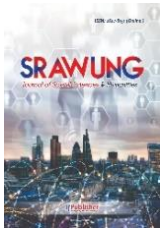

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Social Media and Students' Academic Performance: A Case Study of Students Pursuing Business Administration at Higher Education Institution in Phnom Penh, Cambodia

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ABSTRACT

The purpose of this research is to examine the effect of social media on students' academic performance. The case study is based on the academic performance of students majoring in business administration at a higher education institution in Phnom Penh, Cambodia. A conceptual framework was developed from previous research which includes social media information, social media innovation, social media entertainment, social media knowledge generation, and student performance. Quantitative methods were used to distribute questionnaires to 376 respondents. A multistage sampling technique was conducted by nonprobability sampling, using judgmental sampling to select university students, quota sampling to calculate the sample size, and convenience sampling to distribute the questionnaire online, using several popular social networks. Before collecting data, the Index of Item-Objective Congruence (IOC) was used to validate the constructs. Factor loadings and Cronbach's alpha were tested for reliability, using 50 respondents as a pilot study, single and multiple linear regressions were applied to test hypotheses, and correlation matrices were used to identify variable relationships. The results indicated that social media information, social media innovation, and social media entertainment have a strong effect on social media knowledge creation. In addition, social media knowledge creation has a strong impact on student performance.

Keywords: *Student Performance, Social Media Information, Social Media Knowledge*

INTRODUCTION

The existence of social media in recent years has changed the way most users interact with the web. The basis of social media is about how people engage and get to know each other. People can share, which expands the world and strengthens human relationships. Social media has a significant impact on our lives because it helps in all aspects of life, including politics, economics, and education. The primary tool for communication, social interaction and information gathering, and has the potential to be a main component of community and identity development are social media exchanges. Based on these facts, high school educators must begin to consider ways to intentionally and strategically use the power of these revolutionary technological developments to better serve the needs of students and increase their success. Billions of people watch videos on YouTube every day. New video footage is uploaded every hour. More than 90 % of college students use social networking sites on a daily basis. People have incorporated these networks into their daily lives through the use of Facebook, Twitter, LinkedIn, online gaming platforms, and other applications. In 2018, there were 12.5 million active internet users in Cambodia, or about 75% of the total population. There are 7 million Facebook users in Cambodia. Therefore, to reach young Cambodians, traditional advertising strategies through mass media such as TV and radio are switching to online marketing.

Social media is becoming present in the workplace, allowing for organizational communication that was not possible before (Treem & Leonardi, 2013). Along with its rapid development and widespread use, social media has changed the way individuals interact with each other (Chang & Hsiao, 2014). People living in both advanced and developing countries, the internet and increased use of the internet for educational purposes has become a challenge (Jaiyeoba & Iloanya, 2019; Stavroulia et al., 2019). The widespread use of the internet today and the increasing accessibility of digital mobile devices such as tablets and mobile phones have contributed to its appeal. Based on the previous description, this research was conducted to find out and study how social media has its role in the academic field. It will assist in improving the understanding of how social media information, social media innovation, social media knowledge, and social media entertainment impact the academic performance of students pursuing their education in higher education.

LITERATURE REVIEW

Social Media Information

The types, sources and uses of content obtained through digital media are described in the study on the role of social media (Chong et al., 2017). Content use can be for a various purposes, including leisure, work, fashion, travel, shopping, socializing, education, and health. Yazdanparast et al (2016) also stated that social

media marketing activities (content) affected attitudes towards the company, and they recommended that marketers develop social media experiences (entertainment) and provide social media content that matches consumers' reasons for using social media. Social media has become an interaction tool that people use to share ideas, opinions and assist in interconnected living. Social networking sites contain users to construct their profiles on the homepage, this is a user-personalized web page and stores user information (Abbas et al., 2019).

Although the Internet can be evaluated and is a source for diversifying digital products, a large number of digital products can be tracked by interested stakeholders with various SNS platforms. The researchers have pointed out that social media posts signify relationships and friends. Dzogbenuku et al (2021) identified three types of tagged relationships (users, resources, and tags), two of them were labeled as users or resources, and applied collaborative filtering based on traditional or user-based elements. Based on these discussions, it can be stated that improved internet access based on user-friendliness can solve more complex problems through social collaboration and knowledge sharing.

