

USE OF SOCIAL MEDIA ON EDUCATION DURING THE PANDEMIC SITUATION

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AUTHOR'S CONTRIBUTION

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ABSTRACT

The use of Facebook as a prominent social media has become critical along its features, as the Covid 19 pandemic taken the control over the Sri Lanka limping the health, economy, education, mentality, day-to-day activities, etc. The continuous education via online platform is now an established concept all over the world. Sri Lanka also follow the online education procedures and along with online platforms, social media plays a collaborative role. The objective of the study is to identify the undergraduates' behavior towards social media, technology, and their use of Facebook on educational activities. The study examines the purpose, and attitudes on benefits of Facebook from 150 undergraduates of University of Kelaniya, Sri Lanka. The data collected by using Google forms where Descriptive Analysis, Structural Equation Modelling (SEM), and Confirmatory Factor Analysis (CFA) used to model data by using IBM SPSS Statistics, and AMOS as tools to analyze data. The hypothesized SEM validated the latent structure and theory which the conclusions may support in further actions on distance education using social media as well.

Keywords: Education; facebook; online platform; social media.

1. INTRODUCTION

Digitization, Digitalization and Digital Transformation are now taking place in all over the world. The importance of information has been increasing instead of believes with the increasing use of computing applications [1]. According to Dollarhide [2] social media is a computer-based technology that facilitates the sharing of ideas, thoughts, and information through the building of virtual networks and communities. Also, it connects everyone and everything in a connected way [3]. Social media has become a well-known term by youngest to adult with the prevailing pandemic situation. Social media plays a major role in connecting people, resources and all the utilities since December 2019 as the world is under pandemic of

spread of Covid 19 virus. The use of social media has widespread recently among large population not only due to pandemic situation but also with the development of technology and digitalization. According to Tankovska [4] there are 2.85 billion of monthly active users of Facebook as at the first quarter of the year 2021. There were 6,479,000 Facebook users in Sri Lanka as at 2020 which accounted for 30.4% of the total population. Among them 66.9% were male and the largest user group with 2,310,000 users were included to 25-34 age group (NapoleonCat, 2020). Facebook is not the only social media that owns a huge user-base but it is the social media owns the highest number of users. Simultaneously, Instagram, Twitter, WhatsApp and LinkedIn are also owning a considerable amount of user-base [5]. WhatsApp, Facebook Messenger and

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Instagram possesses 2 billion monthly active users, 1.3 billion monthly active users, and 1.287 billion monthly active users respectively as for the year 2021 [6]. Also they report that there are 7.9 million social media users in Sri Lanka as for January 2021 which an increase of 5 million users from year 2020. The increase recorded as 23% from 2020 to 2021 and social media users cover 35.9% of the total population of Sri Lanka in January 2021. There are 66% of Facebook users among the 7.9 million of Facebook users who use the facebook app on daily basis and now the 50% of the global users of Facebook are at the age of 18 - 24 years (23.8%) and 25 - 34 years (31.6%). The age group is consist of the population engaged in school, university, college, and academic institution etc. or simply attached with academic activities.

However, India is the nation with highest number of Facebook users that records 300 million users. United States and Indonesia are at the second and third places while recording 190 million users and 140 million user are respectively.

Following table shows the comparison of social media users in comparison to the total population in Sri Lanka and highest number of users representation by age and gender as well.

According to the Table 1, it clearly shows the continuous increase of Facebook users from year 2019 to year 2021. Further, the data indicates that males are as approximately twice as females when considering the number of users of Facebook.

The change of number of users of Facebook over the last two years shows in the following Fig. 1.

The Fig 1 shows that there is a gradual increase of use of Facebook in Sri Lanka where it seems accelerate from March and April in year 2020 at the time of commencement of online environment of education and work due to the first alert on spread of Covid 19 virus in Sri Lanka. Simultaneously, the government has announced a lock down along with the observations of increased number of Covid 19 positive cases with in the contry which the lockdown remained nearly two months.

Table 1. Facebook statistics for Sri Lanka

Year	January 2019	January 2020	January 2021
Facebook users	6,168,000	6,479,000	7,646,000
Percentage from entire population	29%	30.4%	35.9%
Users			
Male	68.5%	66.9%	64.6%
Female	31.5%	33.1%	35.4%
Age 25 - 34 years	2,240,000	2,310,000	2,560,000

Source: Napoleon Cat (2020)

