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Research Article

**STUDENT'S ACADEMIC PERFORMANCE AND ITS
INTERDEPENDENCE ON THE INCREASING USE OF SOCIAL
NETWORK SITES WITH RESPECT TO TIME CONSUMPTION,
AGE AND ACADEMIC ACHIEVEMENTS IN PAKISTAN**¹Dr. Syed Razi Abbas, ²Dr Munazzah Akram, ³Dr Maida Razzaq¹UOL Lahore, ²Woman Medical Officer DHQ Hospital Layyah, ³Woman Medical Officer Islam Teaching Hospital, Sialkot.**Article Received:** September 2019 **Accepted:** October 2019 **Published:** November 2019**Abstract:**

Social media is increasingly becoming an integrated part of individual life in the Pakistan. Pakistan continues to be a social media powerhouse, being one of the biggest national markets for Snapchat and YouTube in the world. The social media plays an important role rapidly changing Pakistani society. Social Networking Sites are dominantly affecting the generation of internet users in general and students in specific which results in the use of these sites by the educational institutes. It has raised crucial questions about the performance of students in academics. Our research aims to investigate the ways and degree of its impact of use of social networking sites on the academic performance of the students. This research included 366 undergraduates who were asked various questions and their response was documented for the analysis and drawing of conclusion. Outcomes were descriptively analyzed through ANOVA and T-Test. The outcomes presented that use of these sites affected the academic performance with reference to frequency of use, academic achievement and age. These outcomes also help to create awareness about the effective management of time and better management of multiple tasks to improve academic achievements and ongoing academic activities.

Keywords: Academic Performance, Social Network Sites (SNSs), Students, Undergraduate, ANOVA and T-Test.**Corresponding author:****Dr. Syed Razi Abbas,**
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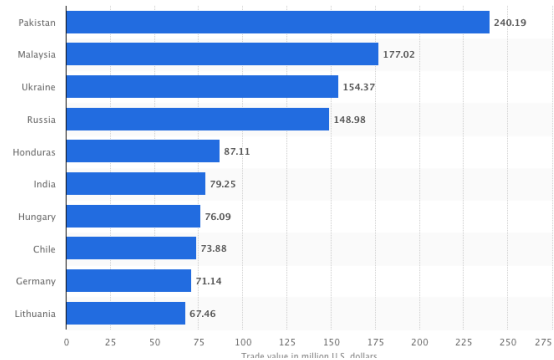
INTRODUCTION:

Pakistan continues to be a social media powerhouse, being one of the biggest national markets for Snapchat and YouTube in the world. The social media plays an important role rapidly changing Pakistani society. The latest statistics released by Communications and Information Technology Commission (CITC) reveals that the usage of social media in the Pakistan in 2018 rose swiftly, touching 91.7 percent of the total population. Interestingly the non-Pakistani population relies more on social media than Pakistani citizens. According to CITC, 93.20 percent of non-Pakistanis were using social media compared with 90, 80 percent of Pakistanis [1]. Expatriates largely rely on social media platforms to keep abreast of affairs back home. The CITC study found that young people in the age group of 20-24 years are the largest bloc with 98.70 percent of them using social media, followed by the age group of 25-29 with 98.10 percent. The reach is 97.40 percentage among the age group of 30-34 years. The CITC report also said 93.20 percent males were using social media compared with 89.60 percent females. It is interesting to note that the remote region of Tabuk is having the highest Internet penetration in the Pakistan with 97.10 percent, followed by Makkah and the Northern Border Province with 93.40 percent. Social media is proven as an effective and the easiest tool of interaction between the public and government agencies. Pakistan has the highest annual growth rate of social media users anywhere in the world. Data from We Are Social and Hootsuite revealed social media users in the Pakistan grew by 32 percent against a worldwide average of 13 percent [2].

Millions of users have been attracted by SNSs and these sites have become an integral part of their users' life. Most famous sites are WhatsApp, Twitter and Facebook which take a suitable chunk of student's time. Various instructors and students are also found using LinkedIn for scholastic purposes. Academic performance is affected in both positive and negative ways with the use of SNSs; however, the need of the hour is time management while using these sites for various purposes. Excess of everything affects in negative way and has its own consequences. A survey suggests that second largest chunk of time after entertainment is spent on SNSs (14.4%). The major proportion of the networking community belongs to university graduates and undergraduates. Professors are also using SNSs for the enhanced and timely communication with their students to generate discussions and discuss various aspects when at

distance from each other and it is improving the learning outcomes. Few of the authors also point out the negative impact of use of SNSs on academic performance [3].