Social Media Innovation

Innovation is defined as the ability to continue transforming knowledge and ideas into new products, processes and systems for the benefit of the company and its stakeholders (García-Sánchez et al., 2018). Every society needs innovation to make its existence worthwhile, according to reputable experts (Serdyukov, 2017). Adopting new technology and inventive learning are correlated positively (Dubey & Sahu, 2021). Social media innovation is considered as a main factor that affects students' attitudes and learning outcomes based on social media and students' practices. High-level students may be more encouraged to use new technologies, such as social media, than students with intermediate technological abilities because they are more creative when using the internet (Zolkepli & Kamarulzaman, 2015). Social media also has a significant impact on society. Social media platforms have changed people's online behavior and socialization patterns. Social media provides an opportunity for people to interact with their friends and allows them to exchange things like photos, videos, and audio files. Social media changes the way people live, goals can be achieved on social media platforms because they unify people on a large platform. Using advertisements, polls, and promotions, social media increases awareness among users, allowing users to stay up to date with the latest news (Chukwuere & Chukwuere, 2017).

Social Media Entertainment

In order to accomplish one's digital goals, peer-to-peer connections on social media encourage enjoyment on websites such as Facebook, Instagram, and Twitter, among other platforms (R. Dzogbenuku et al., 2019). Utilization and satisfaction theory, which finds its origins in the communication literature is highly relevant to

today's social media challenges. Through millions and billions of potential users connected on platforms around the world, social media allows users to communicate significant entertainment messages in the form of images, audio, and video (Whiting & Williams, 2013). Social media networks connect consumers, especially students, as they fulfill their need for entertainment and therefore make them happy (Zolkepli & Kamarulzaman, 2015). Long-term media consumption can still be predicted accurately through satisfaction surveys (Whiting & Williams, 2013).

Social media offers entertainment and fun, especially for young consumers who use the Internet frequently, noting that the entertainment component continues to be crucial when examining its effects on customers. They described entertainment as the pleasure and happiness that people derive from engaging in social activities (Jung, 2014). Recreation and relaxation are considered as two different ideas based on consumption and satisfaction theories. While recreation focuses on relaxation, relaxation offers stress reduction (Antón et al., 2014). An integrated, high-quality interview was used in a research by Whiting and Williams (2013) to indicate how engaging activities such as playing games, listening to music, and watching videos encourage social media users to interact for entertainment and humor. Respondents in this research were given permission to read jokes, watch jokes, and listen to jokes. Some respondents admitted that playing games on social media with their friends made them happy and kept them chatting for hours. Furthermore, the phenomenon of social media entertainment promotes enjoyment by reducing stress. The capacity of new media to fulfill the demands needed for detachment and relaxation while reducing stress can be credited with its value (Taylor, 2020). On the other hand, analysis of user-generated material in mobile apps indicates that these apps offer a reliable source of enjoyment (Al-Abbadey et al., 2021). According to James et al (2022), online information and entertainment has a beneficial connection to stress reduction.

Social Media Knowledge Generation

Social media is widely used in both commercial and non-commercial sectors of society (Stathopoulou et al., 2019). Because of their ability in attracting users, enhancing stakeholder communication, gathering feedback, improving, and promoting concepts and goods aligned with innovation principles, they have become attractive. In order to support successful teaching and learning between faculty and students, its application in an educational context requires specialized knowledge and skills. Faculty of Education can interact with students by using student-friendly teaching techniques and sharing and reviewing courses in real-world learning experiences using social media platforms (Stathopoulou et al., 2019). Students have benefited from social media as it allows them to quickly find materials on specific subjects. The advancing technology helps students develop their skills. Students can complete various creative tasks using social media as it is

easy and cheap to use, including uploading photos, videos and music and getting comments from their family and friends. It helps students develop their artistic abilities and build their confidence. Art is an expression of the potential within ourselves (Chukwuere & Chukwuere, 2017).

