Prevalence and Impact of Social Media Networking Site Usage for Study

Maryam Jan[1*], Syeda Saba Hashmi[2], Zubair Hussain[2***]**

[12]Visiting Faculty Lecturer, Department of Sociology, University of Karachi
[2]PHD Scholar, The Department of Education, Psychology and Communication Sciences. University of Bari Aldo Moro, Italy.

*Email: maryamjaan200@gmail.com
**Email: sabanabiil.sn@gmail.com
***Email: z.hussain1@studenti.uniba.it

Abstract

Social media networking sites allow students to advance learning techniques, which advances knowledge in society. Social media networking site users search, produce, and organize material on social media networking sites. They also share such material on social media networking sites. Students are better equipped to develop their knowledge of content while using social media for learning. The frequency of social media networking sites for study among male and female natural sciences and social sciences students was examined using convenient sampling on a sample size of 400 students. This quantitative study aimed to ascertain how social media networking sites affected students' academic performance. Connectivism is used as a theoretical base. The data was gathered via a questionnaire. Karl Pearson Correlation and the T-test were used to evaluate the data. It was discovered that there was a strong association between social media networking sites and students' academic achievement. The use of social media for study by female students is higher than that of male students. The use of social media for study among social sciences students is higher than that of natural sciences students.

Keywords: Social Media Networking Site Usage, Academic Performance, Female Students, Male Students, Natural Sciences, Social Sciences.

Introduction:

Nowadays, it is widespread for students to use social media networking websites. It has become a need for them. The prevalence of multitasking on social has been increasing (Lau, 2017). Students increasingly use social media to exchange knowledge (Thanuskodi, 2022). Social media networking site users search, produce, and organize material on social media networking sites. They also share such material on social networking sites (Hamid et al., 2013). Social media allows students to share information, text messages, photographs, and video files. Social media allow students to advance learning techniques, which advances knowledge in society (Thanuskodi, 2022).

Modern communication technology has transformed this world into a global village because social media networking site users are increasing daily. Social media networking site users' activeness enhances knowledge through social group communication (Junejo et al., 2022). Social media networking sites provide web-based services. Such services allow social media networking site users to create profiles within a confined system. Moreover, it allows social media networking site users to add a list of people to their friends (Munang, 2022). Social media is referred to as Web 2.0. There are more versions of the Web, as shown in Table 1. Web 1.0 is also called "read-only". Web 2.0 is also called "read-write". Web 3.0 is also called "read-write-execute". Web 4.0 is also called "read-write-execute-concurrency."

Table 1: *Web*

Web 1.0	The initial iteration of the Internet, known as Web 1.0, was one-way in its information transmission.
Web 2.0	The second Internet generation, Web 2.0, is the decade of two-way communication in the 2000s.
Web 3.0	It is a semantic web.
Web 4.0	It is a symbiotic web.

The Internet continues developing from Web 1.0 to Web 2.0 and Web 3.0 to Web 4.0. Some common types of Web 2.0, also known as social media, are social communities, text publishing tools, microblogging tools, photo publishing tools, audio publishing tools, and video publishing tools. Some examples of social communities are Facebook and Linked In. Some examples of text publishing tools are WordPress, Wikipedia, Slideshares, and Quora. Some examples of microblogging tools are Twitter and Tumblr. Some examples of photo publishing tools are Pinterest, Instagram, Flickr, and Picasa. Some examples of audio publishing tools are Spotify, iTunes, and Podcast. Some examples of video publishing tools are YouTube, Vimeo, and Vine (Looy, 2022).

The most popular social media networking sites are YouTube, Facebook, Linked In, Instagram, and Pinterest (Chaffey, 2020). There would be almost 4.76 billion social media networking site users worldwide, in January 2023 (Kepios, 2023). In Pakistan, most social media networking sites use Facebook the most. After that, Twitter became the most popular social media networking site. Then, YouTube is used by social media networking site users. Some social media networking site users use Instagram. Some social media network users use Pinterest, too. Few social media networking sites use LinkedIn. Some details are shown in Table 2.

