Theoretical Framework for Exploring Factors Affecting Student’s Intention to Use Facebook in the Egyptian Universities

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ABSTRACT

The research paper aims at developing a conceptual model that identifies the factors affecting students’ intention to use Facebook in education. Therefore, the researcher works first on investigating previous theories and models of social media adoption to be able to identify the suitable variables for this model. Then, the researcher depends on collecting previous literature that had examined those variables. Finally, develop a model and identify the relations of this model. Additionally, the paper provides a conclusion and recommendations for future researchers at the end.

Keywords: social media adoption, Facebook, unified theory of acceptance and use of technology, uses and gratifications theory.

1. INTRODUCTION

Social media applications (such as YouTube, Facebook, and Twitter) represent important platforms that help people share knowledge, communicate with each other, know the latest news, and provide entertainment (Mourtada and Salem, 2014; Rane and Salem, 2012). Social media includes networking sites, wikis, blogs,
multimedia platforms, virtual social worlds, and virtual game worlds (Mcewan, 2012).

The widespread of social media has increased the researchers’ attention, as research in studying social media exists among different sectors; one of those sectors is higher education (Mostafa, 2015; Tess, 2013). Furthermore, researchers are still examining the traditional ways used in the classroom; one-way communication rather than exploiting how social media would engage students in a virtual learning environment (Al-Rahmi, Othman and Yusuf, 2015).

Nowadays, learning institutions use different technology methods such as social media, so it is noticeable that it has become inevitable in almost everyday life, either for socializing, entertainment, or learning in academic organizations (Mostafa and Mostapha, 2020). Reviewing the literature uncovers various facets of social media, including perception/usage (Hamade, 2013), satisfaction of students (Orús, Barlés, Belanche, Casaló, Fraj and Gurrea, 2016), performance (Maaliwand Ballera, 2017), engagement (Northey, Bucic, Chylinski and Govind, 2015), interaction (Sánchez, Cortijo and Javed 2014), and collaboration and knowledge sharing (Sharma, Joshi and Sharma, 2016).

According to Louis and Gordon (2006), one of the critical challenges facing instructors is making students autonomous learners who can manage their learning and survive outside the classroom. This challenge increased to COVID-19 and having most of the learning activities are done through online processes. Such a challenge facing the educational sector creates a higher need to achieve better learning benefits regarding different perspectives, like students’ engagement and satisfaction and academic performance.

Studying the determinants that affect social media acceptance is still an under-researched field of study that is needed to examine from various perspectives Al-Qaysi, Mohamad-Nordin and Al-Emran, 2020; Rauniar, Rawski, Yang and Johnson, 2014), especially in higher education (Gruzd, Lannigan and Quigley, 2018; Gupta, 2014; Tess, 2013). In addition, the systematic literature reviews conducted by Piotrowski (2015) and Khan et al. (2019) provided no evidence on students’ attitudes toward adopting social media in education, generally inside the Middle Eastern, particularly in Egypt (Khan, Ali, Khan and Jehan, 2019; Piotrowski, 2015).
This paper investigates factors that affect students’ intention to use social media (Facebook) as an educational tool. Therefore, this paper works on developing a framework that identifies these factors and how intention could affect the students’ engagement, satisfaction, and academic performance. Thus, this paper divides into five sections; the first section represents the introduction of this paper. The second section is the related theories and models, discussing previous theories and models of social media adoption. The third section represents the empirical studies that include previous studies that have examined the topic of social media adoption. The fourth section introduces the research discussion. The fifth section is the conclusion of the paper. Finally, the sixth section shows the recommendations for future research.

2. RELATED THEORIES AND MODELS

This section represents the previous theories and models of social media adoption, which theories and models are illustrated to help develop the adopted variables and the framework of the study.

2.1 Uses and Gratifications Theory (UGT)

The UGT is attributed to the work of Jay Blumler and Elihu Katz which was developed in the year 1974. Katz, Blumler and Gurevitch (1973) defined UGT as “an approach or theory that focuses on audience-centered aiming to understand the reason and the way of actively and continuously usage of specific media from people to gratify their specific needs”.

