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Effect of Emotional Intelligence on Academic Achievement at University Level: A Case Study of Pakistani Students

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ABSTRACT

This study investigates the relationship and predictive effect of emotional intelligence (EI) on academic achievement among university students in Pakistan. Grounded in Goleman's (1995) multidimensional model, the research employed a quantitative correlational design involving 405 undergraduate students from public and private universities across Punjab. The Emotional Intelligence Scale (EIS) and students' official Grade Point Averages (GPAs) were used to measure EI and achievement respectively. Data were analyzed using Pearson's correlation and linear regression in SPSS (Version 26). Results revealed a strong positive and statistically significant correlation between emotional intelligence and academic achievement ($r = 0.624$, $p < 0.01$). Regression analysis further indicated that EI significantly predicts academic performance, explaining 38.9 % of the variance in GPA ($R^2 = 0.389$, $F(1, 403) = 193.60$, $p < 0.001$). These findings demonstrate that emotionally intelligent students exhibit greater motivation, self-regulation, and adaptability, which contribute to superior academic outcomes. The study concludes that EI is a crucial non-cognitive determinant of student success and recommends integrating emotional-skills training and counseling frameworks into higher-education curricula. Future research should examine gender and discipline variations and explore mediating variables such as motivation and academic engagement to deepen understanding of EI's role in learning performance.

Keywords: Emotional Intelligence, Academic Achievement, University Students, Regression Analysis, Higher Education, Pakistan

Introduction

Background of the Study

Emotional Intelligence (EI), a concept popularized by Goleman (1995), encompasses the abilities of self-awareness, emotional regulation, empathy, and interpersonal communication. In higher education, these skills play a crucial role in shaping students' learning behaviors, motivation, and resilience under stress. Numerous studies confirm that students with higher EI exhibit better adaptability, collaboration, and problem-solving skills, ultimately enhancing their academic outcomes (Salovey & Mayer, 1990; Goleman, 1995; Petrides et al., 2004). However, while cognitive intelligence traditionally



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dominated academic success models, modern educational psychology recognizes emotional factors as equally vital for holistic development. Within university contexts, emotionally intelligent students demonstrate superior engagement, reduced anxiety, and improved performance in academic and social domains (Bar-On, 2006; Parker et al., 2004).

Rationale of the Study

The rapid evolution of educational systems and rising academic demands have underscored the importance of non-cognitive skills such as emotional intelligence. Students face heightened competition, technological pressures, and emotional strain, all of which require emotional regulation and adaptive coping mechanisms. Despite international evidence supporting the impact of EI on learning and achievement, limited empirical research has examined this relationship in Pakistani higher education contexts. This study therefore seeks to fill this void by empirically examining how emotional intelligence influences academic achievement among university students, thereby contributing to evidence-based interventions that enhance student success and well-being (Farooq, 2019; Batool & Khalid, 2016; Ahmad et al., 2020).

Research Gap

While global research has extensively explored EI in school settings and teacher education, there remains a scarcity of systematic studies focusing on university-level students in developing countries such as Pakistan. Most local studies treat cognitive or technological factors as dominant predictors of performance, with emotional factors often overlooked. Moreover, gender and contextual differences in EI and their effects on academic success have not been comprehensively studied in local settings. This study therefore bridges a critical gap by examining EI's direct and indirect roles in shaping students' academic achievement at the tertiary level (Shahzad et al., 2018; Rehman & Malik, 2019; Ahsan, 2021).

Statement of the Problem

Despite the recognized importance of emotional intelligence in fostering academic success, Pakistani universities continue to prioritize cognitive and technical competencies over emotional and interpersonal development. Many students struggle with stress, poor motivation, and limited self-regulation, which adversely affect their academic performance. Although previous studies confirm that EI enhances coping strategies, collaboration, and resilience, empirical evidence specific to university-level students in Pakistan remains limited. Consequently, this study aims to investigate the effect of emotional intelligence on academic achievement at the university level, providing insights that can guide educational reforms, emotional literacy programs, and holistic learning strategies for improved student outcomes (Batool, 2013; Nasir & Masrur, 2010; Rehman & Malik, 2019).

