

Role of Social Network Sites in Education During Covid-19 Pandemic in Pakistan

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Keywords:

COVID-19, Social Network Sites (SNSs), Academic Performance, Online Learning Management System (LMS).

ABSTRACT

The worldwide pandemic of COVID-19 caused an increase in the use of smartphones and Social Network Sites for communication and academic purposes, which has affected the academic performance of students. The purpose of the study was to investigate the relationship of social network sites usage on the academic performance of public and private schools students at the Secondary Level. The study's primary objectives were (1) to determine the extent of utilization of SNS by the students during the pandemic era, (2) to investigate the relationship between SNS usage and academic performance of students during the pandemic era. Data was collected through closed-ended questionnaires, and the reliability of the instrument was found by applying Cronbach's Alpha. Collected data was analyzed through various descriptive and inferential tests. Results indicated a significant difference between the Academic Performance of students and the utilization rate of Social Network Sites. Regarding utilization rate, female students showed high utilization than male students. Therefore, the results of this study specify that Social Network Sites Usage has a positive influence on the academic performance of students. Hence it is recommended that students should be encouraged to use social network sites for their academic purpose and to find the right career opportunities. Furthermore, teachers should be trained to guide students on making effective use of SNSs in elevating academic performance.

INTRODUCTION

At present, different technologies and social network sites like WhatsApp, Facebook, Twitter, and Instagram have become famous parts of life for the majority of young people. The

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growth and popularity of online social network sites are increasing day by day and have expanded almost all over the world. There is not a single country in the world where social network site is not used. With the passage of time, the rising generation has come to grip the changes, which social network site has brought about. Young adults and teenagers play a substantial role in advertising and promoting these social network sites all over the world. According to previous research studies, it has been discovered that social network sites are affecting the lives of users greatly, especially teenagers and adults (Abrenica, et al., 2021; Aslam et al, 2021). In the last year, the worldwide pandemic of COVID-19 has changed the lifestyle of the people living in different areas of the world. It also changed the traditional ways of the teaching-learning process or face-to-face education (Akram & Yingxiu et al., 2021). There were some challenges faced by educational institutions. By the need of the time to outbreak the virus, different countries were using measures to minimize the gathering of large crowds and ensure that there was physical social distancing. This situation has pushed policymakers and institutions heads to search for other ways for developing an academic environment to continue the learning activities of students.

In Pakistan, the teaching-learning process also switched towards online mode mainly using different social network platforms (Akram & Aslam et al. 2021). To facilitate the students, teachers were encouraged to use various modes of communication platforms, such as WhatsApp, Google classroom, YouTube, Facebook, Zoom, and others. These ways definitely overcome the extra burden of the parents in terms of resources. Social network sites were recommended for the faculty members to use for communicating with their students via formal study groups like WhatsApp and Facebook and also via official pages.

Due to the absence of the specific online Learning Management System (LMS), these social network sites created an opportunity to sustain the communication of teachers with their students and promote online learning. As an effect of COVID-19 and also for the very first time, both students and teachers in many developing countries were recommended and guided by their institutions to use social network sites officially to communicate online for academic-related purposes (Awidi et al., 2019).

Previous studies on social network sites usage at secondary level education have shown that they can be used as an alternative medium for communication with students as compared to traditional face-to-face communication. This specific research makes an attempt to investigate the usage of social network sites amid COVID-19 and academic performance of students at the secondary level, especially after the COVID-19 worldwide virulent disease, in public educational institutions that do not have a robust use of LMS, students and faculty

both were totally dependent on in-classroom communication before the pandemic of COVID-19. But during COVID-19, different types of technologies were used for the teaching-learning process.

In this specific research, researchers focused on the impact of usage of these social network sites on the academic performance of students at the secondary level in Pakistan during COVID-19. Although students' performance within the educational institution can be affected by a large number of factors, the most important one is the usage of social network sites. According to Das and Sahoo (2010), people spend extra time communicating with their friends, relatives, and colleagues for sharing information on social network sites. Students spend most of their time using social network sites, while leftover time is used for completing their home assignments.

The study was conducted to elaborate the effects of usage of social network sites on the educational performance of the students at the secondary level during the pandemic era. Most of the researchers have shown in their results that usage of social network sites has a negative result on the educational achievement of the students and also on the younger generation.

