

Examining the benefits and drawbacks of social media usage on academic performance: a study among university students in Bangladesh

Social media
usage and
academic
performance

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Abstract

Purpose – This research aims to explore how social media influences the academic performance of university students in Bangladesh and examines the benefits and drawbacks of its usage.

Design/methodology/approach – We distributed a well-structured questionnaire among students enrolled in various programs at different universities in Bangladesh to collect data. We analyzed the data using factor analysis and regression models to uncover the impact of social media on academic performance.

Findings – Our research findings demonstrate that social media plays a crucial role in facilitating communication, information sharing and content development among university students in Bangladesh. Excessive reliance on social media can lead to dependence and hinder innovation, as students tend to excessively rely on readily available resources.

Research limitations/implications – We relied on self-reported data from a limited sample size, which may affect the generalizability of our findings.

Social implications – This study highlights the need to promote responsible use of social media among university students in Bangladesh to enhance their academic performance. We recommend implementing effective policy measures to control and manage undesired usage patterns, foster an intellectually equipped student body and contribute to the development of a knowledgeable and successful Bangladesh.

Originality/value – This research makes a significant contribution by examining the influence of social media on academic performance among university students in Bangladesh. It proposes practical policy measures to address the drawbacks associated with excessive reliance on social media, thereby contributing to decision-making and intervention strategies for promoting responsible usage.

Keywords Academic performance, Bangladesh, Social media, University students

Paper type Research paper

Introduction

Social media has become an integral part of the lives of many young adults. According to the Pew Research Center, social media usage among American adults aged 18–29 years has skyrocketed from 12% in 2005 to 90% in 2015 (Pew Research Center, 2015). In the field of education, researchers have discovered various ways to utilize social media to enhance the learning experience. For instance, it can be used to share information with students, collect data while conducting research, engage students, form study groups and connect students with social tools for collaborative purposes (O'Brien, 2012). Social media has the potential to

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aid students in cultivating their interests in academic subjects and connecting with professionals in their field. In fact, [Cox and McLeod \(2014\)](#) discovered that social media platforms facilitate communication between teachers, students, parents and community members, ultimately leading to the formation of online professional learning communities. By utilizing social media, students can expand their knowledge and network with individuals who share similar passions and career aspirations. This not only enhances their academic experience but also prepares them for future success in their chosen field.

Universities have witnessed a surge in the use of social media tools such as Facebook and Twitter by both students and faculty members. This trend has been adopted to promote teaching and learning both inside and outside the classroom. Empirical studies have shown that the use of social media technologies has several educational benefits. These benefits include enhanced communication between students and instructors, increased opportunities for networking or collaborations among students, rapid sharing of resources, access to course materials by students after class, provision of an alternative platform to the official learning management systems and exposure of students to technologies and skills that may improve their employment success ([Legaree, 2015](#)).

The phenomenon of media multitasking has been a topic of interest for years, as students are increasingly likely to use multiple mediums simultaneously. Recent research has revealed a concerning correlation between media multitasking and cognitive control ability in adolescents, ultimately leading to subpar academic performance. The integration of multimedia elements in social media tools has only exacerbated this issue, making media multitasking more accessible than ever before ([Liu et al., 2022](#)). As a result, researchers and educators alike are eager to understand the effects of social media on student academic performance.

The scenario of social media in Bangladesh

Social media has become an integral part of modern communication, and its impact on society cannot be ignored. In Bangladesh, the use of social media has grown rapidly in recent years, with millions of people now using platforms such as Facebook, Twitter and Instagram ([Modi and Zhao, 2021](#)).

Despite this growth, the scenario of social media in Bangladesh is not without its challenges. The spread of fake news and misinformation has become a major concern, with some individuals and groups using social media to spread rumors and propaganda. There have been instances of hate speech and cyberbullying, which have led to calls for greater regulation of social media in the country ([Kanozia and Arya, 2021](#)). Social media has also played a positive role in Bangladesh, particularly in terms of political activism and social justice. The scenario of social media in Bangladesh is complex and multifaceted ([Chowdhury et al., 2023](#)).

