# ONLINE EDUCATION ADOPTED BY THE STUDENTS OF BUSINESS SCIENCE

Sarfraz Hussain, Universiti Teknologi Malaysia Nisar Ahmad, University of the Punjab Lahore Abdul Quddus, Tomas Bata University in Zlin Muhammad Rafiq, Universiti Teknologi Malaysia Tien Phat Pham, School of Economics, Can Tho University Boris Popesko, Tomas Bata University in Zlin

#### **ABSTRACT**

Facebook is a popular social networking platform used for a variety of uses, including general and educational purposes. Digital links between teachers and students can now be created, removing physical distance barriers and enhancing the transformation of knowledge, data, and other tools. This research uncovered several variables that affect business students' usage of Facebook, primarily for educational purposes. A total of 611 business students from various Lahore universities took part in the survey. The data was then evaluated using the R programming language. To determine the relationship between latent and observable variables, the Structural Equation Model (SEM) was used. The relationship between latent variables was determined using path analysis. The findings revealed that social impact on business students could contribute to Facebook adoption. Finally, rather than its use as a social networking platform, Facebook's adoption has broadly explained its educational use.

**Keywords:** Social Networking Site, Facebook, Social Influence and Educational Use

#### INTRODUCTION

(Prensky, Toker & Baturay, 2001) label the younger generation, like the Millennial Generation, as Digital Natives or Net Generations because they grew up in an advanced technical and digital world (2019). These digital natives have incorporated technology into their everyday lives for educational, social, and interactive networking purposes. People are now more likely to use social networking networks as a result of them. People can directly connect and exchange their ideas and knowledge *via* Social Networking Platforms (SNS) (Kwon, 2014). SNS is used for four different reasons: (1) distraction (desire to unwind), (2) establishing personal relationships, (3) personal identification, and (4) surveillance (Raza et al., 2020). SNS allows people to communicate with one another. All uses social media for various reasons, such as creating and retaining social capital (Dhir, 2017). Some people use these platforms for social networking to stay in touch with family and friends (Sharma et al., 2016), while others use them for commercial and technical purposes.

Both students and instructors are utilizing social media for educational purposes (Toker & Baturay, 2019). SNS also allows students to upload their learning content and materials. Students have an active role in their studies (Van et al., 2020). SNS help students improve metacognitive abilities, such as self-monitoring and judgment, in addition to academic and personal use (Florenthal, 2015). Students think that thanks to the Internet knowledge and many free educational tools provided by the best universities and their study partners, social networking enables them to prepare and finalize their work more efficiently and with good quality feedback (Toker & Baturay, 2019). Many social media platforms, such as Facebook, Instagram, WhatsApp, Yahoo, Linkedin, RenRen, and Twitter, are present in today's modern world, facilitating students' academic wellbeing (Thomas & Thomas, 2012). However, Facebook remains the most common social networking site (Feng et al., 2019; Manca, 2020; Niu, 2019), with two billion users (Feng et al., 2019; Manca, 2020; Niu, 2019). (Voivonta & Avraamidou, 2018). In today's modern world, Facebook usage for educational purposes is on the rise, and COVID-19 recognizes its significance (Singh et al., 2020). Students may use Facebook to prepare for lectures and participate in online debates (Toker & Baturay, 2019; Voivonta & Avraamidou, 2018). For classroom events and projects, students often prefer online contact. They still use Facebook to keep themselves informed of world events of almost any kind. Facebook assists students in acquiring more insight and improving their academic abilities in this way. According to the social presence principle, students expect online learning to be actual and current (Niu, 2019).

According to studies, students' experience and academic achievement are closely linked to their improved understanding and mindset toward reaping active Facebook usage rewards (Kitchakarn, 2016). Students studying a variety of languages may use Facebook to improve their English language skills, including blogging. Furthermore, students will benefit from study articles and reviews posted on Facebook, which can improve their administrative and academic results. Students may use Facebook to communicate their expertise with their classmates, further their current experience, learn fresh insights, and participate in online and real-time brainstorming scenarios (Feng et al., 2019). Traditional schooling, combined with online education, will help students respond to new learning's changing demands and requirements. Nowadays, students tend to use Facebook to meet their learning needs. Students' Facebook usage for professional and educational purposes is linked to student satisfaction with their learning, improved grades, and a positive view of themselves (Elsamanoudy et al., 2018). Besides students, teachers agree that social media sites, especially Facebook, benefit and promote the teaching career, as it encourages specific online academic opportunities that save time and money. Furthermore, several teachers believe that Facebook encourages students to engage in online learning and information sharing (Niu, 2019). As a result, Facebook became the most widely used forum for student learning (Seechaliao, 2014).