Research Objectives

1. To find out the level of utilization of Social Network Sites by the students during the pandemic era.
2. To investigate the correlation between usage of SNSs and academic achievements of students during the pandemic era.

Hypotheses of the study

H1: *There is a significant difference between the rates of utilization of Social Network Sites with respect to the gender of the students.*

H2: *There is a significant difference between the utilization rates of SNS in terms of grades.*

H3: *There is a significant difference between the rates of utilization of social network sites with respect to the subject of the students.*

LITERATURE REVIEW

Social Network Sites

Social Network Sites are basically used in the field of communication and have gained importance as an effective means of distant communication. Their requirement in the current age had made the massive contribution of modern technology. A social network site is an interactive verbal exchange platform where users can create an account to join a specific social network site. They usually use their personal accounts to stay connected with their

colleagues, friends, or relatives. They can share different types of data which may be in the form of experience, audio, thoughts, pictures, chatting via text messages, audio calls as well as video calls, and sharing information with one another. They can also share information with their respective individuals in the same way by using social network sites (Eke et al., 2014).

However, Tiryakioglu and Erzurum (2011) defined the social network site that it is a service, platform, or area which is available online where social, academic, or official communication can be established amongst different users. People use different social network sites for making their life social and also for sharing information with one another by using different types of available and interest base social network sites.

Social network sites offer different characteristics according to the skills of the users to share their information, thoughts, views, activities, personal information, feelings, important events, and fields according to their interests. There are so many positive points of using social network sites but the most basic advantage is that it offers to sign up and to create any of the profile types whether it is public or semi-public profile, within the connected system where they can communicate with different people of the different area (Boyd & Ellison, 2007). Social Network Sites are now becoming the most dynamic web-based application which is called Web 2.0, it provides facility to the students to create accounts on it and then not restrict them to socialize with friends, it also gives them possible chance to interact with lecturers (Hamat et al., 2012). The fame of the social network site is increasing gradually due to the free access for whoever wants to communicate with teachers and friends with an idea to produce collective knowledge regardless of the popularity of social network sites among users of different social network sites (Valenzuela et al., 2009).

Academic Performance

Academic performance according to Kobal and Musek (2001) is the visible scores that are used to show in the form of the number or grade, and it is also used to show that up to which level the students adapted the school work and the educational system.

Moreover, an academic performance described through Kobal and Musek (2001), refers back to the numerical ratings of a scholar's information, representing the diploma of a scholar's variation across multiple academic gadgets.

Kabilan, Ahmed, and Abidin (2010) conducted combined research which explains the basic meaning of the academic performance of the student. They stated that student academic performance is the engagement of a student which he spent during the effort made by them

and time they invest in mutual activities. In most cases, it is frequently linked with the accomplishment of positive student learning outcomes, such as individual student development and critical thinking. Their study further elaborated that users of social network sites had lower grades in their academic career than those who never uses social network sites. However, the general benefits are there for those who are using social network sites in their daily life.

SNS and Students Academic Performance

There are two different perspectives that elaborate in detail that how usage of social network sites produces effects on the academic achievement of the students. On one side, researchers represent the role of social network sites on academic performance in a constructive way saying that students develop discussion in their respective groups for exchanging information, ideas, thoughts and communicate to their relatives as well as to teachers and offering to their friends about assignments on social network sites, teachers share course-related information, study material, and home task and create student group to cooperate different projects and also to communicate with their colleagues from other as well as from the same university through social network sites. Therefore it facilitates the teaching-learning process and this is also used for enhancement of academic performance at different stages (VanderWurff, 2011).

Griffith and Liyanage (2008) found in their research that students who get help from blogs discussion boards, wikis, instant messaging, and other facilities offered by Web 2.0 can go together what is learned in a usual method of the classroom. Both researchers also assert that most of the users of MySpace are using to copying the information from one place and using it in another place, it serves as a form of literacy consisting of technical and social skills. Conversely, the substitute views cast the communication between SNSs and the achievements of students in the educational field relevance since the maximum of the users of SNSs are using it for socializing purposes.

