

The Impact of Social Media Network Sites on Academic Success of Students: Special Reference to Advanced Technological Institute, Sammanthurai

MIM. Riyath, A. Nishanthini

riyathtc@gmail.com; nishanthi9544@gmail.com

Department of Business and Management Studies,
Faculty of Communication and Business Studies,
Trincomalee Campus, Eastern University of Sri Lanka,

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Abstract: Social Media Network (SMN) becomes one of the greater influences on lifestyle and habits of teenagers which affects the educational environment and performance. There are different arguments about the possible effects of SMN on students' academic performance. Studies show that it quite appropriate for teachers and students to use social media to socialize by this means for academic purposes. Studies on impact of SMN on academic performance among students of Advanced Technological Institute (ATI) is hard to find in academic literature. Therefore, this study examines the use of SMN on academic performance among students of ATI. Self-administrative questionnaire is used to collect data from 148 randomly selected students in different courses in the ATI - Sammanthurai. The respondents are classified into four categories (Non, light, medium and heavy users) based on average time spent in SMN sites and apps. The students' academic performance is evaluated through Grade Point Average (GPA) of respective students in their study programme. The ANOVA statistical technique is used to find the impact of SMN on students' academic performance by comparing the mean GPA of groups of respondents. The study finds that the use of SMN has a significant impact on the students' academic performance. The light users get the highest GPA than all other groups. Non-users also get a higher GPA than medium and heavy users. The mean GPA differences between the non-users and the medium users are not statistically significant. The light users spend less time relatively other groups of users. The light users may utilize the SMN for educational purposes. However, the medium users utilize SMN for entertainment as well as educational purpose. The heavy users are spending much of their study time on SMN which leads to reduce in study time and adversely impact on their academic performance. This study concludes that the reasonable use of SMN helps to increase academic performance of the ATI students.

Keywords: *academic performance, ATI, Education, Social media network*

INTRODUCTION

Today, it is very common to talk about Social Media Networks (SMN), both in teenagers and in the majority of people at different ages. The colleges modify their classrooms in digital nature that demand a new type of education. The colleges grow under the influence of audiovisuals and network with new technological tools (social media networks, blogs, video platforms, etc.) which have given the ability to create, share, inform and communicate academic information that become an essential element in their educational lives. SMN sites, such as Facebook, Google+, twitter, YouTube, Forums, LinkedIn, WhatsApp, Slide Share and Myspace are the most popular places for these students to spend their time, and are the primary focus of this study (Flad 2010). Facebook has become common among college students. They spend many hours on games and applications till late-night, rather than studying or revisioning. This behavior could affect the students' marks and concentration during their class. Young people have fully incorporated their lives with new network technologies and internet applications via mobile devices and computers which have become the ideal space for exchanging information and knowledge in fast, simple and comfortable manner. Teachers can take advantage of this situation and the willingness of students to use social networks to incorporate into teaching. The young people think that surfing the Internet or the use of social networks is not a waste of time, because they are integrating

technological competence and communicative as they are very essential for the modern world. Nowadays, social networks are becoming one of the greater influences on life style and habits of people, mainly teenagers which offering advantages and disadvantages within the educational environment due to excessive use of this website.

This social media network consists a variety of functions, based on maintaining a virtual relationship with those people with whom one has lost direct contact. Considering that there are people in our life with which we would like to continue to retain any closeness, whether they are friends, family, colleagues or acquaintances, that is why once a connection is established with them on Facebook may be in permanent contact. According to Baran (2010) cited in Ahmed (2011) though there are negative perceptions about the possible effects of social network on students' academic performance, some studies showed that students found it quite appropriate for a teacher to use Facebook, and for teachers and students to socialize by this means. Social networks, communication styles and learning performance in a computer supported collaborative learning community use social media network (Divjak & Peharda 2010).