Student Performance

Because it encourages communication beyond personal conversations for many people (Ahmad et al., 2018; Siamagka et al., 2015). Social media is probably the most common in personal and business cycles. Social media also offers a cheaper alternative to automated printing, content management, and conversion tracking among users. Social media studies conducted over the past ten years have indicated that consumers benefit from social media (Siamagka et al., 2015). In order to increase user engagement, social media platforms encourage the marketing of ideas through smart devices such as mobile phones and tablets. Social media offers advantages relative to user acceptance (Fauqi, 2022). According to Lau (2017) evaluating student performance in relation to social media use among students at eight universities in Hong Kong, those who used Twitter more frequently had a higher cumulative grade point average (GPA) than those who did not, indicating that social media has a positive impact on academic performance. Using a synchronous communication model on websites and chat forums that encourages social networking to support performance, educational performance and internet dependence are substantially connected (Owusu-Acheaw & Larson, 2015). It was discovered that social networking among college students improves academic performance in the context of college students. Contrary to popular belief, excessive social media use does not promote academic learning (Al-Rahmi et al., 2018). Meanwhile, other studies have found no relationship between academic success and social networking.

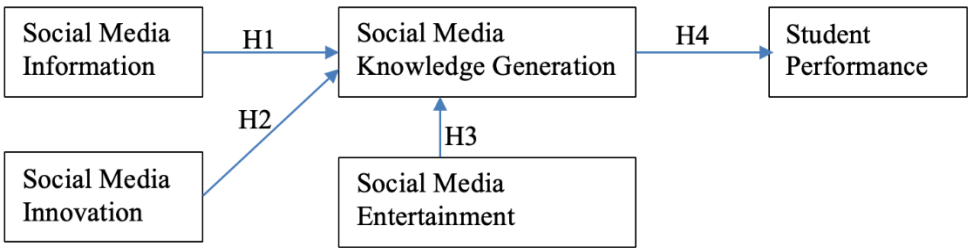


Figure 1. Conceptual Framework

RESEARCH METHODOLOGY

This research framework is developed from previous theoretical studies that relate between social media and student performance. This research aims to examine factors including social media information (SM-INFOR), social media innovation (SM-INNOV), social media entertainment (SM-ENTER) that have a significant impact on social media knowledge generation (SM-KNOW). In

addition, this research also investigates the relationship between social media knowledge creation and student performance (ST-PERFOR). This research used quantitative methods by distributing questionnaires through online channels. The research instrument was structured with screening questions, measurement items using a five-point Likert scale, ranging from highly agree (5), agree (4), neutral (3), disagree (2), and highly disagree (1) and demographic information. Factor analysis and Cronbach's Alpha (CA) reliability test were used to measure the items among 50 respondents as a pilot study. Alpha values were higher than 0.7, factor loading was higher than 0.60, KMO was higher than 0.60, and item-total correlation was higher than 0.50. Data was collected by distributing questionnaires to 376 respondents. Factor analysis and reliability were tested, correlation matrix was executed to examine the correlation between variables, and simple and multiple linear regressions were used to examine the relationship between independent and dependent variables.

The target population used in this research is undergraduate business administration students who have experienced and used various well-known social media through smart devices such as smart phones, tablets, and laptops. Soper's (n.d.) A-priori Sample Size Calculator for Structural Equation Models was used to calculate the minimum recommended sample size of 376. After 416 responses were screened, the usable data for this research was 376. A multistage sampling technique, using nonprobability sampling, was applied in this research. First, judgmental sampling was used to select undergraduate business administration students who have used social media, social networks, and smart devices. Second, quota sampling was used to calculate the sample size. Finally, the researcher applied convenience sampling method to collect data from February to the end of April 2023 online, using google form to prepare questionnaires and distribute them through Telegram messenger and Facebook groups and channels.