In the light of the above available information, the researcher found that a lot of studies were conducted in different countries of the world and some of them were conducted also in Pakistan. Some researchers have already conducted their research at secondary level in different countries but due to the availability of the resources and differences in the environment, it was the need of time to conduct the research to investigate the effects of social network sites on the educational achievements of the students at a secondary level during COVID-19 virulent disease period, especially in the ruler areas of District Attock, Punjab where the basic resources are not in common use, for example, 4G internet and

Smartphone. Different researchers conducted different types of research to investigate the effects of specific social media independently. The current research is totally different in nature in the sense that it is totally in a new area of the country and it takes all the social network sites together to find their collective impact on the educational achievements of the students at the secondary level.

Theoretical Framework

There are a number of theories regarding the development of social network sites. One of the basic theories which relate to this specific research is the Functional Equivalence Theory. Previous researches show that the most commonly used social network site was Facebook, as it was newer at that time, but after launching WhatsApp, this platform took the top position in the list. Detail of the given theory is given below.

Neuman (2010) defines Functional equivalence theory that newer social network sites dominate the older or already available social network sites. Functional equivalence expects that as new social network site set up and offer better services for particular functions, the use of the previously dominant medium that is serving the same function will go into decline status. Adding to this description, he also explains the functional equivalence of New social network sites as providing the same level of satisfaction and satisfaction opportunities and offering the same type of text and information.

According to Stemple, Hargrove, and Bent's (2000) study an effort to upgrade and enlarge the telegraph with the originating of telephone, not to take its position. Research incorporating newer social network site has supported this theory as well, they found that there is an opposite slightly than an aggressive relationship among radio news, newspaper, and internet news. They also found that individuals who are using the internet, are watching TV news instead of reading the newspaper less; it provides support for potential displacement and functional equivalence. However, they also explained the study result that internet users are using TV and newspaper more than non-internet users. They concluded from their study that the internet does not replace any other social network site, but rather supplements it.

RESEARCH METHODOLOGY

Instrument

The closed-ended survey questionnaire was constructed to measure the utilization rate of SNS by the students. The questionnaire was adapted from Koc and Gulyagci (2013), comprised of

eight items. Students rated each item by using a scale of Likert-type ranging from 1 which means Never, to 5 which means Always.

The reliability of the items was assessed via Cronbach's alpha, which acquired 0.96, which is considered as "Excellent" reliability. Since the data is considered reliable if the Cronbach value is higher than 60% acquire (Tavakol and Dennick, 2011).

Sampling Technique

The simple Random Sampling technique was used to collect the sample of the study. Sample of the study comprised of 400 students from Public and Private schools of Lakkarmar, Chhab, Jhamat, Uchri, Jand, Langar, Pindsultani, Domail, Thatta, and Basal of District Attock, Tehsil Jand.

Participants

The population of the study involved students of Class 10th from the Public and Private schools of Lakkarmar, Chhab, Jhamat, Uchri, Jand, Langar, Pindsultani, Domail, Thatta, and Basal of District Attock, Tehsil Jand. The researcher distributed questionnaires to all schools by personally their selves, followed by a simple random sampling approach for data collection. Their demographic information is shown in Table 2.

Table 2

Demographic information of the students

Category	N	%
Gender		
Male	206	56.6
Female	156	43.4
Age		
13 – 15	241	66.5
> 15	121	33.4
Disciplines		
Biology	157	54.4
Computer Science	205	45.6
Grades		
≥80%	189	52.2
≥50%	97	26.7
≤ 50%	76	20.9
Purpose of use		
Academics	282	78
Entertainment	249	69

Data Analysis

Collected data was analyzed through T-test, ANOVA test, and Post-hoc test.

ANALYSIS

Research Objective 1

The rate of utilization of SNS by the students was assessed by employing Descriptive Statistical tests, i.e., Mean and Standard deviation. The mean of all the items of the questionnaire was rated above 3, i.e., 3.01 (shown in table 3). The mean results indicate that students use SNS adequately as $M \geq 3$ (Rabe-Hesketh and Everitt, 2003).