Impact on creating a favorable learning environment

Social media has had a significant impact on the way we learn and interact with others. By providing a platform for sharing knowledge, connecting with experts in our fields of interest and collaborating with peers from around the world, social media has transformed the learning experience into something more engaging and relevant than ever before ([Hortigüela-Alcalá, 2019](#)). In particular, it creates a favorable learning environment by encouraging active participation of learners in discussions, feedback provision from individuals across various backgrounds and culture for different perspectives on issues raised while supporting peer group work through instant messaging or video conferencing tools. Also, it helps learners stay motivated by offering them the opportunity to engage in worthwhile conversations while keeping up-to-date on advances in their chosen areas of focus. [Manca \(2020\)](#) observed

the use of social media in education offers unique benefits that are capable of promoting academic excellence by generating real-time discussion beyond physical boundaries that create an enhanced sense of global community amongst users.

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As an enhancer of academic performance

The impact of social media on academic performance among university students is debated. Some argue that excessive use of social networking sites for non-academic purposes can harm academic performance (Oye *et al.*, 2012). However, social media can also be beneficial. Twitter usage for academic discussions improves grades and engagement, while adopting Facebook as an instructional tool enhances performance in certain courses (Gregory *et al.*, 2014). Non-academic Internet usage, such as social media, has been found to have a detrimental effect on classroom performance (Ravizza *et al.*, 2014). Excessive social media use can decrease study time, disrupt concentration and increase procrastination, contributing to poor academic outcomes (Farrell and Brunton, 2020). This study examines social media's impact on academic performance among university students in Bangladesh, providing valuable findings for educators, policymakers and researchers. It suggests policy measures to address excessive reliance on social media and promote a balance between engagement and academic success (Appel *et al.*, 2020).

In that case, the creation of a Facebook group specifically for discussing mathematical course content outside of class proved to be highly effective. Social media has become an integral part of our lives, and its impact on academic performance cannot be ignored (Appel *et al.*, 2020). While social media can provide students with access to a wealth of information and offer convenient communication channels for group projects, it also poses several distractions that can detrimentally impact academic performance. Studies have demonstrated that excessive social media use can decrease study time, disrupt concentration and increase procrastination – all contributing factors to poor academic outcomes. While social media has transformed how we interact with one another, it is essential for students to balance their online presence with their academic responsibilities to ensure success in their studies (Farrell and Brunton, 2020).

This study makes a significant research contribution by examining the impact of social media on academic performance among university students in Bangladesh. This specific context has received limited attention in previous studies, making the findings valuable for educators, policymakers and researchers. The study also proposes practical policy measures to address the drawbacks of excessive social media reliance, offering a tangible solution to mitigate its negative effects on academic performance. This research fills a gap in the literature by providing comprehensive guidelines and interventions tailored to this specific issue. The findings have the potential to guide the development of strategies that promote a balance between social media engagement and academic success, benefiting both the educational system and the well-being of students.

Literature review and background

Correlation between social media usage and academic success

The literature on the correlation between social media usage and academic success among students is growing, but still limited and primarily focuses on students in the United States (Astatke *et al.*, 2021). Previous studies indicate a negative relationship between time spent on Facebook and academic performance (Astatke *et al.*, 2021). It is worth noting that using the Internet and social media for educational purposes, such as accessing online tutorials, lectures and educational materials, has been found to be highly beneficial (Chowdhury, 2019). Measurement disparities among studies may explain some variations in findings, as earlier

studies often relied on self-reported, non-continuous, grade-based measurements of academic performance. Nonetheless, studies such as [Allensworth and Clark \(2020\)](#) have consistently found negative associations when controlling for prior high school grades.

Negative impact of social media on academic performance

[Al-Adwan et al. \(2020\)](#) discovered a significant negative impact of social media on students' perception of academic performance. They found that excessive use of social media leads to decreased academic engagement, increased distraction and reduced time spent on studying, thereby influencing students' perception of their academic success adversely.

