



RESEARCH PAPER

The Impact of Social Media Usage on Academic Performance of University Students: Moderating Role of Time of Use

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PAPER INFO	ABSTRACT
Received: February 11, 2018	Doubtless in current society; social media like Facebook, Twitter has gained wider acceptability and usability, mainly among students at universities. The social networking websites like twitter and face book, are constantly off-putting students from their academic studies who use them for the non-academic purpose. This study was conducted to identify the impacts of using social media on academic performance of students at different universities. The data was collected from the students at different universities of Azad Kashmir and Pakistan by drop questionnaires. From a sample of 202 students, through this study we found using social media for the academic activities 'significantly positive affects the educational performance of the students who was measured using the cumulative grade-point average (CGPA). These findings show us to recommend plans that can play an important role to improve educational activities as well as the academic achievements
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Introduction

Now a day's social media is being used as one of the most significant communication tools, which has penetrated the lives of many young adults. Social media is described as Tools for communicating with the public (Hartshorn, 2010). According to Research Centre Pew (RCP, 2015) usage of social media climbed to 90% in 2015 from 12% in 2005 among American adults who were 18 to 29 years old. Social media is a communication tool between persons irrespective of distance and used to make it easy for them to share material in the form of pictures, videos and files, creating of blogs and sending messages, and facilitate conversations in real time. Social media is used by students for the educational purpose as well as for a non-academic purpose. Time of usage of social media also

carries an impact on the educational performance of the students. In education field, social media can be used for sharing with student's valuable information, and for the collecting of information from overseas or to conduct research, and to share own education views with other people who may be interested, engage students to understand what is their thinking about instructions, from study groups, and by connecting student's enhancement of Internet based textbook utilities with social tools for collaboration (Brien, 2012).

Development of student's capacity to arouse and create their academic interests is caused by social media (Lau, Lui & Chu, 2016), and through using social media communication with working professionals becomes easy using. Cox and McLeod (2014) came out with findings that the social media is fostered among teachers, their students, guardians, member of the community, and it helps to create a specific professional system of online learning for the communities. Most of the students in recent society practice social media for non-academic purposes which is a cause to decrease their academic performance. The Internet is widely used by many communities for educational purposes, but unfortunately, we have a considerable community size, including most young people and adolescents who only use the Internet for social media (Boyd, 2006). As per the research of Kuppuswamy and Shankar (2010) online social networking websites take student's consideration, and then they distract it on the way to non-educational usage and unsuitable actions, which include useless discussion.

Empirical studies show the followings the educational benefits which are linked specifically with the usage of technologies provided by social media: (i) it enhances the communication among the students and their teachers, (ii) increases collaboration chances among the students and also provides an opportunity for networking (iii) resources can be shared rapidly (iv) after class students can access material related to coursing easily, (v) it provides for the management and platform that are alternate for them for certified learning of management systems, and (vi) for the improvement of the employment success it exposes students to the skills and also technologies (Legaree, 2015).

Both different researchers as well as educators are showing too much interest to know the effect that social media has on educational performance of the student. Different empirical researchers are there to explore that whether these effects are of positive nature, neutral, or of negative nature (Glogocheski, 2015). Very little information is found about this that how the use of social networking for the purpose of academic activities as well as for non-educational purpose influence the academic performance of the students of the universities, particularly on the educational performance of students from the universities of Pakistan and Azad Kashmir. No research, up until now, has been conducted to check the impact that social media usage for the academic activities as well as for the non-educational purpose on the students' academic performance in Azad Kashmir and Pakistan. After this study, results can be used to recommend future

strategists that can play an important role to improve study activities and academic achievement, especially in Pakistan and Azad Jammu & Kashmir.

Literature Review

Social Media

Social media is used all over the world. Facebook alone has 2.7 billion users in one month. In recent years, factors affecting students' academic performance have been studied. Scientific and technological progress seems to be developing rapidly, and the technology adoption rate considered satisfactory in college's students (Lambic, 2016). Students use social media for social and academic activities. Because of the popularity of online social websites and the increasing fame of social media in student communities at different levels, research examining the effectiveness of online social networks has also attracted widespread attention. In the past, some researchers have been done by the scholars to examine the influence of social media/online social networking sites on students' educational achievements. As per the study of Legaree (2015) Increased social media usage can stress students and affect their performance.

The study of Gastelum & Whattam(2013) explained that social media had different forms together with blogs, chat platforms, social networking sites, video and photo sharing and open source mapping. Junco (2014, p. 6) defined social media as "applications, services, and systems that allow users to create, remix, and share content" Social media permits groups and users to create, collaborate and interrelate with each other. Social media like twitter, Facebook and other social networking websites are online forums that permit persons to search friends, members of family and coworkers by using social network websites (Kirschner and Karin's, 2010). According to the results of study of RCP(2015) social media have been positive as well as negative effects.

