

Impact of Instagram Usage on Students' Academic Performance in Nepal

Shivam Kumar Shah and Bishal Singh Bist*

Abstract

This study examines the impact of Instagram usage on students' academic performance in Nepal. Academic performance is the dependent variable. The independent variables are time spent on Instagram, frequency of use, purpose of use, type of content and parental monitoring. The primary source of data is used to assess the opinion of respondents regarding time spent on Instagram, frequency of use, purpose of use, type of content, parental monitoring and academic performance. The study is based on primary data of 127 respondents. To achieve the purpose of the study, structured questionnaire is prepared. The correlation and multiple regression models are estimated to test the significance and importance of Instagram usage on students' academic performance in Nepal.

The study showed a negative impact of time spent on Instagram on academic performance. It indicates that excessive time on social media may hinder academic performance. Similarly, the study showed a negative impact of frequency of use on academic performance. It indicates that higher frequency of social media usage might lead to lower academic performance. However, the study showed a positive impact of purpose of use on academic performance. It indicates that purposeful engagement with social media can contribute to improved academic outcomes. Likewise, the study showed a positive impact of type of content viewed on academic performance. It indicates that consuming more educational content results is better for improving academic performance. Further, the study showed a positive impact of parental monitoring on academic performance. It indicates that active monitoring by parents enhances students' academic performance.

Keywords: time spent on Instagram, frequency of use, purpose of use, type of content, parental monitoring, academic performance

1. Introduction

Social networks, such as Instagram, Twitter, Facebook, Live Bowen, Google Plus, Snapchat, Linkedin, and Youtube, among many others have emerged to allow exchanging of videos and photos, sharing files and immediate talks, and interacting with others (Adeyemi, 2008). Among the vast variety of online tools which are available for communication, social networking sites have become the most modern and attractive tools for connecting people throughout the world (Aghazamani, 2010). The first social networking site is created in 1997 in the name of Sixdegree.com, and now there are hundreds of social networking sites across the world (Boyd and Ellison, 2007). Instagram has become so popular especially among students that without Instagram, student life is almost unthinkable (Debatin *et al.*, 2009). Instagram is used at over 2,000 United States colleges and is ranked as the seventh most popular site on the World Wide Web with respect to total page views (Ellison *et al.*, 2007). Instagram is targeted at college population and has extended its user base to include professional and older people. Previous studies on social media usage have focused on identifying user characteristics related to usage of social media like Instagram (Sheldon, 2008).

Anand (2007) stated that use of computers decreases academic performance. Instagram can be a tool not only to relax, since social networks usually constitute an activity associated with spare time and low stress levels, but also to give the student or the teacher the possibility to use it for learning or teaching purposes. It is an important unexpected

* Mr. Shah is a Freelance Researcher, Kathmandu, Nepal and Mr. Bist is the IT Head, Uniglobe College (Pokhara University Affiliate), Kathmandu, Nepal.

outcome of using certain technologies like social networking websites, video games, online auctions or mobile phones that provide user brains with strong rewards and can deteriorate the wellbeing, job and school performance, normal functioning, and health of technology users (Serenko and Turel, 2015). Ketter (2016) investigated the destination image restoration on Instagram. The study assessed that shed light on the role of Instagram as a mean of image restoration and on its unique characteristics as a multi-functional tool that can be used to address diverse audiences, to conduct both formal and informal interactions, to post various kinds of information, to bypass the news media and to serve as an additional distribution channel.

Alloway *et al.* (2013) examined the impact of social networking sites on social connectedness and cognitive abilities. In order to provide a reliable measure of cognitive skills, standardized tests of verbal ability, working memories, and academic attainment, were administered. Students also responded to questions about the length and type of social media use (Instagram, YouTube, and twitter). The findings indicated that young people who have used Instagram (but not YouTube) for more than a year had higher scores of verbal ability, working memory, and spelling. Compared to their peers who had used it for a shorter time period. Similarly, Shambars *et al.* (2012) assessed the social networking habits among students. The study indicates that such media most commonly used by younger's and Instagram is most widely used by a large number of communities and have multiple effects on student's life. The high speed and quickly approach to internet and the development of sort phone technology are most important drivers behind the adoption with social networking websites and conclude that social networking sites enhance their knowledge level. Instagram a social networking site is the phrase used to describe any web site that enables users to create public profiles within that web site and form relationships with other users of the same Web site who access their profiles Social networking sites can be used to describe community-based Web sites, online discussions forums, chat rooms and other social spaces online social networking became popular between 2004 and 2006, after Instagram and Myspace were created Instagram has over 500 million members and it is still growing. Approximately 85% of undergraduate students are Instagram users (Schneider, 2009).