Positive impact of social media on academic achievement

Recent research by [Longobardi et al. \(2020\)](#) demonstrates that social media has a significant positive impact on students' academic achievement and happiness. In some cases, a positive correlation has been found between Twitter and Facebook usage, indicating that integrating these platforms could improve education ([Malik et al., 2019](#)).

Social media as a tool for learning and communication

[Tanwar and Kumar \(2019\)](#) discovered that while excessive social media usage can negatively affect academic performance, moderate usage can enhance learning. They found that students who never use social media had poorer scores than occasional users, suggesting that social media can be a useful tool for learning.

Moderate social media usage and academic performance

[Mishra \(2020\)](#) reveals that students spend an average of 2–4 h per day on social media, but this frequency of usage does not significantly impact their academic performance, particularly in the field of accounting. Social networking use does not have a significant impact on the academic performance of higher-achieving students ([Wakefield and Frawley, 2020](#)).

Potential risks and responsible use of social media platforms

In today's digital age, social media has become an integral part of university students' daily lives. It is crucial for students to understand the potential risks associated with social media platforms and learn how to use them responsibly ([Oguafor and Nevzat, 2023](#)). Limited knowledge exists about the impact of social media use and multitasking on academic performance ([Demirbilek and Talan, 2018](#)).

Sustainability of E-learning platforms

[Al-Adwan et al. \(2021\)](#) propose a comprehensive model for the success of e-learning platforms, incorporating social, economic and environmental aspects of sustainability. They conclude that implementing this holistic model can contribute to the long-term sustainability and effectiveness of e-learning platforms.

Effects of social media on academic performance

A study conducted in Hong Kong found that using social media for non-academic purposes, such as video gaming and engaging in social media multitasking have a negative impact on academic performance. Educators should educate students on responsible social media use and encourage them to prioritize their academic pursuits ([Lau, 2017](#)).

Distraction and improper activities on social networking sites

Social networking sites can be a distraction for students, leading them to engage in non-educational and improper activities (Chang *et al.*, 2019). Social media has a significant impact on students' attention span, often diverting it towards non-educational and inappropriate activities such as aimless chatting, time-wasting through random searches and neglecting their responsibilities.

The negative impact of social networks on young people

The immense popularity and recognition of social networks in recent years have drawn attention to their negative impact on students (Gonneaud *et al.*, 2021). It is crucial to recognize this impact and take necessary measures to ensure responsible and productive social media use among students.

Role of IT in enhancing productivity at higher education institutions

Hammami *et al.* (2015) investigated the role of information technology (IT) in enhancing productivity in higher education institutions from the perspectives of staff and students in Oman. Their findings contribute valuable insights to the existing literature on the role of IT in enhancing productivity in higher education institutions.

Management information systems and productivity in higher education

Baiden *et al.* (2023) conducted a research study in Ghana to examine the potential of management information systems in improving productivity in higher education institutions in Ghana and provide valuable insights for policymakers and administrators in this sector.

Social media in higher education: a literature review of Facebook

Chugh and Ruhi (2018) observed the role of social media, specifically Facebook, in higher education and provide insights for educators and administrators on the potential use and impact of this platform in enhancing teaching and learning outcomes in the higher education sector.

Development of hypotheses. This study has formulated the following hypotheses for investigation:

- H1. Social media facilitate the creation of a strong network.
- H2. Social media contribute to poor academic performance.
- H3. Social media increase students' dependence on technology.

Hypothesis 1 suggests that social media platforms have the potential to facilitate strong networking opportunities. **Hypothesis 2** explores the potential negative impact of social media on academic performance, aiming to identify strategies to mitigate such effects. **Hypothesis 3** investigates the influence of social media on students' increased dependence on technology. These hypotheses provide valuable insights for educators and policymakers in developing interventions and strategies for promoting healthy and balanced technology use among students.

Research method

Data

This study has been conducted using primary data collected through a constructive survey questionnaire. A total of 247 responses have been collected from the students who are

studying in different programs at different universities in Bangladesh. The population of the study is students who are studying in different programs at different universities in Bangladesh, representing a diverse range of fields.