Social Media Usage for Academic Purpose and Student's Academic Performance

Due to the multiple benefits offered by on-line discussion forums to students and instructors, on-line discussion form becomes common additions to the traditional classroom (Beaudoin, 2012; Kalin, 2012; Jefferies & Grodzinsky, 2007). The capability to simplify combined learning and communication with the people outside of the academia and with peers, is the utmost generally quoted advantage of the social media by the researchers (Rowlands et al., 2011). Usage of social media improves collaboration and academic access, and it bridges easily the education gap among instructors and the students (Bull et al., 2008). As stated by Madge et al. (2009) students repeatedly use social networking websites to talk over with their teachers, instructors and professors, issues casually and formally their academics and to interact with them. According to Paul, Baker, Cochran(2012) educational organizations and faculties are progressively using social media, such as LinkedIn

and Facebook, to attach with possible and current students and to transfer instructional contents to them.

Most of the studies found that the student who uses social media for the educational purpose has better academic performance, like according to Smith & Caruso (2010) social networking has continuously been improving educational success of students of IT from 2007 to 2010. Furthermore, according to Junco, Heiberger & Loken (2011) the usage of Twitter to support curricular as well as academic negotiations, was having a positive influence on academic results for the students of the college. As per study of Lambic (2016), the use of social media by the students for an academic purpose enhanced their academic performance. The research conducted by GreGory & Eddy (2014) found that usage of Facebook's website as network for instruction in the case that, the group of establishment on Facebook that is especially for discussion of contents of the course of the mathematical events separate from class could expressively upturn engagement of undergraduate student performance and satisfaction in a calculus course. Positive correlation is found by Lambić (2016) between academic performance of the students and rate of usage of Facebook by them, by taking the sample of students at university. Student's academic performance is measured by Legaree (2015) by using exam results of medical students in order to check that how WhatsApp increased the slow learners' performance in India and found that knowledge of slow learners improves by using WhatsApp, and their performance is also improved. Based on the above research finding following hypothesis can be formulated:

H1. Students those use social media for academic purposes have greater academic performance.

Usage of Social Media for Non-Academic Purpose and Student's Academic Performance

In contrary, some researchers and authors are not agreed with the above-mentioned statements, like Lenhart et al. (2010) found that in spite of the fame of social media for personal usage, only a little proportion of faculty and students uses that for educational exercise. Although social media like Facebook undeniably delivers users with many advantages, researchers are now studying the challenging use of the platform more closely. Besides the use of social media for educational motive, the majority of students are using it for the non-academic purpose. Lupus and Shankar (2010) said that websites of social network take student's attention and turn away it to non-academic and incorrect activities, including useless discussion. We may say based upon above statement that social media may affect badly the student's learning experiences and the academic life. According to Benzie (2007) the Government of Canada banned employees from using Facebook.com. Similarly, Boyd and Ellison (2007) also pointed out the US legislation of Congress proposed that youth should be banned from using the social media network in libraries and schools. When the nations, particularly

developed nations like USA and Canada took positions on usage of social media and is opposed to using of these websites of social networking for youth, citizens, working people and the students, then there is a need to check that either social media negatively effects on the students or not?

Concerning the purposes to use social media, the research of Oye, Adamand Zairah (2012) showed that when the websites of the social media will be used only to satisfy social and non-educational desire's only academic performance was poorly affected. According to the study of Fori (2016) use of social media has noaffects the student's academic performance. The study of Ravizza, Hambrick and Fenn (2014) found that the usage of the Internet for the non-academic purpose, including social media, was adverselylinked with the performance in the classroom as found in the 3 examinations conducted through the semester system and in collective final term exams. As neuroscientist Greenfield and Wintour (2009) notified of the adverse impact of online social media on the attention span of children.

H2. Students those use social media for non-academic purposes have less academic performance.

Time of Use of Social Media and Student's Academic Performance

The study of Reynol and Junco (2012) revealed thatspending time to useFacebook as well as time spent to check Facebook were adversely linked to the overall grades in terms of GPA. Furthermore, the time spending by using Facebook is somewhat adversely linked to spending time for study. Furthermore, the skill of spending time by using the Facebook meaningfullyforecasts overall grade in the shape of GPA that there is an adverse educational impacton the students who are usingFacebook by different ways. The following hypotheses can be proposed.

H3. Time of use of social media has a negative impact on student's academic performance.

Moderating Effect of Time of Use

Educational result (performance) of the students is also effects by the time spent of social media. Results of previous studies showed that the students who are involved more with social media hasadverse academic performance like according to the study ofPaul, Baker and Cochran (2012) there is adverse academic performance of students those spent more time using online social networking. The research of Kirschner and Karpinski (2010)also found that students' excessive participation in social media may adversely affect academic performance. Furthermore, the research of Kirschner and Karpinski (2010) also revealed that Facebook's usage had an adverse impact on GPA and spending of time for study per week.

