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# Impact of Social Media on Academic Performance: A Study of University Students during COVID-19

Muhammad Bilal Bhatti [1]   Muhammad Zain Zamir [2]   Nasir Iqbal [3]   Anwar Zaib Khan [4]   Farrukh Nazir [5]

**Abstract:** *Adults are becoming more responsive to social media nowadays. The phenomenon is offering entertainment communication platforms and becoming a source of information as well. Social media has become an important element which is affecting the academic performance of adults. The gratification theory and survey method/technique are used for analysis. The study sample was 300 students, and data were collected from the three main universities of Islamabad through a convenience sampling technique. This study showed that social media had a positive impact on university students' performance. The result of the study also describes that if the students spend more time on their studies, their academic performance will increase, and if more time is spent on social media, their academic performance will decrease. The first and greatest disadvantage of study is that it ignores online media habits; an abundance of use may prompt harm and redirection from the core interest. Just a single scholarly foundation was engaged in the examination. The task can't be summed up completely along these lines. The investigation uncovered considerable positive results in view of the way that college understudies frequently utilize web-based media and cell phones for delight, yet additionally for instructive targets.*

**Key Words:** Social Media, Impact, Academic Performance, University Student, COVID-19

## Introduction

The invention of the internet in the 1990s changed the whole phenomenon as significant developments were observed in the field of social networking (SNSs). A kind of revolution in the field of communication has been assessed due to SNSs, which have resulted from education to entertainment. Two-thirds of internet users use SNSs as communication and interaction tools, which clearly indicates the level of acceptance among the audience (Boyd and Ellison, 2007). Social networking is making strong social structures, although the people have different backgrounds. This notion helps to produce vast data with various quantities, which ultimately concludes in an exceptional service value proposition. However, the users may face some difficulties as well if they are willing to get accurate information at the appropriate time. Users heavily depend on the SNSs to get a normal news event and follow the pattern for further updates. This is done to create satisfaction and to update them on the latest trends when they face their colleagues and friends while discussing some specific issue. Social media, in general, includes Facebook, WhatsApp, Twitter, YouTube, etc. SNSs have evolved globally, and people from every part of the world are using them. The mentioned concerns have raised the importance of social networking in Pakistan as the majority of the students have access to this age of rapid technological growth. The Daily Dawn in 2011 reported that over 20 million people were using the internet on a daily basis. Here, the impact of the SNSs,

[1] Lecturer, Department of Mass Communication, Mirpur University of Science & Technology (MUST) Mirpur, Azad Jammu and Kashmir, Pakistan. Email: bilal.bhatti@must.edu.pk

[2] Lecturer, Department of Media & Communication Studies, The Islamia University of Bahawalpur, Bahawalpur, Punjab, Pakistan. Email: zain.zamir@iub.edu.pk

[3] PhD Scholar, Department of Media & Communication, Gomal University, Dera Ismail Khan, Khyber Pakhtunkhwa, Pakistan. Email: nasir_iqbalpk@yahoo.com

[4] MS Scholar, Department of Media & Communication Studies, International Islamic University, Islamabad, Pakistan. Email: sardaranwarzaibkhan@gmail.com

[5] Visiting Faculty, International Islamic University, Islamabad, Pakistan.