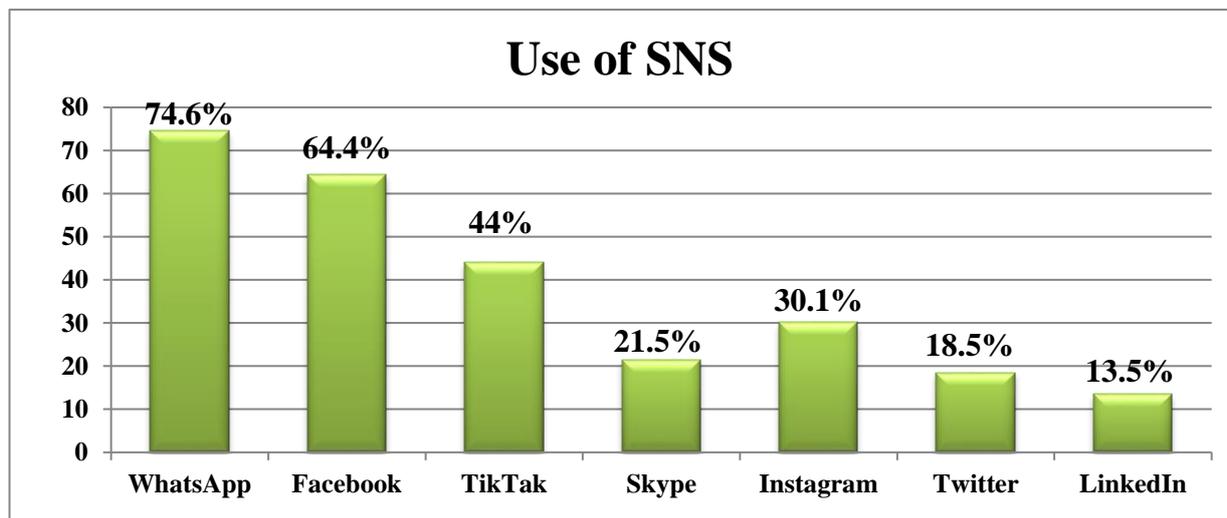
Table 3

Descriptive Analysis

SN	Items	Mean	SD
1	It is difficult for me to focus on my academic work while using SNS.	3.1	1.49
2	The first thing which I do after getting up is to log into my account of Facebook or WhatsApp	3.0	1.52
3	I lose sleep by spending most of my time on SNSs.	2.6	1.11
4	The use of SNS interferes with my daily social activities.	2.8	1.14
5	I log into my SNS account to make myself normal when I am down.	3.0	1.51
6	My family or friends feel that I am addicted to using SNS.	2.9	1.51
7	I feel nervous when I do not have access to SNSs.	3.2	1.47
8	I tried to spend less time on SNS but failed.	3.5	1.13
		3.01	1.07

Digital Platforms of Using SNS

The results reveal that students use different kinds of platforms to use SNS. Their description is given below in table 2. The most frequent use was found of WhatsApp with 85%, while the least usage was found of LinkedIn with 13.5%.



Hypothesis 1

For investigating the difference between the rate of utilization of SNS with respect to gender, a T-test was applied (shown in table 5). Results indicated that there seems no visible difference between male and female students in terms of utilization of SNS. (i.e., $T = -0.43$; $p = .966$) at alpha level .05. Hence, the hypothesis regarding the rate of utilization of SNS with respect to gender was rejected. In addition, female students acquired a higher mean than the male students, which indicates that the rate of utilization of SNS, was higher in female students than the males.

Table 5:

T-test Analysis according to gender

Gender	N	Mean	SD	Df	T	Sig
Male	206	2.99	1.11	360	-0.43	.966
Female	156	3.01	1.01			

Hypothesis 2

For investigating the difference between the rate of utilization of SNS in terms of disciplines, a T-test was applied (shown in table 6). Results indicated that there is a significant difference between Biology and Computer Science subjects in terms of utilization of SNS. (i.e., $T = 2.84$; $p = .004$) at alpha level .05. Hence, the hypothesis regarding the rate of utilization of SNS with respect to disciplines was accepted. In addition, Biology students acquired a higher mean than the Computer Science students, which indicates that the rate of utilization of SNS, was higher in Biology students than the males.