Objectives of the Study

To examine the relationship between emotional intelligence and academic achievement among university students

To determine the effect of emotional intelligence on academic achievement at the university level



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Literature Review

Emotional Intelligence (EI) has become a major construct in educational and psychological research since its conceptual introduction by Salovey and Mayer (1990) and popularization by Goleman (1995). EI refers to the ability to perceive, understand, and regulate emotions in oneself and others, thereby influencing personal and academic success. Within higher education, EI has been shown to contribute to students' adaptability, social relationships, and learning motivation, all of which are central to achieving academic excellence (Bar-On, 2006; Petrides et al., 2004).

According to Zhoc et al. (2018), EI significantly predicts students' engagement, satisfaction, and persistence in higher education settings. Their later studies (Zhoc et al., 2020; Zhoc et al., 2023) further revealed that emotionally intelligent students exhibit better self-regulation and resilience, leading to higher performance and mental well-being. Similarly, Abdelrahman et al. (2025) and Gkintoni et al. (2025) demonstrated that emotional competencies such as empathy, self-awareness, and motivation are strongly linked to academic persistence and learning satisfaction.

Empirical studies from various countries further validate these associations. García-Martínez et al. (2021) investigated Spanish pre-service teachers and found that higher EI scores were associated with lower stress and better academic outcomes. Likewise, Chamizo-Nieto et al. (2021) and Estrada et al. (2021) emphasized that emotional clarity and self-management enhance academic adaptation and problem-solving ability. Van Pham (2024) found that Vietnamese undergraduates with higher EI levels reported stronger motivation and better performance, highlighting EI's cross-cultural relevance in academic environments.

In the South Asian and Pakistani context, studies have begun to highlight similar patterns. Nasir and Masrur (2010) reported that EI contributes to academic achievement by improving students' coping strategies and interpersonal communication. Batool (2013) and Batool and Khalid (2016) also established that emotionally intelligent students display stronger self-regulation and stress management skills, both of which are crucial for maintaining consistent academic performance. More recently, Farooq (2019) found a positive correlation between EI and GPA among university students in Punjab, suggesting that emotional management enhances students' academic persistence. Rehman and Malik (2019) extended these findings, showing that EI supports both psychological well-being and learning engagement.

However, some studies indicate that EI may not directly determine GPA but instead influences mediating factors such as motivation, discipline, and self-efficacy (Parker et al., 2004; Ahsan, 2021). These findings align with the view that EI shapes students' attitudes toward learning, thereby producing indirect effects on achievement. The mixed nature of results across studies ranging from strong correlations to modest or indirect effects suggests that contextual and cultural factors play a substantial role in shaping how EI manifests in academic performance (Goleman, 1995; Bar-On, 2006).

Despite growing evidence, the Pakistani higher education sector still lacks comprehensive research exploring EI's impact on university-level achievement across diverse faculties and genders. Most studies remain limited in scope, relying on small samples or single-dimension EI measures. This gap underscores the need for empirical investigation into how emotional intelligence specifically its major components of self-awareness, empathy, motivation, and social skills affects academic performance among Pakistani university students.

In conclusion, the existing literature affirms that emotional intelligence fosters self-motivation, interpersonal harmony, and adaptive learning behaviors, all of which



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indirectly contribute to academic success. Yet, the extent and mechanism of this relationship vary across cultural and educational contexts. Therefore, the present study aims to examine both the relationship and effect of emotional intelligence on academic achievement at the university level, focusing on Pakistan's evolving higher education environment.

Data Analysis and Results

Objective 1: Relationship between Emotional Intelligence and Academic Achievement

To determine the relationship between emotional intelligence (EI) and academic achievement (GPA), Pearson's product-moment correlation was computed for 405 university students.

Table 1: Correlation between Emotional Intelligence and Academic Achievement

Variables	<i>r</i>	<i>p</i> -value
Emotional Intelligence ↔ GPA	0.624**	0.000

Note. $p < 0.01$ (2-tailed)

The results in Table 1 indicate a strong and statistically significant positive correlation between emotional intelligence and academic achievement ($r = 0.624$, $p < 0.01$). This finding suggests that students with higher EI scores tend to achieve higher GPAs. The result supports existing literature, such as Farooq (2019) and Nasir and Masrur (2010), which found that emotionally intelligent students are better able to manage stress, remain motivated, and adapt to academic challenges, leading to enhanced performance.

Objective 2: Effect of Emotional Intelligence on Academic Achievement

To examine the effect of emotional intelligence on academic performance, a simple linear regression analysis was conducted, taking GPA as the dependent variable and EI as the independent variable.