Leading importers of used clothing worldwide in 2017, dollars)



Divided opinion always existed about the use of SNSs by the students. Better control over the use of SNSs and self-regulation is required to arrest the use of SNSs for positive academic performance by the students and professors. Various key factors of SNSs affect the academic achievement of the students positive and negative in direct and indirect ways. The academic performance is a function which includes time spent on the use of SNSs, academic competence, student features, time management skills and attention span. This research will add more facts in the clarity of the topic at hand. Therefore, this research aims to investigate the ways and degree of its impact of use of social networking sites on the academic performance of the students [4].

Literature Review:

The proportion of internet users is at an increase all over the world. Most of the fields are benefitting from the advent of internet technology. This technology is helping other fields like commerce, entertainment and education. A number of scholars have studied the significance of SNSs with respect to its various impacts on the academic competence, study strategy, study system, personality, characteristics and time management of the students and presented varying outcomes. Moreover, few of the authors also study the impact of SNSs on attitude and cultural differences along with role of multitasking and academic performance [5].



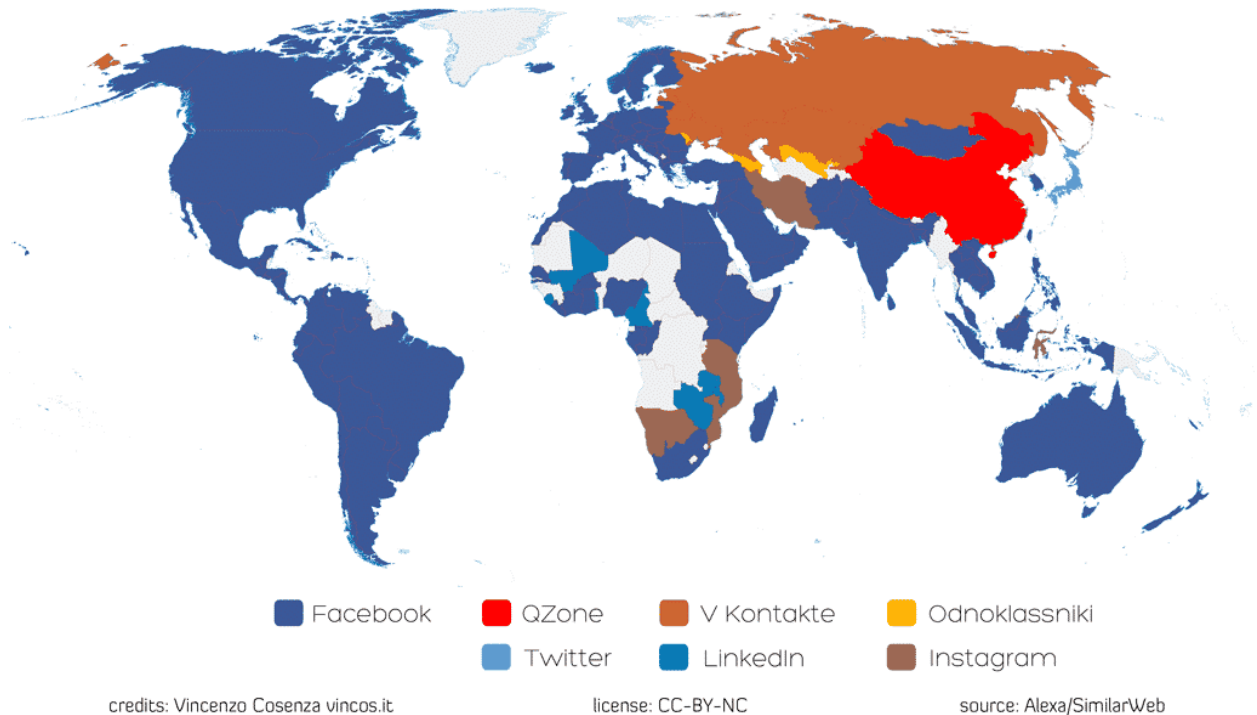
The Significance of SNSs to Undergraduate Students:

Literature shows the importance of SNSs in academic performance as various authors have argued about the developed use of SNSs by the university undergraduates for academic support. Students are regularly reported using WhatsApp, Facebook, Twitter and LinkedIn for educational communication and discussion forums. Furthermore, use of these sites also assists to establish better prior knowledge for the

newcomers in the campus. It supports ubiquitous learning and increases the confidence level of the students. Confident use of college instrumental support by the students adds in the information of the students. It also helps to develop network friendship and develop academic domain through lively interactions. Students can share multimedia files and also become a part of virtual communities existing at distance with collaboration through the platform provided by SNSs [6].