Table 2: *Social Media Stats in Pakistan, January 2023*

Facebook	Twitter	YouTube	Instagram	Pinterest	LinkedIn
77.92%	17.97%	2.12%	1.38%	0.51%	0.05%

(StatCounter, 2023)

While technology and internet speed are developing rapidly, and students are using social media networking sites frequently, it becomes necessary to determine the effects of social media networking site usage on students (Alshalawi, 2022). Students engage in a range of activities on social networking sites, including keeping in touch with friends from their past and establishing new ones, meeting people, reading online news, having fun, exchanging information, conversing, downloading movies and music, and seeking study

resources (Igboke & Olom, 2021). Students all across the world are increasingly utilizing social media. The effect of this platform on the students is considerable. Social media networking sites consume most of the student's time and energy. It impacts their personal life. It also impacts their academic life (Jamil et al., 2022).

The impact of social media networking sites on students' academic achievement has not been well-researched (Lau, 2017). There is a correlation between academic achievement and social media networking site usage. While social media networking site usage will only become more prevalent among students as it does so, it is necessary to consider the impacts of social media networking site usage on academic achievement. Different past studies have concluded different outcomes. Some past studies found that social media networking site usage did not impact academic performance. Some past studies found that social media networking site usage had little impact on academic performance. Some past studies found that social media networking site usage positively impacted academic performance. Some past studies found that social media networking site usage had a negative impact on academic performance (Boahene et al., 2019).

A past study found that social media networking sites are typical among students; specifically in Saudi Arabia, the increase in the number of social media networking site users is the highest (Alshalawi, 2022). In Saudi Arabia, university students frequently communicate through social media networking sites. Therefore, there is a question mark on the impact of excessive use of social media networking sites (Alwagait et al., 2015). Students in Nigeria use social media for amusement, education, and information. Additionally, social media usage cuts down the time students commit to their studies. Some students agreed to use new media genres to gain study materials and ideas. (Ezeah et al., 2013)

Social media has significantly expanded over the last several decades (Pirzado & Shaikh, 2022). However, past research shows that problematic social media use is related to poor academic achievement among students (Tran, 2021). Social media networking site usage among students has undoubtedly acquired greater acceptance and usage. Students who utilize social media platforms for non-academic purposes refrain from pursuing their academic objectives (Iqbal et al., 2018). However, some students use social media networking sites to study. Therefore, the researchers conducted this research to determine the prevalence and impact of social media networking site usage for the study.

Hypotheses:

The hypotheses of this study are:

H1: The higher the social media networking sites for study, the higher the GPA.

H2: The level of social media networking sites used for study in female students is higher than in male students.

H3: The level of social media networking sites for study among social sciences students is higher than that of natural sciences students.

Theoretical Background

The connectivism learning theory, which was proposed by George Siemens and Stephen Downes in 2005, is utilized as the theoretical foundation to investigate the prevalence and impact of social media networking site usage for study by taking into consideration the following factors:

➤ Diversity of sources: Connectivism strongly emphasizes the value of having a variety of information and knowledge sources. This implies that, in the context of social media, teachers should encourage students to seek other viewpoints and ideas on the subject under study.

➤ Networks and connections: According to connectivism, networks and connections play a crucial role in the production and transfer of knowledge. This implies that in social media, teachers should encourage students to create networks and connections to increase their knowledge and comprehension of the subject.

➤ Personal learning environments: According to connectivism, personal learning environments are crucial because they let people choose, control, and apply their sources of knowledge. Students should be encouraged to design their learning environments in the context of social media by choosing and utilizing the social media platforms that are most pertinent to their requirements.

➤ Continuous learning: Connectivism strongly emphasizes the necessity of ongoing education to keep informed and current. In the context of social media, teachers should motivate their students to continue learning about and exploring the subject, utilizing social media as a resource for current information.

By taking these components of connectivism learning theory into account, this research can be handled in a way that aligns with connectivism's tenets and motivates students to interact actively with the subject.

Literature Review

Social media networking sites could be valuable tools for study. However, past studies have suggested a complex relationship between their usage and academic performance. Excessive or damaging use will have a negative impact, but social media networking sites have the potential to have a positive impact, too. Students with poor time management can use social media networking sites excessively.

Consequently, it will decrease their focus on their studies, and they will perform worse academically. There are some other moderating factors, too. These moderating

factors, like sleep time, learning environment, gender, and time management skills, can influence the relationship between social media networking site usage and academic performance.

On the other hand, student engagement moderates the relationships between social media networking site usage and academic performance. Lifestyle factors, for example, smoking, alcohol consumption, and relationships, can also impact academic performance when combined with social media networking site usage. Therefore, effective strategies are required to integrate social media into educational activities without negatively impacting students' academic performance. Parents and teachers should educate students on time management and responsible social media networking site usage. According to Alwagait et al. (2015), social media networking site usage and GPA are not linearly related. Time management is a crucial factor influencing academic performance.