The demographic profile of the 376 respondents is summarized in this section. The number of female respondents was 80.5%, and the number of male respondents was 19.5%. Most of the respondents were freshmen at 65% of the total respondents, followed by first and second year students at 35%. Among the respondents, 56.1% were undergraduate students and 43.9% were graduate students. Regarding age range, 80.5% were between 17 years old and 20 years old, 17.1% were between 21 years old and 25 years old. And above 25 years old as much as 2.4%. In addition, the respondents' experience in using the internet is between 1 year and 4 years, 63.4%, between 5 years and 8 years, 17.1%, and above 8 years, 19.5%. The average duration of daily social media use between 1 to 2 hours is 48.8%, 2 to 3 hours is 24.4%, less than 1 hour is 7.3%, and more than 3 hours is 19.5%. Most of the devices used to access social media are smartphones, which represent 95.1% of the available electronic devices and are followed by laptop computers at 4.9%. In addition, the experience of using social media was 61% between 1 year to 4 years, 26.8% between 5 years to 8 years, and 12.2% above 8 years. Among the most

popular social media that have been used by respondents is Facebook at 87%, followed by YouTube at 78%, and telegram at 65.9%. In addition, the purpose of using these social media is 82.9% for education, 56.1% for communication, 46.3% for entertainment, and 41.5% for business.

Table 1. Demographic Information (N = 376)

Demographics	Characteristics	Frequency	Percentage
Gender	Male	73	19.50%
	Female	303	80.5
Ages	17-20	303	80.5%
	21-25	64	17.1%
	Above 25	9	2.4%
Education	Associate's Degree	165	43.9%
	Bachelor's Degree	211	56.1%
Years of Education	Freshmen	244	65%
	Junior-Sophomore	132	35%
Experience of Using Internet (Years)	1-4	238	63.4%
	5-8	64	17.1%
	Above 8	74	19.5%
Average Duration of Daily Social Media Usage (Hours)	1-2	183	48.8%
	2-3	93	24.4%
	Less Than 1	27	7.3%
	More than 3	73	19.5%
Devices Used for Social Media Access	Smartphones	357	95.1%
	Laptop	19	4.9%
Experience of Using Social Media (Years)	1-4	230	61%
	5-8	100	26.8%
	Above 8	46	12.2%

Source: Processed Data by Researcher

RESULT AND DISCUSSION

Factor Analysis and Reliability

Table 2. Model Fit for Factor Analysis and Reliability Test

Description	Factor Analysis	Reliability Test
Factor Loading	≥ 0.60	
KMO and Bartlett's Test	> 0.50	
Cumulative Percentage	> 60%	
Eigenvalue	> 1	
Item-total Correlation		> 0.50
Coefficient Alpha		≥ 0.60

Source: Based on Hair et al (2020)

According to Hair et al (2020), factor loading must be higher than 0.60, KMO higher than 0.50, cumulative percentage higher than 60%, Eigen value higher than 1, inter-total correlation higher than 0.50, and alpha coefficient higher or equal to 0.60. In table 3 below, the factor loading of each variable is higher than 0.60. The factor loadings of the observed variables of Social Media Information range from 0.640 to 0.804. The factor loadings of the observed variables of Social Media Innovation range from 0.703 to 0.831. The factor loadings of the observed variables of Social Media Entertainment range from 0.560 to 0.809. The factor loadings of the observed variables of Social Media Knowledge Generation range from 0.767 to 0.925. Then, the factor loadings of the observed variables of Student Performance range from 0.738 to 0.864. The KMO of all the main variables are higher than 0.50, ranging from 0.691 to 0.869. In addition, The Eigenvalues are all higher than 1, ranging from 2.082 to 3.622. Furthermore, the cumulative percentages appropriately accepted at the percentages from 55.033% to 72.436%. And for the reliability, the item-total correlation is higher than 0.50, ranging from 0.500 to 0.866 and coefficient alpha is higher than 0.60, ranging from 0.758 to 0.904.