However, it has been found that individual students lose time and money by using Facebook inefficiently. Excessive Facebook use, according to (Feng et al., 2019), has a detrimental impact on students' academic achievement. The explanation for this is that instead of reading books, students spend their time talking with their peers (Chukwudi & Constance, 2015). Furthermore, social overloading, life frustration, over-optimistic perceptions of others' lives, miserable lives, sensitivity, jealousy, and social stress are all factors to consider (Raza, 2020). Furthermore, Facebook has been chastised for its lack of anonymity and political ideologies (Voivonta & Avraamidou, 2018). Students often need good advice and information on utilizing better social networking sites to prevent ineffective Facebook use, which can save them time,

effort, and money. However, all have positive and negative consequences, which depends on how they do everything to bring the most out of everything. This article focuses on theory and examines the function of Facebook adoption in students' academic lives.

This research is intended to examine critical variables affecting the adoption of Facebook, Facebook purpose, and Facebook education. The second objective is to assess the effect of Facebook adoption on Facebook educational use. The third objective is to decide the function of the relationship between the adoption of Facebook and the educational use of the social networking site. According to global Facebook usage figures, India has the most Facebook users, with 290 per million. Pakistan is ranked 11th in the world, with 38 users per million (Clement, 2020).

Furthermore, 17.08 percent of Pakistan's population uses the internet. According to the World Digital Portal, 37 million people use social networking apps out of 76.38 million internet users. Around 2019 and 2020, the number of people using social media rose by 7%. Surprisingly, 73.3 percent of people between the ages of 18 and 34 use social networking apps. In Pakistan, there are 27 million Facebook subscribers (Raza, 2020). Gender segregation shows that 78 percent of consumers are men, while 22 percent are women (Raza, 2020). We based on students (despite teachers) of public sector universities and technical institutes because of their extensive social media use.

Furthermore, business students are more likely than students from other fields to utilize social networking (see Iteralia, Chukwudi, & Constance, 2015; Raza, 2020; Raza et al., 2020; Thomas & Thomas, 2016). The explanation behind this is because business students utilize social networking platforms not just for academic purposes but also to help aspiring entrepreneurs launch their own companies. Furthermore, in the new COVID-19 situation, where most colleges use multimedia platforms to provide lectures to students, interactive and affordable education is a must. As a result, it's critical to investigate how Facebook acceptance and intent promote Facebook use (Singh et al., 2020). (Niu, 2019) published a study of 57 studies and discovered that Facebook acceptance has a favourable impact on its educational use. In many aspects, this analysis is intended to contribute to the existing literature. First, by reflecting on the effects of psychological influences on Facebook usage for educational purposes, this research contributes to the current literature (Raza, 2020). Second, the interim role of Facebook in the relationship between Facebook adoption and Facebook education is examined. Third, we concentrated on Lahore business students, who had previously been overlooked in the literature. Finally, we used R tools to investigate the relationship between the study's manifest and latent variables.

## LITERATURE REVIEW

In people's lives, social media play an important position in many viewpoints. Social networking, for example, encourages immersive learning, which motivates people to take advantage of the opportunity to share, talk and learn online. Nowadays, social media have a substantial impact on sustainable schooling. Social networking platforms will influence students' general understanding and attitudes in Pakistan, like in other countries, to their learning and professional activities. Not all students will profit from social networking platforms, and some of these websites unnecessarily begin to use and become the victim of Facebook dependence. Excessive websites on social networking cause students stress and depression (Abbas et al., 2019).

Approximately 97% of students use Facebook regularly, of which 78% invest on Facebook for non-academic reasons, including views posting, interacting with their family and social networking. This study indicates that It reveals that students' use of Facebook for education is restricted to non-academic use compared with Facebook. Most do not waste less than an hour on Facebook for education and debate. Furthermore, students using Facebook for academic purposes are not optimistic about using Facebook to educate them since they often spend time on non-productive tasks (Alhazmi & Rahman, 2013). Most students use Facebook as a networking medium to share opinions, ideas, and quotations in the current era. Instead, you would meet new friends who would like to hear about their life, post videos and photographs, and partake in other non-professional hobbies. Students' action reflects a preference for people around the globe to experience new ways of living, routines and attitudes. Students are interested in knowing about the mutual contacts and the current news and facts on the planet, showing they don't even profit from Facebook (Bicen, 2015).

Students, though, have their opinions about the use of Internet tools for academic purposes. However, the absence of Internet services, the inability of workers to utilize the internet, and the restricted links to electronic libraries do not encourage students to read electronically or digitally. As such, Internet services, like social media, are not available to them. Students agree that internet services enable them to fulfil their academic tasks in due course, improve their knowledge and promote learning (Apuke & Iyendo, 2018). While some institutes have restricted technology and web access, students share optimistic expectations of utilizing Facebook in constructive efforts. Most students study English with Facebook, in particular writing skills. Besides, the usage of Facebook allows prestigious academics and valuable scholarly content to give online lectures (Mabuan & Ebron Jr, 2017).