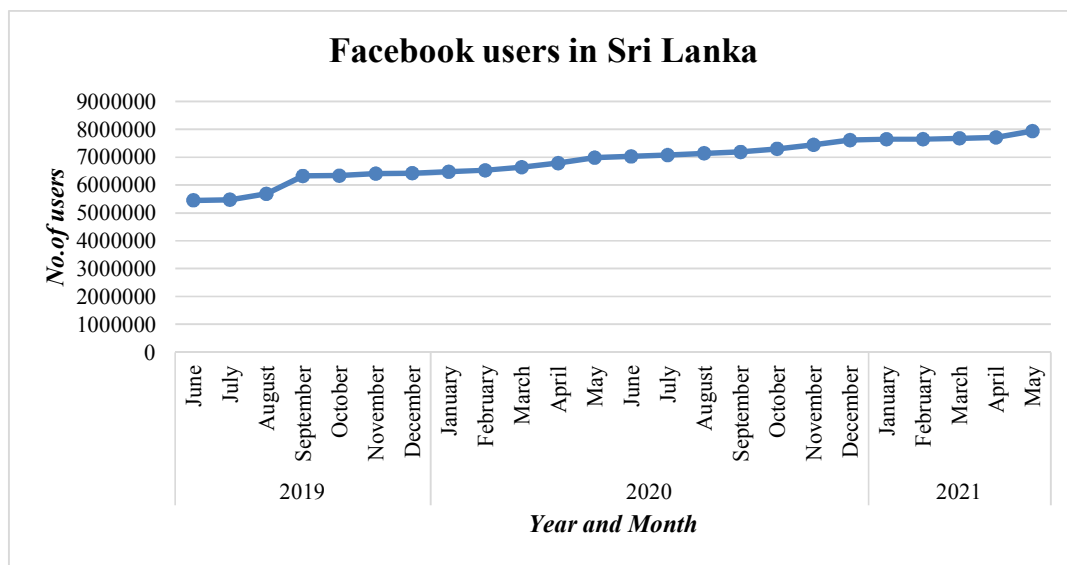


Fig. 1. Facebook users in Sri Lanka

Source: Napoleon Cat [7]

The social media superseding all most all the areas such as social relationships, information flow, social activities, business, culture, events, profits, etc. along with the growing number of users of social media including Facebook. Amichai-Hamburger & Vinitzky [8] suggests that there is no exception to education as well as social media is reshaping almost each and every aspect of life.

Social media provides not only social entertainment but also an academic platform for professional activities [9]. The exponential growth of users on Facebook has found significant collaboration for educational purposes as there are large number of user generated online content that share in real time [1]. Thereby the social media became a vital and integral part of modern society which provides transmedia skills for educational and learning benefits Scolari [10], Abraham, Ahmed Mir, Suhara, Mohamed, & Sato [3], Jones [11] and Donlan [12].

The objective of the study is to identify the undergraduates' behaviour towards social media and technology and to identify the use of Facebook on educational activities. Thereby it is important to model the advanced features, capabilities, uses, and purposes of Facebook pedagogically or i.e. educationally.

2. REVIEW OF LITERATURE

Facebook is the largest social media network in the world and Facebook domains users including both male and female across different age groups, different education levels, different designations, different regions, different languages, and different cultural backgrounds [13]. The purpose of Facebook has drastically changed from communication with friends and family to business and corporate activities. However, the popularity of Facebook is due to its' friendly nature to users, better security, user friendly interface, real time communication, etc. [14]. As Facebook has firmly touched all of the emotional needs of people where people can freely showcase them-selves, connect with others continuously with relevant stories, images, videos, status, personal views, etc. Simultaneously, Facebook allows its users to establish new relationships, creating new buyers for businesses, bringing new customers for institutions and organizations, products and services [15]. According to previous studies on Facebook as a positive effect to the individuals and society Dickie & Meier [16], Hayes, Van Stolk-Cooke, & Muench [17], and Facebook as a negative effect to the individual and society Tsay-Vogel, Shanahan, & Signorielli [18], there could be seen both pros and cons of Facebook. Facebook has utilized for social

activities such as interactions on shared interests, entertainment, socialization etc. even though it has capabilities to be active as an educational platform. According to Avila & Honorato [19] using Facebook Group can be used as an alternative learning management system during the pandemic situation. In this context the teacher being the moderator of the Facebook group who can upload content, video, file, text, or link related to the topic in discussion.

There could be found many researches on Facebook as an educational source which some found beneficial and vise versa. According to Junco [9] Facebook plays an academic role in multitasking by undergraduates in different levels in America. This study based on Grade Point Average (GPA). Also Facebook can be used as an informal way of connecting people who are unable to meet physically and a source of support in peer to peer mode as well [20], and [21]. As found by Hamid, Waycott, Kurnia, & Chang [22] there are student - student interactions as well as student - lecturer interactions via Facebook.

3. METHODOLOGY

The study conducted in the University of Kelaniya, Sri Lanka which consists of undergraduates from diversified subject stremes. The questionnaire method was used to collect data from the undergraduates of the Faculty of Social Sciences, University of Kelaniya. Questionnaires were delivered to the respondents via Google Forms to test the constructed hypothesis for Structural Equation Modelling (SEM) and to test the Confirmatory Factor Analysis (CFA) as well. 150 responses received and according to Hair, Black, Babin, Anderso, & Tatham [23] the acceptable number of sample units for SEM is 150. The questionnaire consists of four sections where first section for demographic characteristics such as Gender, Year of study, Frequency of Facebook use and length of stay in Facebook. The second section consists of likert scale questions for whether Facebook is beneficial or not, third section is for purposes of use of Facebook last section is for social media usage of Facebook where all questions are at five point likert scale. Reliability was tested by using Chronbach's Alpha values for each factor as well.

For the purpose of collection of data, the link for the Google Form sent to student groups and through Facebook. The survey was available for students for one month to ensure all the undergraduates who have Facebook account are aware about the survey. Tables, Graphs, Charts were used to present data while using SEM and CFA to analyze data by using IBM SPSS Statistics and AMOS as tools to analyze data.

