

MEASURING THE IMPACT OF SOCIAL NETWORK ON LEARNING OUTCOMES OF STUDENTS OF ECONOMICS DEPARTMENT, DONG THAP UNIVERSITY

Nguyen Hoang Trung^{1*} and Huynh Le Uyen Minh²

¹Department of Economics, Dong Thap University

²Department of Mathematics and Information Technology Teacher Education, Dong Thap University

*Contact author: nhtrung@dthu.edu.vn

Article history

Received: 27/4/2021; Received in revised form: 10/5/2021; Accepted: 10/6/2021

Abstract

This research paper focuses on measuring the impact of using social networks on the learning outcomes of students of the Department of Economics, Dong Thap University. The sampling method used in the study is a stratified random one according to the subject's criteria. Given such a sampling method, we directly surveyed 178 students of the Department of Economics from 2nd year to 4th year, in all three majors: Banking Finance, Accounting and Business Administration. Then, we used the methods of descriptive statistics, measuring and analyzing by EFA, and combined regression analysis to determine the influencing factors. Research results show that four groups of factors have a positive impact on students' learning outcomes of the Department of Economics, Dong Thap University, including Information, Entertainment, Trendy, and Tools for learning.

Keywords: Factor, learning outcomes, measurement, social networks.

ĐO LƯỜNG SỰ TÁC ĐỘNG CỦA MẠNG XÃ HỘI TỚI KẾT QUẢ HỌC TẬP CỦA SINH VIÊN KHOA KINH TẾ, TRƯỜNG ĐẠI HỌC ĐỒNG THÁP

Nguyễn Hoàng Trung^{1*} và Huỳnh Lê Uyên Minh²

¹Khoa Kinh tế, Trường Đại học Đồng Tháp

²Khoa Sư phạm Toán - Tin, Trường Đại học Đồng Tháp

*Tác giả liên hệ: nhtrung@dthu.edu.vn

Lịch sử bài báo

Ngày nhận: 27/4/2021; Ngày nhận chỉnh sửa: 10/5/2021; Ngày duyệt đăng: 10/6/2021

Tóm tắt

Bài nghiên cứu này tập trung vào việc đo lường tác động của việc sử dụng mạng xã hội đến kết quả học tập của sinh viên Khoa Kinh tế, Trường Đại học Đồng Tháp. Phương pháp chọn mẫu được sử dụng trong nghiên cứu là chọn mẫu ngẫu nhiên phân tầng theo tiêu chí của đối tượng. Với phương pháp chọn mẫu như vậy, chúng tôi đã khảo sát trực tiếp 178 sinh viên Khoa Kinh tế từ năm thứ hai đến năm thứ tư, ở cả ba chuyên ngành: Tài chính ngân hàng, Kế toán, Quản trị kinh doanh. Sau đó, chúng tôi sử dụng các phương pháp thống kê mô tả, đo lường và phân tích bằng EFA, kết hợp phân tích hồi quy nhằm xác định các yếu tố ảnh hưởng. Kết quả nghiên cứu cho thấy có 4 nhóm yếu tố tác động tích cực đến kết quả học tập của sinh viên Khoa Kinh tế, Trường Đại học Đồng Tháp gồm Thông tin, Giải trí, Xu hướng và Công cụ học tập.

Từ khóa: Đo lường, kết quả học tập, mạng xã hội, nhân tố.

DOI: <https://doi.org/10.52714/dthu.10.4.2021.880>

Trích dẫn: Nguyễn Hoàng Trung và Huỳnh Lê Uyên Minh. (2021). Measuring the impact of social network on learning outcomes of students of Economics Department, Dong Thap University. *Tạp chí Khoa học Đại học Đồng Tháp*, 10(4), 38-49.

1. Introduction

Social network sites (SNSs) are defined as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (Amichai-Hamburger and Hayat, 2017). Since its introduction in the late 1990s, the social network has attracted millions of users. People choose social networking sites to connect, share, and explore common interests and activities with other users. There are numerous social networking sites available on the internet to choose from, particularly Facebook, Instagram, Twitter, Flickr, YouTube, Pinterest, and LinkedIn. Each social networking site offers unique features, applications, and services but all serve a common purpose, that is to connect people around the world. Social network use offers both desirable and undesirable outcomes.

