Impact of Social Networking Sites on Academic Performance of University Students: A Quantitative Analysis

Muhammad Asad Ullah[1], Masood Hassan[2], Atifa Anwar[3], Rehan Muzammil Butt[4], Kanwal Hussain[5], Abdul Rasheed[6]

[1]Senior Lecturer, Institute of Business Management, m.asadullah@iobm.edu.pk
[2]PhD Scholar, Institute of Business Management, masoodhassan1@hotmail.com
[3]M.Phil. Scholar, Institute of Business Management, std_16910@iobm.edu.pk
[4]Researcher, I.N.H.A.R.T. Department, International Islamic University, Malaysia, butt.rehan@live.iium.edu.my
[5]Researcher, Institute of Business Management, Karachi, kanwal.hussain@iobm.edu.pk
[6]Assistant professor, Khwaja Fareed University of Engineering and Information Technology (KFUEIT), Rahim Yar Khan, abdul.rasheed@kfueit.edu.pk

ARTICLE DETAILS	ABSTRACT
	Purpose: The aim of this research study is to examine the possible impact of social networking sites on academic performance of university students. The rationale behind the study is to find out whether the daily exposure of the students to social networking sites has effect on their academic performance. The researcher tries to find out the answers of research questions. 1. Most used social networking sites by students and purpose of using social networking sites, 2. How much time students spend on their study? 3. How much time students spend on social networking sites? The research study also tests a hypothesis that social networking sites usage has significant impact on academic performance of students. **Methodology:** Researcher uses a quantitative study design to conduct the research. A sample comprises of hundred students has been selected by means of convenience sampling from a private sector university of Karachi to study the phenomenon. Data has been collected through a detailed structured questionnaire and analyze by using Statistical Packages for Social Sciences (SPSS V 17.0). **Findings:** Findings also show that exposure to social media has effect on the students as they found to be more engaged in social networking instead of spending time on studies. **Conclusion:** This paper recommends that student should pay more attention to studies, limit their use of social networking and use it more for educational purpose.

Corresponding author's email address: masoodhassan1@hotmail.com

1. Introduction

Social media has taken the world by storm, and is transforming the way people around the world communicate. It is a way to make connections, not only on campus, but with friends outside of school. Social networking is a way that helps many people feels as though they belong to a community. According to Boyd & Ellison (2008), "SNS can be defined as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system". At the most basic level social networking sites allow users to set up online profiles or personal homepages, and develop an online social network. The profile page functions as the user's own webpage and includes profile information ranging from their date of birth, gender, religion, politics and hometown, to their favourite films, books quotes and what they like doing in their spare time. In addition to profile information, users can design the appearance of their page, and add content such as photos, video clips and music files.

According to Pakistan Advertisers society, one million Pakistanis joined Facebook in Jan 2014. As of 31st Jan 2014, there are 12.6 million active Facebook users per month. With more than 50% users in the 18-34 age bracket and with the majority of the remaining below 18 years, other widely used social networking sites in Pakistan are Google+, twitter and Linkedin. Due to the increased popularity of it, economists and professors are questioning whether grades of students are being affected by how much time is being spent on these sites (Choney, 2010).

Researcher's purpose of conducting this study is to find out the possible impact of social media on students' academic performance whether positive, negative or neutral and also the purpose behind the usage of these social networking sites. Some past researches that has been done in various countries talks about the both positive as well as negative impact of social networking sites on academic performance of students
Keeping in view the purpose of study researcher formulated the following research questions.

- Which SNSs is mostly used by students and what is the purpose of using it?
- How much time students spend on their study?
- How much time students spend on social networking sites?

2. Literature Review
2.1. Usage of Social Networking Websites

The increased use of Social Networking Websites has become a global phenomenon in the past few years. What started out as a hobby for some computer literate people has become a social norm and way of life for people around the globe (Boyd, 2007). According to Boyd & Ellison (2008),"SNS can be defined as web based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection and view and transverse their list of connections those made by others within a system.

Teenagers and youth especially student have embraced these sites as a way to connect with their friends and make new once, share information, photos of their activities such as birthday, photo with friend in class etc, and showcase their social lives.

Use of social networking websites is one of the most important factors that can influence educational performance of students positively or adversely.

2.2. Positive impact of SNSs on student academic performance

After conducting a study of influence of social networking sites on student's academic performance in Malaysia, Helou and Ab.Rahim (2011) found that majority of respondents agreed that social networking sites have a positive impact on their academic performance; despite the fact that they also reported that they are mainly engage in social networking sites for social reasons rather than academic reasons.

Brady, Holcomb and Smith (2010) stated that since the SNS facilitate the sharing of information, the technologies used in SNSs aid discussion and create intimacy among online students, as they have their ability to connect and build community in a socially and educationally constructed network. Besides, the article also stated that SNS created specifically for an educational audience provides a unique opportunity for educators to facilitate a strong sense of community among students and encourage personal interactions that can lead to the creation of new knowledge and collective intelligence.

