

Impact of Social Media Usage On Academic Achievement of University Students

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Abstract

Social media platforms have become deeply embedded in university students' everyday routines and study practices. While these platforms offer quick access to information, peer support, and academic communities, they may also contribute to distraction and loss of focus. This study investigates the impact of social media usage on the academic achievement of university students enrolled in Bachelor of Science programs in the Hazara Division of Pakistan. A predictive correlational research design was used with a sample of 400 students drawn from three public universities through stratified random sampling. Data were collected using a structured questionnaire that measured key dimensions of social media usage ease of use, usefulness, playfulness, and trust on a 4-point Likert scale, while academic achievement was assessed through students' Cumulative Grade Point Average (CGPA). Descriptive statistics were used to summarize students' perceptions of social media, and multiple regression analysis was conducted to examine the extent to which social media usage predicts CGPA. Results indicate that students generally perceive social media as easy to use and useful for academic purposes, but express relatively lower levels of trust in online content. The regression model was statistically significant yet explained only a small proportion of variance in CGPA ($R^2 = 0.045$). Among the predictors, perceived usefulness and trust in social media had positive and significant effects on CGPA, whereas ease of use and playfulness were non-significant. The findings suggest that academically oriented, trustworthy use of social media can support academic achievement, but social media alone is a weak predictor of students' grades. The study highlights the need for digital literacy, self-regulation, and structured academic use of social platforms in higher education.

Keywords: Social media usage, academic achievement, CGPA, university students, Hazara Division, Pakistan

1. Introduction

Social media has brought significant changes to the lives of university students in recent years. Originally designed for social connection, social platforms are now woven into students' daily study habits and course workflows. Tools such as Facebook, X/Twitter, Instagram, WhatsApp, LinkedIn, and Discord are routinely used to exchange notes, coordinate group work, and maintain ongoing conversations about assignments and exams. This shift has altered how students relate to instructors, peers, and course materials, extending classroom dialogue and collaboration into always-on digital spaces (Smith & Anderson, 2020; Johnson et al., 2019).

Academic achievement remains a core measure of student success at university, yet digital habits increasingly shape how that success is pursued. When used intentionally, social media can widen access to explanations, examples, and peer expertise, and can help students locate communities that support persistence and problem solving. In that sense, social platforms may function as informal academic infrastructure that complements lectures and textbooks by providing rapid feedback and shared resources for challenging topics (Smith & Anderson, 2020).

At the same time, unstructured, high-volume social media use can compete with time needed for focused study. Constant notifications and frequent multitasking can fragment attention and reduce the quality of engagement with course materials. Research has pointed out that the impact of social media on students' grades depends strongly on how, why, and how often students engage with these platforms (Ali et al., 2021; Khan & Qureshi, 2020). In other words, social media can either support or undermine academic achievement depending on patterns of use.

Despite widespread adoption of social media in higher education, there is limited context-specific evidence from Pakistani universities on how social media usage is related to students' academic achievement. Existing regional work has often looked at broad learning behaviours or general usage, but has not always focused clearly on academic outcomes such as CGPA (Ahmed & Rafiq, 2022; Min, 2024; Boahene et al., 2019). This gap makes it difficult for educators and policy-makers to design balanced guidelines that encourage productive use while controlling potential risks.

In the context of universities in the Hazara Division, this study uses existing thesis data to examine how social media usage relates specifically to the **academic achievement of university students**. While the original thesis considered both learning behaviour and academic outcomes, the present research paper concentrates on the academic achievement part of the findings. The aim is to provide clear evidence on whether and how social media usage predicts students' CGPA, and to offer context-specific recommendations for students, teachers, and institutions (Ahmed & Rafiq, 2022; Min, 2024; Boahene et al., 2019).

1.1 Problem Statement

Despite the widespread use of social media among university students in Hazara Division, there is insufficient empirical evidence on whether and how this usage affects their academic achievement. Without such evidence, it is difficult for educators and policy-makers to design appropriate guidelines and interventions that promote productive use while minimizing academic risks.

1.2 Objectives of the Study

This study focuses specifically on academic achievement and aims to:

1. Describe university students' perceptions of social media in terms of ease of use, usefulness, playfulness, and trust.
2. Examine the impact of social media usage on the academic achievement (CGPA) of university students.

1.3 Research Question

The study addresses the following core research question:

- What is the effect of social media usage on the academic achievement of university students?

1.4 Hypothesis

Based on the conceptual framework, the following null hypothesis was tested:

- **H0:** There is no significant effect of social media usage on the academic achievement of university students.

1.5 Significance of the Study

The study is significant for several reasons. First, it provides empirical evidence from a local Pakistani context on how social media usage relates to university students' CGPA. Second, it distinguishes between different attributes of social media such as usefulness and trust rather than treating social media use as a single, uniform factor. Third, the findings can inform digital literacy initiatives, academic counseling, and institutional policies that seek to encourage academically productive use of social media while discouraging patterns that may undermine academic success.