The sampling technique adopted is convenience sampling, as the researcher collected responses from the students who were readily available to participate in the study. This technique was chosen because convenience sampling allows for easy data collection from a specific population that may be difficult to reach through other sampling techniques (Mujere, 2016). In this case, it may be challenging to obtain responses from all students in different programs and universities in Bangladesh.

The chosen sample size of 247 is considered sufficient for exploratory research, as it allows for analysis and interpretation of the collected data (Howard and Henderson, 2023).

The questionnaire used in this study consists of several sections (Appendix). Section one gathers general information on respondents, including demographic details such as institution type, gender, age, education level and discipline. Section two assesses respondents' perceptions regarding the developed hypotheses using Likert's five-point scale. The survey responses were collected via email and direct contact concurrently. Before implementation, the questionnaire underwent a rigorous development process. A pilot study was conducted with a small sample of university students to ensure validity and reliability by assessing clarity, identifying potential issues and making necessary adjustments. Feedback from experts in social media and education was sought to enhance content validity, resulting in refined questions that accurately capture intended constructs and are accessible to the target population.

Models

Factor analysis. This technique involves extracting a small number of highly influential variance factors from a large pool of factors. As this is an exploratory research endeavor, this study has utilized the principal axis factoring model to extract these factors. Given the correlation between the variables used in this study, the oblique rotation (promax) method has been applied, with a determinant value of 0.30. This approach allows us to better understand the relationships between the variables and identify the most significant factors driving our results (Chan, 2012).

Regression equations. The following models (Eq. (1–7)) have been proposed to know the impact of social media on the academic performance from the view point of convenience, skill improvement, insecurity, positive and negative roles and individual perception:

$$y = \alpha_1 + \beta_1 Con_1 + \varepsilon \quad (1)$$

$$y = \alpha_1 + \beta_1 Con_1 + \beta_2 Skill_1 + \varepsilon \quad (2)$$

$$y = \alpha_1 + \beta_1 Con_1 + \beta_2 Skill_1 + \beta_3 Thrt_1 + \varepsilon \quad (3)$$

$$y = \alpha_1 + \beta_1 Con_1 + \beta_2 Skill_1 + \beta_3 Thrt_1 + \beta_4 Harm_1 + \varepsilon \quad (4)$$

$$y = \alpha_1 + \beta_1 Con_1 + \beta_2 Skill_1 + \beta_3 Thrt_1 + \beta_4 Harm_1 + \beta_5 Help_1 + \varepsilon \quad (5)$$

$$y = \alpha_1 + \beta_1 Con_1 + \beta_2 Skill_1 + \beta_3 Thrt_1 + \beta_4 Harm_1 + \beta_5 Help_1 + \beta_6 Depend_1 + \varepsilon \quad (6)$$

$$y = \alpha_1 + \beta_1 Con_1 + \beta_2 Skill_1 + \beta_3 Thrt_1 + \beta_4 Harm_1 + \beta_5 Help_1 + \beta_6 Depend_1 + \beta_7 Percep_1 + \varepsilon \quad (7)$$

Where y is the academic performance, Con is the convenience, $Skill$ is the skill enhancer, $Thrt$ is the threats, $Harm$ indicates harmful impact, $Help$ means helpful impact, $Depend$ denotes dependency and $Percep$ means perception. β_1 to β_7 are the coefficients of variable 1 to 7 and ε is the error term.

Findings

In order to gain insight into the characteristics of the respondents, we have prepared [Table 1](#) for a preliminary analysis. The data reveals that the respondents are a diverse group, representing both public and private universities in Bangladesh. The participation based on gender is evenly distributed. It is worth noting that 99.6% of the respondents are below the age of 24, indicating a youthful pool of participants. The sample includes both senior and junior level students, providing a well-rounded perspective. While the majority of students are from a business background (48.6%), other fields of study are also well-represented.