3.1 Operationalization

The study focuses on developing a structural equation model since the study concerns on the variables that are latent variables [24] while considering the social media role on technological aspect and social aspect. Facebook as a social media impact on undergraduates' educational purposes as well [25]. The model basically consists of three latent variables namely as purpose of use of Facebook, Benefits from use of Facebook, and Facebook usage as a social media. There are 15 variables used to measure the above mentioned latent variables where purpose of use of Facebook is characterized by four observed variables as Socialization (P_Socialization), Information sharing (P_Info_Share), Keep updated (P_KeepTrack), and as a Day-to-day activity (P_D2DActivity).

However when considering the purpose of the use of Facebook, the most renowned purpose is to keep healthy and continuous relationships with friends, family, colleagues, co-workers, etc i.e. Socialization [14]. Another main factor is to share information as Facebook provides great opportunity to share information by the form of images, videos, audios, text etc. As a significant part of socialization, it is indeed beneficial to keep updated on activities and scenarios taking place around and what is happening on others lives who are surrounded [26]. All these purposes along with the purpose of use of Facebook as it is a Day-to-day activity that most of the users adicted to. Cheung, Chiu, & Lee [27] suggested that notable majority of Youth tend to use Facebook on daily basis. In modelling the purpose of use of Facebook, following hpothesis were constructed.

Hypothesis 01

H₀: There is no significant impact of socialization on purpose of use of Facebook
 H₁: There is a significant impact of socialization on purpose of use of Facebook

Hypothesis 02

H₀: There is no significant impact of information sharing on purpose of use of Facebook
 H₁: There is a significant impact of information sharing on purpose of use of Facebook

Hypothesis 03

H₀: There is no significant impact of keep updated via Facebook on purpose of use of Facebook
 H₁: There is a significant impact of keep updated via Facebook on purpose of use of Facebook

Hypothesis 04

H₀: There is no significant impact of Facebook as day-to-day activity on purpose of use of Facebook
 H₁: There is a significant impact of Facebook as day-to-day activity on purpose of use of Facebook

The next latent variable is benefits from use of Facebook and it is discribed with five observed variables namely as Usefulness (B_Usefulness), Ease of use (B_Ease), Entertainment (B_Entertainment), Collobative platform (B_Coll_Platt), and Social influence (B_SocialInfluence). The usefulness and ease of use discribe the Technology Acceptable Model (TAM) as well. Usefulness as a benefit from use of Facebook emphasize the degree to which an individual believes that use of new technology would enhance his or her productivity and efficiency. On the other hand ease of use as a benefit from use of Facebook describes that the degree to which an individual believes that use of technology would be from mental and physical exertions [28] as in [3]. Another benefit from use of Facexbook is entertainment which that the Facebook as self-service technology and extend to which a Facebook user experience higher state of entertainment, Not only entertainment but also the benefit of use of Facebook as a collaborative platform which provides collaborations between individuals, groups, and organizations as well. Last benefit from use of Facebook is social influence that describes the extend to which individuals feeling of they should adopt new technology. In modelling the benefits from use of Facebook, following hpothesis were constructed.

Hypothesis 05

H₀: There is no significant impact of usefulness on benefits from use of Facebook
 H₁: There is a significant impact of usefulness on benefits from use of Facebook

Hypothesis 06

H₀: There is no significant impact of ease of use on benefits from use of Facebook
 H₁: There is a significant impact of ease of use on benefits from use of Facebook

Hypothesis 07

H₀: There is no significant impact of entertainment on benefits from use of Facebook
 H₁: There is a significant impact of entertainment on benefits from use of Facebook

Hypothesis 08

H₀: There is no significant impact of Facebook as a collaboration platform on benefits from use of Facebook

H₁: There is a significant impact of Facebook as a collaboration platform on benefits from use of Facebook

Hypothesis 09

H₀: There is no significant impact of social influence on benefits from use of Facebook

H₁: There is a significant impact of social influence on benefits from use of Facebook

Finally the model focuses on usage of Facebook as a social media by using six observed variables namely as Use for work-related activities (U_Work), Use for personal activities (U_Personal), Use for educational activities (U_Educational), Identification among community (U_Comm_Identification), Communication (U_Comm), and Social interaction forums (U_SocialInteraction). Use of Facebook for work-related activities has recently acceptable in local context in which employee-employee relations and employer-employee relations have strengthened conveniently through social media during the pandemic situation [12]. Moreover, it is economically beneficial as Facebook provides calls and chats with others. Similarly, Facebook is useful in personal activities such as sharing opinions, ideas, discussions, exchanging information, nurture friendships, keep updated with family members and friends who live apart [29]. Simultaneously, Facebook is beneficial in educational usage as well in multiple activities. Facebook allows close and open groups for different educational institutions, sharing educational questions and making platforms for discussions, virtual classrooms, video lecturing, live streaming for educational purposes. Moreover, identification among community is one of the major usage of Facebook as a social media as Facebook supports to maintain one's image, personality, and charisma among colleagues and groups [15]. Also, they stated that the recent generations are more familiar and comfortable with expressing ideas, opinions, without face-to-face interactions and Facebook provides the facilities for the expression of ideas through text and real time. When considering the scenario at the pandemic situation on educational basis, Facebook creates a convenient platform for students to interact with their resource persons which may create better realistic discussions than in physical classrooms. Finally, the social interaction forum that may randomly be chosen by students, undergraduates, teachers, lecturers on their relevant fields of study

through Facebook where they will never take part if the online platforms were un-identified [30] and [14].