Table 6

T-test Analysis according to disciplines

Gender	N	Mean	SD	Df	T	Sig
Biology	157	3.17	0.43	360	2.84	.004
Computer Science	205	2.84	1.36			

Hypothesis 3

For investigating the difference between the rate of utilization of SNS in terms of grades, the Anova test was applied (shown in table 7). Results indicated that there is a significant difference between the grades of students in terms of utilization of SNS, as the significant value achieved is less than .05, i.e., 0.000. Hence, the hypothesis regarding the rate of utilization of SNS with respect to the grades of students was accepted.

Table 7

ANOVA analysis

	N	Mean	SD	F	Sig
≥80%	189	3.62	0.52	515.60	.000
≥50%	97	3.12	0.44		
≤ 50%	76	1.23	0.70		

Tukey's (HSD) Post-hoc test was conducted to find out the more differences across the possible pairs of the grades of students, (shown in Table 8) as Tukey's honestly significant difference test helps to measure up to the means of all possible pairs (Abdi & Williams, 2010). Results demonstrate that all the three groups possess significant differences among each other. The rate of usage of social network sites was found significantly higher in the students with grades ≥80% than the students who acquired less than 80%.

Table 8

Post-hoc test

Test	Sig
≥80% vs. ≥50%	.000 [(≥80%) > (≥50%)]
≥80% vs ≤ 50%	.000 [(≥80%) > (≤50%)]
≥50% vs ≤ 50%	.000 [(≥50%) > (≤50%)]

Discussion

At present, the usage of social network sites has got much of the popularity not just in the specific area but all over the world. The reason behind this popularity is due to a great development of technologies used in this field. Every human being in the world has turned out to be an enormous user following them on their social network site; this was initially limited to only celebrities. The basic purpose for conducting this study was to investigate the educational outcome of students who spend most of their time interacting on social network sites. The finding from already conducted studies has shown that student spends time of their day-active on these social network sites, found to be mostly positive which make them able to share and produce new ideas and concept related to their studies. Users of social network sites are also using these sites for having fun as these social network sites are also offering entertainment services. It now becomes the routine habit of the students to use these

interacting social network sites. Students spend their time mostly on these social network sites for entertainment and also for sharing information related to their studies. By using different social network sites, students do their academic work with enjoyment. This was the reason that this quantitative case study was conducted to investigate the effects of social network sites usage amid COVID-19 and the academic performance of students at the secondary level. A review of the previous studies revealed that social network sites have attracted millions of users from all over the world due to a lot of reasons; the basic reason is its affordance and reach. The other reasons are their diversity of uses. Some users used it for socializing purposes and some of them were using it for communication purposes. While some of the students were using it for academic purposes to complement classroom teaching and learning activities. However, although Social network sites gaining acceptance in schools all over the world, the study on students' usage and adaptation of social network sites is still unexplored fully in Pakistan. So, this was the basic reason behind conducting this research to address this gap so as to provide useful insights for future researchers.

There are different perspectives which explain that how social network sites are affecting the educational performance of the students. One of the basic perspectives which explain this effect is in positive as well as in a constructive way. The researchers discussed the role of social network sites on the academic achievements of the students in a constructive way. They explained that while students create their study groups on any particular social network sites, then they start a discussion to exchange personal thoughts, ideas, information and they used this group for communicating with one another as well as with their respective teachers, offering to their friends about the assignment and given task on the social network sites. Teachers also used this medium as a reliable source for sharing course-related information, study material, and different task which are to be assigned to the students. Therefore, it is facilitating the teaching-learning process and this is also used for enhancement of academic achievement at different stages (VanderWirff, 2011).

This study indicates that the rate of utilization of social network sites was higher in female students than the males. This result of the study show consistency with some of the prior research findings. One of them was conducted by Johnson Yeboah and George Dominie Eur. They observed in their respective study that usage of social network sites was greater in females as compared to the male members. They concluded the reasons in their study that female students were using social network sites for having expression related to their family relationship. For this purpose, they were using WhatsApp as a social network site. Males members of the said social network sites were found less in numbers. The second reason for

using social network sites by female students was that most of the women preferred using the social network sites for communication purposes, especially using the groups which were created specifically for study purposes, assignments were discussed which were given by their respective teachers. This way of using social network sites, make the female prominent as compared to male members of the particular social network site (Yeboah & Ewur, 2014).