WORLD MAP OF SOCIAL NETWORKS

January 2017



The Impact of SNSs on Academic Performance:

No doubt that use of SNSs is helpful for students as various authors have also reported but it also poses few negative impacts on the academic performance of the students. Students do accept that permanent use of SNSs causes distraction from studies and consume vital time source which results in the shape of academic procrastination and delay. More time to SNSs leads to deterioration of academic performance. Few studies reported that Facebook caused negative impact on GPA of students especially among juniors than seniors. Seniors are more cautious about the use of SNSs than juniors. SNSs are accessible through a smartphone, personal computer, laptop, tablet and different other digital devices which are easily accessible in the vicinity of the students or belong to their personal possession as well. Excessive use of SNSs leads to negative impact on the academic achievement of the students. Computers are positively related to GPA; whereas, cell phones are negative related to GPA. Lower GPA causes higher level of anxiety among students with reduced satisfaction than their peers who are less involved in the use of SNSs [7].

The Role of Multitasking:

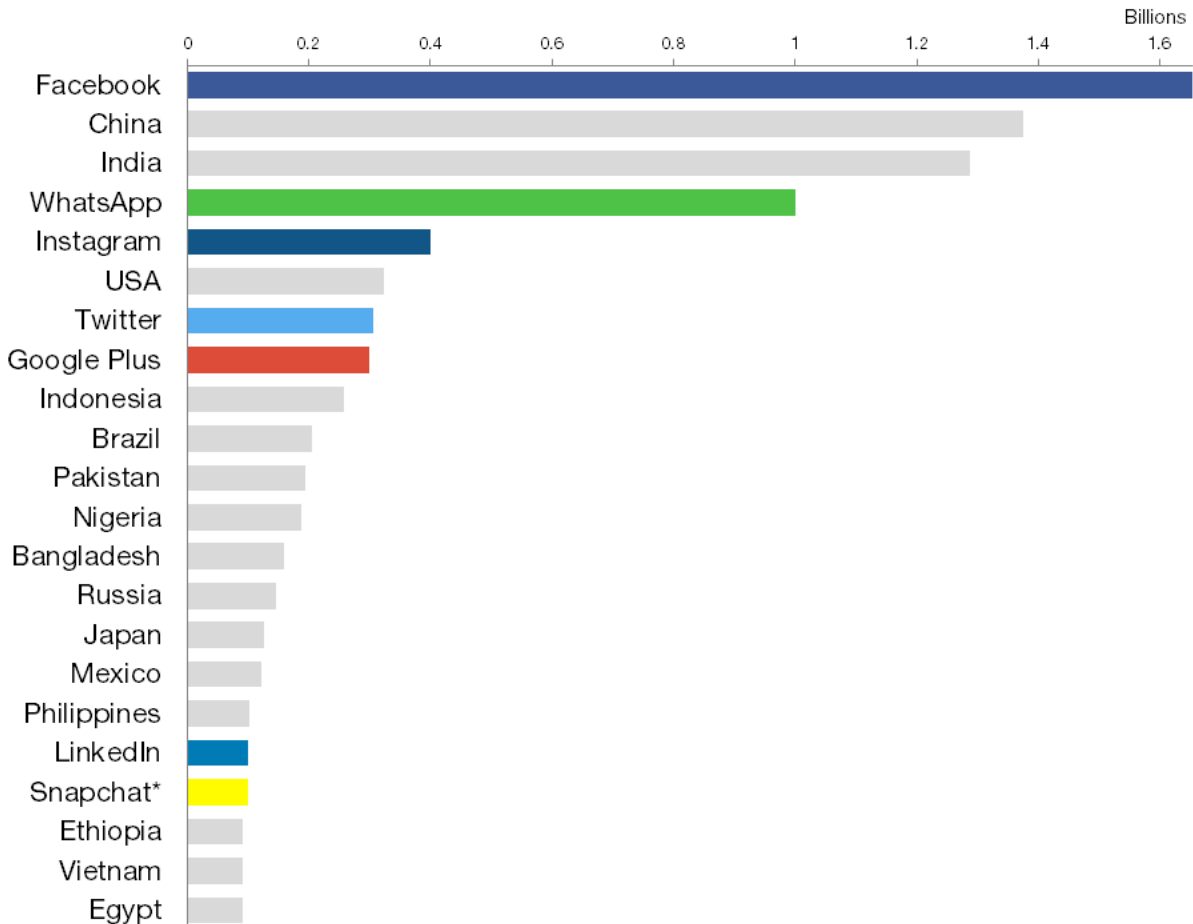
A number of scholars show a negative correlation between the use of Facebook and academic achievement; whereas, others also believe increasing use of socialization on internet decreases academic achievement. Most of the students do not use much SNSs but few exceptions are there. The maintenance of balance between academics and use of SNSs is called multitasking which can reduce the risk of lower GPA score. Consequently, for success, students need to maintain balance in the use of SNSs and academic routine [8, 9]. Authors also focused that instructors may formulate policies to forbade students for excessive use of SNSs and restrict them to just use of SNSs for positive outcomes only. Time management is crucial for students in every aspect whether academic routine or using social media sites. However, some researchers propose that student's competency increases with the use of SNSs in order to cope up academic requirements if they are desirous to do so. Seniors are more cautious in the use of SNSs than juniors and they are also better at time management and multitasking as they know the value

of success and they have learnt over the passage of time. Researchers suggest that freshmen should be taught about the maintenance of balance between

social media use and academic routine in order to build social relations, Students can control use of Facebook through self-regulation [10].