According to [Table 2](#), Facebook is the most popular social media platform among students, with 60% of respondents indicating it as their favorite. Facebook Messenger follows closely behind with 31%, while Instagram and WhatsApp have 6.95 and 2% popularity, respectively. In contrast, Twitter and Skype have very low popularity among students.

Interestingly, the data also shows that 54.2% of students spend between 1 and 8 h on social media, with 22.3% being low-level users (less than 1 h) and 23.5% being massive-level users (above 8 h) per day.

The reliability of the scale variables was confirmed through the Cronbach's alpha results, which are presented in [Table 3](#).

The values obtained were all above 0.60, indicating that there are an adequate number of questions and a strong correlation between the items ([Spiliotopoulou, 2009](#)). This ensures that the data collected is dependable and can be used to draw meaningful conclusions.

Type of institution	1. Public	42.1
	2. Private	57.9
Gender	1. Male	47.4
	2. Female	52.6
Age	1. 15–19	62.8
	2. 20–24	36.8
	3. Above 24	0.40
Education level	1. Undergraduate	47.8
	2. Graduate	52.2
Discipline	1. Science	15.4
	2. Business	48.6
	3. Humanities	29.6
	4. Vocational	6.5

Source(s): Author's computation

Table 1.
Demographic information of respondents (%)

Favorite media	1. Facebook	60.00
	2. Messenger	31.00
	3. WhatsApp	2.00
	4. Twitter	0.04
	5. Skype	0.01
	6. Instagram	6.95
Time spends (hours/day)	1. Below 1	22.3
	2. 1 to below 4	26.3
	3. 4 to below 8	27.9
	4. Above 8	23.5

Source(s): Author's computation

Table 2.
Social media involvement (%)

Discussion

Table 4 reveals that Threat1 and Threat2 have a strong positive correlation of 0.773, indicating that individuals who perceive Threat1 are also likely to perceive Threat2. Threat1 and Helpful1 have a strong negative correlation of -0.834 , suggesting that individuals who perceive Threat1 are less likely to find Helpful1. Threat1 and Helpful2 have a positive correlation of 0.681, indicating that individuals who perceive Threat1 are more likely to find Helpful2. Dependency1 and Perception1 have a positive correlation of 0.582, suggesting that individuals who have a higher dependency on social media are more likely to have negative perceptions of its impact.

The results of the Kaiser–Meyer–Olkin (KMO) and Bartlett’s test (as shown in Table 5) indicate a high degree of information overlap among the variables, with a strong partial correlation present. This confirms the suitability of factor analysis for the data at hand.

The communalities values above 0.30 confirm the explanatory power of the variables (Field, 2013). Following five trials, the factor analysis process generated Table 6, which displays all factor loading values for the variables above 0.3. It is noticed that, all of the extraction communalities are relatively high, ranging from 0.535 to 0.606. Specifically, respondents appear to be somewhat worried about the potential abuse of social media by students (0.599) and believe that personal data is relatively safe on social media platforms (0.569). Likewise, respondents suggest that they observe a drop in their academic

Table 3.
Reliability analysis

Scale	Cronbach’s alpha	No. of items
Convenience	0.688	8
Skill enhancer	0.673	5
Threat	0.726	2
Harmful	0.649	7
Helpful	0.746	4
Dependency	0.828	2
Perception	0.928	2

Source(s): Author’s computation

Table 4.
Correlation coefficient

	Threat1	Threat2	Helpful1	Helpful2	Dependency1	Perception1
Threat1	1.000					
Threat2	0.773	1.000				
Helpful1	-0.834	-0.063	1.000			
Helpful2	0.681	-0.781	0.526	1.000		
Dependency1	0.764	-0.509	0.151	0.047	1.000	
Perception1	0.131	-0.669	0.210	0.115	0.582	1.000

Source(s): Author’s computation

Table 5.
KMO and
Bartlett’s test

Kaiser-Meyer-Olkin measure of sampling adequacy		0.761
Bartlett’s test of Sphericity	Approx. Chi-Square	305.607
	df	15
	Sig	0.000

Source(s): Author’s computation

performance when comparing their grades before and after becoming involved in social media (0.571).