As social media sites continue to grow in popularity, it is premise that technology is a vital part in today's student success equation. Ranaweera, et al, examined the usage and implications of social networking sites (SNS) among Univotec students. Data were collected from a random sample of students at University of Vocational Technology in Rathmalana, during the second semester of 2014. This descriptive, exploratory research study drew a random sample of males and females, covering all subject streams, who were administered a student perception questionnaire on how social media affects Univotec students and find there is a positive relationship. A study was conducted by Habes, Alghizzawi, Salloum and Ghani (2018) to highlight the impact of social media on students in the higher educational universities and its impact on the students' academic performance. Social media has become one of the most popular means of communication due to its ability to deepen the conviction of the recipient and to increase his knowledge and trends. The study indicated that a large number of university students are using social media with more focus on Facebook, which in turn negatively affect their academic results.

A research study was conducted to examine the influence of Social Media and Academic Performance Of students in University of Lagos. Research findings showed that a great number of students in University of Lagos, are addicted to social media. To this end, the researcher recommended that social media should be used for educational purposes as well; Social Networking Sites should be expanded and new pages should be created to enhance academic activities and avoid setbacks in the students' academic performance; and Students should be monitored by teachers and parents on how they use these sites This is to create a balance between social media and academic activities of students to avoid setbacks in the academic performance of the students.(Peter, 2014)

There are different arguments about the possible effects of SMN on students' academic performance. Studies show that it quite appropriates for teachers and students to use social media to socialize by this means for academic purposes. Study on impact of SMN on academic performance among students of Advanced Technological Institute (ATI) is hard to find in academic literature. Therefore, this study examines the use of SMN on academic performance among students of ATI. In other words, does spending time to access social media network site on personal computer or mobile devices impacts on study time which leads to a significant impact on students' academic performance. The academic performance is measured by overall GPA of the student.

Methodology

This research is designed to test the impact of using social network sites on student academic performance in their course of studies. The study is performed through the collection of quantitative data, which then analyzed using computerized statistical package. For this research, it selects a group of respondents, collect data, and analyze the data to answer the research question. Questionnaire technique has been used to collect data from the clustered sample. As such, ATI Sammanthurai is selected and

randomly choose 148 students from different courses conducted in the ATI. This research is an appropriate investigation tool for making generalized interpretations about a large group of people based on data collected from a smaller number of individuals from that group. The students' academic performance is evaluated through GPA taken by students in their study programme at ATI Sammanthurai. The independent variable is time spent on social network sites. Based on time spending on social network sites, the students are grouped. This data is taken from the respective students through questionnaire during the class. However, the GPA of respective students are taken from their examination database at the ATI. This procedure of getting data adds validity for the data and study.

In order to study the effect of Social Media Network Sites on academic performance of the students at ATI, the students are firstly classified into four categories on the basis of the average time spent in hours per week on accessing Social Media Network sites. The first group is comprised of those students who do not have account on any Social Network sites and or are not using these sites regularly. The second group is the light users who spent time between 0 to 7 hours per week i.e. they are spending less than 1 hour per day. The third group is the medium users who spent time between 8 to 14 hours per week, i.e. they are spending more than 1 hour and less than 2 hours per day. The fourth group is those who spent more than 14 hours per week i.e. spending more than three hours per day. They are labeled as heavy users.

This study has used SPSS to perform the statistical analysis. The questionnaire is analyzed using descriptive statistical techniques. Descriptive statistics is another statistical technique which is used in this study to define the mean, minimum value, maximum value, and standard deviation for relevant variables considered. The key research question is answered using ANOVA test as statistical technique. This study uses this technique to find the impact of using social network site on students' performance by comparing mean of GPA of groups of students which are grouped based on time spent on it. This study is intended to bring attention to and awareness of the impact of using social network site on students' academic performance.

Results and Discussion

This section presents and interprets the output generated by SPSS 16.0 from data collected for this survey. The total number of respondents in the sample include is 148 students. Among them 32 (6 male and 26 female) students do not use any social network sites which represent 21.6% of the sample. 74 (29 male and 45 female) students are light users which represent 50.0% of the sample. 28 (17 students and 11 female) students are medium users which represent 18.9% of the sample. 14 (11 male and 3 female) students are heavy users which represent 9.5% of the sample.