In modelling the benefits from use of Facebook, following hypotheses were constructed.

Hypothesis 10

H₀: There is no significant impact of use of Facebook for work-related activities on usage of Facebook as a social media

H₁: There is a significant impact of use of Facebook for work-related activities on usage of Facebook as a social media

Hypothesis 11

H₀: There is no significant impact of use of Facebook for personal activities on usage of Facebook as a social media

H₁: There is a significant impact of use of Facebook for personal activities on usage of Facebook as a social media

Hypothesis 12

H₀: There is no significant impact of use of Facebook for educational activities on usage of Facebook as a social media

H₁: There is a significant impact of use of Facebook for educational activities on usage of Facebook as a social media

Hypothesis 13

H₀: There is no significant impact of use of Facebook for identification among community on usage of Facebook as a social media

H₁: There is a significant impact of use of Facebook for identification among community on usage of Facebook as a social media

Hypothesis 14

H₀: There is no significant impact of use of Facebook for communication on usage of Facebook as a social media

H₁: There is a significant impact of use of Facebook for communication on usage of Facebook as a social media

Hypothesis 15

H₀: There is no significant impact of use of Facebook for social interaction forums on usage of Facebook as a social media

H₁: There is a significant impact of use of Facebook for social interaction forums on usage of Facebook as a social media

Finally, the study focuses on following hypothesis in concerning the model while considering the benefits from use of Facebook as the independent variable and purpose of use of Facebook as a the dependent variable. On the same time benefits from use of Facebook is identified as the independent variable and Facebook usage as a social media considering the dependent variable.

Hypothesis 16

H₀: There is no significant impact of purpose of use of Facebook for benefits from use of Facebook

H₁: There is a significant impact of purpose of use of Facebook for benefits from use of Facebook

Hypothesis 17

H₀: There is no significant impact of benefits from use of Facebook on use of Facebook as a social media

H₁: There is a significant impact of benefits from use of Facebook on use of Facebook as a social media

The Fig. 2 shows the conceptual framework of the study that developed through the review of literature.

The use of Facebook on education is trying identify by modelling the variables such as purpose of use of facebook, benefits from use of Facebook and use of Facebook as a social media which deeply measured with respective sub-variables as shown in figure.

3.2 Data Analysis

The demographic profile of the study is as follow in order to identify the nature in which the findings of the study and modelling of the framework has been constructed.

According to the Fig. 3, the gender composition of the study context consists of 83.7% of female and 16.3% of males. If it is according to Fig. 4, the academic year composition of undergraduates was recorded as 26.1%, 17.6%, 37.9% and 8.3% from 1st, 2nd, 3rd, and 4th years respectively.

Majority of the Facebook users use Facebook at least once in every day and all most all use Facebook at least once in every month and none of them are not using Facebook.

On the same time, majority of undergraduates either use Facebook for 10 - 30 minutes or 1 - 2 hours that recorded as 30.1% and 29.4% respectively.

According to Fig. 7, there can be seen 71.9% of undergraduates believe that Facebook is useful in educational activities as well.

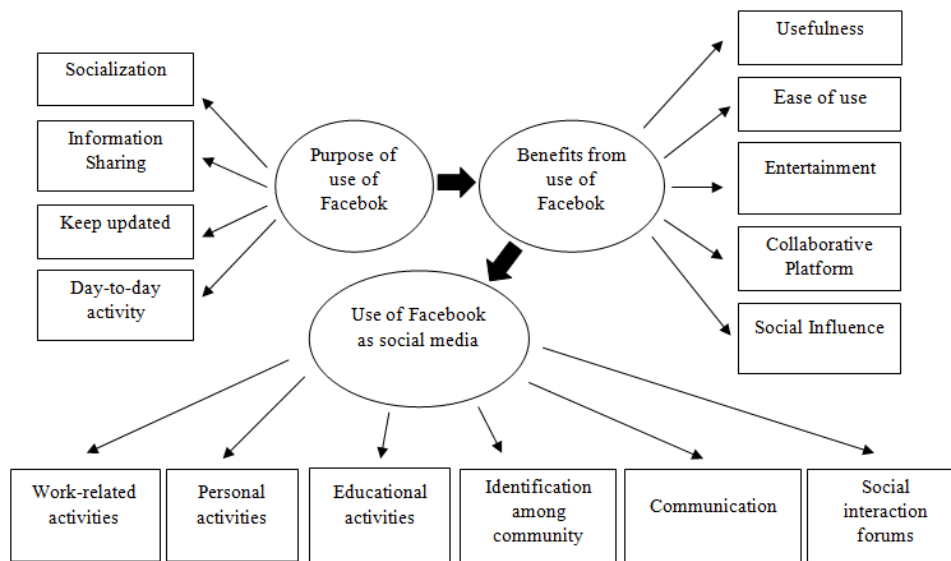


Fig. 2. Conceptual framework

Table 2. Reliability analysis

Instrument	Supportive questions	Sub variables	Questionnaire
Usefulness	0.778	0.907	0.944
Ease of use	0.871		
Social Influence	0.753		
Entertainment	0.776		
Collaborative Platform	0.816	0.897	
Socialization	0.874		
Information Sharing	0.814		
Day to day activity	0.793		
Keep updated	0.803		
Identification among community	-	0.915	
Communication	-		
Work-related Activity	-		
Personal Activity	-		
Educational Activity	-		
Social interaction forums	-		