Northwestern University recently published research stating that social networking sites are not affecting students' GPAs. In fact, ethnic background, and parental education appears to have more of an influence than the amount of time used on social networking sites. Northwestern researchers believe that "social networking use didn't affect the difference in GPAs between male and female or white and African American students. However, social network use did eliminate the difference in GPAs between students whose parents had differing levels of higher education" (Cheng, 2010). When researchers controlled the demographic of parental education, there seemed to be a positive relationship between internet use and GPA. Shah et al. (2001) proposed that student users are affected by the internet and this impact is determined by the type of social networking sites usage. They are positively affected by the informative use of internet while having drastic impact of recreational use of internet on them. Also, Oskouei (2010) proposed that internet is advantageous to both students and teachers if used as a tool of knowledge creation and dissemination.

Jahan and Ahmed (2012) have been conducted a study in Bangladesh context. They try to understand the student perception about the academic use of SNSs. The results indicate a positive attitude towards academic use of SNSs by the students. Although there are some differences in terms of students' opinions on academic applications of SNSs, these differences are largely due to the fact that the use of these sites in academic contexts is not well-defined.

2.3. Negative impact of SNSs on student academic performance

Stollak et al (2010) conducted a research to find out the usage of social media and its impact on academic performance. The result shows interesting findings that, there is a yawning relationship between the student's GPA and the time they spend on Social networking sites. They found that students', who spend more time in social media, are enjoying less GPA.

Flad (2010) agrees, reporting that social networking sites can have an adverse impact on study habits and homework completion, with students in his study accepting to having spent more time on SNSs rather than studying, and that time spent on SNSs has prevented them from completing homework. Similar findings were reported by Paul, Baker and Cochran (2012) in a very recent study of the relationship between time spent on online social networking sites and academic performance, stating that time spent on SNSs is shown to negatively impact academic performance. In a second revealing finding coming from their study, Paul et al. (2012) also reported that as the level of attention deficit

increased, the amount of time spent on social networking sites increased, " implying that increased level of attention deficit have a negative although indirect (through increased time on SNSs) impact on academic performance". As a result of these findings, Paul et al (2012) even go so far as to suggest that students should be made aware of the potential detrimental effects SNSs can have on their academic achievement.

Jacobsen and Forste (2011) concur in a study of the academic and social outcomes of electronic media use among university students. In this study students indicated that electronic media (which the author describes as including facebook and instant messaging) is negatively associated with grades, and that since students report using this electronic media in class rooms or while doing homework, the distractions would be detrimental to student academic performance. In fact, after controlling the offline time use, Jacobsen and Forste conclude "there is a significant negative association between social networking sites exposure and academic performance".

In a recent study to explore the relationship between SNSs and academic performance of students, Ahmed, Amir, Qazi and Jabeen (2011) sampled 1000 students from various universities in Pakistan, comparing aspects of SNSs usage in areas such as student gender, specialty area of study, age, study habits, leisure activities, time and purpose on the internet, time spent on SNSs, and most importantly for this paper - the effect of using social networking sites on their studying habits, and the difference of academic performance of students. The authors found study habits were significantly affected by time spent using social networking sites concluding that "SNSs usage significantly (negatively) affects the studying habits of the students and eventually their academic performance ".

2.4. Neutral impact of SNSs on student academic performance

Several studies have been done regarding social networking and grades. That talked about the neutral or no impact of SNSs on student academic performance. Whitmore School of Business and Economics recently conducted a survey of over 1,000 students. They asked questions regarding which social network sites were used, how much time they spent on a site, what their grade point average (GPA) was, and what they were going to school for. It was concluded that there is no correlation between how much time is spent on a social networking site and grades (Martin, 2009).

Ahmed, ashfaq and Qazi, tehmina fiaz (2011) " A look out for academic impacts of Social networking sites (SNSs): A student-based perspective," African Journal of Business Management Vol. 5(12) (18 June): pp. 5022-5031. This paper examines the relationship between usage of social networking sites and educational performance of student users. Author studies the sample of 1000 students from 6 different private and public sector universities of Punjab, Pakistan and found that there is no significant relationship between use of social networking sites and academic performance of students. Based on student responses, this study found that despite of spending time on SNSs, students handle their time efficiently and fulfill their study requirements productively, and hence the use of SNSs does not have negative impact on their academic performance.

H_o: There would be no significant impact of social networking sites usage on academic performance of university students.
H_1: There would be a significant impact of social networking sites usage on academic performance of university students.