2. Review of Literature

This section reviews previous work on university students' social media use and academic achievement, highlighting patterns that are most relevant to the present study. It brings together theoretical perspectives and empirical findings, and identifies gaps that justify the current research focus.

Over the last decade, social media has become routine in students' academic lives, shaping how they access explanations, coordinate tasks, and sustain peer support. The growth of social networking in society has extended into higher education, transforming how students and educators interact and collaborate (Tess, 2013). Platforms such as Facebook, Twitter, and LinkedIn are now commonly used to mediate instruction, enhance communication, and promote active learning in university settings (Tess, 2013; Rennie & Morrison, 2013). Many instructors and researchers argue for the purposeful integration of social media into teaching and learning processes to foster student engagement and peer support (Chen & Bryer, 2012; Dabbagh & Kitsantas, 2012).

Empirical findings on the impact of social media on academic achievement are mixed. Some studies highlight potential drawbacks of heavy social media use. High-frequency, entertainment-focused use has been associated with distraction, procrastination, and reduced time on task, which may ultimately lower academic performance (Boahene et al., 2019; Min, 2024). Year-level and contextual differences also appear in how students experience these effects, suggesting that the relationship is not straightforward.

On the other hand, several studies emphasize the potential benefits of academically oriented social media use. When social networking tools are used to share course materials, clarify concepts, coordinate group projects, and maintain academic communities, they can support collaborative learning and deeper understanding (Chen & Bryer, 2012; Dabbagh & Kitsantas, 2012; Rennie & Morrison, 2013). For example, Al-Rahmi, Othman, and Yusuf (2015) reported that structured use of social media in higher education improved interaction between students and lecturers and contributed to better academic achievement.

Furthermore, meta-analytical research by Xiao and Mou (2019) concluded that the overall impact of social media on academic outcomes depends on purpose and intensity of use. Their findings indicate that academic and informational uses of social media can have neutral or positive effects, while excessive non-academic and entertainment-oriented activities tend to be associated with lower grades. This reinforces the importance of intentional and regulated use.

Recent studies also show that the impact of social media may vary across demographic groups. Ming, Ming, and Kumar (2020) found that younger students were more prone to distraction, whereas older students often used social platforms for professional development and academic networking. Gender differences have also been noted in how students engage with social content, which may influence their academic experiences and outcomes.

Taken together, previous literature suggests that social media is neither automatically beneficial nor automatically harmful for academic achievement. Its impact depends on how students

integrate it into their study routines. When social media is used for collaborative learning, resource sharing, and knowledge exchange, it can enhance academic success. However, unregulated, entertainment-focused use may hinder academic performance by increasing cognitive overload and reducing time available for essential academic tasks (Tess, 2013; Xiao & Mou, 2019).

The present study builds on this body of work and responds to the limited evidence from Pakistani universities, particularly in the Hazara Division. Using existing thesis data, it examines how social media usage is related to university students' academic achievement, with a specific focus on CGPA.

3. Methodology

3.1 Research Design

The study employed a **predictive correlational research design**. This design is suitable when the objective is not only to identify relationships among variables but also to determine the extent to which one or more independent variables can statistically predict changes in a dependent variable in this case, academic achievement (CGPA) based on dimensions of social media usage.

3.2 Population and Sample

The population consisted of students enrolled in Bachelor of Science (BS) programs at three public universities in the Hazara Division of Pakistan:

- The University of Haripur
- Abbottabad University of Science & Technology
- Hazara University, Mansehra

A stratified random sampling technique was used to ensure representation across universities and disciplines. The final sample comprised **400 BS students**, which is adequate for regression analysis and provides reasonable statistical power.

3.3 Research Instrument

Data were collected using a structured questionnaire measuring social media usage and academic achievement:

1- Social Media Usage Questionnaire: Items were rated on a 4-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree). The instrument captured several dimensions, including:

1. Ease of Use
2. Usefulness
3. Playfulness
4. Trust

2- Academic Achievement: Students' CGPA was obtained with their consent and used as the dependent variable.

A pilot study with 30 students (not included in the main sample) was conducted to assess the reliability and validity of the instrument. Expert review established content validity, while internal consistency was evaluated using Cronbach's alpha. The overall reliability coefficient for the social media questionnaire was **0.81**, indicating good internal consistency.

3.4 Data Collection Procedure

Data were collected through in-person visits to the three universities. After obtaining permission from the respective administrations and course instructors, questionnaires were administered in classroom settings. Students were informed about the purpose of the study, assured of confidentiality, and asked to provide honest responses. Participation was voluntary.

3.5 Data Analysis

Data were analyzed in two main stages:

1. **Descriptive Statistics:** Frequencies, means, and standard deviations were used to describe students' perceptions of social media dimensions (ease of use, usefulness, playfulness, trust).
2. **Inferential Statistics:** Multiple regression analysis was performed to examine the effect of the social media dimensions on academic achievement (CGPA). The model included ease of use, usefulness, playfulness, and trust as independent variables and CGPA as the dependent variable.