How big are social networks?

Number of “monthly active users” and size of countries by population



Source: Latest available data from social network websites or analyst estimates. *Snapchat figures are daily active users

Research Methodology:

The major areas of our research base on the previously available literary references whether empirical or theoretical in nature. This area describes the approach of the research. The theoretical research has been chosen which includes procedural definitions, framework, research type, research scale, research population and research hypothesis. Research also provides validity and reliability. The nature of this research is quantitative and deductive which facilitates the measurements of the facts. Dependent and independent variables of this research were also identified.

Research Theoretical Model:

Common research variables were used for this research through literature review. We tried to examine the impact of use of SNSs on academic performance of the university undergraduates. Public and semipublic relation can be built through social networking sites. It also articulates, reviews and transverse the connection list within the system for its users. Indeed, the degree of using SNSs needs proper definition as academic performance is directly affected by the time consumed on the use of SNSs. However, the definition of academic achievement includes

achievement of educational outcomes, goals and objectives.

Research Hypotheses and Research Population:

The hypothesis of this research was mainly that there is a significant statistical SNSs impact on the academic achievement of the students. A significant difference lies in the SNSs impact on academic performance with respect to the demographic features of the students. Whereas, sub-hypothesis states that age and gender play a vital role in the significant difference in use of SNSs and its impact on academic achievements.

Data collected from people can be helpful in the provision of correct responses for the solution of this issue and it also amalgamates objects, events and people in which a researcher is interested. Therefore, the research population basically consisted of those SNSs users who were university graduates who were randomly selected in the total of 31,000 students. The method of sample selection was dropped and collect which shortlisted a total of 366 undergraduates. These undergraduates were asked to fill a survey

questionnaire which documented responses for onward statistical analysis.

Data Analysis and Results:

Sample features were described through descriptive analysis and responses of the undergraduates collected through questionnaires. The relationship between independent and dependent items was determined through correlation coefficients for every student. The hypothesis was also tested through ANOVA, T-Test and Simple Linear Regression analysis.

Reliability and Validity:

We need to ensure the measurement accuracy of the employed instruments. Reliability analysis actually gauges the consistency between various variables; whereas, validity ensures the measurement scale. The reliability was ensured through Cronbach's alpha coefficient. The outcomes are listed in the tabular data. Outcomes also represent the association between dependent and independent variables. There was a positive correlation between both tables

Table – I: Correlation between dependent and independent items

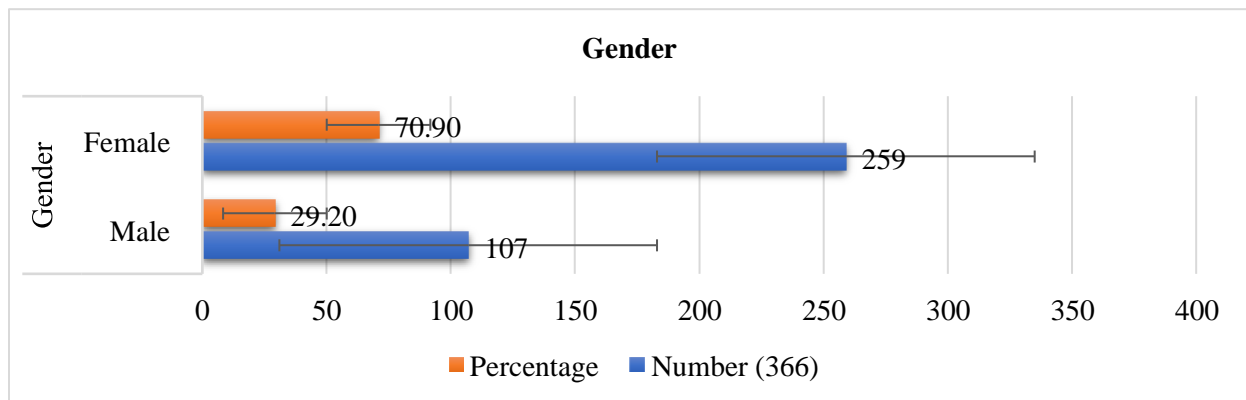
Independent Items	USS Items	USS1	USS2	USS3	USS4	USS5	USS6	USS7
	USS1	1						
	USS2	0.577	1					
	USS3	0.702	0.597	1				
	USS4	0.483	0.34	0.475	1			
	USS5	0.682	0.48	0.643	0.445	1		
	USS6	0.53	0.39	0.53	0.435	0.587	1	
Dependent Items	AAS Items	AAS1	AAS2	AAS3	AAS4	AAS5	AAS6	AAS7
	AAS1	1						
	AAS2	0.354	1					
	AAS3	0.408	0.568	1				
	AAS4	0.432	0.433	0.566	1			
	AAS5	0.448	0.476	0.577	0.588	1		
	AAS6	0.567	0.365	0.462	0.546	0.482	1	
AAS7	0.406	0.356	0.498	0.508	0.439	0.493	1	

