majors.	Accepted
H1: d	There is a strong link between social skill and Educational Performance among post-graduation learners in management and engineering majors.	Accepted

performance of the respondents, r=0.431, n=265, p<0.05. Table 3 emphasizes the relationship between the four aspects of emotional intelligence and educational accomplishment.

**5. Conclusion**

As significant emotional intelligence is emphasized in the study[19]. Self-awareness, self-regulation, self-motivation, and social skills, which are the four components of emotional intelligence[5], appear to have a significant influence on students' educational success. Emotional intelligence should be systematically and consistently promoted and strengthened in order to maintain performance and competitive advantage. The study revealed a significant and advantageous relationship between respondents' emotional intelligence and their success in studies[as reffered in Table 3]. This study adds to the corpus of information about emotional intelligence by detailing how higher education administrators might use it in their daily administration. As a result, it is suggested that Emotional Intelligence(EI) development and implementation training programs aimed at strengthening the emotional capabilities of students[as reffered in Table 4]. Emotional intelligence is critical in creating human capital that leads to high-performing academic work, according to educational institutions[9].

Future Research Work

In future study might look into how emotional

intelligence training affects grades, test scores, and graduation rates in the classroom. By doing so, it may be possible to ascertain whether emotional intelligence abilities have an instant effect on academic success.

Researcher has planned to analyse parameters relationship with emotional intelligence using KMO and promax rotation analysis to represent strong relation between parameters studied and emotional intelligence

Additional scope in future research could examine how emotional intelligence training affects many aspects of job performance, including leadership abilities, productivity, and job satisfaction. This could aid in establishing whether or not emotional intelligence abilities have a direct effect on career performance.

The role of emotional intelligence in particular academic subjects, such project management, innovation, or entrepreneurship, may also be explored in future studies. This could make it easier to decide if emotional intelligence abilities are more or less crucial in particular professions.

Overall, this study establishes a foundation for further investigation into the effectiveness of emotional intelligence training for postgraduate engineering and management students. We can gain a greater understanding of how emotional intelligence abilities can support students' academic and professional success by continuing to research this subject.

#### References:

- [1] Alhabarneh , S. K. (2022). The Impact of Emotional Intelligence on Transformational Leadership Effectiveness the Mediating Role of Wisdom: Theoretical Framework, 12 (1), 49-62, <https://doi.org/10.31559/GJEB2022.12.1.3>
- [2] Andy Coleman, Azhar Ali , (2022) Emotional Intelligence: Its importance to HE professional services team members during challenging times. *Management in Education*, <https://doi.org/10.1177/08920206221085794>
- [3] Coleman, A., & Ali, A. (2022). Emotional Intelligence: Its importance to HE professional services team members during challenging times. *Management in Education*, <https://doi.org/10.1177/08920206221085794>
- [4] Dhani, P., Sehwat, A., & Sharma, T. (2016). Relationship between Emotional Intelligence and Job Performance: A Study in Indian Context. *Indian Journal of Science and Technology*, 9(47).
- [5] Goleman, D. (1998) *Working with Emotional Intelligence*. Bloomsbury Publishing, London.
- [6] Fayaz A. Soomro, Dr. Sadaf Khan, Jehanzeb Khan, Wajid Mehmood , (2022) Impact of Emotional Intelligence on Job Autonomy, 28(3) 299-317, DOI: 10.47750/cibg.2022.28.03.025
- [7] Homa Ansari and Ravinder Kumar (2022), Examining the Relationship between Emotional Intelligence with Leadership Styles and Effectiveness among Managers in Indian Banking Sectors, 18(1), 27-34
- [8] Idris, F., Hassan, Z., Ya'acob, A., Gill, S. K., & Awal, N. A. M. (2012). The Role of Education in Shaping Youth's National Identity. *Procedia - Social and Behavioral Sciences*, 59, 443–450.
- [9] Jiao L, Harrison G, Chen J, et al. (2021) Does emotional intelligence matter to academic work performance? Evidence from business faculties in Australia. *Accounting and finance (Parkville)* 61(1): Clayton: Clayton: Wiley Subscription Services, Inc: 1181–1204. 10.1111/acfi.12607.
- [10] Kaur, J., & Sharma, A. (2019). Emotional intelligence and work performance. *International Journal of Recent Technology and Engineering*, 8 (2 ), 1658–1664. <https://doi.org/10.35940/ijrte.B1301.0782S319>
- [11] Khan, S. (2019). A comparative analysis of emotional intelligence and intelligence quotient among Saudi business students' toward academic performance. *International Journal of Engineering Business Management*, <https://doi.org/10.1177/1847979019880665>
- [12] Lubbadah, T. (2020). Emotional intelligence and leadership—the dark and bright sides. *Modern Management Review*, XXV, 27, 39-50.
- [13] Maamari BE, Majdalani JF (2019) The effect of

- highly emotionally intelligent teachers on their students' satisfaction. *Int J Educ Manag* 33(1):179–193 <https://doi.org/10.1108/IJEM-11-2017-0338>
- [14] Michele A.L. Villagran, Lisa Martin, (2022). Academic librarians: Their understanding and use of emotional intelligence and happiness, *The Journal of Academic Librarianship*, 48(1), 102466, <https://doi.org/10.1016/j.acalib.2021.102466>.
- [15] Mohzan, M. A. M., Hassan, N., & Halil, N. A. (2013). The Influence of Emotional Intelligence on Academic Achievement. *Procedia - Social and Behavioral Sciences*, 90, 303–312.
- [16] Ngui GK, Lay YF (2020) The effect of emotional intelligence, self-efficacy, subjective well-being and resilience on student teachers' perceived practicum stress: a Malaysian case study. *Eur J Educ Res*9(1):277-291. <https://doi.org/10.12973/eu-jer.9.1.277>
- [17] Pekaar, K. A., van der Linden, D., Bakker, A. B., & Born, M. P. (2017). Emotional intelligence and job performance: The role of enactment and focus on others' emotions. *Human Performance*, 30(2–3), 135–153.
- [18] VanishreeSah, (2021) Impact of Emotional Intelligence on Job Performance and Techniques to Improve Emotional Intelligence, *Pacific Business Review International*, 13(9), 24-29.
- [19] Yahaya, A., Sar Ee, N., Junaidah Bachok, D., Yahaya, N., Boon, Y., Hashim, S., & Mo Lee, G. (2012). The Impact of Emotional Intelligence Element on Academic
- [20] Wahyudi, W. (2018). The Influence of Emotional Intelligence, Competence and Work Environment on Teacher Performance of SMP Kemala Bhayangkari Jakarta. *Scientific Journal Of Reflection: Economic, Accounting, Management and Business*, 1(2), 211- 220