The above finding also shows consistency with the finding of Marife De Torres and Danilo Vegas. They concluded that Females are more exposed to social media rather than males. The uses of social media by females have to do with their desire to communicate with their friends, family members as well as with their teachers for the purpose of sharing information. They were also revealing more about their personal lives. In simple words, females are more vocal, willing to share information with their friends and family members, and also they are expressive in nature. Researchers concluded in their research that women are biologically wired for using social networking (Torres & Vergas, 2021).

The above finding also shows consistency with the finding of Abrenica et al. (2021). They concluded in their research that females are more exposed to social media rather than males. The use of social media by females has to do with their desire to communicate with their friends, family members as well as with their teachers for the purpose of sharing information. They were also revealing more about their personal lives. In simple words, females are more vocal, willing to share information, thoughts, ideas, beliefs, and feelings with their friends and family members (Abrenica et al., 2021).

Yeboah and Ewur (2014) indicated in their research that only 24 percent of the total respondents give a response that WhatsApp has a positive impact on their studies while a greater number of the respondent was against the use of WhatsApp in educational institutions, 76 percent of the respondents responded that use of WhatsApp has a more negative effect on their academic performance of the students. They gave the reason that students can be stacked on their smartphone or personal computer for hours communicating with their friends, relatives, teachers, and classmates without noticing that from how long period they are using social network sites. It was also found that most of the users were using social network sites without any relevant reason. Most of the students spent their time using social network sites and little time was left for academic purposes (Yeboah & Ewur, 2014).

It was concluded from the finding that students use social network sites adequately and their usage showed a positive effect on their academic performance. This finding of the study shows consistency with the finding of Olaleke et al. (2015) where they investigated that students use several social media platforms frequently on daily basis. Furthermore, SNSs

usage is helpful in enhancing students' reading and learning abilities by interacting with experienced professionals and classmates. On the other hand, the study conducted by Tartari et al. (2019) did not find a significant association between the usage of social network sites and the academic performance of students. Their findings elaborated that usage of Facebook's social network has a negative impact on the learning objectives of students. This can be attributed to the design of learning activities being suitable for the capabilities as well as the expectations of students, related to the level of enhancing students' engagement and accessibility to everyone. Hence it is recommended that students may be encouraged to use SNSs for study purposes which will ultimately change the students' approach towards usage of SNSs.

The study also concluded that SNS which is most frequently used by students at the secondary level was WhatsApp, while the least usage was found on LinkedIn. Hence it is recommended that students must use WhatsApp for communicating with teachers and class fellows for discussing study-related issues. It is also recommended that students must use LinkedIn so that after completion of a Secondary School Certificate they may become able to search a suitable job related to their own interests.

It was concluded that the rate of utilization of SNS was found significantly higher in the students with grades $\geq 80\%$ than the students who acquired less than 80%. This finding also shows consistency with the finding of Fush and Ness (Fusch, P.; Ness, L. 2020) the use of social network sites from the students' side for the purpose of online learning in the absence of face to face communication could foster social learning and social presence. Different kinds of social network sites such as WhatsApp and Facebook were used for academic purposes. This research focused that if we use social network sites properly for formal academic activities then it could stimulate an interactive environment for teaching learning process. It could also enhance the social presence and learning outcomes of the users in students' life. Hence it is recommended that students may be encouraged to use social network sites to search their homework in the form of assignments given by their respective teachers, prepare for exams, quizzes, finding the right career opportunities, and also get grips with educational concepts. It is playing a vital role in helping students to stay on top of their studies.

This study is significant for the government, policymakers, Head of educational institutions, teachers, parents, guardians, students as well as the stakeholders of education.

CONCLUSION

In conformity with the findings, this study specifically showed that students at secondary level used social network sites adequately. In addition, from the finding researchers concluded that rate of utilization of social network sites was higher in female students than the males. It showed usage percentage of Social Network Sites in respect of gender is greater in female as compared to male students. While in another finding with respect of course discipline, it was concluded that rate of utilization of social network sites was higher in those students who were studying Biology as optional subject as compared to Computer subject students. The study also concluded that a social network site which is most frequently used by student at secondary level was WhatsApp, while the least usage was found of LinkedIn. The rate of utilization of social network sites was found significantly higher in the students with grades $\geq 80\%$ than the students who acquired less than 80%.

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