Previous findings indicate that Facebook has facilitated online learning and information exchange while students show a greater interest in online education than traditional ones. Students always want a daily feedback system with active online lecturers, which means real-time (24/7). (VanDoorn & Eklund, 2013). Informal research approaches may play a central role in students' school, professional and civic life, including Facebook's online lecture distribution. The use by its end consumers can be judged better (Mazman & Usluel, 2010). Facebook promotes mutual media, networking and information exchange in addition to educational resources. The students accept that Facebook supports its instructional and other learning experiences. It also improves the ability of students to understand and share information. It has been noted that high school students best perceive Facebook for educational and testing purposes (Kurtz, 2014).

Facebook helps and builds academic and social links between students (Lee & Teh, 2016). Students are primarily satisfied that Facebook allows students to appreciate and share their feedback on online learning. Students' views show that using Facebook has a beneficial effect because it promotes social learning and affects their academic success (Niu, 2019). Moreover, regardless of gender and family context, students' view on using Facebook has significantly to do with their educational level and academic experience (Al-Dheleai & Tasir, 2017). Social networking channels also support instructional and distance learning networks. Students often use social networking sites on their cell telephones and are also connected to online educational websites (Bozkurt et al., 2017).

Extended research illustrated that Social Networking platforms could relatively strengthen teachers' and students' relationships since this medium was not just a mechanism for connectivity but also a forum for constant monitoring, dialogue and encouragement of both

students and teachers (Habibi et al., 2018). Facebook allows students to collaborate and engage in various study, academics and research-based events alongside their classmates (Hurt et al., 2012). Different variables influence students' understanding of Facebook use, including psychological requirements, personal interests and a desire to learn, academic grades, and social contact. Among these considerations, students' grades and individual use contributed better to Facebook than the less contributing psychological needs. It is also noted that CGPAs tend to use Facebook tools to complete their academic assignments (Toker & Baturay, 2019).

This paper looks at the psychological aspects that affect Facebook schooling. These considerations are widely classified concerning Facebook acceptance and intent. There have been different influences in existing literature influencing Facebook acceptance by students. These considerations include PEOU, PEOU, Social Influence (SI), Facilitation of Conditions (FC) and the Identity of Communities (CI). Perceived usability and ease of use are two key factors affecting the system's benefit, as defined in the TAM (Davis, 1989). (King & He 2006) published a meta-analysis of research with TAM, concluding that the essential element to predict a person's behavioral purpose is its presumed utility. The most important indicator of the adoption of Facebook for academic purposes, accompanied by shared resources, perceived pleasure, social impact and perceived usefulness were (Sharma et al., 2016).

(Kelman, 1958) articulated the principle of social impact at the personal level, which can be divided into three distinct types: compliance, identification, and internalization. The social effect in this study influenced students who can accept Facebook at the identity stage. Their societal interests and classes influence them to show beliefs (Kelman, 1958). Raza's results (2020) show that Social Impact (SI) and behavior regulation are important on Facebook. The following theory is elaborated based on the discussion above:

H1: Facebook adoption by PEU, Perceived Ease of Use (PEOU), Social Impact (SI), Facilitating Conditions (FC), and Community Identity (CI) has a significant role to play.

For different reasons, Facebook is used as an SNS and encourages face-to-face contact with the public through virtual life (Apaolaza et al., 2013). Facebook's objective is a second latent variable in this analysis. It is explained by three manifest variables: DA, WA and social relations (SR). (Mazman & Usluel, 2010) said that SNS social connections had enhanced Facebook's reach, engaging with foreigners and creating new friends and interest groups. (Raza, 2020) results show that social relations (SI) have an important impact on Facebook usage. When used for education purposes, Facebook helps both students and teachers to get their skills up-to-date (Hew, 2011). Facebook motivation thus plays a decisive role in deciding how students use Facebook to educate themselves. The following is the theory of the connection:

H2: Daily Activity (DA), Work Activities (WA) and Social Relations (SR) have a significant effect on the use of Facebook.

The vector results of this study are Facebook studying. This definition has been clarified by extensive literature in three dimensions: Communication (CM), Cooperation (C), and sharing of Resources and Materials (RS). The above is the theory of your friendship

H3: The use of Facebook through Facebook by Communication (CM), collaboration (C) and Resource/Material Sharing (RS) in education has a considerable impact.

In addition, Facebook acceptance, aim and usage are also speculated to be necessary. The adoption and function of Facebook again go through a similar dimension from the previous research carried out by (Mazman & Usluel, 2010). Following their desires and expectations, student usage of Facebook for different purposes is apparent from the reasons found for Facebook adoption. For example, students feel like it is easy to use Facebook for various reasons, exchanging content. Therefore, the hypothesis of this association is:

H4: Facebook is used for different reason, depending on the adoption of Facebook.