especially Facebook, on the academic performance of the students is a researchable debate. Some of the authors concluded that there is a negative association between the usage of Facebook and the academic performance of students. Some of the authors examined a strong relationship between the time spent on Facebook and attention to the students. Less attention led to the increased usage of Facebook (Paul, Baker and Cochran, 2012). Most of the content on social networking apps is user-generated, which affects the buying and selling habits of entrepreneurship, political issues, and venture capital (Greenwood and Gopal 2015). Facebook has maintained a desirable status with nearly 2 billion monthly users during April 2017 (Statista 2017). Photo and video uploading has given more importance to the apps; it has resulted in Snapchat receiving about 400 million snaps daily, including 9000 images per second (Lister 2017). The research becomes more fruitful when massive usage of Facebook pages among companies and businesses is observed at 2 million and 50 million, respectively. Some of the authors argue that 88% of companies use Twitter (Lister 2017). It is a natural phenomenon that there nothing fascinating is ever entirely one-sided. Hence, social networking has its positive and negative aspects. Social media is beneficial for the following reasons, according to different perspectives and opinions, i.e. enhancing partnerships, enhancing learning motivation, delivering customized course content, and developing teamwork abilities (Wheeler, Yeomans and Wheeler,2008; Rifkin, Longnecker, Leach and Ortia,2009). Some researchers examined the sharing of daily experiences and the creation of social links between students due to the usage of social media, while Kuppuswamy and Shankar (2010) examined social media as an interactive medium between the students, which resulted in un-educational and negative behaviours. Over time, researchers in the field of social media have focused on the different aspects of social media. Companies use social media to extract input from their stakeholders (Phang et al., 2015). Reviews by the users of social media are an important aspect of the phenomenon, and the questions are mainly concerned with content accuracy and authenticity. The communities which are emerging online have common interests and somehow look ambitious, making the idea of micro-blogging popular. It is pertinent to mention here that the majority of social media comments include personal statuses and news updates, whereas people may ask to provide assistance accordingly. Interestingly, this kind of social communication may cause social overload as well because it often drains the posts (Maier et al. 2015a). The stakeholders in the field of social media are contributing more with the passage of time. Furthermore, experts from various fields, including the IT section, are using social media content to explore the researchable results. To find out the new dimensions, it is necessary to gather more information about the previous information from the latest research work. The existence of the massive usage of social media by students has been analyzed and confirmed by various scholars. Wiley and Sisson, in 2006, explored that over 90% of the students in tertiary universities were using social media. It was added that the students were spending thirty minutes with social media on a daily basis, and it became routine (Nicole, Charles, and Cliff, 2007). The daily usage of social media may cause its effects, whether positive or negative. The academic performance of social media users has been assessed by various researchers. As per our researcher, less number of the researchers has been done in Pakistan. The majority of researchers have focused on Facebook. Madge, Meek, Wellens, and Hooley, in 2009, examined the usage of social media among UK students. A negative association between the usage of Facebook and academic success was observed. The usage frequency analysis was not part of that research.

## Facebook

It allows sharing the contents, including messages, pictures, etc., through the internet. It was launched by Mark Zuckerberg in 2004. He was studying at Harvard University at that time. The aim of its launching was to develop effective communication between the students. A person who has his/her email address and is at least 13 years old is eligible to use Facebook. It has become the most famous networking site in the world. The initial users, who were university students, expanded their influence over the landscapes. Social networking has retained its importance in the field for the last 20 years.

## WhatsApp

It is less used in the US, but it has acknowledged its importance in the field of social networking in many states. It is owned by Facebook as well. It was introduced as 1st smartphone application by which messaging became easy with the use of the internet. It was almost free of cost, as other normal messaging was not

free. Over 2 billion people are using this app, making it the most convenient and effective regardless of their places (Goodwin, 2020).

## Problem of the Statement

The easy access to the internet has made this medium the most feasible and reachable source of information, whereas significant utilization of social media highlights its importance, which can't be disregarded. The students are consuming more time on social media than they are on their studies. This situation is leading to failure in their examinations as well (Osharive, 2015). Maya, in 2015, examined a significant relationship between the usage of social media and low academic performance. Academic excellence is an important element in a person's life in all phases of life, like public gatherings, family communications or among groups. Excellence in academia is the base of any individual's life, including his appearance and perception among other people. The students are concerned with their academic results (Kyoshaba, 2009). It has also been observed that social media users are more influential in the English language. Short writings through social networking sites enable them to use the English language more effectively, which is helpful for them during exams (Obi, Bulus, Adamu, and Sala'at, 2012). All levels of students, including school-going, adults, etc, are using SNSs. This study is mainly focused on analyzing the relationship between the use of social media and the academic performance of university students.