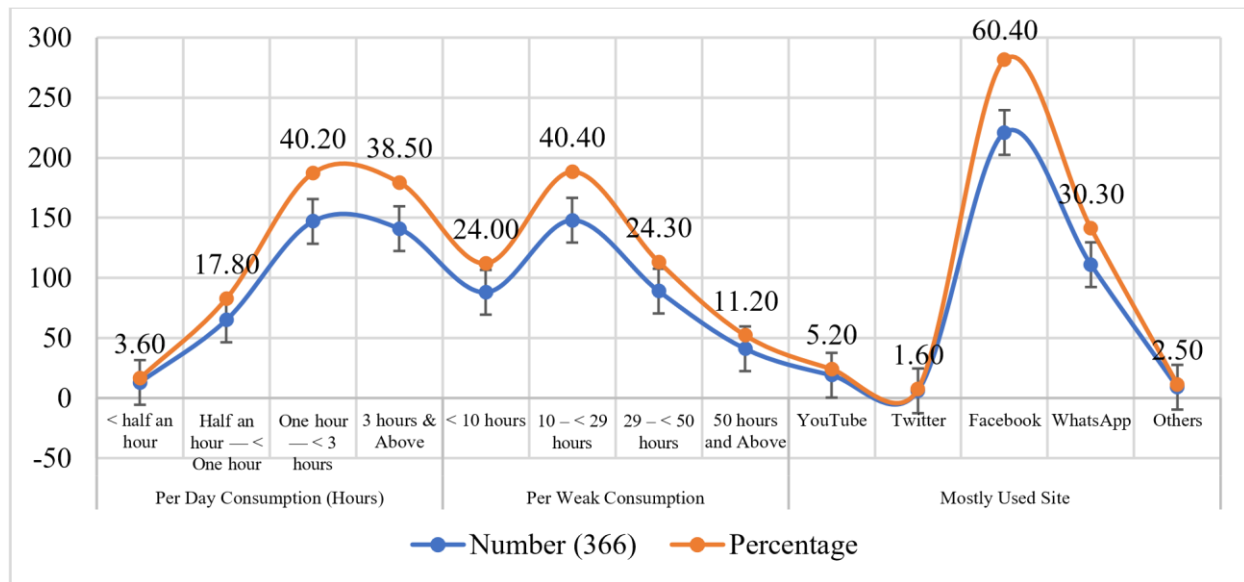
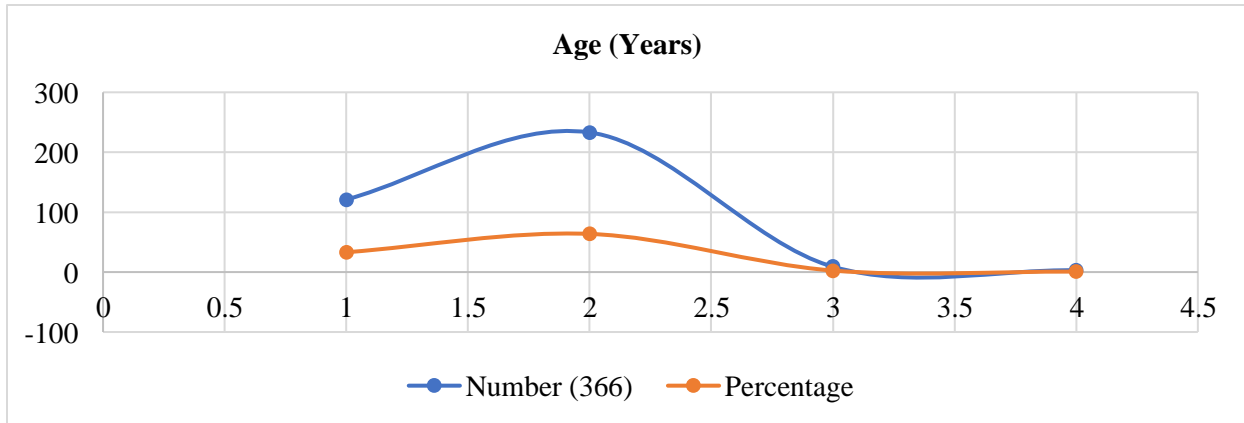
Respondents Demographic Profile