Reports suggest that a majority of online teens (55%) in the U.S. have created a personal profile on a social network site like MySpace or Facebook (Lenhart and Madden, 2007) and visit their social network site daily, devoting an average of nine hours a week to the network (National School Boards Association, 2007; Rogers *et al.*, 2006). A study of U.S. college students found 85% of respondents use a social network, and most, daily to keep in touch with others (Salaway *et al.*, 2008). In Viet Nam, the research of Tran Huu Luyen and Nguyen Thi Thu (2014) collecting information from 4247 students at universities in the North, Central, and South regions about social networks use showed that 99% of students used social networks regularly, as their daily routine. In which, the social network used the most by students is Facebook, Youtube, and Google, while the most used time is in the evening, from 3 hours to 5 hours. Also, the research by Trinh Hoa Binh *et al.* (2015) with a broader audience of young people, analyzed and suggested some policies to help young people to use social networks more

reasonably to serve themselves and society. In addition to referring to the general situation, the issue of students' access to social networks for purposes such as entertainment, connection, is also associated with communication, information search, and learning (Pham Vo Quynh Hanh *et al.*, 2018).

Although much of the published research on the use of the social network is still emerging, the handful of studies mostly from communications, information science, sociology, cultural studies, and computer science and are both conceptual and empirical (Boyd and Ellison, 2007). Few studies explore the link between social network site use and education. Specially, each student population in each different university and region will have different social networking culture, psychology, behavior, and habits. The question is what factors will affect student learning outcomes. Therefore, we conduct this study to measure the impact of using social media on students' learning outcomes of the Department of Economics, Dong Thap University, assisting the University and the Department to achieve the goal of helping students achieve high academic results.

2. Literature Review

2.1. Motivations of social network usage

In studies of the psychological motivations for individuals to adopt social networking services, considering SNSs as an emerging social media. Based on Uses & Gratifications theory, previous researchers have discovered several issues about consumers' usage of social media. Such research has mentioned both utilitarian and hedonic dimensions to discover usage motivations (Hyllegard *et al.*, 2011). Utilitarian motivations depict the use of media channels for utilitarian, necessary and effective decision-making process while hedonic motivations imply media using behavior for fun, happiness, inspiration, emotion, and comfort (Chin *et al.*, 2015). The main benefits of hedonic motivations are experience and emotion and utilitarian motivations are completion of product purchase and its ownership.

For example, Krisanic (2008) finds that entertainment and connection represent two pivotal motivations for Facebook use. Raacke and Bonds-Raacke (2008) reveal that the main reasons for using Facebook and MySpace are to meet friends and to seek information. Likewise, the study of Brandtzæg and Heim (2009) showed about the main motivation behind engaging in SNSs is to make, maintain and foster social relationships. A key conclusion drawn from the analysis is that people often had 12 different reasons for using SNSs (defined as important purposes for using SNSs). Among them, the most important reason was to get in contact with new people (31%). The second most valued reason was to keep in touch with friends (21%), and the third was general socializing (14%). Furthermore, Kim *et al.* (2011) posit that the major motives for using social network sites are to seek friends, social support, entertainment, information, and convenience. Ku *et al.* (2013) identified five motives for using Facebook and MySpace, namely amusement, relationship maintenance, information gathering, sociality, and style.

Although gratifications research reveals that SNSs users' motivations are not limited to social factors and should encompass other intrinsically and extrinsically related motives (Stafford *et al.*, 2004), researchers commonly agree that fulfilling users' social needs (e.g., seeking friends, social interaction, enhancement, presence, and support) is fundamental to SNSs adoption (Foster *et al.*, 2010).

In Vietnam, young people accounted for a highest proportion of SNS users. The research results by Nguyen Lan Nguyen (2020) indicate that young people and teenagers used this media to search for social updates (66.3%), make new friends and keep in touch with old friends (60%), share information (54%), contact family and friends (59%), entertainment (49.5%), job search (21.7%), learning and working assistance (44.7%), online shopping (30.7%), online selling (13.7%), and other purposes (12.2%).

For students, the purposes of SNS use were found very diverse and rich, with five factors of the highest percentage: searching and updating social information; making new friends, keep in touch with old friends; get in touch with family and friends; share information; entertainment. In research about social network factors affecting the learning outcomes of students of the University of Food Industry, Ho Chi Minh City, Le Thi Thanh Ha *et al.* (2017) showed the factors with positive impacts were information, entertainment, fashion, and search engines.