The second connection between Facebook's purposes and the educational use of Facebook, built within the philosophical context, is. It assumes that Facebook uses students to increase the use of Facebook in education and allow students to use valuable educational resources to achieve their academic goals. Thus, this relationship's theory is established:

H5: Facebook's educational use is dependent on Facebook use.

The logical context establishes the final relationship between all three latent variables. It is believed in this connection that Facebook users will affect Facebook use for different reasons for schooling. The declaration of the hypothesis of this connection is as:

H6: The mediation of Facebook acceptance by the media would significantly affect Facebook's educational use.

The current study of literature shows some grey areas to be addressed. First, current Pakistani literature lacks the psychological elements of Facebook in school (Raza, 2020). In addition, in the literature review, it is impossible to determine the role of Facebook in the partnership between adoption and Facebook education. The emphasis of this study was on adoption and the connection between business students and Facebook education. We used the R program to analyze the relationship between the apparent and latent variables of the sample. All hypotheses' statements are depicted in Figure 1 as the research's conceptual framework.

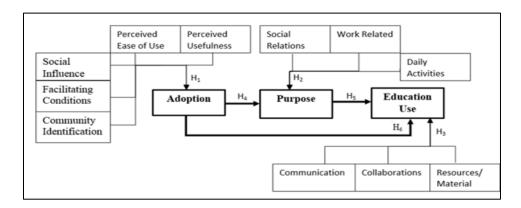


FIGURE 1 CONCEPTUAL FRAMEWORK OF RESEARCH

#### **METHODOLOGY**

# The Instrument for Research and Creation of Hypotheses

This thesis consisted of students from different universities and technical institutes in Pakistan. The sample size was estimated using a multi-stage sampling method. At first, the sampling region was used to approach colleges and technical institutes located in Lahore. Lahore is the centre of most colleges and technical institutions in Pakistan, which is the main subject of attention (Liaqat et al., 2020). The survey was classified in public and private universities/institut es using stratified sampling. For their permission to participate in the data collection, we have contacted all universities and educational institutions in Lahore. We circulated 700 questionnaires with a basic random sample to business students. Finally, 630 fully completed questionnaires were received. We have, however, rejected 19 questionnaires because of incorrect answers. The model was dependent on the approximate sample size by utilizing the Cochran and Moser formulation (1963).

$$n=(z^2 p^{(1-p)})/e^2$$
 (1)

The formula mentioned above supposed that the z-value is 1.96; for the population with the same attribute, 80 percent p was presumed. The variability mistake maybe 2.26% in contrast. As shown in the above formula, the study of 611 business students is justified. Data were obtained through a standard survey consisting of population details from two main sections, for example, Section A: sex, age, university name, department. Section B consists of 47 components for 11 manifest variables (see Table 1 for details). According to the analytical goals, we revised the tool (Mazman & Usluel, 2010) adjusted in a local context, following the research objectives. (Likert, 1932) created this device with a five-point scale to measure objects firmly at odds.

Table 1								
OPERATIONAL DEFINITION OF VARIABLES  Latent variables Manifest variables Definition Items								
Latent variables	Walliest variables	Definition	Items					
Adoption	Perceived Usefulness (PU)	The degree to which people prefer to use the application for the betterment of their work-mg environment	F ive items					
	Perceived Ease of Use (PEoU)	The degree to which people sense the ease of using the application	Five items					
	Social Influence (SI)	The degree to which the usage of application influences the individual by hw'her surroundings (Venkatesh et al., 2003)	Five items					
	Facilitating Conditions (FC)	The degree to which environment and procedural institutions exist for the use of the Facebook application (Venkatesh et al., 2003)	Seven items					
	Community Identity CI)	The ability of an individual to participate in innovation- oriented communiti& (Terry et al., 1997).	Four items					
Purpose	Dally Activity (DA)  The usage of Facebook for the execution of daily							

	Work Activities (WA)	The extent to which people use the application to execute their work-related transactions	Two items
	Social Relations (SR)	Explain the motive behind using Facebook	Six items
Education Use	Communication (C M)	The degree of virtual communication via F acebook among the students	SIX items
	Collaboration (C)	The degree of teamwork among the students through F acebook	Three items
	Resource Material Sharing(RS)	The extent to which educational material is shared among teachers and students through Facebook.	

This tool has been coded in SPSS for data processing. SPPS has been used for the descriptive analysis of population data (see Table 2 for details). The omega coefficient suggested by (McDonald, 1999) in the language of R was used to ensure reliability and internally reliable data gathered. The thesis was focused on a large number of models used to test relationships between variables. Introduced Modelling for Structural Equations (SEM). SEM was used frequently to construct a hierarchy of variables and predictors. Three factors were critically applied: Facebook Adoption, Facebook Purpose and Facebook Education.