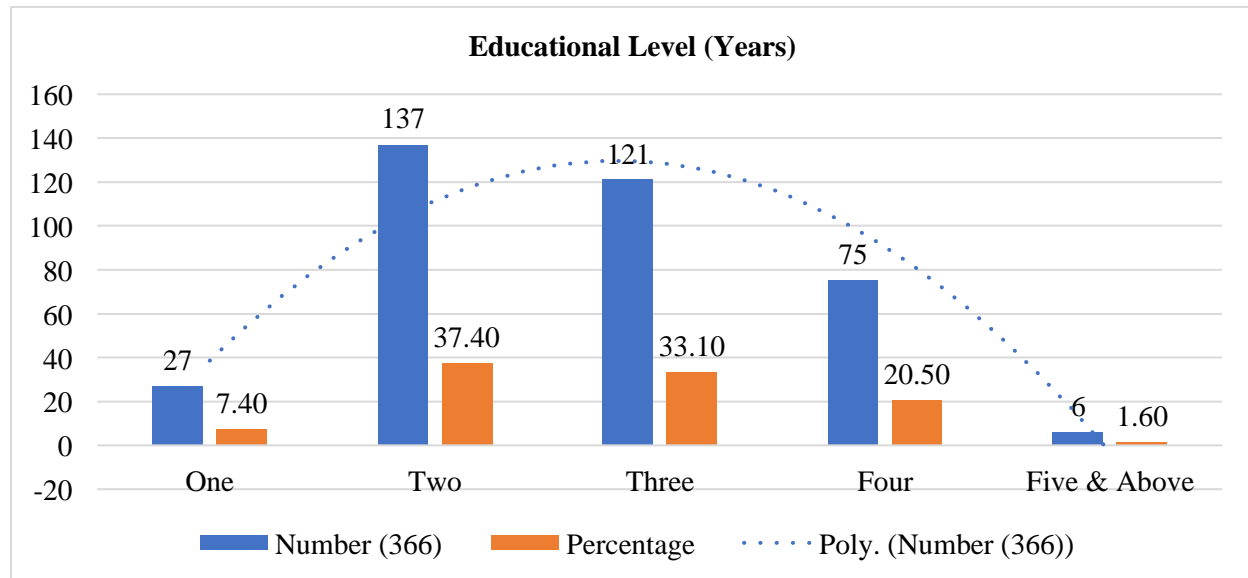
Detailed demographic analysis has been portrayed in Table – II which includes gender, age, educational level and use of SNSs per hour, week and most used sites. A chunk of students was using Facebook.

Table – II: Student's Characteristics

Category		Number (366)	Percentage
Gender	Male	107	29.20
	Female	259	70.90
Age (Years)	17 — < 20	121	33.10
	20 — < 23	233	63.70
	24 — < 26	9	2.50
	≥ 27	3	0.80
Educational Level (Years)	One	27	7.40
	Two	137	37.40
	Three	121	33.10
	Four	75	20.50
	Five & Above	6	1.60
Per Day Consumption (Hours)	< half an hour	13	3.60
	Half an hour — < One hour	65	17.80
	One hour — < 3 hours	147	40.20
	3 hours & Above	141	38.50
Per Weak Consumption	< 10 hours	88	24.00
	10 – < 29 hours	148	40.40
	29 – < 50 hours	89	24.30
	50 hours and Above	41	11.20
Mostly Used Site	YouTube	19	5.20
	Twitter	6	1.60
	Facebook	221	60.40
	WhatsApp	111	30.30
	Others	9	2.50







Descriptive Analysis:

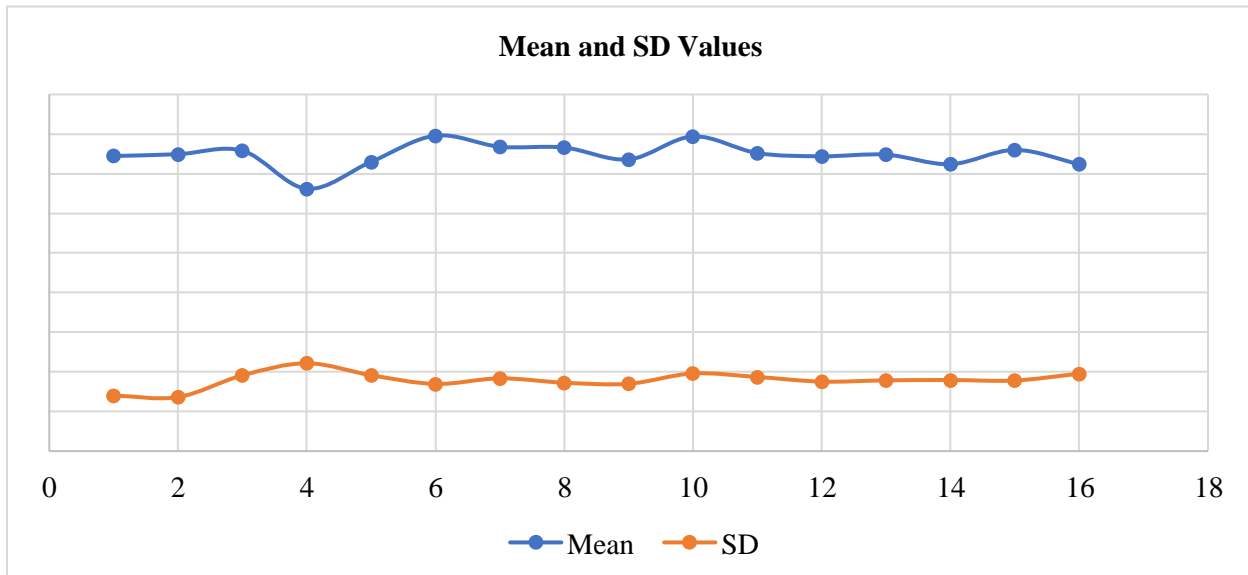
To describe the responses about every question of the survey we used Mean and Standard Deviation values as shown in Table – III. Small SD values reflect that they are closely clustered; whereas, large SD values indicate the possible opposition. Most of the students were using SNSs regularly (Mean Score = 3.7233). It

highlights the importance of the use of SNSs among university undergraduates and it also enhances the academic performance in one way or the other. This speaks for the engagement of the students in the use of mobile applications and information technology along with other routine activities.

Table – III: Mean and SD Values

Variables		Mean	SD
Study Variables	Social networks websites (Independent)	3.723	0.701
	Academic achievements (Dependent)	3.746	0.682
Use of Social Networking	Social networking is useful for students.	3.790	0.956
	It positively affects Academic Achievement.	3.310	1.108
	It helps in the achievement of the academic objectives.	3.650	0.958
	It improves the ways to communicate with colleagues.	3.980	0.848
	It helps in the learning of new skills.	3.840	0.918
	The concepts of social networking have improved over time.	3.830	0.863
	It positively affects life and future.	3.680	0.850
Academic Achievement	Social networking sites are fast.	3.970	0.980
	I use them more at present than in the past.	3.760	0.935
	Social networking has improved my performance.	3.720	0.877

I have been introduced with the new features of these sites.	3.740	0.893
My use of various sites has also been developed.	3.620	0.897
My skills and knowledge have also increased.	3.800	0.891
Critical thinking and analysis have also been increased.	3.620	0.977



Hypothesis Testing Results:

Our research aims to investigate the ways and degree of its impact on the use of social networking sites on the academic performance of the students. Simple linear regression method tested the hypothesis with a significance level of ($\alpha = 0.05$) and a probability value under or equal to the level of α , alternative hypothesis was recommended over null hypothesis. However, in case of greater P-value that level of α than we cannot reject null hypothesis over alternative hypothesis.

achievement of the students. A significant difference lies in the SNSs impact on academic performance with respect to the demographic features of the students. Whereas, sub-hypothesis states that age and gender play a vital role in the significant difference in use of SNSs and its impact on academic achievements. Detailed analysis of the research model has been depicted in the outcomes given in Table – IV (research model analysis), Table – V (academic achievement), Table – VI (consumption outcomes) and Table – VII (ANOVA analysis outcomes).

Hypothesis and its Outcomes:

The hypothesis of this research was mainly that there is a significant statistical SNSs impact on the academic

Table – IV: Research Model Analysis

	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
Research Model Summary	1	0.839 a	0.703	0.702	0.37196		
Research Variance	Model	Sum of Squares	Df	Mean Square	F	Sig.	Result

Analysis	Regression	119.376	1	119.376	862.85	0.000 a	Accept the hypothesis
	Residual	50.36	364	0.138			
	Total	169.736	365				
Coefficient of predictors (a)	Model	B	Std. Error	T	Sig.	Result	
	(Constant)	0.707	0.105	6.722	0	Accept the hypothesis	
	USS	0.816	0.028	29.374	0		