In the context of Nepal, Jha *et al.* (2016) examined the Instagram use and its effects on the life of health science students in a private medical college of Nepal. The study analyzed that students acknowledged ease in acquiring academic materials from others, through Instagram. Similarly, Lahiry *et al.* (2019) explored that impact of social media on academic performance and interpersonal relation: A cross-sectional study among students at a tertiary medical center in East India. The study stated that Students benefit from social networking and are conscious of its positive as well as negative influence on interpersonal relations. The study revealed that the study in order for business school educators and higher education policy makers to promote student engagement in economics education. Likewise, Sharma (2012) asserted that beyond social networking: performing global impact of Instagram to college youth in Nepal. The study stated that online social networking practices have significantly helped to bring about a cultural change among this particular social group in Nepal.

The above discussion shows that empirical evidences vary greatly across the studies on the impact of Instagram usage on students' academic performance. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The major objective of the study is to examine the impact of Instagram usage on students' academic performance in Nepal. Specifically, it examines the relationship of time spent on Instagram, frequency of use, purpose of use, type of content and parental monitoring with academic performance of students in Nepal.

The remainder of this study is organized as follows: section two describes the sample, data, and methodology. Section three presents the empirical results and final section draws the conclusion.

2. Methodological aspects

The study is based on the primary data which were collected from 127 respondents through questionnaire. The study employed convenience sampling method. The respondents' views were collected on time spent on Instagram, frequency of use, purpose of use, type of content, parental monitoring and academic performance. This study is based on descriptive as well as causal comparative research designs.

The model

The model used in this study assumes that academic performance depends upon Instagram usage. The dependent variable selected for the study is academic performance. Similarly, the selected independent variables are time spent on Instagram, frequency of use, purpose of use, type of content and parental monitoring. Therefore, the model takes the following form:

Academic performance = f (time spent on Instagram, frequency of use, purpose of use, type of content, parental monitoring)

More specifically,

$$AP = \beta_0 + \beta_1 TS + \beta_2 FU + \beta_3 PU + \beta_4 TC + \beta_5 PM + e$$

Where,

AP = Academic performance

TS = Time spent on Instagram

FU = Frequency of use

PU = Purpose of use

TC = Type of content

PM = Parental monitoring

Academic performance was measured using a 5-point Likert scale where the students were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include "I feel guilty or regretful when excessive social media usage affects my academic performance", "My social media usage, including Instagram, does not affect my academic focus" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.855$).

Time spent on Instagram was measured using a 5-point Likert scale where the students were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include "The time I spend on Instagram increases significantly when I am procrastinating academic tasks", "The time I spend on Instagram

affects my ability to meet academic deadlines” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha = 0.717$).

Frequency of use was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “Checking Instagram is one of the first things I do after waking up”, “I frequently take breaks to check Instagram while studying or working on assignments” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha = 0.790$).

Purpose of use was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “I use Instagram to access educational pages or accounts related to my academic subjects”, “I use Instagram primarily for entertainment, such as watching videos or browsing reels” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha = 0.748$).

Type of content was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “I regularly watch tutorials, study tips, or academic content on Instagram”, “The majority of the content I view on Instagram is entertainment-oriented (e.g., memes, videos, celebrity updates)” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha = 0.814$).

Parental monitoring was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There are 5 items and sample items include “My parents regularly inquire about how social media affects my daily routine”, “My parents encourage me to prioritize academics over social media activities” and so on. The reliability of the items was measured by computing the Cronbach’s alpha ($\alpha = 0.799$).

The following section describes the independent variables used in this study along with the hypothesis formulation.

Time spent on Instagram

Time spent on social networking sites is defined as the time a student spent daily on the social networking sites. Rithika and Selvaraj (2013) showed that students who spend more time on social media may have difficulty balancing their online activities and their academic preparation. Similarly, Johnson and George (2014) indicated that social networks take away the time students and tend to lead to procrastination of school academic works. Likewise, Iorliam and Ode (2014) analyzed that there is a significant relationship between the time (duration) a student spends using social media and the academic performance of the student. Further, Oye *et al.* (2012) indicated that spending more time on SNS resulted in getting lower grades and some perceived the distraction of SNSS as ranging from mere distractions to obsession. Based on it, this study develops the following hypothesis:

H₁: There is a negative relationship between time spent on Instagram and academic performance.