Table 2 DEMOGRAPHIC SUMMARY OF RESPONDENTS							
Demographics		No of respondents	Percentage				
Gender of the Respondent	Male	343	56.10%				
Age of the Respondent	Female	268	43.90%				
	Less than Equal to 20	237	38.80%				
	Between equal to 21 & 25	324	53.00%				
	Between equal to 26 & 30	39	6.40%				
	Between equal to 31 & 35	8	1.30%				
	Greater Than 35	3	0.30%				
	GCU	439	71.80%				
Ni Cal IIa' 'a	PU	56	9.20%				
Name of the University	ICMA	47	7.70%				
	Other Universities	69	11.30%				
	Commerce and Finance	329	53.80%				
Damanturant	Cost and Management	133	21.80%				
Department	Economics	64	10.50%				
	Others	85	13.90%				
	Business Admin	146	23.90%				
Ci-1;	Accounting and Finance	225	36.80%				
Specialization	Cost Accounting	94	15.40%				
	Others	146	23.90%				

#### DATA ANALYSIS AND RESULTS

Initially, the respondents' demographics were analyzed by the proportion of frequencies, including gender, age of the respondent, and the university and department's name. The findings displayed in Table 1 reveal that the male interviewees are more numerous than the female, But 53% of the total respondents between the ages of 21 and 25. 38.8% comprise 21, 6.4%, between 26 years and 30 years of age, 1.3% between 31 and 35, and 0.5% of all respondents over 35 years of age. Moreover, the majority of the students were members of Lahore Government College (GCU), a student of the Ministry of Commerce, Finance and Business Accounts (BAF) (DCF). The R-studio data was then regulated using the 'Psych' kit using the Omega coefficient (Revelle, 2019). The Omega coefficient displayed in Table 3 has shown that the total data reliability is 0.87, which is more than 0.70. It may also be inferred that the data are accurate and coherent internally.

Table 3 TEST FOR RELIABILITY AND INTERNAL CONSISTENCY							
Coefficient Reliability Score							
Alpha:	0.82						
G.6:	0.87						
Omega Hierarchical:	0.79						
Omega H Asymptotic	0.9						
Omega Total	0.87						

SEM was implemented for data collection to meet the goals of the research. The research was carried out in two phases. In the initial stage, Confirmatory Factor Analyses (CFA) have been carried out to establish relationships between Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Social Influence (SI), Facilitating Conditions (FC), Community Identity (CI), Daily Activities (DA), Work Activities (WA), Social Relations (SR), Communications (CM), Cooperation (C), and their respective resources and Sharing of Material (RS) In the second phase the model was reintroduced to construct the partnership between latent variables and manifest variables for the lava bundle.

Table 4 has some fit indices to confirm the reliability of the platform. In both processes, the composition of the chi-square portion is controlled by a large 1 percent. The Compared Fit Index (CFI) was used to match the sample fit to the baseline model, whether greater than 0.93. (Byrne, 2013). The second stage CFI value is also suitable in our study. The model was explained in independent variables through the Goodness of Fit Index (GFI), another index to verify variance. The model's performance is usually permissible when the value is greater than 0.90, then the GFI of the second stage model is appropriate (Byrne, 2013). The Tucker Lewis Index (TLI) was often used to identify the change of the model, which is generally good when above 0.90. Therefore, TLI is also suitable in the 2nd stage model. The most recent index was Root Mean Square Approximation Error (RMSEA), which is above 0 and should not be less than 0.08 (Hu & Bentler, 1998). The RMSEA value of the first stage model is, therefore, suitable at 0,055 in this scenario.

Table 4 FIT INDICES OF MODEL								
Fit Indices Accepted 1st Order 2nd Order								
Chi-Square/df	3 <chi-square df<5<="" td=""><td>2.825</td><td>6.897</td></chi-square>	2.825	6.897					
CFI	0.93 <cfi<0.97< td=""><td>0.878</td><td>0.932</td></cfi<0.97<>	0.878	0.932					
GFI	0.90 <gfi<0.95< td=""><td>0.823</td><td>0.919</td></gfi<0.95<>	0.823	0.919					
TLI	0.90 <tli<0.95< td=""><td>0.865</td><td>0.909</td></tli<0.95<>	0.865	0.909					
RMSEA	0.05 <rmsea<0.08< td=""><td>0.055</td><td>0.098</td></rmsea<0.08<>	0.055	0.098					

Appendix B1 presents the overall overview of the CFA model. Loads of latent variables and their manifested variables can be seen in the analysis. The findings of the first phase model show that the observations loaded significantly on their latent variables. The convergent validity scales are tested using Composite Reliability (CR) and Average Variable Extracted (AVE). CR values are more than 0.60 for each structure. The instrument is also accurate overall.