This indicates that the variables are significant in explaining the underlying factors. The results suggest that the variables are reliable and valid measures of the constructs being studied. Table 7 indicates that the variables account for 78.55% of the total variance, which is a highly satisfactory result.

Table 8 presents the key factors that significantly impact the academic performance of students. It is evident that social media has become an integral part of students' lives, and they heavily rely on it. In fact, many students find it challenging to improve their academic performance without the use of social media (0.793). The potential misuse of social media is a growing concern, and it must be addressed (0.784).

Interestingly, students are now using WhatsApp to communicate with their peers and instructors. This not only saves them communication costs but also facilitates the sharing of

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	Initial	Extraction
Threat1	0.344	0.599
Threat2	0.355	0.569
Helpful1	0.305	0.535
Helpful2	0.300	0.549
Dependency1	0.350	0.606
Perception1	0.365	0.571

Note(s): Extraction method: principal axis factoring

Source(s): Author's computation

Table 6.
Communalities

Factor	Initial eigenvalues			Extraction sums of squared loadings			Rotation SS
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	loadings ^a Total
1	1.841	30.676	30.676	1.416	23.595	23.595	1.267
2	1.706	28.433	59.108	1.275	21.251	44.845	1.218
3	1.167	19.442	78.550	0.739	12.309	57.154	1.163
4	0.465	7.742	86.292				
5	0.454	7.572	93.864				
6	0.368	6.136	100.000				

Note(s): Extraction method: Principal axis factoring

^aWhen factors are correlated, sums of squared loadings cannot be added to obtain a total variance

Source(s): Author's computation

Table 7.
Total variance explained

Item	Factor loading
Dependency1	0.793
Threat1	0.784
Helpful2	0.739
Threat2	0.738
Perception1	0.737
Helpful1	0.721

Source(s): Author's computation

Table 8.
Factor matrix

documents and media files (0.739). With the rapid advancement of technology, including the implementation of sophisticated security measures like biometric authentication and multiple layers of code verification, personal data security has greatly improved. By taking necessary precautions, such as setting strong passwords, using encrypted connections and regularly updating security settings, students can effectively ensure the safety of their data (0.738).

It is worth noting that some students misuse social media, which negatively impacts their academic performance (0.737). On the other hand, the Zoom application has become increasingly popular among students for attending classes and group discussions. This is due to various factors such as government restrictions, environmental calamities, geographical distance and physical sickness (0.721).

In essence, social media and technology have revolutionized the way students learn and communicate. While there are concerns about the potential misuse of these tools, they offer numerous benefits that cannot be ignored. As such, it is crucial for students to use them responsibly and take necessary precautions to ensure their safety and security.

Table 9 shows the nature of impact of different variables on the academic performance of the students. The positive and significant impact of convenience variable indicates that in today's digital age, social media has become an integral part of our lives. It has transformed the way we communicate, interact and share information. Social media platforms such as Facebook, Twitter and LinkedIn have opened up new avenues for students to collaborate and network with their peers, teachers and experts from around the world. [FAI/FAO Electronic Media Editorial Board et al. \(2023\)](#) also observed the same practices.

Social media offers numerous benefits for students, including the ability to connect with like-minded individuals, collaborate on projects and gain a deeper understanding of subjects. It also enhances critical thinking and problem-solving skills, while providing a platform for seeking guidance and support from peers and teachers. Social media allows students to improve their communication skills by interacting with people from diverse backgrounds, while also providing a platform for showcasing creativity and gaining recognition for their work. Social media can help students to develop their critical thinking skills. By engaging in online discussions and debates, students can learn how to analyze different perspectives and form their own opinions. This finding resembles the observation of [Cheng et al. \(2022\)](#).

Although threat does not have a significant impact, social media addiction is found to have a significant negative effect on academic performance. Addiction to social media can result in a lack of focus and productivity, as users spend excessive time scrolling through feeds and checking notifications ([Zivnуска et al., 2019](#)). This addiction leads to wastage of time and money, as users neglect more productive activities. Excessive social media use has undeniable detrimental effects, hindering concentration, wasting time and money and ultimately leading to poor academic performance.