Frequency of use

The frequency of Instagram usage refers to the amount of time and the number of

sessions students dedicate to the platform daily, weekly, or monthly. Ahmed and Qazi (2019) identified that non-educational social media use as a source of academic stress, with frequent Instagram users displaying divided attention during study sessions. In addition, Huang *et al.* (2020) highlighted that social media addiction arising from high-frequency use diminishes cognitive resources and adversely affects long-term academic outcomes. Based on it, this study develops the following hypothesis:

H₂: There is a negative relationship between frequency of use and academic performance.

Purpose of use

The purpose of Instagram usage refers to the specific goals students aim to achieve when using the platform. Ellison *et al.* (2007) stated that students who use social media, including Instagram, for educational purposes such as obtaining study materials, connecting with peers for group assignments, or interacting with professors, tend to exhibit better academic engagement and higher academic performance. Similarly, Tella *et al.* (2016) emphasized that using Instagram as a tool for expanding knowledge and accessing educational content positively influences students' learning outcomes by providing a platform for informal learning, discussion, and resource-sharing. Likewise, Baker (2018) suggested that students who utilize Instagram to create academic-related content or follow educational accounts tend to improve their organizational and study skills, indirectly boosting their performance. Based on it, this study develops the following hypothesis:

H₃: There is a positive relationship between purpose of use and academic performance.

Type of content

Liu and Kuo (2021) explored how educational content on Instagram can enhance students' academic performance. The findings suggest that students who follow educational pages related to their field of study are more likely to improve their academic results. Similarly, Brown and Green (2020) highlighted a positive influence of educational Instagram influencers who share subject-specific insights, study tips, and exam preparation advice. Likewise, Malik and Ahmad (2019) argued that when students use Instagram to follow motivational academic content, Further, Kaplan and Haenlein (2010) stated that social media use in education pointed out that students who access a mix of academic and career-oriented content on Instagram tend to have higher self-efficacy and greater career readiness. Based on it, this study develops the following hypothesis:

H₄: There is a positive relationship between type of content and academic performance.

Parental monitoring

Parental monitoring can play a crucial role in shaping the impact of social media usage on academic performance. Padilla-Walker *et al.* (2017) stated that higher levels of parental monitoring led to more responsible social media usage, which in turn resulted in improved academic engagement and performance. Similarly, Elgin and Hops (2016) highlighted that students who experienced strict parental guidance on social media usage tended to achieve better grades due to increased time management and better focus on schoolwork. Likewise, Bamishai (2019) argued that parental involvement in managing screen time contributed to better academic performance as students spent more time on educational activities and less on non-educational Instagram interactions. Further, Eisenberg and Gold (2019) concluded that students whose parents provided a clear framework for acceptable social media use had

fewer distractions and demonstrated better focus in schoolwork, ultimately achieving better academic performance. Based on it, this study develops the following hypothesis:

H₅: There is a positive relationship between parental monitoring and academic performance.

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for this purpose, Kendall’s Tau correlation coefficients along with mean and standard deviation has been computed and the results are presented in Table 1.

Table 1

Kendall’s Tau correlation coefficients matrix

This table presents Kendall’s Tau correlation coefficients between dependent variable and independent variables. The correlation coefficients are based on 127 observations. The dependent variable is AP (Academic performance). The independent variables are TS (Time spent on Instagram), FU (Frequency of use), PU (Purpose of use), TC (Type of content) and PM (Parental monitoring).

Variables	Mean	S.D.	AP	TS	FU	PU	TC	PM
AP	4.055	0.551	1					
TS	4.059	0.585	-0.599**	1				
FU	4.107	0.522	-0.565**	-0.499**	1			
PU	4.072	0.588	0.543**	0.453**	0.514**	1		
TC	4.135	0.558	0.501**	0.510**	0.499**	0.544**	1	
PM	4.015	0.653	0.554**	0.498**	0.529**	0.561**	0.536**	1

Notes: The asterisk signs (**) and (*) indicate that the result are significant at one percent and five percent levels respectively.