3. Methodology

3.1. Research Method

This study is exploratory and qualitative in nature and we have used few techniques e.g. a questionnaire and an interview session and First the whole data was tabulated on the Microsoft Excel sheet. Statistical Package for Social Sciences (SPSS, V 17.0) was used to analyze data. Descriptive statistics for both variables was calculated. Linear Regression Analysis was administered to calculate the impact of social networking websites on academic performance of university students.

3.2. Sample Size

Sampling is the process of selecting a number of individuals for a study in such a way that the individuals represent the larger group from which they were selected. In this research, the population sample for this study has been taken from a private sector university of Karachi. A sample total of hundred students had been selected from both undergraduate and graduate level student of Iqra University Gulshan campus, Karachi

3.3. Sampling Techniques

The sampling technique used by the researcher for conducting the study was convenience sampling. All of the participants identified themselves as Asian. Demographic information of the students has been given below.

3.4. Ethical Consideration

Before giving response on questionnaire respondent permission has been taken by a structured consent form, asking for their will in participation of this study. All those participants who fully agreed to take part in the study were given student information form to obtain their personal demographic information.

3.5. Data Collection Method

We used the following methods to collect the data for our research:
- Primary data was collected through questionnaires.
- Secondary data was collected through research journals, books, experts, publish reports and internet.

3.6. Questionnaire Design

A survey questionnaire has been developed for this study. Each survey questionnaire was a complete set of three documents, it comprises of a consent form, student information form (demographic form) followed by a detailed structured questionnaire comprises 25 questions. The questionnaire itself is divided into two sections. Section one includes 8 open-response questions whereas section two consists of closed ended question response in Likert-type scaling with five options from strongly agree to strongly disagree.

3.7. Operational definitions of variables

3.7.1. Social networking websites

SNS can be defined as web based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection and view and transverse their list of connections those made by others within a system (Boyd & Ellison, 2008).

3.7.2. Academic performance

Academic performance refers to how students deal with their studies and how they cope

with or accomplish different tasks given to them by their teachers. Academic performance is the ability to study and remember facts and being able to communicate your knowledge verbally or down on paper.

4.   Results & Discussions

This result section focuses on detailed statistical analysis of the research data. The data was analyzed using the Statistical Package for Social Sciences (SPSS, 17.0). Significance level of 0.05 was used for the analysis. Data is presented in tabular form. Before going to finally analyze causal relationship between both variables, reliability testing is necessary. Reliability of the data confirms the internal consistency of these scales. To confirm the reliability, Cronbach's alpha for both variables has been computed by using SPSS software. Table giving the value of Cronbach's alpha is given below.

Table.2. Summary of Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha based on standardized items	No. of items
.697	.697	2

Source: Author's own elaboration

As per the recommendation of Moss et al. (1998) these values of Cronbach's alpha should be greater than 0.5. After conducting the reliability analysis, it has been confirmed from the above table 2 that all the scales are reliable as their alpha values are greater than the recommended value of 0.5.

Research question 1: Which of the SNSs is mostly used by university students and purpose behind its usage?

Table.3. Summary of SNSs mostly used by students

SNSs	Frequency	Percentage
Face book	83	83%
Twitter	8	8%
Linkedin	2	2%
Google +	6	6%
Instagram	1	1%
	100	100%

Source: Author's own elaboration

From table 3, of the five social networking sites used by students, Facebook is seen to be mostly used by student with 83% (83) respondents using it on a typical day. This is followed by twitter with 8% (8) respondents, Google+ with 6% (6) respondents, Linkedin and Instagram are found to be the least uses social networking sites by the students with 2% and 1% respectively. This shows that Facebook is the social networking site mostly liked by university students.

Table.4. Purpose of SNSs usage by students

Purpose	Frequency	Percentage
To connect and stay in touch with friends	54	54%
To obtain personal & other information about people I am interested in	13	13%
To post photographs of myself and friends	10	10%
To communicate with class mates for help in study or other academic purpose	7	7%
For finding love interest	2	2%
For pass time	12	12%
Because my friends use a social networking site.	2	2%

Source: Author's own elaboration

As seen from table 5 above, 54% respondents use social networking sites to keep in touch with their friends, 13% respondents use SNSs to obtain personal and other information about people they are interested in, 12% respondents says that they use SNSs for passing their time, 10% to post photographs. Very few of them use it for study or other academic purpose only 7 out of 100.

Research question 2: How much time students spend on their study?

Table.5. Hours spend on study per day by students

Hours	Frequency	Percentage
less than one hour	34	34%
1 to 2 hours	34	34%
2 to 3 hours	18	18%
3 to 4 hours	10	10%
More than 4 hours	4	4%
Total	100	100%

Source: Author's own elaboration

Table 3 shows distribution of hours spent by student on study per day. Total of 34 respondents give less than one hour towards their study, 34% of the respondents spent about 1 to 2 hour per day in study, 18% of the respondent's study for about 2 to 3 hours per day and 10% of the respondents' study 3 to 4 hours daily whereas only 4% out of 100 study for more than four hours in a day.