## Literature Review
### Digitalization of Media

A growing percentage of worldwide people use the internet more frequently. Technology is used in almost every area of life, including education, entertainment, and commerce. Many studies have looked into the effects of using social media sites on higher education and students' educational excellence. Interactivity, management skills, educational experiences and temperament, research method and technique, and educational expertise were all investigated in some of these researches. Besides that, several researchers examined the differences in culture in SNS use behaviour, as well as users' behaviours about SNSs and overall perspectives on SNS usage (Paul, Baker, & Daniel, 2012). In 2015, Mahmoud and other researchers conducted research on "The Impact of Social Media Networks Websites Usage on student's academic Performance". In that research, they investigated the effects of SNSs on the academic performance of students. They conducted research by using drop and collect surveys from different faculties of the University of Jordan. They found a significant impact of social media websites on student's academic performance (Maqableh, Rajab, Quteshat, & Masa'deh, 2015). In 2019, Jaffer Abbas, Jaffar Aman, Shaher Bano and other researchers conducted a study named "The Impact of Social Media on Learning Behaviour for Sustainable Education: Evidence of Students from Selected Universities in Pakistan". Their study's aim was to examine the positive and negative influences on students' perceptions and, therefore, how these aided students in communicating benefits and drawbacks with one another. It is becoming glaringly evident that social media sites and their apps offer enormous advantages and even some threats to university graduates, and their impacts on mental adaptation and educational behaviours are not well comprehended. In this research, researchers distributed 1013 questionnaires and found that the impact of social media sites is negative rather than positive (Abbas, Aman, Nurunnabi, & Bano, 2019).

## Social Media

Web-based media empowers intuitiveness between people who share an informal organization and further permits individuals to communicate or 'narrowcast' their exercises and interests. You may conceptualize online media in another manner through the possibility of cooperation and sharing as opposed to simply through relational association and communication. The development of open source distributing and Creative Commons permitting likewise presents a test to customary news source partnerships and copyrights. Open-source distribution first appeared most prominently in programming programs. The thought was that the clients could enhance straightforwardly accessible PC projects and codes, and afterwards, the new forms, now and then called subsidiaries, would be made accessible again to the local area. Publicly supporting alludes more to the thought phase of improvement, where individuals from different points of view and positions offer recommendations or data to tackle an issue or make something

new. This kind of open access and free coordinated effort empowers support and improves inventiveness through collaboration by uniting alternate points of view, which has been alluded to as the greatest change in advancement since the Industrial Revolution. The key separating factor between customary and advanced media is the capacity to connect or draw in the communicator and others locally. Recall the essential cycle of correspondence: the courier (encoder) communicates something specific through a medium, which is gotten and decoded by a crowd of people. In conventional media, the cycle was fundamentally single direction. In computerized media, clients can associate and react to the message. All in all, they can 'draw in' with the message and courier. However, why are individuals attracted to advanced correspondence? For the responses to this inquiry, you should seriously mull over Maslow's progressive system of necessities, which furnishes you with a comprehension of the inspiration that may be behind online commitment. Albeit connecting online doesn't actually fulfil physiological or well-being needs, it surely addresses different classifications in the progressive system.