The above table shows the results of reliability analysis. Cronbach's Alpha values were calculated for the latent variables where each variable measured with four to six sub variables and some of the sub variables measured with another two to three supportive questions. Cronbach's Alpha values for reliability for each sub variables were varied from 0.753 to 0.874 and latent variables were varied from 0.897 to 0.915 when the reliability for the whole questionnaire contains 0.944 of reliability coefficient. In CFA shows factor loadings from 0.589 to 0.852.

As per the results of the total variance explained, there are three factors which cover 74.158% of variance (Table 3).

The scree plot (Fig. 8) confirms the number of factors to be concern in the study

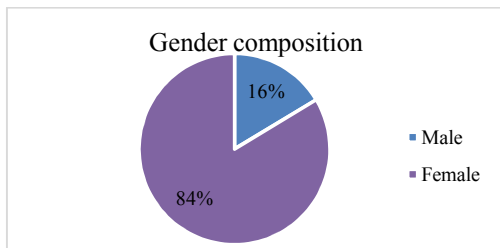


Fig. 3. Gender composition of the study

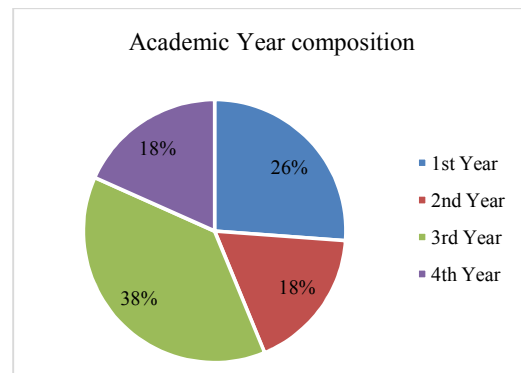


Fig. 4. Academic year composition

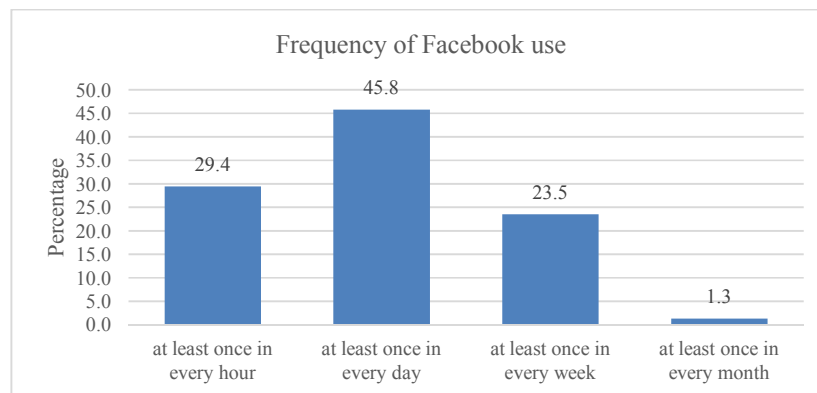


Fig. 5. Frequency of facebook use

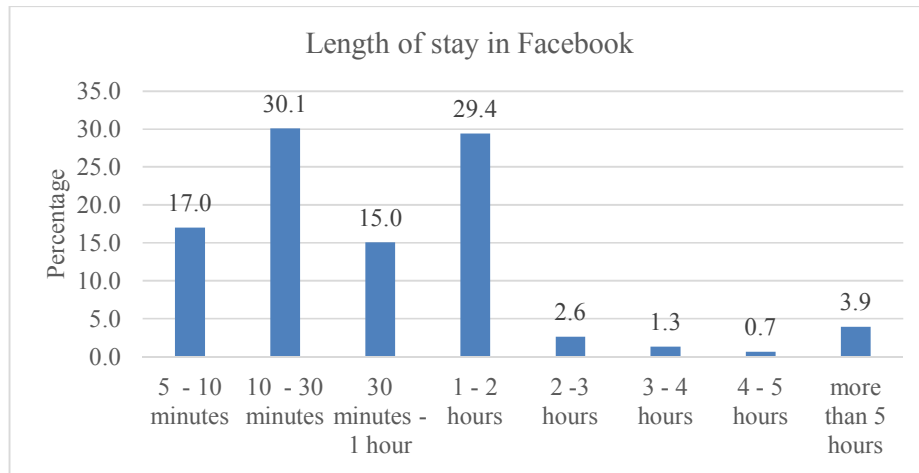


Fig. 6. Length of stay in facebook

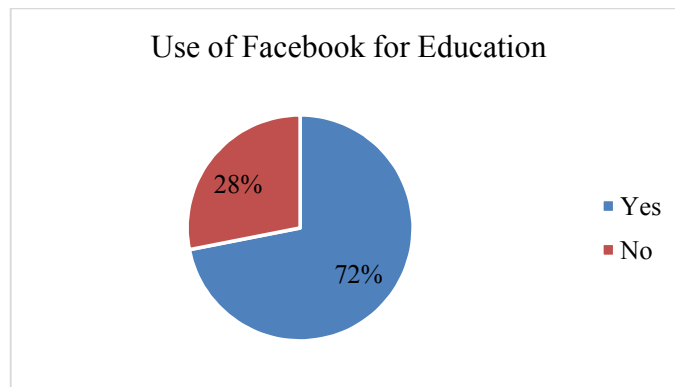


Fig. 7. Use of facebook for education

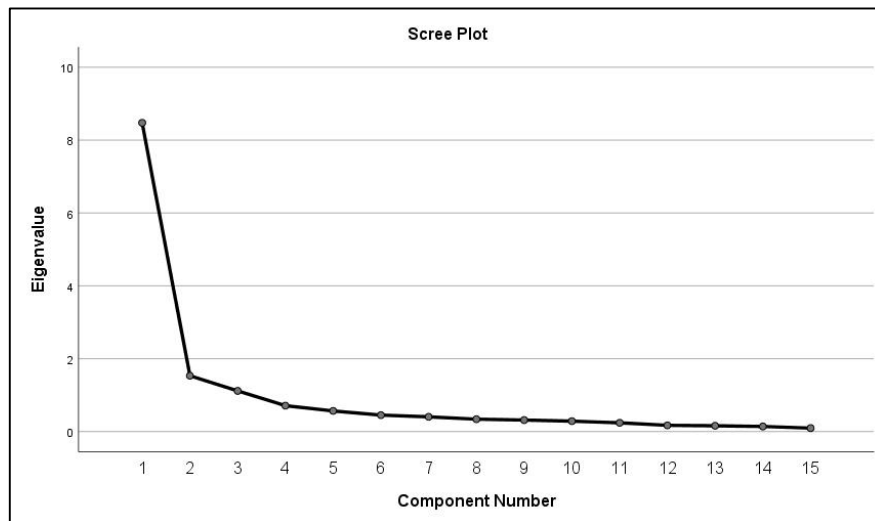


Fig. 8. Scree plot

Table 3. Total variance explained

Component	Total variance explained								
	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.475	56.502	56.502	8.475	56.502	56.502	3.887	25.912	25.912
2	1.532	10.216	66.717	1.532	10.216	66.717	3.857	25.712	51.624
3	1.116	7.440	74.158	1.116	7.440	74.158	3.380	22.534	74.158
4	.711	4.738	78.896						
5	.566	3.772	82.668						
6	.452	3.012	85.680						
7	.405	2.698	88.378						
8	.340	2.265	90.643						
9	.315	2.100	92.743						
10	.286	1.909	94.653						
11	.239	1.594	96.247						
12	.171	1.140	97.386						
13	.158	1.055	98.441						
14	.140	.933	99.374						
15	.094	.626	100.000						

Extraction Method: Principal Component Analysis