Table – V: Analysis of Academic Achievement

Academic Achievement	Male			Female			T	df	Sig.
	Number	Mean	SD	Number	Mean	SD			
T-Test	107	3.618	0.8897	259	3.799	0.5684	1.91	143.1	0.07
ANOVA Analysis (Age)	Variables	Sum of Squares		Df		Mean Square		F	Sig.
	Between Groups	0.968		3		0.323		0.692	0.56
	Within Groups	168.768		362		0.466			
	Total	169.736		365					
ANOVA Analysis (Academic Level)	Between Groups	0.894		4		0.223		0.478	0.75
	Within Groups	168.842		361		0.468			
	Total	169.736		365					
ANOVA Analysis (Per Day Use)	Between Groups	9.485		3		3.162		7.142	0.000
	Within Groups	160.252		362		0.443			
	Total	169.736		365					

Table – VI: Consumption Outcomes

Per Day Consumption		Mean Difference (I - J)	Std. Error	Sig.	95% CI Limit	
I	J				Lower	Upper
< Half an Hour	Half an hour — < One hour	-0.72308	0.20215	0.002	-1.2448	-0.2013
	One hour — < 3 hours	-0.75181	0.19252	0.001	-1.2487	-0.2549
	3 hours & Above	-0.87608	0.19285	0	-1.3738	-0.3783
Half an hour	< Half an hour	0.72308	0.20215	0.002	0.2013	1.2448
	One hour — < 3 hours	-0.02874	0.09911	0.991	-0.2845	0.2271

— < One Hour	3 hours & Above	-0.15300	0.09975	0.418	-0.4105	0.1045
One Hour — < 3 Hours	< Half an hour	0.75181	0.19252	0.001	0.2549	1.2487
	Half an hour — < One Hour	0.02874	0.09911	0.991	-0.2271	0.2845
	3 hours & Above	-0.12427	0.07843	0.389	-0.3267	0.0782
≥ 3 Hours	< Half an hour	0.87608	0.19285	0	0.3783	1.3738
	Half an hour — < One Hour	0.153	0.09975	0.418	-0.1045	0.4105
	One hour — < 3 hours	0.12427	0.07843	0.389	-0.0782	0.3267

Table – VII: Outcomes of ANOVA Analysis

ANOVA Analysis		Sum of Squares	df	Mean Square	F	Sig.
Academic Achievements (Use per day)	Between Groups	2.511	3	0.837	1.81	0.15
	Within Groups	167.226	362	0.462		
	Total	169.736	365			
Academic Achievements (Use of Sites)	Between Groups	1.762	4	0.441	0.95	0.44
	Within Groups	167.974	361	0.465		
	Total	169.736	365			

DISCUSSION AND CONCLUSIONS:

The motivation behind this study was to evaluate the association between academic performance and the use of SNSs among university undergraduates. The demographic profile revealed more involvement of females in the use of SNSs especially juniors who were in the age bracket of (20 – 25) years. The outcomes show that using more Facebook consumes an average three hours a day by 38.5% university students and an approximate of 40% spend >10 hours/week. The hypothesis claims a significant and direct impact of SNSs and academic achievement. Whereas, the other hypothesis claims a difference in the demographic features and use of SNSs with moderate variables like gender, age, consumed hours and academic level. The important factor was the measurement of consistency and accuracy between variables as proposed by the constructs. We approved the convergent validity and reliability for dependent and independent variables. Outcomes were satisfactory between variables and Cronbach's alpha coefficient. The hypothesis was tested through ANOVA, T-Test and Simple Linear Regression. A higher correlation existed between academic

performance and social network use. Hypotheses also stated significant variation in the impact of SNSs use because of consumed hours, gender, age and educational level. T-test stated no significant variation between academic performance and SNSs impact among in terms of gender (P-Value = 0.066 & α -level = 0.05).

The hypothesis was also evaluated on ANOVA test and outcomes suggested that no significant difference exists between academic performance and use of SNSs because of consumed hours, gender, age and academic achievement. Whereas, increased per hour use of SNSs per day impacted academic performance. More analysis was also conducted between groups for various amounts of time spent on use of SNSs. The outcomes express that more hours spent on SNSs effect on the academic performance as the hours of a day are limited with reduced chances of multitasking so it impacts academic performance. While comparing per week use with per day use, it is observed that per week use did not impact the academic performance. Results can be clarified with the intelligent use of SNSs during weekends and off days. As more free

time is available during weekends which can compensate the other days reduced SNSs interaction. Students may spend more time on SNSs during weekends while concentrating on studies during normal working days. We also suggest that future studies should also counter the negative impacts of excessive use of internet for SNSs which negatively affects academic achievement and performance.

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