4. Result

4.1 Descriptive Statistics of Social Media Usage

Descriptive analysis showed that students generally held positive views about using social media for academic purposes. Mean scores for **ease of use** and **usefulness** were relatively high (above 3.4 on a 4-point scale), indicating that students found social media platforms user-friendly and beneficial for their studies. **Playfulness** also had a moderately high mean, suggesting that students appreciated engaging and interactive features.

Among the measured dimensions, **trust** scored the lowest, though still above the midpoint of the scale. This indicates that while students rely on social media, they are somewhat cautious about the credibility and reliability of the information they encounter.

4.2 Regression Analysis: Social Media Usage on Academic Achievement

To examine the effect of social media usage on academic achievement, a multiple regression analysis was conducted with CGPA as the dependent variable and four predictors: ease of use, usefulness, playfulness, and trust.

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	Sig.
1	(Constant)	409.586	43.256		9.469
	Easeofuse	-2.877	10.020	-.015	.774
	Usefulness	22.493	7.714	.153	.004
	Playfulness	3.268	9.291	.020	.725
	Trust	17.026	8.039	.124	.035
	R=.213 ^a	R ² =.045	AdjR ² =.036	F=4.716	Alpha=.001

a. Dependent Variable: CGPA

The regression results show that the overall model is statistically significant, with $R = 0.213$, $R^2 = 0.045$, Adjusted $R^2 = 0.036$, and $F(4, 395) = 4.72$, $p = .001$. This indicates that social media usage variables collectively explain only 4.5% of the variance in students' CGPA, suggesting that academic achievement is influenced by many factors beyond social media use. Among the predictors, ease of use ($B = -2.877$, $p = .774$) and playfulness ($B = 3.268$, $p = .725$) were not significant, showing that simply finding social media easy or enjoyable does not meaningfully affect academic performance. In contrast, usefulness ($B = 22.493$, $p = .004$) had a significant positive effect, indicating that students who find social media academically helpful tend to achieve higher CGPAs. Trust ($B = 17.026$, $p = .035$) also showed a significant positive impact, suggesting that students who rely on credible and trustworthy online information are more likely to perform better academically.

Overall, the null hypothesis that social media usage has no significant effect on academic achievement is partially rejected, as usefulness and trust show significant positive effects, even though the overall explanatory power of the model remains modest.

5. Discussion

The findings provide a clear understanding of how social media usage relates to academic achievement among university students in the Hazara Division. High mean scores for ease of use and usefulness reflect students' familiarity with digital tools and align with the Technology Acceptance Model, indicating that accessible and practical platforms support academic tasks. However, ease of use alone did not predict CGPA, reinforcing that user-friendly platforms only contribute to achievement when used purposefully for academic goals.

The significant positive effect of usefulness highlights that academically oriented social mediasuch as accessing explanations, collaborating with peers, and managing coursework supports better academic outcomes. In contrast, the non-significant role of playfulness shows that enjoyment or entertainment features do not enhance grades unless directly tied to meaningful learning activities. Trust also emerged as an important predictor, suggesting that students who rely on credible online information are more likely to integrate it effectively into their studies.

Despite these positive associations, the low R^2 value (0.045) indicates that social media explains only a small portion of academic achievement, which is shaped by many other factors such as study habits, motivation, teaching quality, and institutional support. Overall, the results suggest that social media can aid academic achievement when used purposefully and reliably, but it is not a strong standalone factor and may even hinder performance when used excessively for non-academic purposes.

5.1 Conclusion

This study examined the impact of social media usage on the academic achievement of university students in the Hazara Division using a predictive correlational design. The key conclusions are:

1. Students generally perceive social media platforms as easy to use and useful for academic purposes, though they express relatively lower trust in online content.
2. Perceived usefulness and trust in social media have **significant positive effects** on CGPA, while ease of use and playfulness do not significantly predict academic achievement.
3. The overall contribution of social media usage variables to explaining academic achievement is **modest**, indicating that many other factors shape students' grades.

5.3 Recommendations

Based on the findings of the study, the following recommendations are proposed for various stakeholders:

5.3.1 Recommendations Related to Frequency and Purpose of Social Media Use (Objective 1)

Based on the findings, the following recommendations are proposed:

1. **Promote academically oriented social media use** by establishing structured channels on platforms such as WhatsApp and YouTube for sharing lectures, coordinating study groups, and facilitating peer discussions.
2. **Organize orientation and awareness sessions** to educate students about effective time management and strategies to balance academic and non-academic social media usage.

5.3.2 Recommendations Related to the Effect of Social Media on Academic Achievement (Objective 2)

1. **Encourage students to use social media for academic support**, particularly platforms like YouTube for concept tutorials and WhatsApp for collaborative learning and study-related communication.
2. **Discourage excessive non-academic or entertainment-driven usage** through digital wellbeing initiatives, academic counseling, and awareness programs highlighting its potential negative impact on academic achievement.
3. **Develop and maintain official academic communities on social media**, supervised by faculty members, where students can access reliable, high-quality academic materials and interact in a structured, supportive environment.

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