There are 120 distinct sample moments i.e., elements in the sample covariance matrix and at the initial model estimate 32 parameters where the degrees of freedom are 88. The chi-square value is 284.372 with a probability level equal to 0.000. There are three criteria are checked when reviewing the model parameter estimates as feasibility of parameter estimate, appropriateness of the standard errors and the statistical significance of the parameter estimates. Here, S is sample covariance matrix, Σ is population covariance matrix, and $\Sigma(\theta)$ is restricted covariance matrix implied by the model. H_0 is tested the postulated model holds in the population by $\Sigma = \Sigma(\theta)$ against $H_1: \Sigma \neq \Sigma(\theta)$.

From the first section of the above table NPAR (Number of parameters), CMIN (Minimum discrepancy), DF (Degrees of Freedom), P (Probability value) and CMIN/DF shows the value of 284.372 which represents the discrepancy between the unrestricted sample covariance matrix S and the restricted covariance matrix $\Sigma(\theta)$ or i.e., Likelihood ratio (χ^2). Higher probability value associated with χ^2 or CMIN is expected which do not reject the H_0 hypothesis stating that there is a fit between the hypothesized model and the perfect fit [31]. Since the $\chi^2 = 284.372$ with 88 DF and a probability equal to 0.000 suggests the hypothesized model is not adequate to the data meant by rejected H_0 hypothesis. Then the next measures for the model fit and Root Mean square Residual (RMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), and Parsimony Goodness of Fit Index (PGFI). RMR is the average residual value that derived from the fitting of the variance-covariance matrix for the hypothesized model [31]. Since the RMR are relative to the sizes of observed variance-covariance RMR interpretation by standardized RMR from correlation matrix. These standardized RMR values are from 0 to 1 and well-fitted models show values of 0.5 or less than 0.5. Hence the analysis shows that RMR = 0.05 which satisfy the model fit with the observed data.