Research question 3: How much time students spend on social networking sites?

Table.6. Hours spend on SNSs per day by students

Hours	Frequency	Percentage
less than one hour	29	29%
1 to 2 hours	28	28%
2 to 3 hours	18	18%
3 to 4 hours	13	13%
More than 4 hours	12	12%
Total	100	100%

Source: Author's own elaboration

Table 4 shows that 29% of the respondents use the SNSs for less than one hour in a day, 28% of the respondents use it for about 1 to 2 hour per day, 18% of the respondents use it for about 2 to 3 hours per day and 13% of the respondents use the SNSs for about 3 to 4 hours each day. And about 12% of the respondents use social

networking sites for more than four hours in a day.

Hypothesis Testing
Linear Regression Analysis was employed to test the hypothesis that social networking sites usage impact on the academic performance of university students". The presentation of regression analysis includes model summary (Table 7), Analysis of Variance (Table 8), and coefficients (Table 9). These findings indicate that social networking usage has a statistically significant impact on a student academic performance. [(R^2 = .286, F = 39.241, $p<.05$)].

Table.7. Summary of linear regression with social networking sites as a variable impacting academic performance in university students

Dependent Variable	R	R^2	Adj R^2
Academic Performance	.535	.286	.279

Source: Author's own elaboration

Table.8. ANOVA

	Model	SS	df	MS	F	Sig
Academic performance	Regression	415.724	1	415.7	39.	.000
	Residual	1038.236	98	24	24	
	Total	1453.960	99	10.594	1	

Source: Author's own elaboration

Table.9. Coefficients for linear regression with social networking sites as a variable impacting academic performance in university students

	Model	Un-Standardized Coefficients		Standardizd coefficients	t	Sig
		B	SE	B		
Academic performance	Constant	9.448	2.5	.535	3.778	.000
	Social networking	.520	1 .083		6.264	.000

Source: Author's own elaboration

From regression analysis researcher found, at 5% level of significance, P = 0.00, therefore P value is less than 0.05. Hence null hypothesis (H_o) is rejected. Thus alternate hypothesis (H_1) is accepted in this case showing that there is a significant impact of usage of social networking sites on academic performance of university students.

4.1.   Discussion on findings
The study aims to find out answers about which SNSs is mostly used by students and what is the purpose of using it, how much time students spend daily on their study as well as on social networking websites, this study also tested a hypothesis that the frequent use of Social networking sites by students has a significant effect on their studies. The hypothesis was accepted and proven to be correct. The study revealed that the frequent use of the social networking sites has effect on the students' studies. From the findings of research question two and three it is obvious that students are spending more time on SNSs than study, the hours spends on social networking are more than the study hours, this supports the findings of Flad (2010) which says that social networking sites usage impact students study habits and homework completion, with students in his study accepting to having spent more time on SNSs rather than studying, and that time spent on

SNSs has prevented them from completing homework. It is also in line with the study of Paul et al. (2012) also reported that as the level of attention deficit increased, the amount of time spent on social networking sites increased, " implying that increased level of attention deficit have a negative although indirect (through increased time on SNSs) impact on academic performance".

The study also revealed that students mostly use these sites for keeping in touch with friends. They do this by updating their status regularly, writing on friends' walls and uploading pictures with only a very few students use them for educational purpose. Some of these students also go online just to pass their time; as these times could have been used for more important things in that they allocate more time to study rather than wasting their precious time in social networking.

Findings further shows that the Facebook is the social networking website that is most used by the university students of all levels of education including undergraduate, graduate and post graduate with a total percentage usage of 83%. This however corroborates Asemah and Edegoh (2013) who noted that Facebook is the most used new media by students.

5.   Conclusion & Recommendations

In this study the researcher studied the impact of social networking sites on academic performance of university students by using the quantitative research methodology and find some of very interesting aspects. The researcher founds that all the students who participated in this research are the active users of social networking sites which shows that students spends more time daily in using SNSs than studying.

These findings will be used to help guide and structure future research. However, the finding of this study is limited in terms of sample size which consists of hundred students. More refined results will be get in future from a large sample size and will seek to examine deeper explanation of the phenomenon by using qualitative research techniques as well.

From the collected and analyzed data, it can be concluded that the exposure to social media by University students is high and this has negative effect on their performance. What is required in this regard is students should limit their use of social media and pay more attention towards their studies, they should keep a balance between both and efficiently manage their time for study. There is also need of guidance in this regard, teachers should guide students about the effective use of social networking sites and ensure that the social networking sites should be adopted mostly for academic purpose instead of wasting time in gaming & chatting.

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