## Digital Foot Print on Social Media

The position on any issue may be followed by resumption, composition and an introductory summary that will play the role of its references. Notwithstanding, there is another progression that is presently a typical piece of this application cycle, stowing away (or, if nothing else, tidying up) your virtual self or your 'advanced impression'. Global computerized media allows a person to portray himself/herself online. Albeit this impression may not precisely mirror the individual, it could be one of the principal things a more bizarre see. Those online photographs may not look awful to loved ones, yet your online advanced impression might be a recruiting chief's initial feeling of you as a planned worker. Different researchers conducted to examine how student academic achievement has an influence on the use of social media. Kist (2008), Jacobsen & Forste (2011), and Mehmood & Taswir (2013) think that the usage of technology, such as the Internet, plays a significant role in positively or adversely influencing the educational performance of pupils. It said many parents and caretakers fear that children are now spending too much time on SNSs, which negatively affects their study timeline. Owusu-Acheaw & Larson (2015) conducted a research study on students using social media, with a focus on Koforidua Polytechnic students and its impact on the performance of postsecondary institutions in Ghana. A questionnaire was utilized for data collection. The survey found that most people possessed mobile telephones, which included the Internet and were aware of the existence of various media sites. The survey also revealed that most respondents use their telephones to access their social media sites, which take between 30 minutes and three hours each day. The study showed that social networks had a detrimental effect on the academic performance of respondents and that the usage of social networks and academic performance had a direct connection. Hasnain et al. (2015) conducted research to investigate the links between the usage of social media and the academic achievement of students in Pakistan. The data indicate that social media have an inverse link to academic achievement. The social media platform can enable kids and young people to obtain knowledge to improve their academic performance.

## Assessment of SNSs in the Context of Academic Performance

The use of social media has taken many forms in education learning, targeting the various abilities of its users. The instructors in the universities take social media as a more important medium as it affects contact, engagement, knowledge creation, and a feeling of community (Rovai, 2001). In the same context, the massive use of social media may divert the attention of the students, which ultimately negatively affects their academic performance. Raacke and Bonds-Raacke (2008) did a study to explore the effects of Myspace and Facebook. The researcher interviewed students who were under 25 and were using those apps to connect themselves with their old friends. The results indicated that 96% of them were using the apps to make connections with their old friends, and 91% replied to make connections with their existing friends. It is pertinent to mention here that only 10% of those who used the apps for their academic purposes were examined. Michikyan, Subrahmanyam, and Dennis (2015) conducted research to explore the correlation between online academic disclosure and achievements. The scholars used a mixed-method approach. A total of 261 students were chosen as a sample, and they were 22 years of age. The results disclosed that only 14% of their posts were scholarly in character. In the same context, Camilia, Sajoh, and Dalhtu (2013) revealed that the students used social media for their academic objectives.

## Theoretical Framework

This research work is followed by the Uses and Gratification approach. As previously indicated, social media provides a gateway for pleasure and communication for today's youth, and it is quickly becoming one of the most important platforms for obtaining information and news. The purpose of this study is to investigate the impact of social media on students' academic performance and compare them to their actual academic achievement. The findings will show whether or not they have control over their social media usage. The requirements and motivations for using Internet media are identified using the uses and gratification approach. The consumers of the SNSs were playing an active role in expressing their control over the media. Meanwhile, the interpretation and integration of the content in their daily lives make them more responsive in the selection of the media and responsible for choosing the content to achieve their and fulfil their gratifications (Olise & Makka, 2013). It basically talks about the usage patterns of social media by the audience and, in many cases, gives a reply to why and how as well (Larose, Mastro, & Eastin, 2001).

## Conceptual Framework
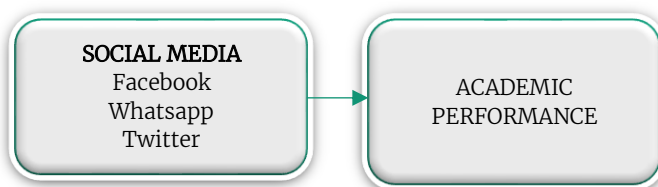


## Hypothesis Construction

SNSs and web-based applications help and even cooperate in the knowledge creation and building of specialities among their users as they input instructions from external experts (Zhu, 2012). The results examined a significant positive relationship between the usage of social media and their colleagues and the quality of encounters (Rutherford, 2010). Social media helps students exchange their educational resources by creating specific learning settings (Fisher & Baird, 2006). A study of 233 adult students in the US revealed that more reclusive students connect via social media, enhancing their self-confidence.

## Research Question

What is the relationship between academic performance and the use of social media?