There is greater academic performance of students who spend more time of social media for academic purpose and verse performance of the students who use social media for the not academic purpose. On the basis of previous results of the studies we develop the following hypothesis.

- H4. Time of use of social media moderated the positive relationship between social media usage for academic purpose and student's academic performance.
- H5. Time of use of social media moderates the negative relationship of social media usage for the non-academic purpose with student's academic performance.

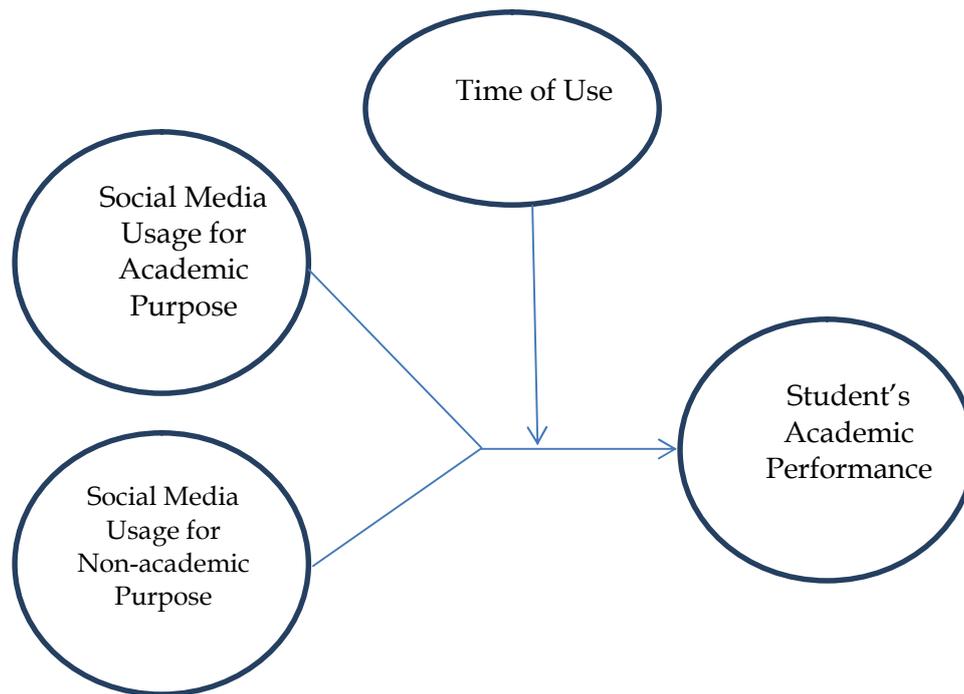


Figure 1: Research Model

Material and Methods

Sample and Data Collection

The data of this study is collected from the students at different universities of Pakistan and Azad Kashmir because this research is related to university students. Convenience sampling technique was used, and data was collected using a self-administered survey questionnaire. Apart from voluntary participation request, participants were guaranteed anonymity and confidentiality by using a cover letter which also enlightened the research purpose.

Out of 320 questionnaires distributed, we received 202 usable responses, which represent a response rate of 63 percent. Participants were both male and female. Majority of them were single with average ages from 22 to 30 years.

Measures/Scale Used.

To measure independent variable social media usage for the academic and non-academic purpose we used a 5-point Likert scale ranging from 5 (*strongly agree*) to 1 (*strongly disagree*) to while students' academic performance and time of use of social media were measured using open response questions.

Usage of Social Media for the Academic Purpose

To collect data about the usage of social media for an academic purpose, we use seven items of scale developed by Mills, Knezek and Wakefield, (2013). The Cronbach alpha of this scale was found to be 0.782.

Usage of Social Media for the Non-Academic Purpose

Usage of social media for non-academic purpose participants was measured using 12 items of scale developed by Rosen et. al., (2013). The Cronbach alpha of this scale was found to be 0.799.

Student's academic performance

Student's academic performance was measured using a single open response format question developed by Paul, Baker and Cochran (2012). The participants were required to mention their CGPA.

Time of Use of Social Media

Time of use of social media, the participants were measured using open response format questions, which were developed by Ogaji et al. (2017).

Control Variables

In this study to control variation in student's academic performance, we performed One-way ANOVA assuming demographic characters like age, gender, etc. Result found by using one-way ANOVA (Table 1) showed that there are significant differences in the student's academic performance (dependent variable) across gender ($F=11.707$, $P<0.05$) and age ($F=2.696$, $P<0.047$). However, there is no significant difference was found in the mean value of student's academic performance assuming education and marital status.

The factors which were found significant were entered into regression analysis as a control variable in step 1 for student's academic performance.