From the sample of students, the variable time spent on social network sites gives mean value of 5.28 hours with standard error of 0.40. At 95% confidence level the mean time of the student's lies between 4.4895 to 6.0780 hours per week. But there is a 5% change to the mean time not lies within the range. Standard deviation of 5.89 hours, the range between 0 and 18 hours per week. The dependent variable GPA gives mean value of 2.0663 with standard error of .07337. At 95% confidence level the mean GPA of the student's lies between 1.9213 and 2.2113. But there is a 5% change to the mean time not lies within the range. Standard deviation of .89257, the range lies between .29 and 3.83.

Statistical Hypothesis

H_0 : Student's GPA of between groups are equal ($\mu=\mu$)

H_1 : Student's GPA of between groups are not equal ($\mu\neq\mu$)

Research Hypothesis

H₀: Use of Social network sites are not significantly affect the students' performance

H₁: Use of Social network sites are significantly affect the students' performance

For the analysis descriptive statistics of each group formed based on time spent on SMN, the overall mean GPA is 2.0663, standard deviation of 0.89257, with standard error of 0.07337 and at 95% of confidence interval for mean GPA between 1.9213 and 2.2113. The non-users' mean GPA is 1.9653, standard deviation of 0.68570, with standard error of 0.12122 and at 95% of confidence interval for mean GPA between 1.7181 and 2.2125. The light-users' mean GPA is 2.4618, standard deviation of 0.81544, with standard error of 0.09479 and at 95% of confidence interval for mean GPA between 2.2728 and 2.6507. The medium-users' mean GPA is 1.7004, standard deviation of 0.80962, with standard error of 0.15300 and at 95% of confidence interval for mean GPA between 1.3864 and 2.0143. The heavy-users' mean GPA is 0.0986, standard deviation of 0.46776, with standard error of 0.12501 and at 95% of confidence interval for mean GPA between .6685 and 1.2086.

The ANOVA test help to find the initial differences between groups. ANOVA output. Which used to compare mean differences between groups of the sample. The F-statistic is 19.194 in degree of freedom 3, The Sig value is 0.00. it rejects null hypothesis i.e. there is a significant evidence to reject that students' average GPA are different between groups, so it comes to the conclusion that the average GPA of students' are statistically significantly different. So student's time spent on SNS impact on students' performance.

Further to find out which group are different from each other group, the post hoc Tukey HSD multiple comparison test used. The mean differences at 0.05 significant level between non user and light user is -0.49644 and sig value is 0.013. So, it says that the mean difference is significant. The groups between non users and medium users is 0.26496 and sig value is 0.537. So we can say that the mean differences is not significant. The groups between non users and heavy users is 1.02674 and sig value is 0.000. So we can say that the mean differences is significant. The groups between light users and medium users is 0.76140 and sig value is 0.000. So we can say that the mean differences is significant. The groups between light users and heavy users is 1.52319 and sig value is 0.000. So we can say that the mean differences is significant. The groups between medium users and heavy users is 0.76179 and sig value is 0.014. So we can say that the mean differences is significant.

Conclusions/Recommendations

The use of social network sites relatively impacts on students' academic performance. When comparing the mean GPA of each group, the light users get higher GPA than other groups. Non users also get high GPA but relatively less than light users and higher than medium users and heavy users. The difference between light users and non-users is significantly different. The reason may be they are spending reasonable amount of time on social network sites, as such they would get an opportunity to use SNS for their educational purpose which leads to academic performance. Meanwhile, non-users are utilizing traditional way of getting knowledge for their academic performance. The mean GPA differences between the non-users and the medium users are not statistically significant. The reason could be the medium user use SNS for educational purpose but not same as light users. The light users spend less amount of time relatively medium users as such they can utilize the time for traditional way of learning, but the medium users spend less time for studies in traditional way of learning relatively with the light users and the non-users of SNS. The heavy users are spending much time of their study time on SNS which leads to impact on study time then adversely impact on academic performance. When analyzing the gender differences of the students also seem to give significant differences in academic performance. Female students get higher GPA than Male students. The reason could be female student spend less time relatively to male students which might lead to the academic performance of the female students.

The study conclude that the use of social media network sites help to academic performance of the students but the students have to use the sites with care only for learning purpose with reasonable time which could not impact on their traditional learning hours. If the students use more than reasonable time it may lead to adversely impact on their academic performance.

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