The Mean Value Extracted (AVE) is more critical than 0.40 in PU, SI, CI, SR, WR, DA, CM, C and RM. The uncertainty concerning variability in error terms in these constructions is also sufficient. The manifest variables of Facebook Adoption have a  $\beta$  (factor charging) greater than 0.30 in the second stage analysis. In the central section of the research. Both of these values at 1 percent stage are important. Composite Reliability (CR) and Average Variance Extracted (AVE) were reused in the second phase in addition to factor loadings. Furthermore, CR and AVE are above the appropriate levels of 0,60 and 0,40 for Facebook purposes and education use. The CFA findings in Appendix A1 show the estimates for each mixture between latent and observed component, utilizing the R-Language 'SEMPAT H' set.

The correlation matrix is also deployed in table 5, which displays 0.8 between coordination (C) and correspondence as to the Maximum Correlation Value (CM). The square source of the average extracted variance (AVE) indicates the discriminant significance of variables on the correlation matrix's diagonal. The ideals of AVE are more essential than those of inter-construction, meaning that they meet the buildings' discriminant reality. The effects of this matrix are seen in Figure 2 using the package "GGCorPlot."

	Table 5 CORRELATION MATRIX AND SQRT OF AVE										
	PU	PEoU	SI	FC	CI	SR	WA	DA	CM	С	RMS
PU	0.65										
PEoU	0.297	0.486									
SI	0.539	0.212	0.711								
FC	0.524	0.364	0.54	0.547							
CI	0.401	0.343	0.358	0.501	0.646						
SR	0.509	0.321	0.545	0.543	0.625	0.665					
WA	0.415	0.152	0.472	0.489	0.374	0.528	0.919				
DA	0.4	0.311	0.421	0.481	0.454	0.581	0.524	0.734			
CM	0.473	0.198	0.48	0.522	0.424	0.574	0.722	0.587	0.857		
С	0.413	0.291	0.426	0.536	0.497	0.59	0.62	0.541	0.769	0.782	
RMS	0.388	0.239	0.412	0.46	0.442	0.503	0.535	0.477	0.69	0.701	0.796

The relationship of the latent variables was calculated in the second part of the study through route analysis using the program Lavaan. As shown in Table 6, structured findings for the route review are as follows:

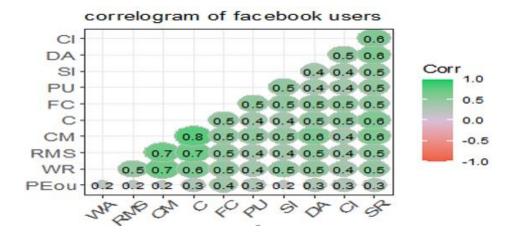


FIGURE 2 CORRELOGRAM OF FACEBOOK USERS

Table 6 PATH ANALYSIS USING 'LAVAAN.'								
Paths	Unstandardized Estimates	Standardized Estimates	P- Value					
Purpose ← Adoption	1.091	0.926	0.000*					
Edu_Use ← Purpose	-0.06	-0.637	0.030*					
Edu_Use ← Purpose←Adoption	2.146	1.516	0.00*					

First, if acceptance rises by one standard deviation from its average, the goal is to raise standard deviations from the norm by 0.926 units. Second, the use of Facebook education could decrease by 0.637 units of standard deviations from this average by one standard deviation from its mean. Finally, if Facebook were adopted with a standard deviation of its average, Facebook education will rise by 1,516 standard deviation units, thus maintaining a continuous purpose mediator.

# FINDINGS AND DISCUSSIONS

This thesis used SEM, proposed by (Mazman & Usluel, 2010), to evaluate the associations between latent variables and the variables observed and used the (Wright, 1960) route analysis to identify the direct and indirect effect on the educational usage of Facebook application of acceptance and purposes. The second-order study shows that PEOU, Social Influences (Si), Facilitating Conditions (FC), and Community Identity (CI) have major effects on Facebook adoption. The model findings show the Usefulness Perceived (PU) and the ease of use. We confirm H1, therefore. In addition, Facebook uses often showed a strong connection between Daily Activities (DA), Work Activities (WA), and Social Relationships (SR). We confirm H2 as well. Finally, Facebook use of Communications (CM), Cooperation (C), and Resource/Material

Sharing (RS) are significantly affected, and H3 is therefore verified. The findings show that the most crucial consideration for embracing Facebook, along with existing literature, is the social impact (Sharma et al., 2016). Communication and collaboration are often apparent in evaluating the educational use of the Facebook program.

The study also showed that utility is the second most crucial factor leading to Facebook acceptance. This outcome corresponded to (Davis' mission, 1989). He said that perceived utility compared to the perceived easiness of use is the most important and closely related determinants of machine use. Secondly, our findings have shown a significant positive association with the intent of utilizing Facebook for all manifest purposed variables, e.g. Social Relations (SR), Work Activities (WA) and Daily Activities (DA). We have noticed that organizational operations were the main motive behind the Facebook submission. (Hew, 2011) argued that the main explanation for using social networks is social relationships and more important social contact with peers. Regarding Facebook education, the findings showed that connectivity is the most crucial aspect, which has an important impact on students' educational usage of Facebook.