Oberiri, A. D. (2017) recommended that students limit their use of social media and concentrate closely on academics. Students should be cautious when using social media repeatedly, especially those who aim to attain enormous academic accomplishments. Iqbal Z. et al. (2018) have recommended creating strategies for increasing educational activities and academic accomplishments through social media networking sites. Umar T. I. et al. (2018) have recommended that parents, teachers, and educational psychologists pay more attention to their students' attitudes on social media platforms and educate them on time management. Students should concentrate on their studies.

Alamri, M. M. (2019) has recommended developing the most efficient methods for integrating social media into educational activities without impacting students' performance. It is essential to help students balance between their social and academic obligations. Moreover, according to Wakefield and Frawley (2019), social media networking site usage can negatively impact the academic performance of lower academic achievers. Social media networking site usage has less impact on higher academic achievers. Furthermore, according to Tafesse (2020), student engagement mediates the negative association between social media networking site usage and academic performance.

According to Bou-Hamad (2020), excessive social media networking site usage and other factors (smoking and romantic relationships) are associated with lower academic performance. Similarly, according to Astatke et al. (2021), excessive social media networking site usage or inappropriate social media networking site usage can impact students' academic achievement negatively. According to Igboke, S. A., & Olom, P. A. (2021), social networking sites might be used as a resource in education to increase academic achievement for both male and female students. Utilizing networking sites, however, may potentially have a detrimental impact on academic achievement.

Pirzado, A. H., et al. (2022) have concluded that every technology or internet application serves both a harmful and a beneficial function. Campus administration and teaching staff should include it in the design to improve academic quality. According to Junejo H. et al. (2022), students who engage in extensive social media use do poorer academically. They recommended that social media experts develop applications of this kind that do not wear users out or make them feel exhausted. According to Munang, M. G. (2022), the university must teach its students how to effectively use social networking sites for educational reasons in light of the unusual ways that students use these platforms since doing so would eventually have a good effect on their academic performance.

After a literature review, it was found that most of the past studies used the quantitative method. Bou-Hamad (2020) used a sample size of 112 undergraduate students at a university in Lebanon and collected data through a survey. He used regression analysis to examine the data. Astatle et al. (2021) conducted a literature review of 27 selected journal articles from the Web of Science database. He performed a systematic review and meta-analysis to identify the overall impact of social media networking site usage on the academic achievement of secondary school students.

Nurudeen et al. (2022) used a random sample of 623 students from the University of Professional Studies, Accra, Ghana. They collected data through a survey and performed a linear regression analysis to examine the data. Nti et al. (2021) used a sample size of 550 students. They used a convenient sampling technique and collected data through a survey. They used a predictive framework based on Decision Tree (DT) and Random Forest (RF) machine learning algorithms to predict students' GPAs.

Research Methodology

It is quantitative research. An online survey was conducted in December 2022.

Time horizon: In this study, the time horizon was cross-sectional.

Universe: In this study, the universe was Karachi, Pakistan.

Population: In this study, the population was university students.

Sample size: In this study, the sample size was 400.

Sampling method: In this study, the sampling method was a convenient sampling method.

Data collection tool: In this study, the data collection tool was a questionnaire. The data was gathered via a self-administered questionnaire on Google Docs, distributed among male and female students from the natural sciences and social sciences stream in Karachi, Pakistan.

Data analysis: Karl Pearson Correlation and the T-test were used to evaluate the data on SPSS computer software.

Results and Discussion

This research has found a strong association between social media networking site usage for study and students' academic achievement, as shown in Table 3. The level of social media networking site usage for study in female students is higher than in male students, as shown in Table 4. The usage of social media networking sites for study among social sciences students is higher than that of natural sciences students, as shown in Table 5. The prevalence and impact of social media networking site usage for study are higher and more fruitful in Karachi, Pakistan.

H1: The higher the social media networking site usage for study, the higher the GPA.

H_1: There is a correlation between social media networking site usage for study and the GPA.

H_0: No correlation exists between social media networking site usage for study and the GPA.