Table 1 presents the Kendall’s correlation coefficients for the dependent and independent variables. The study shows that time spent on Instagram is negatively correlated to academic performance. It indicates that excessive time on social media may hinder academic performance. Similarly, frequency of use is negatively correlated to academic performance. It indicates that higher frequency of social media usage might lead to lower academic performance. However, purpose of use is positively correlated to academic performance. It indicates that purposeful engagement with social media can contribute to improved academic outcomes. Likewise, type of content viewed is positively correlated to academic performance. It indicates that consuming more educational content results is better for improving academic performance. Further, parental monitoring is positively correlated to academic performance. It indicates that active monitoring by parents enhances students’ academic performance.

Regression analysis

Having indicated the Kendall’s Tau correlation coefficients, the regression analysis has been carried out and the results are presented in Table 2. More specifically, it shows the regression results of time spent on Instagram, frequency of use, purpose of use, type of content and parental monitoring on academic performance in Nepal.

Table 2

Estimated regression results of time spent on Instagram, frequency of use, purpose of use, type of

content and parental monitoring on academic performance

The results are based on 127 observations using linear regression model. The model is $AP = \beta_0 + \beta_1 TS + \beta_2 FU + \beta_3 PU + \beta_4 TC + \beta_5 PM + e$ where the dependent variable is AP (Academic performance). The independent variables are TS (Time spent on Instagram), FU (Frequency of use), PU (Purpose of use), TC (Type of content) and PM (Parental monitoring).

Models	Intercepts	Regression coefficients of					Adj. R_bar ²	SEE	F-value
		TS	FU	PU	TC	PM			
1	0.808 (2.498)*	-0.791 (10.003)**					0.440	0.489	100.060
2	1.600 (4.616)**		-0.595 (7.041)**				0.278	0.555	49.581
3	1.172 (3.039)**			0.692 (7.436)**			0.301	0.547	55.294
4	0.806 (2.788)**				0.787 (11.213)**		0.497	0.464	125.721
5	0.559 (1.830)					0.836 (11.409)**	0.506	0.459	130.156
6	0.694 (2.049)*	-0.699 (6.120)**	-0.120 (1.116)				0.441	0.488	50.751
7	0.203 (0.547)	-0.566 (4.704)**	-0.078 (0.738)	0.293 (2.878)**			0.472	0.475	38.583
8	0.104 (0.304)	-0.285 (2.341)*	-0.073 (0.760)	0.171 (1.794)	0.481 (5.182)**		0.564	0.432	41.731
9	0.477 (1.482)	-0.196 (1.732)	-0.045 (0.516)	0.077 (0.861)	0.346 (3.886)**	0.432 (5.000)**	0.636	0.395	44.952

Notes:

- i. Figures in parenthesis are t-values.
- ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
- iii. Academic performance is the dependent variable.

Table 2 shows that the beta coefficients for time spent on Instagram are negative with academic performance. It indicates that time spent on Instagram has a negative impact on academic performance. This finding is consistent with the findings of Rithika and Selvaraj (2013). Similarly, the beta coefficients for frequency of use are negative with academic performance. It indicates that frequency of use has a negative impact on academic performance. This finding is consistent with the findings of Ahmed and Qazi (2019). However, the beta coefficients for purpose of use are positive with academic performance. It indicates that purpose of use has a positive impact on academic performance. This finding is consistent with the findings of Tella et al. (2016). Likewise, the beta coefficients for type of content are positive relationship with academic performance. It indicates that type of content has a positive impact on academic performance. This finding is consistent with the findings of Liu and Kuo (2021). Further, the beta coefficients for parental monitoring are positive with academic performance. It indicates that parental monitoring has a positive impact on academic performance. This finding is consistent with the findings of Padilla-Walker et al. (2017).

4. Summary and conclusion

Instagram usage can be an important factor in students' life including their academic performance. Excessive use of the platform can potentially distract students, reducing their focus on studies and leading to lower academic outcomes. However, when used strategically,

Instagram can also be a platform for educational engagement, connecting students to learning resources and academic communities. Maintaining a balance between entertainment and purposeful use is key to ensuring that Instagram usage does not negatively impact academic performance.

This study attempts to examine the impact of Instagram usage on student's academic performance in Nepal. The study is based on primary data of 127 respondents.

The major conclusion of the study is that purpose of use, type of content and parental monitoring have positive impact on academic performance. However, time spent on Instagram and frequency of use have negative impact on academic performance. The study also concludes that parental monitoring is the most significant factor followed by type of content and time spent on Instagram that influences the student's academic performance in Nepal.

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