The GFI measures the relative amount of variance and covariance in S that is jointly explained by Σ . The AGFI become different from GFI only when the DF is adjusted in a specified model. GFI and AGFI are absolute indexes where they do not compare with any other hypothesized model. GFI and AGFI range from 0 to 1 where the model fit when the GFI and AGFI values are closer to 1. Since the GFI = 0.803 and AGFI = 0.732, hypothesized model fits the sample data well. PGFI takes the complexity i.e., number of estimated parameters to the account, so the model is acceptable at PGFI = 0.589.

Then the analysis move to the baseline comparison consists of Normal Fit Index (NFI), Relative Fit Index (RFI), Incremental Index of Fit (IFI), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI) which are incremental or comparative indices of Fit. NFI shows a tendency to underestimate fit in small sample and CFI has revised the NFI while taking sample size into account. NFI and CFI range from 0 to 1, when the value is greater than 0.9 considered a best fit model. However, the analysis shows NFI = 0.854 and CFI = 0.893 which can be considered as not the best fit model. So, that the model is not fitted the data well in hypothesized model, but the NFI and CFI values show that the model is not best fit to data. So, that the model is not fitted the data well in hypothesized model. But the NFI and CFI values shows that model fit is marginally adequate. Similarly, RFI, IFI, and TLI need to be range from 0 to 1 and the best fit indicate all the values are closer to 1. RFI = 0.826, IFI = 0.894 and TLI = 0.873 shows that model is not best fit to data but marginally adequate.

Then Non-Centrality Parameter (NCP) is an important value that considered when the χ^2 statistics in the initial level tend to reject the H_0 hypothesis where H_0 could not be rejected to better fit to model. The results show that NCP = 196.372 (284.372 - 88) and the confidence interval shows that there is 90% confident to the population value of NCP (λ) lies between 149.125 and 251.230.

Table 4. CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	32	284.372	88	.000	3.231
Saturated model	120	.000	0		
Independence model	15	1944.778	105	.000	18.522

Table 5. RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.050	.803	.732	.589
Saturated model	.000	1.000		
Independence model	.289	.195	.080	.170

Table 6. Baseline comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.854	.826	.894	.873	.893
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table 7. NCP

Model	NCP	LO 90	HI 90
Default model	196.372	149.125	251.230
Saturated model	.000	.000	.000
Independence model	1839.778	1700.313	1986.617

Table 8. RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.121	.106	.137	.000
Independence model	.340	.326	.353	.000

The next model fit statistic is Root Mean Square Error of Approximation (RMSEA) which is identified as the most informative criteria in covariance structure modelling RMSEA values less than 0.05 indicate good fit and values as high as 0.08 represents reasonable errors of approximation in the population 0.08 - 1 is known as average fit and greater than 0.10 indicate poor fit. Moreover, 0.06 shows a good fit between the hypothesized model and observed data. Since the RMSEA = 0.121 means a poor fit. On the same time a very narrow confident interval associate with RMSEA reflect the model fit while closeness of fit (PCLOSE) which p-value for the test should be greater than 0.5.

Then Akaike's Information Criteria (AIC) are consistent version of AIC (CAIC) been tested for comparison of two or more models where the smaller values of AIC and CAIC represents better fit of the hypothesized model.

The Expected Cross-Validation Index (ECVI) is also a comparison index where smallest ECVI shows greatest potential for replication. Since ECVI - 2.292, CVI for saturated model = 1.579 and ECVI for independent model = 12.992 and ECVI for

hypothesized model is greater than ECVI saturated model, then the hypothesized model does not represent the best fit to the data.

Since most of the Goodness of Fit measures at the acceptable level, the measurement model displays a reasonable fit, standardized path coefficients of the structural equation model show in the following figure.

The coefficient between benefits and its observed variables are marked as significant at 5% level of significance. It ensures that usefulness, ease of use, social influence, entertainment, and collaborative platform has positive impact to the benefits of use of Facebook as usefulness $\beta = 0.70$, ease of use $\beta = 0.78$, social influence $\beta = 0.88$, entertainment $\beta = 0.89$, and collaborative platform $\beta = 0.85$ where Hypothesis 1 to Hypothesis 4 is supported. When considering the path coefficients between purpose of use of Facebook and observed variables, there can be seen 5% level of significance which in detail socialization $\beta = 0.71$, information sharing $\beta = 0.84$, Day to day activity $\beta = 0.87$, and keep updated $\beta = 0.91$ where Hypothesis 5 to Hypothesis 9 is supported.

Table 9. AIC

Model	AIC	BCC	BIC	CAIC
Default model	348.372	355.901	445.346	477.346
Saturated model	240.000	268.235	603.653	723.653
Independence model	1974.778	1978.307	2020.235	2035.235

Table 10. ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	2.292	1.981	2.653	2.341
Saturated model	1.579	1.579	1.579	1.765
Independence model	12.992	12.074	13.958	13.015