On the other hand, social media can have a significantly positive impact by enhancing students' academic excellence. It helps in expanding networks, sharing class lectures and preparing high-quality reports using various Internet sources. Platforms like Wikipedia, databases and newspapers aid in academic problem-solving through group chats and quick access to instructors.

The growing dependence on social media is negatively affecting students' critical thinking and analytical skills. This reliance suggests that students believe their academic performance cannot improve without electronic devices, Internet access and social media connectivity. This trend is concerning as it indicates a loss of independent and critical thinking abilities. Instead of relying on their own knowledge and skills, students turn to social media for answers, which can lead to a lack of originality, creativity and decreased problem-solving abilities ([Kolan and Dzandza, 2018](#)).

To combat this issue, it is important for educators to encourage students to think critically and independently. This can be done by assigning projects and assignments that require

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Convenience	0.231*** (0.51)	0.391*** (0.99)	0.376*** (1.99)	0.204* (1.56)	0.114* (1.25)	0.008* (0.14)	0.146* (0.54)
Skill enhancer		0.480*** (2.86)	0.276*** (0.52)	0.219*** (1.68)	0.193*** (0.79)	0.172*** (0.43)	0.148** (1.12)
Threat			0.390 (1.67)	-0.343 (-0.39)	-0.333* (-0.15)	-0.215 (-1.55)	-0.215 (-0.526)
Harmful				0.278*** (3.23)	0.285*** (2.45)	0.220*** (3.59)	2.125** (1.36)
Helpful					-0.147* (-2.11)	0.068* (1.02)	2.645* (2.36)
Dependency						0.255*** (4.49)	0.5487** (2.51)
Perception							1.26* (2.79)
Constant	1.666* (1.10)	1.061* (2.32)	0.814* (1.18)	0.459* (2.06)	0.374* (3.13)	0.454* (3.93)	0.165* (1.26)
N	247	247	247	247	247	247	247

Note(s): *T*-statistics in parentheses * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$

Source(s): Author's computation

Table 9.
Estimates on academic
performance

students to use their own knowledge and skills, rather than relying on social media. Students should be taught how to use social media responsibly and effectively, so that they can benefit from its many advantages without sacrificing their cognitive abilities (Haleem *et al.*, 2022).

The respondents have expressed their belief that inappropriate use of social media can have a negative impact on the academic performance. This sentiment is widely shared and supported by research in the field of education. It is important for students to understand the potential consequences of excessive social media use and to develop responsible habits that prioritize their academic success (Kolhar *et al.*, 2021).

According to the results of the Kolmogorov–Smirnov test in Table 10, the p -values are greater than 5%. This confirms that the data follows a normal distribution, indicating that the models are reliable and stable (Massey, 1951).

Practical research implication

Based on the findings, a practical research implication of this study is to develop and implement effective policy measures promoting responsible use of social media among university students in Bangladesh. The following policy implications are proposed:

Governments should consider implementing policies that integrate social media into classrooms, providing funding and training programs to support teachers in incorporating social media into their teaching strategies.

Educational institutions should promote responsible social media use through the development and implementation of guidelines for online behavior. Workshops on digital citizenship and online safety should be organized to educate students on responsible social media practices.

Teachers should be encouraged to incorporate social media into their teaching strategies in engaging and effective ways. This can involve using social media for class discussions and assigning projects that require its use, fostering active learning and student engagement.

Students should be encouraged to take ownership of their social media usage and align it with their academic objectives. Designated study periods and collaborative work with peers through social media platforms can help students utilize social media in ways that enhance their academic performance.

By aligning the goals of all stakeholders and advocating for responsible and productive social media practices in education, university students in Bangladesh can thrive academically.