2.2. The impact of social networks on student learning

Based on data collected from students from universities in Hanoi, recent research results by Nguyen Lan Nguyen (2020) revealed that the most used social networks were Facebook (81.5%), Instagram (6.3%), Zalo (0.5%), YouTube (10.4%), Lotus (0.1%), and Others (1.2%). The impact of social networks on student learning is as follows:

2.2.1. Positive impact

Firstly, to help students search, share, and select study materials, students have easy access to open resources and experts in their fields of interest. Besides, students can create groups so that they can share their learning, scientific research, or pursuing projects. Similarly, lecturers can also participate in the academic communication process with students, and this creates a connection between lecturers and students in the learning process in the university environment.

Second, the exchange of learning information through the channels of social networks is also easier and more convenient. As the COVID-19 epidemic broke out in 2020, the more the exchange of learning information through social network platforms becomes, students' learning models are becoming more and more diverse. Students have the opportunity to interact and respond with lecturers and other students during classroom and online learning.

Third, social networks assist in the scientific research and self-study of students. Users can use a combination of two platforms from social networks to conduct surveys and give quick data on large sample sizes, to save time, effort, and cost.

2.2.2. Negative impact

Although there are positive effects on student learning, social networks also cause the following negatives:

First, distracting learning. Besides integrated applications for learning, social networks also contain attractive entertainment applications that attract users. If students do not use it properly and properly, they will easily get "addicted" to Facebook. Specifically, students use Facebook for too many hours during the day, not for learning purposes, but only for entertainment purposes, this is a clear manifestation of Facebook addiction. Many students are so addicted that they forgot all about daily activities, had health problems, leading to deteriorating results. Trying to build an account (another human being) on social networks makes students time-consuming and learning distracted.

Second, students often have to stay up late. Former Facebook President Sean Parker admitted that he and his associates intentionally created an addictive social network (Washingtonpost, 2020). Facebook addiction is not accidental, but intentional by its founders. The social network focuses on human weaknesses when people like to be noticed and cared for. For students, the young generation always wants to know the latest information and trends on social networks. Using social networks too much during the day or staying up late just to "surf" Facebook will lead to fatigue, drowsiness the next morning. When going to school, many students are in a state of lack of sleep and unable to focus on studying.

Third, reduce learning time and space. The reduction of learning time and space on social networks is considered to be a distraction in learning. If students use social networks primarily for entertainment purposes, this will

lead to poor academic results. Having too much information from many sources causes the human brain to be dominated, so information overload leads to distraction. for study. This phenomenon is called "sharing in mind" (David, 2021).

3. Data and research methods

3.1. Data

The research was conducted through two main phases, including (1) Qualitative research to build survey questionnaires; (2) Quantitative research to collect and analyze survey data, test the research model. Secondary data were collected from the student management staff of the Department of Economics on the statistics of learning outcomes, training scores, and results from the movement participation of students.

For primary data, we used pre-compiled questionnaires sent to students of the Department of Economics from the 2nd year to the 4th year. We used the sampling method, according to majors and courses. Specifically, there are 3 majors: Accounting, Business Administration, and Banking and Finance. Considering the proportion of students per discipline in the total number of students in the department, taking the sample size of 178 and multiplying by the percentage of each discipline helped calculate the sample size of each discipline to take. Then in each major, we calculated the percentage of students for each course and multiplied by the sample size just calculated for each major, determining the sample size of each course corresponding to each discipline.

After collecting and removing unsatisfactory answers, we got 178 valid answers. According to Hair *et al.* (2006), to use the exploratory factor analysis method, the ratio of observations/measurement variables is 5: 1, meaning that 1 measurement variable needs 5 observations. The study used 25 variables, the required number of observations is 125, so the sample size of 178 was completely suitable.

From the literature review, the study used the main results of Kim *et al.* (2011), Ku *et al.* (2013),

and Le Thi Thanh Ha *et al.* (2017) to identify five groups of factors from the use of social media potentially to impact student learning outcomes, namely Information, Entertainment, Learning Tools, Trendy and Relationships.

All responses were recorded either on 5-point Likert-type scales anchored by 1 (strongly disagree) and 5 (strongly agree) or on 5-point semantic-differential scales, unless otherwise noted.

3.2. Research Methods

The study used methods of descriptive statistics summarizing the measurement values of a variable in terms of frequency (%), mean scores and standard deviation.