Table 3: *Social media networking site usage for study and GPA*

Correlations

		GPA	PREV
GPA	Pearson Correlation	1	.675*
	Sig. (2-tailed)		.024
	N	168	168
SMNSU	Pearson Correlation	.675*	1
	Sig. (2-tailed)	.024	
	N	168	168

*. Correlation is significant at the 0.05 level (2-tailed).

H2: The social media networking site usage for study in female students is higher than in male students.

H_1: There is a relationship between using social media networking sites for study and gender.

H_0: There is a relationship between using social media networking sites for study and gender.

Table 4: *Social media networking site usage for study and gender*

T-test

	Gender	N	Mean	Std. Deviation	Std. Error Mean
SMNSU	Male	42	2.71	.944	.146
	Female	126	2.70	1.097	.098

H3: The social media networking site usage for study among social sciences students is higher than that in natural sciences students.

H_1: There is a relation between social media networking site usage for study and streaming.

H_0: There is a relation between social media networking site usage for study and streaming.

Table 5: *Social media networking site usage for study and stream*

T-test

	Stream	N	Mean	Std. Deviation	Std. Error Mean
SMNSU	natural sciences	26	2.50	1.105	.217
	social sciences	142	2.74	1.050	.088

According to research that found similar results, most students believe that SNSs have a more beneficial influence on their academic achievement (Oye et al., 2012). Similarly, a survey found that most students spent more than six hours each day using social media for learning and knowledge; and had high CGPAs (Jamil et al., 2022). Nevertheless, research discovered that utilizing social media for academic reasons was not a reliable indicator of academic achievement as determined by cumulative grade point average (Lau, 2017).

Additionally, a study investigated the relationship between students' regular use of social media for educational purposes and their academic success as indicated by their cumulative grade point average (CGPA), using academic self-efficacy and innovation traits as the mediator and moderator, respectively. The findings showed a beneficial relationship between social media use for learning and academic achievement. It also proved that using social media might negatively impact academic achievement. The impact of academic self-efficacy as a mediator in further enhancing students' academic performance is highlighted by this study. The study's empirical findings also showed a more considerable moderating

influence of innovative traits between social media use and academic achievement (Boahene et al., 2019).

Similarly, a study's findings indicated that female students in Saudi Arabia prefer to use social networking sites more frequently for personal and academic reasons than male students. The findings revealed no differences between male and female students regarding social media usage intensity or multitasking with social media networking sites while doing homework. Last but not least, after controlling for gender and high school GPA, the regression analysis revealed a favorable link between students' academic performance and the frequency of their use of social media networking sites (Alshalawi, 2022)

The study examined how undergraduate students at the University of Jordan's faculties of computer technology and foreign languages used social networking sites (SNS) and electronic publishing. Sharing and exchanging knowledge was the norm, with e-publishing like blogs, e-books, e-journals, and online newspapers, and the use of digital libraries taking a backseat since the respondents prioritized SNS as a sociability tool above a learning tool. The low percentage components of e-publishing obtained compared to the large percentages that SNS received as a source of entertainment and sociability reflect this (Hamid et al., 2013). However, this study did not compare the social media networking sites in one faculty with those in other faculty.

However, a study on the growing effects of social media networks on students' academic performance at the University of Sindh, Larkana campus revealed that most students use social media to improve their knowledge, obtain up-to-date information, and advance their careers. Statistics show no significant detrimental influence of using social media on academic achievement, and studies have not shown any significant differences across different academic groupings (Pirzado & Shaikh, 2022).

Conclusion and Recommendations

Social media network sites should be seen as a helping tool for students. It is a post-industrial era, and teachers and parents should realize that the new generation is using social media networking sites for multiple purposes, not for wasting time only. When parents and teachers are worried about internet addiction and compare it with drug addictions, they should remember that drugs are used for treating diseases, too. In this era of rapid technological advancement, the increasing rate of social media networking site users is irreversible. Instead, it is time to focus on how social media networking sites could benefit the study.

Sharing and exchanging knowledge is the norm on social media since they are more of a socializing than a learning tool. As a result, e-publishing is relegated to a lesser role (Hussein, 2017). However, a universal consensus is that using social media network sites for academic reasons is a good idea (Alamri, 2019). Social networking sites should

be used more to improve teaching and learning. This will assist governments, politicians, policymakers, students, educational institutions, and other stakeholders. It is essential to consider the mediator and moderator factors between social media usage and academic accomplishment, including academic self-efficacy and innovative qualities.

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