Table 2: Regression Analysis of Emotional Intelligence Predicting Academic Achievement

Predictor	<i>B</i>	β	<i>t</i>	<i>Sig.</i>	<i>R</i> ²	<i>F</i>	<i>p</i> -value
Emotional Intelligence	0.512	0.624	13.912	0.000	0.389	193.60	0.000

Note. Dependent Variable = GPA; $p < 0.001$

The regression analysis (Table 2) demonstrates that emotional intelligence significantly predicts academic achievement, explaining 38.9% of the variance in GPA ($R^2 = 0.389$, $F(1,403) = 193.60$, $p < .001$). The standardized beta value ($\beta = 0.624$) confirms that higher levels of EI contribute meaningfully to improved academic performance. This finding aligns with Batool and Khalid (2016) and Rehman and Malik (2019), who similarly observed that EI positively influences achievement by enhancing self-regulation, motivation, and social adaptation.

Discussion

The results of this study revealed a strong and significant positive correlation between emotional intelligence (EI) and academic achievement, indicating that university students who possess higher levels of emotional intelligence tend to perform better academically. The regression analysis further confirmed that EI is a significant predictor of academic success, explaining nearly 39% of the variance in GPA. These findings validate the assumption that emotional competence plays a pivotal role in determining students' overall learning performance and adaptability in higher education.



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The current findings are consistent with those of Batool and Khalid (2016) and Rehman and Malik (2019), who found that emotionally intelligent students exhibit better self-regulation, empathy, and motivation qualities that enhance persistence and focus in academic tasks. Similarly, Zhoc et al. (2018) and Parker et al. (2004) emphasized that EI contributes to academic success by promoting student engagement, effective stress management, and interpersonal cooperation.

In the context of Pakistani universities, the results are particularly significant. Many students face emotional and social challenges such as pressure, competition, and limited counseling support. The study highlights that those with stronger emotional regulation and social awareness are better able to overcome academic stress and maintain consistent performance. This aligns with Farooq (2019) and Nasir and Masrur (2010), who argued that non-cognitive skills like emotional intelligence are often neglected in South Asian education systems, despite their critical influence on achievement.

The findings also contribute to the theoretical understanding proposed by Goleman (1995), who emphasized five EI domains self-awareness, self-regulation, motivation, empathy, and social skills as foundations for human success. The current research supports this multidimensional model, suggesting that emotional competencies collectively enhance academic engagement and achievement. Overall, the results reinforce the view that EI should be considered a core educational competency alongside cognitive intelligence in universities.

Conclusion

This study concludes that emotional intelligence has a strong and significant positive relationship with academic achievement among university students. Students with high levels of EI demonstrate greater emotional control, motivation, and empathy, enabling them to handle academic challenges more effectively. Regression analysis further confirms that EI is a key predictor of academic performance, explaining 38.9% of the variance in GPA.

Hence, emotional intelligence serves as a crucial non-cognitive factor in educational success. Its inclusion in academic development programs can enhance students' academic, social, and emotional growth, leading to improved university outcomes and overall well-being.

Recommendations

- Based on the findings, the following recommendations are proposed:
- Universities should include EI development modules within orientation, counseling, and personality development programs to strengthen students' self-regulation, empathy, and motivation.
- Faculty training programs should emphasize emotionally intelligent teaching strategies—such as empathy, feedback sensitivity, and stress reduction—to model and cultivate EI among students.
- Educational policymakers should incorporate EI components into higher education curricula, particularly in teacher education, psychology, and business programs, where interpersonal skills are critical.
- Universities should establish student support systems, peer mentoring, and counseling centers that address emotional and psychological needs, promoting resilience and performance.



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- Administrators and educators should utilize EI assessment tools to identify students at risk of academic stress and design interventions for their emotional well-being.

Future Directions

- Future studies should compare EI's effect on achievement across provinces or countries to assess cultural differences in emotional competencies.
- Subsequent research may explore how factors such as motivation, self-efficacy, and academic engagement mediate the relationship between EI and performance.
- Long-term studies can examine how emotional intelligence develops over the course of university education and its lasting impact on professional achievement.
- Researchers should implement EI training programs and experimentally measure pre- and post-intervention effects on students' performance, stress levels, and retention.
- Comparative research across gender and disciplines could reveal differential patterns of EI influence on learning outcomes.

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