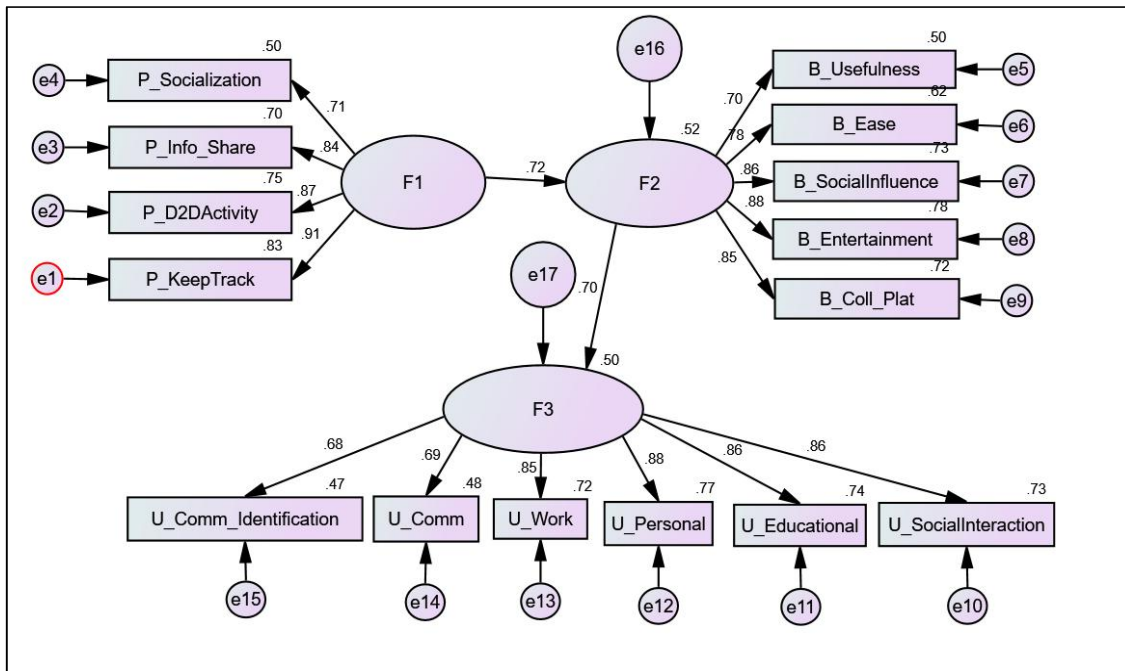


Fig. 9. Standardized path coefficients

Similarly, the usage of Facebook shows that the observed variables are significance at 5% level of significance while having coefficient for community identification $\beta = 0.68$, communication $\beta = 0.69$, Facebook for work-related activities $\beta = 0.84$, Facebook for personal activities $\beta = 0.88$, Facebook for educational activities $\beta = 0.86$, and social interaction $\beta = 0.86$ where Hypothesis 10 to Hypothesis 15 is supported. Moreover, the effect of purpose of use of Facebook on benefits from the use of Facebook is obtained as 0.73 and the effect of use of Facebook on usage of Facebook is observed as 0.66.

4. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The study focuses on Facebook usage on educational purposes. Facebook usage has been explained by the benefits from the use of Facebook which has been measured by purposes of use of Facebook. Entertainment owns a major fraction in predicting the benefits from use of Facebook which indicate that undergraduates more prefer to spend their time for

entertainment by using Facebook not the other benefits of usefulness, ease of use, social influence, and as collaborative platform. This seems that Facebook cannot be used as an educational source but as an entertainment mode. Facebook cannot be considered as a tool for education since it highly recommended for entertainment purposes and similar finding is from Junco [9] which stated in his study as Multitasking with Facebook was significantly negatively predictive of GPA. Keeping touch with others is the result received from the previous segment of most influential factor on benefits from the use of Facebook as well. However, the results indicate undergraduates' preference for Facebook is attached with social activities and entertainment. The model and results suggest that Facebook usage on educational purposes when all most all the undergraduates prefer most the Facebook as a social media which can be led to generalize the use of Facebook in further use of educational practices. In contradictory Avila & Cabrera [19] revealed that the use of Facebook Group in virtual classrooms highly improved the academic performance of students compared to those that were taught using a modular

approach during the Covid 19 period. But in favor Makki & Bali, [32] revealed that less than half of the respondents were in favor of using social media in the learning process.

During the pandemic situation, not only the undergraduates, but also the general human has messed up with their official, unofficial, and social activities. Simultaneously, the social media and social networking is playing an integral role in peoples' day to day activities. As it helps to coordinate peoples' physical and mental wellbeing in the uncertain situation. The increase of use of Facebook is significance since the Facebook has its own base of clients in each age category. Further in favor, Makki & Bali, [32] also suggested that the educational level, age, and geographical hierarchies and jobs of respondents are also correlated with using social media and e-learning. It is easy to create slots for each category where undergraduates meet their same ages over there and they may share their common resources in a transparent way. On the same time, the undergraduates hold the responsibility to act accordingly without misusing the platform.

Finally, the study suggests having formal changes to the educational system that can be further moved towards with Facebook with following recommendations. Professionals in all fields get together via Facebook and create forums not in the form of text but in a form of video, audio, images, etc. Allowing undergraduates to ask questions, contribute to the discussions, and commence forums as well is another way of using Facebook for educational purposes. Similarly, allowing their creativity, experiments, and entertainment may enrich the process of attaining academic goals through Facebook. The strength of this process is the platform has already attached and attracted. So, the professionals need to be tactical to remain them in the platform with academic context.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

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