Table 3. Factor Analysis and Reliability Test

VARIABLES AND CODES	Factor Analysis				Reliability Test	
	Factor Loading	KMO	Eigenvalue	Cumulative (%)	Item-total Correlation	Alpha
Social Media Information						
SM-INFOR1	0.776	0.691	3.302	55.033	0.633	0.858
SM-INFOR2	0.804				0.654	
SM-INFOR3	0.727				0.716	
SM-INFOR4	0.687				0.537	
SM-INFOR5	0.802				0.690	
SM-INFOR6	0.640				0.716	
Social Media Innovation						
SM-INNOV1	0.831	0.821	3.054	61.082	0.665	0.840
SM-INNOV2	0.802				0.653	
SM-INNOV3	0.790				0.713	
SM-INNOV4	0.775				0.549	
SM-INNOV5	0.703				0.636	
Social Media Entertainment						
SM-ENTER1	0.809	7.17	2.082	52.047	0.500	0.758
SM-ENTER2	0.762				0.603	
SM-ENTER3	0.730				0.575	
SM-ENTER4	0.560				0.543	
Social Media Knowledge Generation						
SM-KNOW1	0.925	0.840	3.622	72.436	0.695	0.903
SM-KNOW2	0.901				0.833	
SM-KNOW3	0.846				0.866	

SM-KNOW4	0.807				0.744	
SM-KNOW5	0.767				0.652	
Student Performance						
SM-PERFOR1	0.864	0.869	4.061	67.685	0.720	0.904
SM-PERFOR2	0.847				0.754	
SM-PERFOR3	0.836				0.766	
SM-PERFOR4	0.834				0.632	
SMPERFOR5	0.811				0.754	
SMPERFOR6	0.738				0.793	

Source: Processed Data by Researcher

Correlation Matrix

Social media information has high correlation with social media innovation with correlation coefficient (r = 0.758 or 75.8%), with social media entertainment with correlation coefficient (r = 0.660 or 66.0%), with social media knowledge generation with correlation coefficient (r = 0.689 or 68.9%), with student performance with correlation coefficient (r = 0.641 or 64.1%). Social media innovation has correlation with social media entertainment with correlation coefficient (r = 0.654 or 65.4%), with social media knowledge generation with correlation coefficient (r = 0.785 or 78.5%), with student performance with correlation coefficient (r = 7.99 or 79.9%). Social media entertainment has correlation with social media knowledge generation with correlation coefficient (r = 0.670 or 67.0%), with student performance with correlation coefficient (r = 0.582 or 58.2%). Social media knowledge generation has correlation with student performance with correlation coefficient (r = 0.750 or 75.0%).

Table 4. Correlation Matrix

Variables	Mean	Standard Deviation	SM-INFOR	SM-INNOV	SM-ENTER	SM-KNOW	ST-PERFOR
SM-INFOR	3.80	0.66561	1	0.758**	0.660**	0.689**	0.641**
SM-INNOV	3.65	0.70943		1	0.654**	0.785**	0.799**
SM-ENTER	3.81	0.74496			1	0.670**	0.582**
SM-KNOW	3.76	0.75691				1	0.750**
ST-PERFOR	3.58	0.75229					1
** Correlation is significant at the 0.01 level (2-tailed).							

Source: Processed Data by Researcher

Linear Regression Analysis

Table 5. Multiple Regression Analysis of Hypothesis (H_1, H_2, H_3)

Independent Variables	Dependent Variable		
	Social Media Generation		
	Model 1 (β)	Model 2 (β)	Model 3 (β)
Social Media Information	0.130		
Social Media Innovation		0.532	
Social Media Entertainment			0.237
R^2 (≥ 0.10)	0.475	0.637	0.665
Adjusted - R^2 (≥0.10)	0.473	0.635	0.662
F-value (≥4)	291.286	281.457	212.150
T-value (≥1.96)	2.465	10.183	5.229
P-value (<0.05)	0.014	0.000	0.000
Hypothesis (H_1)	Accepted		
Hypothesis (H_2)		Accepted	
Hypothesis (H_3)			Accepted

Source: Processed Data by Researcher

Table 6. Simple Regression Analysis of Hypothesis (H_4)

Independent Variables	Dependent Variable
	Student Performance
	Model (β)
Social Media Knowledge Generation	0.750
R^2 (≥ 0.10)	0.563
Adjusted - R^2 (≥0.10)	0.561
F-value (≥4)	414.510
T-value (≥1.96)	20.360
P-value (<0.05)	0.000
Hypothesis (H_4)	Accepted