Path analytics also show that Facebook adoption has a substantial beneficial impact on Facebook, so we affirm H4. Facebook's objective has a robust negatory effect on Facebook's educational usage, which is why we demonstrate H5 and the optimistic and indirect influence of acceptance on Facebook's educational use. Before H6, technological reforms will be integrated into all Pakistani universities focused on these findings to provide modern students with a better learning experience. Teachers must be adapted to the innovative academic climate to keep students informed and practical about their learning and skills. It would improve students' competitiveness and performance and satisfy the industry's continually evolving needs for human resources.

# **CONCLUSION**

In this modern era, frequent technological advances and developments are among the main reasons to maintain successful higher education in all world communities. The educational system and academic science have changed technical progress in recent years. Higher education organizations also began to support, encourage, and produce highly effective distance learning and education for the younger generation. No generation has ever benefitted so much from technology, which is why this generation is called digital natives (Prensky, 2001).

This research helped find inspiration in the use of Facebook for learning purposes by business students. The investigation began with the validation and application of the (Mazman & Usluel, 2010) model and the Wright route study (1960). These models have been used to survey students studying business in different universities and technical institutes in Lahore, Pakistan. The research examined various variables that contribute to creative academic experiences to evaluate their effect on Facebook adoption. Based on the results of the model mentioned above of Confirmatory Factor Analysis (CFA), it can be hypothesized that the main factor in Facebook acceptance is social effects for business students.

The aim of Facebook is primarily to carry out activities related to work. Furthermore, the usage of Facebook is mainly based on 'contact' between the students of the company, as (Manasijević et al., 2016). Besides, the route study findings show that Facebook's adoption has a favourable connection to Facebook for educational purposes. Furthermore, Facebook has a robust detrimental relationship with Facebook's educational use. It is suggested that Facebook students use for a drive to affect Facebook's educational use adversely. Finally, Facebook

adoption by Facebook, which is also established by (Sánchez et al., 2014), would be significantly optimistic on the pedagogical use of Facebook.

## **IMPLICATIONS**

The above conclusion has taken us to practical consequences. It is now compulsory for educational institutions to provide a constructive atmosphere for collaboration through social networking, such as Facebook. Most students promote social networking outlets to carry out work-related practices such as conducting live seminars, accessing online lectures, forming materials, exchanging communities, and finding assistance from their academic instructors. Students often encounter a relaxed and more convenient learning atmosphere by utilizing Facebook, as shown by our findings, than the conventional learning framework. Also, students allow Facebook to promote the up-to-date information and business perspectives needed for their classroom work for academic purposes.

# RECOMMENDATIONS

Because of time restrictions, this thesis is restricted to Lahore universities. For this reason, prospective researchers are suggested for the same reasoning to investigate Pakistan's other towns. Besides, we have researched only the answers of business students, but propose that study be carried out for various disciplines, such as chemistry, life sciences, etc. We also established and employed several factors that influenced Facebook use in schooling; however, those additional factors could become prevalent in the future. The study shows the usage of Facebook from the viewpoint of the student as a learning management device. But it still has to prove that academic teachers and scholars have adopted social networking networks.

#### **REFERENCES**

- Abbas, J., Aman, J., Nurunnabi, M., & Bano, S. (2019). The impact of social media on learning behavior for sustainable education: Evidence of students from selected universities in Pakistan. Sustainability, 11(6), 1683.
- Al-Dheleai, Y.M., & Tasir, Z. (2017). Using facebook for the purpose of students' interaction and its correlation with students' academic performance. *Turkish Online Journal of Educational Technology-TOJET 16*(4), 170-178.
- Alhazmi, A.K., & Rahman, A.A. (2013). Facebook in higher education: Students' use and perceptions. *Advances in Information Sciences Service Sciences*, 5(15), 32.
- Apaolaza, V., Hartmann, P., Medina, E., Barrutia, J.M., & Echebarria, C. (2013). The relationship between socializing on the Spanish online networking site Tuenti and teenagers' subjective wellbeing: The roles of self-esteem and loneliness. *Computers in Human Behavior*, 29(4), 1282-1289.
- Apuke, O.D., & Iyendo, T.O. (2018). University students' usage of the internet resources for research and learning: forms of access and perceptions of utility. *Heliyon*, 4(12), e01052.
- Bicen, H. (2015). Determination of university students' reasons of using social networking sites in their daily life. *Procedia-Social Behavioral Sciences*, 190, 519-522.
- Bozkurt, A., Karadeniz, A., & Kocdar, S. (2017). Social networking sites as communication, interaction, and learning environments: Perceptions and preferences of distance education students. *Journal of Learning for Development-JL4*, 4(3).
- Byrne, B.M. (2013). Structural equation modeling with Mplus: Basic concepts, applications, and programming: Routledge.
- Cochran, W., & Moser, C. (1963). Sampling techniques, new york, 1953. Statistical Surveys E. Grebenik.

- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly, 319-340.
- Elsamanoudy, A.Z., El Saadany, S.A., Ghoneim, F.M., Abulata, N.N., Abu-Kamer, R.A., & Hassanien, M.A. (2018). Medical students' perception towards introducing facebook as an educational tool in respiratory module-faculty of medicine-king abdulaziz university. *International Journal of Community Medicine Public Health*, 5(10), 4212.
- Habibi, A., Mukminin, A., Riyanto, Y., Prasojo, L.D., Sulistiyo, U., Sofwan, M., & SAUDAGAR, F.J.T.O.J.o.D.E. (2018). Building an online community: Student teachers' perceptions on the advantages of using social networking services in a teacher education program. *19*(1), 46-61.
- Hew, K.F. (2011). Students' and teachers' use of facebook. Computers in human behavior, 27(2), 662-676.
- Hu, L.T., & Bentler, P.M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological methods*, *3*(4), 424.
- Hurt, N.E., Moss, G.S., Bradley, C.L., Larson, L.R., Lovelace, M., Prevost, L. B, Camus, M.S. (2012). The facebook" effect: College students' perceptions of online discussions in the age of social networking. *International Journal for the Scholarship of Teaching Learning*, 6(2), 2.
- Kelman, H.C. (1958). Compliance, identification, and internalization three processes of attitude change. *Journal of conflict resolution*, 2(1), 51-60.
- King, W.R., & He, J. (2006). A meta-analysis of the technology acceptance model. Information management, 43(6), 740-755.
- Kitchakarn, O. (2016). How students perceived social media as a learning tool in enhancing their language learning performance. *Turkish Online Journal of Educational Technology-TOJET*, 15(4), 53-60.
- Kurtz, G. (2014). Students' perceptions of using facebook group and a course website as interactive and active learning spaces. Paper presented at the proceedings of the 9th chais conference for the study of innovation and learning technologies: Learning in the technological era.
- Lee, C.C.E., & Teh, P.L. (2016). Educational use of facebook by undergraduate students in malaysia higher education: A case study of a private university. *Social Media Technology*, 1(1), 1-8.
- Likert, R. (1932). The likert-type scale. Archives of Psychology, 140(55), 1-55.
- Mabuan, R., & Ebron Jr, G. (2017). Facebook integration into university classes: Opportunities and challenges. Paper presented at the Proceedings of the 31st Pacific Asia Conference on Language, Information and Computation.
- Manasijević, D., Živković, D., Arsić, S., & Milošević, I. (2016). Exploring students' purposes of usage and educational usage of Facebook. *Computers in Human Behavior*, 60, 441-450.
- Mazman, S.G., & Usluel, Y.K. (2010). Modeling educational usage of facebook. *Computers Education*, 55(2), 444-453.
- McDonald, R. (1999). Test theory: a unified treatment. Lawrence earlbaum associates. Inc., Mahwah, NJ, 142-145. Prensky, M. (2001). Digital natives, digital immigrants. *On the horizon*, 9(5).
- Revelle, W. (2019). Psych: Procedures for Psychological, Psychometric, and Personality Research.
- Sánchez, R.A., Cortijo, V., & Javed, U. (2014). Students' perceptions of Facebook for academic purposes. Computers Education, 70, 138-149.
- Seechaliao, T. (2014). Lecturers' behaviors and beliefs about the use of social media in higher education: A study at mahasarakham university in thailand. *Journal of International Education Research*, 10(2), 155-160.
- Terry, D., Carey, C., & Callan, V. (1997). Employee responses to an organizational merger: group status, group permeability and identification. *Australian Journal of Psychology*, 49(48).
- Toker, S., & Baturay, M.H. (2019). What foresees college students' tendency to use facebook for diverse educational purposes? *International Journal of Educational Technology in Higher Education*, 16(1), 9.
- Van Den Beemt, A., Thurlings, M., & Willems, M. (2020). Towards an understanding of social media use in the classroom: a literature review. *Technology*, *Pedagogy Education*, 29(1), 35-55.
- VanDoorn, G., & Eklund, A.A. (2013). Face to facebook: Social media and the learning and teaching potential of symmetrical, sychronous communication. *Journal of University Teaching Learning Practice*, 10(1), 6.
- Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.
- Wright, S. (1960). Path coefficients and path regressions: Alternative or complementary concepts? *Biometrics*, 16(2), 189-202.