**H1:** Academic performance is positively associated with the usage of Social Media.

## Research Methodology
### Population and Sample

The university students in Islamabad were the research design for this research work. The target population for this study consists of university students of Islamabad. However, only three universities were selected for data collection and analysis of data. The selected universities are:

(i) International Islamic University Islamabad
(ii) National University of Modern Languages
(iii) National University of Sciences and Technology

The sample size of this study was 300 respondents, and 100 respondents were selected from each university through convenience sampling techniques. The reason for using this technique was the condition of the country
due to Covid-19. In this situation, this technique was the easiest way to collect data.

## Research Instrument

The study tool utilized was a series of structured questionnaires. It is introduced by a cover letter presenting the scholar, describing the objective of this research, and requesting cooperation in collecting the needed information. The questionnaire includes three parts. Section A of the questionnaire consists of

demographic details of the respondents, while section B consists of the statements that were prepared in light of the research hypothesis, and section C consists of students' GPA study hours and social media usage hours.

## Data Collection

The data was collected online by using social media. The questionnaire was prepared through Google Forms, and online links were generated in different social media groups and pages for the purpose of data collection.

## Data Analysis

SPSS is used for data analysis and the presentation of demographic information; frequency count and percentage were used. The correlation test was used for hypothesis testing.

## Reliability

The capacity of a technique to compute and compare variables of interest on a continuous basis across time is referred to as reliability (Allan, 2013). The reliability of a test is concerned with how dependable or steady it is. The dependability of the questionnaire was evaluated by the researcher by administering it to a variety of persons and comparing the findings. When it comes to the link between collections of items, Cronbach's alpha demonstrates a high degree of logical reliability. This is measured to assess internal consistency, as explained by Lee Cronbach in 1951. The value of Cronbach's Alpha is greater than 0.5, indicating more reliability (Field, 2009).

### Table 1
*Reliability statistics*

| Variable | Cronbach's Alpha | N of Items |
|----------|------------------|------------|
| SM | 0.80 | 15 |
| AP | .813 | 10 |

Table 1 shows that the number of items regarding social media was 15, and academic performance was 10. In reliability analysis, values are considered good if the value of Cronbach Alpha is near zero. According to the table results, the value of SM is 0.80, and AP is 0.81. The values of both variables are considered reliable and good because the values of both variables are near zero.

## Results and Analysis

This chapter consists of demographic information of the respondents and an analysis of the collected data. The major motive of this study was to investigate the relationship between social media and academic performance. Firstly, the demographic details of the respondents were analyzed, and the relationship between social media and academic performance was analysed through a correlation test.

## Demographic Characteristics
### Table 2
*Demographic characteristics*

| Dimension | | Frequency |
|-----------|---|-----------|
| Name of University | IIUI | 100 |
| | NUML | 100 |
| | NUST | 100 |
| | Total | 300 (100%) |
| Gender | Male | 133 (44.33%) |
| | Female | 167 (55.67%) |
| Study Program | BS | 173 (57.67%) |
| | MA/MSc | 93 (31.00%) |

| Dimension | Frequency |
|---|---|
| MS | 34 (11.33%) |
| Total | 300 (100%) |

Table 2 indicates that three universities, namely IIUI, NUML and NUST, are included in this research. Of the 300 respondents, 133 (44.33%) were male, and 167 (55.67%) were female. The respondent's study programs are BS 173 (57.67%), MA/MSc 93 (31.00%) and MS 34 (11.33%).