Source: Processed Data by Researcher

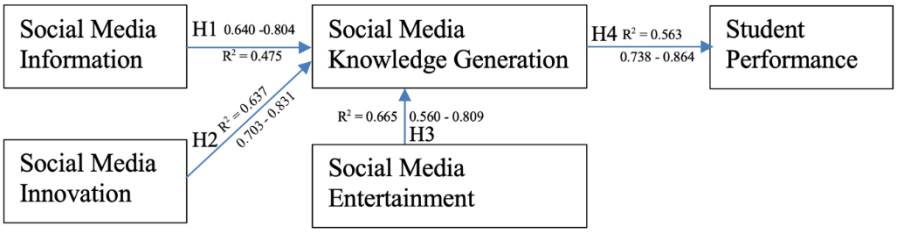
Based on the table 5, the results indicated that hypothesis (H_1) is accepted in a relationship between social media information and social media knowledge generation with standard coefficient value of p-value = 0.014, t-value = 2.465, f-value = 291.286. Hypothesis (H_2) also showed positive relationship between social media innovation and social media knowledge generation at the p-value = 0.000, t-value = 10.183, f-value = 281.457. In addition, Hypothesis (H_3) with the standard coefficient value of p-value = 0.000, t-value = 5.229, and f-value = 212.150. These values showed the positive relationship between social media entertainment and social media knowledge generation. Furthermore, in table 6, regarding Hypothesis (H_4), with p-value = 0.000, t-value = 20.360, f-value = 414.510. These values

signify a strong positive relationship between social media knowledge generation and student performance.

Table 7. The Summary Table of Hypothesis Analysis

Hypothesis	Variables	P-Values	T-Values	F-Values	Results
H_1	Social Media Information → Social Media Knowledge Generation	0.014	2.465	291.286	Accepted/ Supported
H_2	Social Media Innovation → Social Media Knowledge Generation	0.000	10.183	281.457	Accepted/ Supported
H_3	Social Media Entertainment → Social Media Knowledge Generation	0.000	5.229	212.150	Accepted/ Supported
H_4	Social Media Knowledge Generation → Student Performance	0.000	20.360	414.510	Accepted/ Supported

Source: Processed Data by Researcher



Source: Processed Data by Researcher

CONCLUSION

Social media has significant impact on the entire society in various sectors, such as education, business, recreation, transportation, and even more critical sectors such as aviation. This research was conducted to examine the impact of social media on student performance. Around 376 students were selected for the research, and 50 respondents were first used as a pilot test for reliability, using factor analysis and Cronbach's alpha. The factor loading and alpha values were all higher than 0.6. In addition, the correlation matrix was also analyzed and the results indicated that each variable had a higher correlation coefficient value indicating a high correlation between each variable. Moreover, according to the linear regression analysis, social media information, social media innovation, social media entertainment have a significant impact on social media knowledge generation with (p-value = 0.000 - 0.014), (t-value = 2.465 - 20.360), (f-value = 212.150 - 4214.510).

Based on the findings of this research, recommendations are provided to all relevant academic stakeholders. Starting with academic institutions to improve their digital facilities to be accessible to students so that everyone can access information and data stored in various online sources. The more information students learn from social media, the better knowledge they will acquire. In addition, from various reliable channels on social media, many innovative ideas, knowledge and practical findings have been shared and posted, and these are sources for students to develop further learning and research. It is recommended that reliable sources should be considered and guided by experienced scholars within academic institutions. In addition, entertainment on social media is widely regarded as a platform where students spend most of their time during the study period. Academic institutions should consider to make it as part of students' academic life on campus.

Another stakeholder that should be engaged and recommended to participate in this social media forum is the government and private sector who can collaborate with each other to make it more accessible to academics, students, and faculty members on social media. These should be part of digital innovation strategies for both the government and the private sector. Finally, the students should realize that current and future technology trends are becoming greater and more important to the world's education, business, and communication. Their lives without connection with social media will be dark; and their business, study, entertainment, and communication will be worse. Therefore, it is advisable to build and improve their knowledge in using digital media and social media platforms as often as possible and continue to use them to their full potential.

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