The analysis of the reliability of the scale to ensure the scale and variables were measured enough credibility. For the reliability, Hoang Trong and Chu Nguyen Mong Ngoc (2008) claim that with Cronbach's Alpha from 0.7 to nearly 0.8, the scale is usable, while with Cronbach's Alpha from 0.8 to nearly 1, the scale is good. The measurement variable ensures reliability when there is a corrected item-total correlation greater than or equal to 0.3 (Nunnally and Bernstein, 1994; Nguyen Dinh Tho, 2011).

The exploratory factor analysis method is used to reduce a set of many interdependent observational variables into a set of variables (called factors) less so that they are more meaningful but still contain most of the information content of the original set of variables (Khanh Duy, 2007). We used this method to detect factors impacting academic performance. At the same time, we used the multivariate linear regression analysis method to identify the factors and the degree of impact of each factor belonging to the behavior of using social networks on the learning outcomes of students of the Department of Economics.

Through a review of research papers and expert consultation, we used group discussion method (qualitative research) with 20 students from 2nd year to 4th year of the Department

Economic, to identify 21 criteria about students' SNS use with impacts on their learning outcomes. Accordingly, we proposed the following research model (Figure 1):

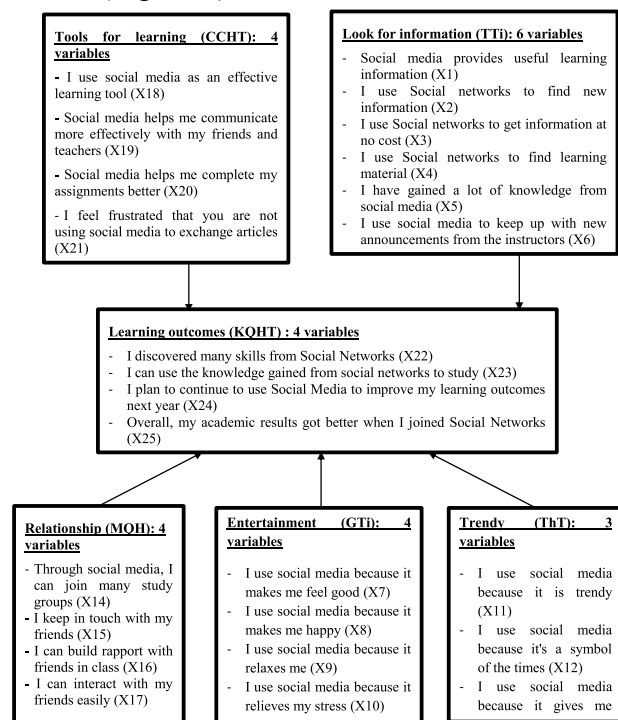


Figure 1. Proposed research model

In Figure 1, the model of assessing the impact of social networks on the learning outcomes of students of the Economics Department is set up as follows:

$$\text{Learning outcomes (KQHT)} = f(\text{TTi}, \text{GTi}, \text{ThT}, \text{CCHT}, \text{MQH})$$

In which, KQHT is the dependent variable, and TTi, GTi, ThT, CCHT, MQH are independent variables; variables from X1 to X21 are criteria for SNS use with impacts on learning outcomes.

4. Results and Discussion

4.1. Survey sample characteristics

Table 1 shows a relatively large bias in the sex of economic students. Of the 178 respondents, 145 (accounting for 81.5%) were female, and the remaining 33 (accounting for 18%) were male. This is also a characteristic not only of economics students but also of university students with a major in socio-economic training. The number of students in each course is not equal, with the 2nd

year students accounting for 48.9%, the 3rd year students accounting for 14.6%, and the 4th year students accounting for 36.5%. The Department of Economics has three training majors, with the largest number of samples collected from Accounting accounting for 56.7%, followed by Business Administration 29.8%, and Banking Finance 13.5%.