Table 1
One-way ANOVA

Results and Discussions

Sources of Variation	F statistics	P-value
Age	2.696	.047
Gender	11.707	.001
Education	2.530	.058
Marital Status	0.78	.780

Descriptive and Correlation

Table 2
Mean, Standard Deviation and Correlation Matrix of the Study

	Mean	S.D	1	2	3	4
1AP	3.64	.69	(0.78)			
2NAP	3.27	.72	.49	(0.79)		
SAP	2.82	1.1	.07	-.037	(-)	
TOU	2.10	.84	.17	.27	-.02	(0.72)

n=202; alpha reliabilities are given in the notes, for the gender, 1, "male"; 2, "Female". Age ranges from 1, "18 to 25"; 2, "26 to 30"; 3, "30 to 35"; 4, "above 40"

Marital Status 2, "married,1. "single"; For education 5, "PhD" 4, "MS/M. Phil "; 3, "Masters"; 2, "graduation"; 1, "intermediate";

As shown in this table social media usage for academic purpose (AP) has no degree of correlation with student's academic performance (.07, p=ns) which is not providing support for hypothesis 1. Social media usage for non-academic purpose (NAP) also found having no degree of association with student's academic performance (-.037, p=ns) which is contrary to hypothesis 2. Same as time of use of social media also have no degree of association with the student's academic performance (-.02, p=ns) which does not provide support for hypothesis 3.

Regression Analysis

We used multiple regression analysis to test the hypothesis of over study. Result generated through the usage of regression analysis is presented below in table 3.

Table 3
Moderated Regression Analysis

	B	R ²	R ² Change
Step 1			
Control variable		.078	.078
Step 2			
AP	.249*	.099	.021
NAP	-.041ns		
TOU	.044*		
Step 3			
NAP*TOU	-.125ns	.116	.017
AP*TOU	.345ns		

N=202. AP= Social media usage for academic purpose, NAP= Social media usage for non-academic purpose, TOU= Time of use, *=significant

The finding shows that social media usage for academic purpose has a significant positive impact on academic performance of students (B=.249, $p < .05$) so this hypothesis 1 is accepted. However social media usage for non-academic purpose has insignificant impact on student's academic performance (B=-.041, $p = ns$) thus hypothesis 2 is rejected. Time of use of social media has no effect on performance of the students (B= .044, $p = ns$), leading towards the rejection of hypothesis 3.

The hypothesis 4 and 5 both were tested using the moderated regression analysis technique. In step one, we entered control variable (Gender and age). In step two we entered independent and moderator variable. And finally, in step three interaction terms were entered.

The result shown in the moderated regression analysis does not moderate the relationship of social media usage for academic purpose and student's academic performance (B= -.125, $p = ns$) as well as social media usage for non-academic purpose and student's academic performance (B= .345, $p = ns$) thus the hypothesis 4 and 5 is rejected.

The results mentioned above revealed that use of social media for academic purpose have a significant positive impact on student's academic performance. This result is harmonized with the findings of past studies conducted by Bull et al. (2008), Smith and Caruso (2010) and GreGory, GreGory, and Eddy (2014) in which they reported similar results in different context. This is due to the fact that the students who use social media for academic purpose learn different new things as well as through social media they can easily approach to their teachers and peer for solution of confusions they have about academic matters. Usage of social media is an interesting thing for the students so they can easily learn through social media without getting bored that's why their performance is high.

An insignificant relationship was surprisingly found between social media usage for non-academic purpose and student's academic performance. The finding of this study was contrary to the proposed hypothesis as well as in contrast with the finding of Wintour (2009). This might be because students use social media for non-academic as well academic purpose, they maintain a balance among academic and nonacademic usage of social media and giving proper time to their studies.

The time of use of social media as a moderator, has no significant effect on educational performance of students. This is in contrary with the proposed hypothesis. This is also in contrast with the previous study of Paul, Baker and Cochran (2012) who found that the students who are more involved on social media sites their performance is affected negatively. This may be due to the fact the student's divide time of usage of social media between academic and non-academic purpose. That's why there found no significant impact.

This study also tried to check the moderation role of time of use on the relationship of social media usage for academic purpose and student's academic performance as well as on the relationship of social media usage for non-academic purpose and student's academic performance and found no significant effect in both cases. This is against the hypothesis 4 and 5.

This is contrary with the findings of Paul, Baker and Cochran (2012).

Conclusion and Practical Implementations

Students may get benefit from this research to increase their academic performance. Students are recommended to use social media more and more for academic purpose to improve their academic performance as my study shows that the students who use social media for academic purpose perform well academically in term of CGA as compare to nonacademic users. In this research we used the combination of only four variables. Future study may be conducted by using different combination of variables to check the impact on student's academic performance like with this combination social media multi-tasking can be used as independent variable. Student's health can be used as dependent variable with current combination. Any other moderator can be used instead of time of use in future studies.

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