Conclusion

This study examined the impact of social media on the academic performance of university students in Bangladesh. The findings indicate that social media has become a pervasive

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	p -value	Statistic	df	p -value
Convenience	0.162	247	0.250	0.965	247	0.150
Skill enhancer	0.135	247	0.139	0.931	247	0.261
Threat	0.291	247	0.521	0.879	247	0.151
Harmful	0.129	247	0.154	0.914	247	0.253
Helpful	0.182	247	0.186	0.908	247	0.091
Dependency	0.151	247	0.167	0.913	247	0.102
Perception	0.174	247	0.165	0.984	247	0.115

Note(s): ^aLilliefors significance correction

Source(s): Author's computation

Table 10.
Test of normality

presence in students' lives, with both positive and negative influences on their academic performance. On the positive side, social media can be a valuable tool for students, facilitating connections with professionals, collaborative learning, resource-sharing and staying informed about their field of study. Excessive use of social media can lead to distractions, procrastination and a lack of focus, negatively affecting academic performance. It can also impact students' mental health and expose them to cyberbullying. Over-reliance on social media may limit exposure to diverse perspectives and hinder critical thinking skills. Therefore, it is essential for students to exercise moderation and caution in their use of social media to maximize its benefits while avoiding its potential drawbacks.

Limitations and restrictions of this study

The limitations of this study include limited sample size, which may not be representative of the entire population of university students in Bangladesh; and the contextual limitations, which may limit the generalizability of the findings to students in other countries or cultural contexts.

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Further reading

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Appendix

Variable	Code	Description
Convenience	1	Social media simplifies human life
	2	Collaborative academic work is made easier with social media platforms
	3	Providing students with access to social media for studying intentions is a prerequisite
	4	Social media ease the academic activities and coordinate with others
	5	It's possible to schedule a meeting with other experts on the topic by using social media
	6	Discussing with peers, students can prepare assignments
	7	Social media sites are helpful to receive announcements from the instructors
	8	Social media is an essential tool for communication in higher education institutions
Skill enhancer	1	Instructors can use social media for teaching purposes
	2	Social media is the best way for teachers to stay in touch with students
	3	I will achieve better results if social media is integrated
	4	Lectures should increase and encourage the use of social media in the classroom
	5	Social media help to develop communication skills
Threat	1	I am worried about potential abuse of social media by students
	2	I think personal data is safe on social media
Harmful	1	Addiction to online social networks is a problematic issue that affects my academic life
	2	Online social networks distract me from my studies
	3	Hours spent online can never be compared to the number of hours I spend reading
	4	There is no improvement in my grades since I became engaged into these social networking sites
	5	I usually have unlimited access to Facebook and this has affected my academic performance negatively
	6	Using social media require spending money and are wastage of time and by this way it will affect the students' academic life
	7	I find it hard concentrating on study knowing that student can play online games and visit these sites just by logging into them
Helpful	1	I engage in academic discussions on zoom and this has improved my academic performance
	2	I make use of WhatsApp to disseminate knowledge to my class mate
	3	I Solely rely on information gotten from Wikipedia to do my assignments without consulting other sources
Dependency	4	The usage of Wikipedia for research has helped improve my grades
	1	I will not perform well in my academics even if I stop using social media
Perception	2	Engaging in academic forums on yahoo reduces my rate of understanding
	1	I compare the students' grades before the students become engaged into the social media and after the student became involved. I see a drop in my academic performance
	2	Social media sites are personal/social-can't be used for education

Table A1.
List of variables

Source(s): Author's computation

About the author

Dr Emon Kalyan Chowdhury is Professor in Accounting and Head of the Department of Accounting at Chittagong Independent University. With expertise in blockchain, artificial intelligence, accounting, finance, entrepreneurship and education he has authored over 50 research papers published in various prestigious international peer-reviewed indexed journals. Dr Chowdhury holds a Ph.D. in stock market risk and multiple MBAs. Dr Chowdhury successfully implemented a World Bank-funded Higher Education Quality Enhancement Project (HEQEP). Dr Chowdhury's exceptional work and influential contributions have positioned him as a distinguished figure in the field, ranking among the top 3% of researchers in Bangladesh. Emon Kalyan Chowdhury can be contacted at: emonkalyanchy@gmail.com

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