Table 1. Characteristics of sample survey

	Characteristics	Number	Ratio
Sex	Male	33	18.5
	Female	145	81.5
Course	2 nd Year	87	48.9
	3 rd Year	26	14.6
	4 th Year	65	36.5
Majors	Accountant	101	56.7
	Business administration	53	29.8
	Banking-finance	24	13.5

4.2. Results of SNS uses among the surveyed students

The five-factor scales were measured by 25 observed variables. These scales were preliminarily assessed through two main tools, Cronbach Alpha's reliability coefficient, and the EFA exploratory factor analysis method. Cronbach Alpha coefficients are used to exclude non-conforming variables first, and variables with an item-total correlation less than 0.3 is disqualified and criteria for selecting the scale when there is confidence depending on Alpha from 0.70 or higher. Following the EFA method, the variables with weights less than 0.5 in the EFA will be eliminated. The Cronbach Alpha results of the information search component are presented in Table 2 below:

Table 2. Cronbach Alpha of the Information Search component

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach Alpha = 0.897				
X1	21.21	10.824	0.732	0.877
X2	21.05	10.941	0.758	0.874
X3	21.10	10.419	0.756	0.873
X4	21.18	10.374	0.756	0.873
X5	21.17	10.653	0.760	0.873
X6	21.13	10.976	0.589	0.901

According to Table 2, we have Cronbach Alpha of the Information Search component which is 0.897, greater than 0.70, so this scale meets the standard. Moreover, the variables with

high variable-total correlation coefficients, most of these coefficients are greater than 0.5, so these variables are consistent and achieve reliability.

According to Table 3, we have Cronbach

Table 3. Cronbach Alpha of the Entertainment component

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach Alpha = 0.947				
X7	12.57	5.873	0.853	0.937
X8	12.57	5.704	0.897	0.924
X9	12.49	6.082	0.881	0.929
X10	12.57	5.942	0.865	0.934

Alpha of the Communication component 0.947, greater than 0.70, so this scale meets the standard. Moreover, the variables with high variable-total correlation coefficients, most of these coefficients are greater than 0.5, so these variables are

consistent and achieve reliability.

Likewise, the variable-total correlation coefficient of each variable on the trendiness scale is presented in Table 4 below.

The results also show that Cronbach

Table 4. Cronbach Alpha of the Trend component

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach Alpha = 0.893				
X11	6.25	5.792	0.772	0.864
X12	5.85	5.983	0.784	0.854
X13	6.28	5.500	0.816	0.825

Alpha of the Trendy component is 0.893, greater than 0.70, so this scale meets the standard. Moreover, the variables with high variable-total correlation coefficients, most

of these coefficients are greater than 0.5, so these variables are consistent and achieve reliability.

As Table 5 shows, Cronbach Alpha of

Table 5. Cronbach Alpha of the Relationship component

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach Alpha = 0.858				
X14	13.28	4.237	0.614	0.857
X15	13.02	4.067	0.759	0.798
X16	13.32	3.733	0.708	0.822
X17	13.06	4.307	0.764	0.802

the Relationship component is 0.858 which is greater than 0.70, so this scale meets the standard. Moreover, the variables with high variable-total correlation coefficients, most

of these coefficients are greater than 0.5, so these variables are consistent and achieve reliability.

According to Table 6, Cronbach Alpha

Table 6. Cronbach Alpha of the Tools of Learning component

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach Alpha = 0.772				
X18	11.99	5.085	0.689	0.661
X19	11.82	5.617	0.690	0.680
X20	11.94	5.245	0.733	0.650
X21	12.78	5.000	0.361	0.890

of the Learning Tool component is 0.772, greater than 0.70, so this scale meets the standard. Moreover, the variables with high variable-total correlation coefficients, most

of these coefficients are greater than 0.50, so these variables are consistent and achieve reliability.

According to Table 7, Cronbach Alpha of

Table 7. Cronbach Alpha of the Learning Outcomes component

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach Alpha = 0.884				
X22	11.95	5.879	0.764	0.844
X23	11.84	6.273	0.737	0.857
X24	12.01	5.322	0.825	0.819
X25	12.13	5.767	0.678	0.880

the Learning Outcomes component is 0.884, greater than 0.70, so this scale meets the standard. Moreover, the variables with high variable-total correlation coefficients, most of these coefficients are greater than 0.5, so these variables are consistent and reliable.

Thus, all Cronbach Alpha coefficients of the scale components in the social networking activities of the Department of Economics students meet the standard (greater than 0.70), and the variable-total correlation of all variables meets the requirements and reliability (greater than 0.5). So the measurement variables of these components are used in the next EFA analysis.