## Table 3
*Correlation between GPA, study hours and use of social media in hours*

|  |  | Current GPA? | Studying Time per Week (in hours) | Daily Usage of Social Media (in hours) |
|---|---|---|---|---|
| What is your current GPA? | Pearson Correlation | 1 | 0.112* | -0.153** |
|  | Sig. |  | 0.022 | 0.002 |
|  | N | 300 | 300 | 300 |
| How many hours do you spend studying per week? | Pearson Correlation | 0.113* | 1 | -0.005 |
|  | Sig. | 0.022 |  | 0.913 |
|  | N | 300 | 300 | 300 |
| How many hours do you spend on social media daily? | Pearson Correlation | -0.153** | -0.005 | 1 |
|  | Sig. | 0.002 | 0.913 |  |
|  | N | 300 | 300 | 300 |

The result table 3 clearly indicates that the relationship between GPA and study hours is significant and weak (r=0.112, n =300, p= 0.022), and the relationship with spent hours on social media is also significant and negative weak relation (r = -.155, n=417, *p*=.002). According to the table results, if the number of study hours increases, the GPA will also increase, and if the use of social media is increased, the GPA will decrease.

## Hypothesis Testing

The correlation results were as follows:

**H1:** The academic performance is positively associated with the usage of Social Media

## Table 4
*Social media and academic performance*

|  |  | SM | AP |
|---|---|---|---|
| SCD | Pearson Correlation | 1 | .413** |
|  | Sig. (2-tailed) |  | .000 |
|  | N | 300 | 300 |
| SCP | Pearson Correlation | .413** | 1 |
|  | Sig. (2-tailed) | .000 |  |
|  | N | 300 | 300 |

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation test is applied to check the relationship between both variables' social media and academic performance. The table result indicated that the relationship between both variables is significant, positive and strong. The relationship of social media is positive and strong because the value of Pearson correlation is (r=.413) and significant (p=.000). In the correlation test, the relation between variables is considered

moderate if the value of r >0.50, moderate if r<0.50 and r>0.29. This relation is considered weak if the value of r is below 0.29.

## Discussion and Conclusion
### Discussion

The results of this study indicate the previous studies as the majority of the respondents stated that they had used social media for their academic objectives, including exchanging material with classmates, making social groups and keeping themselves updated with the new happenings around them. The significant difference may be due to rapid changes in the patterns of social media usage (Vorderer, 2016). On the other hand, the study examined the educational objective of social media. A negative association is observed between the usage patterns of social media and academic achievements. On the other hand, this research work showed that there was a positive association between study time and academic performance, which resulted that the increase in study time led to an increase in academic performance, whereas the usage of social media and study time was negatively associated; thus, the students who were consuming more time with the social media decreased their study time which resulted in their GPA. What's concerning is that more than half of the public indicated that they spend more time on social media than they do studying and that they lose concentration when social media interrupts their studies. This is consistent with earlier studies (Boogart, 2016; Michigan, Subrahmanyam, & Dennis, 2015; Kirschner & Karpinski, 2010) indicating a detrimental effect of social media use on students' academic performance.

## Conclusion

This research focused on highlighting the effects of the increased social media usage by the university's students on their academic performances. The objective was to dig out some patterns of social media usage to assess its potential as well. Interestingly, this study demonstrates a favourable link between social media and academic performance, as students' academic performance improves when they utilize social media to communicate course-related information. The debate and findings indicate that the link between social media use and academic achievement is context-dependent. This explains the negative link between students' academic GPA and their time spent on social media, which may be addressed by raising students' knowledge of the detrimental impacts of social media addiction. Additionally, the results indicated that the majority of the students were using social media for academic reasons; they used it to interact with their classmates and discuss class-related material. Additionally, because using social media as a forum for discussing course material aligns with the establishment of communities of learners, which appears to be in great demand, this topic may require additional research.

## Limitation and Future Direction

This study is not excluded from falls, lacunas and disadvantages, as all studies. The first and biggest drawback of the study is that it overlooks social media addiction; excess use might lead to damage and diversion from the focus. Only one academic institution was involved in the study. The project cannot thus be generalized in its entirety. The study revealed substantial positive outcomes because university students often use social media and mobile devices not only for pleasure but also for educational purposes. Secondly, this study was done on students of the university, and the faculty members ignored it; it would probably not have interested the faculty members in interacting with the students. Future studies might thus be carried out at other higher education institutions with faculty members.

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