4.3. Evaluating the students' SNS use by the exploratory factor analysis (EFA)

Cronbach Alpha results show that the scales of the components in the students' SNS uses are all satisfied the requirement for Alpha reliability. Therefore, the observed variables of these scales continue to be evaluated by EFA analysis. Based on the matrix model in EFA, we have factor loadings coefficients of all variables (greater than 0.5). The EFA results are shown in Table 8 below:

From the results in Table 8, we have 4 factors were drawn:

- Factor 1 includes observed variables X14, X15, X16, X17, X18, X19, X20 named "Tools for learning"

- Factor 2 includes observed variables X1, X2, X3, X4, X5, X6 named "Information"

- Factor 3 includes observed variables X7, X8, X9, X10 named "Entertainment"

Table 8. Factor analysis model to evaluate the student's use of social networks

Variable	Component			
	1	2	3	4
X14	0.554			
X15	0.685			
X16	0.802			
X17	0.732			
X18	0.709			
X19	0.785			
X20	0.741			
X1		0.782		
X2		0.790		
X3		0.772		
X4		0.741		
X5		0.696		
X6		0.547		
X7			0.760	
X8			0.847	
X9			0.835	
X10			0.830	
X11				0.878
X12				0.853
X13				0.893
X21				0.588

- Factor 4 includes observed variables X11, X12, X13, X21 named "Trendy".

4.4. The SNS impacts on the students' learning outcomes

After the analysis of Cronbach's Alpha and EFA coefficients, 4 factors of the social network scale are taken into consideration the impact

of academic performance of the Department of Economics students by Enter method. Through the regression test, all 4 factors that have an impact with statistical significance on the learning outcomes are Information, Entertainment, Trendy and Tools for learning.

The results in Table 9 show that R² is 0.707,

which means that the model explains 70.7% of the variation in the learning outcomes variable affected by 4 social network factors: Search for information, entertainment, trendy, and Tools for learning. Sig F = 0.000 and VIF coefficient less than 3, showing the regression model suitable for analysis.

Through Table 9, when considering the Sig

Table 9. Regression analysis on the SNS impacts on student learning outcomes

Variable	Beta	Std.Error	T	Sig	Multicollinearity	
					Tolerance	VIF
Constant	-0.614	0.234	-2.868	0.009		
Tti	0.248	0.075	3.308	0.001	0.445	2.249
Gti	0.178	0.058	3.086	0.002	0.491	2.035
CCHT	0.538	0.076	7.068	0.000	0.419	2.385
ThT	0.154	0.033	4.676	0.000	0.862	1.160
R² = 0.707						
Sig F = 0.000						

value of Entertainment, Trendy, Information, Tools for learning, they all are positively correlated with learning outcomes of the student. The VIF (Variance Inflation Factor) magnification coefficients of the independent variables are all less than 3, so there is no multicollinearity phenomenon. The linear regression equation is shown as follows:

$$KQHT = -0.614 + 0.538CCHT + 0.248TTi + 0.178GTi + 0.154ThT$$

All four factors have a positive correlation with student learning outcomes: Information (TTi), Entertainment (GTi), Trendy (ThT), and Tools for learning (CCHT). The analysis also shows that the Information and Tools for learning factor of students of Department of Economics, Dong Thap University have a close relationship with the learning outcomes compared to other factors.

According to the regression results, when other factors remain unchanged, then:

When the information search factor (TTi) increases by 1 point, the average Learning Results (KQHT) will increase by 0.248 points. TTi shows that the use of social networks to find learning

information and materials has excellent support for students' learning. This is also consistent with the fact because, with today's technology era, we can find almost everything online, and exchanging with each other is also easier. This result coincides with the study of Ku *et al.* (2013); Nguyen Lan Nguyen (2020); Le Thi Thanh Ha *et al.* (2017) on the positive impact of finding information from social networks on the learning outcomes of students. However, the impact of information search factors on learning results in this study has a lower impact level (coefficient is 0.248) compared to the research results of Le Thi Thanh Ha *et al.* (2017) with 0.376.

When the factors of Learning tools (CCHT) increases by 1 point, the average Learning Results will increase by 0.538 points. CCHT shows that thanks to social networks, the exchange of lessons between students with students between students with lecturers has very good results. The exchange can take place anytime, anywhere if they are unified and their usage devices are connected to the Internet, thus saving time, and making full use of time during the day for study. This research result differs from the study of Le Thi Thanh Ha *et al.* (2017) that the Learning Tool

factor does not affect the learning outcomes of students at the Food industry University in Ho Chi Minh City. We can understand this because the characteristics of using social networks of students at the two schools are not similar. Students of the Department of Economics, Dong Thap University use social networks as a tool for regular learning more often.

When the entertainment factor (GTi) increases by 1 point, the average Learning Results will increase by 0.178 points. GTi shows that in addition to the main responsibility of the student is learning, students need to be entertained to relieve stress in the study as well as in life. Only when they feel comfortable, their learning will also achieve higher results, and recreational activities will also create more relationships and practice skills for students. This result coincides with the study of Le Thi Thanh Ha *et al.* (2017). However, the regression coefficient on the impact of entertainment on learning outcomes in this study is more obvious (0.178) than in the study of Le Thi Thanh Ha *et al.* (2017) of 0.076.

When the trend factor (ThT) increases by 1 point, the average Learning Results will increase by 0.154 points. ThT shows that using social networks is a trend of students, it has an impact on the crowd effect. When many students use social networks for personal gain, other students also can join. This result coincides with the study of Le Thi Thanh Ha *et al.* (2017) on the positive impact of trend factors on learning performance. However, the regression coefficient on the influence of trendiness on learning outcomes in this study is more obvious (0.154) than in the study of Le Thi Thanh Ha *et al.* (2017) of 0.041.

We can see that, depending on the characteristics of students using social networks in each discipline and each educational institution, the influence of factors on student learning outcomes will also vary. When comparing the analytical results with the research results of author Le Thi Thanh Ha *et al.* (2017), there is a heterogeneity of the effect levels. While search

engine factors have the most impact on the learning outcomes of students at the University of Food Industry in Ho Chi Minh City, the factors of learning tools have the most impact on the learning results of students of Economics Department, Dong Thap University. This is an expected result because this research goal aims to use social networks as a learning tool for students to improve learning outcomes. Research is also a premise to help educational institutions step by step come up with solutions to improve the learning outcomes of students of the Economics Department, Dong Thap University.

5. Conclusions

This paper has measured the impact of using social networks on students' learning outcomes of the Department of Economics, Dong Thap University. We used the methods of descriptive statistics, measuring and analyzing by EFA, combined regression analysis to determine the influencing factors of using social networks on student learning outcomes of Department of Economics, Dong Thap University.

By combining the results from the research and surveying the actual teaching and learning environment at the Department of Economics, Dong Thap University, we have found and analyzed the factors that influence students' learning outcomes, namely Information (TTi), Entertainment (GTi), Trendy (THT), and Tools for learning (CCHT) factors.

This research has an urgent significance, helping students to recognize the influence of the social network on their learning process, helping students to use social networks more effectively to improve their learning outcomes. The research results are also the basis that supports the University and the Department to have reasonable plans to support students in learning.

Acknowledgement: This research is supported by science and technology project, Dong Thap University. Code: SPD2020.01.25.

References

- Amichai-Hamburger, Y. and Hayat, Z. (2017). Social Networking. In Rossler, P., Hoffner, C. A., and van Zoonen, L. (Editor). *In The International Encyclopedia of Media Effects* (1-12). Hoboken, NJ, USA: John Wiley & Sons, Inc.
- Angela, Y. Y. (2010). The impact of online social networking on learning: a social integration perspective. *International Journal of Networking and Virtual Organisation*, 8(3/4), 264-280.
- Brandtzæg, P.B. and Heim, J. (2009). Why people use social networking sites, *Lecture Notes in Computer Science*, (5621), 143-152.
- Chin, C., Lu, H. and Wu, C. (2015). Facebook users' motivation for clicking the "like" button. *Social Behavior and Personality*, 43, 579-592.
- David D. (01/2021). The Impacts of Facebook on Learning. *Báo Thanh niên*. Retrieved from <https://thanhnienvn/giaoduc/>.
- Foster, M.K., Francescucci, A. and West, B.C. (2010). Why users participate in online social networks. *International Journal of E-Business Management*, 4, 3-19.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. and Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6). Upper Saddle River, NJ: Pearson University.
- Hew, K. F. and Cheung, W. S. (2010). Fostering higher knowledge construction levels in online discussion forums: An exploratory case study. *International Journal of Web-based Learning and Teaching Technologies*, 5(4), 44-55.
- Hoàng Trọng và Chu Nguyễn Mộng Ngọc. (2008). *Phân tích dữ liệu với SPSS* (Quyển 2). Thành Phố Hồ Chí Minh: NXB Hồng Đức.
- Huang, L.Y., Hsieh, J.H. and Wu, Y.C.J. (2014). Gratifications and social network service usage: The mediating role of online experience. *Information & Management*, 51, 774-782.
- Hyllegard, K. H., Ogle, J. P., Yan, R., and Reitz, A. R. (2011). An exploratory study of college students' fanning behavior on Facebook. *College Student Journal*, 45, 601-616.
- Jung, I., Choi, S., Lim, Cheolil. and Leem, J. (2002). Effects of Different Types of Interaction on Learning Achievement, Satisfaction and Participation in Web-Based Instruction. *Innovations in Education and Teaching International*, 39(2), 153-162.
- Khánh Duy. (08/2007). Chương trình Giảng dạy Kinh tế Fulbright. Phân tích nhân tố khám phá bằng SPSS. Truy cập từ http://sdcc.vn/template/4569_AM08-L11.pdf.
- Kim, Y., Sohn, D. and Choi, S.M. (2011). Cultural difference in motivations for using social network sites: A comparative study of American and Korean college students. *Computers in Human Behavior*, 27, 365-372.
- Krisanic, K. (2008). *Motivations and Impression Management: Predictors of Social Networking Site Use and User Behavior*. University of Missouri, Columbia.
- Ku, Y.C., Chu, T.H., Tseng C.H. (2013). Gratifications for using CMC technologies: A comparison among SNS, IM, and e-mail. *Computers in Human Behavior*, 29, 226-234.
- Lenhart, A., Madden, M., Macgill, A.R. and Smith, A. (2007). *Teens and social media*. Washington, DC: Pew Charitable Trusts.
- Lê Thị Thanh Hà, Trần Tuấn Anh và Huỳnh Xuân Trí. (2017). Nghiên cứu các nhân tố của mạng xã hội tác động đến kết quả học tập của sinh viên Trường Đại học Công nghiệp thực phẩm Thành phố Hồ Chí Minh (HUFI). *Tạp chí Khoa học và Công nghệ thực phẩm*, 11(2017), 104 -112.
- National School Board Association (2007). *Creating and connecting: Research and*

- guidelines on social and educational networking.
- Nguyễn Đình Thọ. (2011). *Phương pháp nghiên cứu khoa học trong kinh doanh*. Hà Nội: NXB Lao động - Xã hội.
- Nguyễn Lan Nguyên. (2020). Tác động của mạng xã hội facebook đến sinh viên hiện nay: Thực trạng và đề xuất chính sách. *Tạp chí Khoa học Đại học Quốc gia Hà Nội*, 36(2), 90-99.
- Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Phạm Võ Quỳnh Hạnh, Phó Thanh Hương và Lưu Hồng Minh. (2018). Tiếp cận thông tin trên mạng xã hội của sinh viên hiện nay. *Thông tin Khoa học xã hội*, 2, 36-41.
- Raacke, J. and Bonds-Raacke, J. (2008). MySpace and Facebook: applying the uses and gratifications theory to exploring friend-networking sites. *Cyberpsychology & Behavior*, 11, 169-174.
- Rogers, M. C., Taylor, B., Cunning, D., Jones, M., and Taylor, K. (2006). Parental restrictions on adolescent internet use. *Pediatrics Journal*, 118(4), 1804-1805.
- Salaway, G., Borreson, J., and Nelson, M. R., (2008). *The ECAR study of undergraduate students and information technology* (Vol. 8). Boulder, CO: Educause (Educause Center for Applied Research).
- Stafford, T. F., Stafford, M. R., Schkade, L. L. (2004). Determining uses and gratifications for the Internet, *Decision Sciences*, 35, 259-288.
- Trần Hữu Luyến và Nguyễn Thị Thu. (2014). Thực trạng sử dụng mạng xã hội trong sinh viên hiện nay. *Tạp chí Tâm lý học*, 8, 185-192.
- Trịnh Hòa Bình, Lê Thế Lĩnh và Phan Quốc Thắng. (2015). Thực trạng sử dụng mạng xã hội trực tuyến và một số gợi ý về chính sách. *Tạp chí Khoa học và Công nghệ Việt Nam*, 2(12), 41-48.
- Washingtonpost. (08/2020). Facebook's first president, on Facebook: "God only knows what it's doing to our children's brains". Retrieved from <https://www.washingtonpost.com/news/>.