The UGT approach primarily aims to identify the psychological needs of individuals that motivate their use of a particular media platform within the consumer market. This approach explains why people choose a particular communication medium over alternative ones (Katz et al., 1973). UGT is used in many media research. It concentrates on searching for the reasons that encourage people to choose certain media platforms (McQuail, 1987). There are three core objectives to the UGT framework; the first is to explain how individuals use the chosen media to gratify their needs; the second is to excavate the reason for the use of a specific media form; and finally, to identify any positive or negative consequences to the chosen media used (Katz et al., 1973).
According to Katz et al. (1973), who had developed the theory of uses and gratifications, there are eight determined types of uses and gratifications: passing the time, enjoyment, information, companionship, social interaction, excitement, escape, and relaxation. McQuail (1987) identifies four reasons for media usage: integration and interaction socially, gaining information, entertainment, and personal identity.

The UGT framework includes the following variables; Cognitive needs, Affective needs, Personal integrative needs, Social integrative, and Tension release needs (Blumler and Katz, 1974). First, the cognitive needs are the needs that include acquiring information and knowledge and understanding of any given subject. Second, the affective needs are the needs of emotions, including pleasure and feelings. Third, the personal integrative needs are credibility, stability, and status. Fourth, integrative social needs represent the interaction between the needs of family and friends. Fifth, the tension release needs include escapism and diversion (Katz et al., 1973).

It could be noticed that this theory is a self-evident theoretical approach (Luo and Remus, 2014) as it can almost apply to every type of mediated communication (either traditional or interactive). It has already been applied in different types of media such as radio (Herzog, 1940), TV (Bantz, 1982), newspapers (Leung and Wei, 2000), and the Internet (Ferguson and Perse, 2000).

Finally, the variables of motivation dimensions, cognitive needs, Affective needs, Personal integrative needs, Social integrative needs, and Tension release needs are adopted from the Uses and Gratifications Theory.

2.2 The Theory of Reasoned Action (TRA)

The theory of reasoned action was first developed by Fishbein and Ajzen (1975). This theory states that his behavioral intention drives individual behavior. This behavior determines the individual’s attitude towards subjective norms and behavior (Venkatesh, Morris, Davis and Davis, 2003).

This theory is considered a base for two other theoretical directions. The first one was the Theory of Planned Behavior, as TRA helped develop a more comprehensive for this theory (Ajzen, 1991); while the second one was
Technology Acceptance Model, as TRA led to the development of this theory (Davis, 1989 and Davis, Bagozzi and Warshaw, 1989).

Fishbein and Ajzen (1977) sought to explain that they developed their theory to predict and understand people’s behavior. The model saw that the beliefs regarding certain behavior and its evaluation are the main factor that determines the attitude toward behavior, opinions of referent others about the behavior, and motivation to comply with these opinions determine subjective norms, which are the “person’s perception” about the acceptability of specific behavior by the general public. (Ajzen and Fishbein, 1975). Both attitudes and subjective norms are considered the main two components, which directly impact behavioral intentions.

![Diagram of Theory of Reasoned Action](image)

**Figure 1: Theory of reasoned action**


Fishbein and Ajzen had defined attitude (1975) as the learned predisposition to reply or interact with a given object, either favorably or unfavorably. Moreover, Fishbein and Ajzen (1977) defined behavioral intention as a person’s location on the subjective probability of a relationship between this person and some action. Therefore it refers to the subjective probability of a person toward some behaviors (Fishbein and Ajzen, 1975). Subjective norm is also defined as the expectation of how important people are to their thoughts or expectations about how they should or not act towards certain behavior (Fishbein and Ajzen, 1975).
Therefore, the dimensions of this theory are represented in; behavioral intention (BI), the attitude of users, subjective norms, and volitional behavior, as shown in figure 1 (Fishbein and Ajzen, 1975).

2.3 Technology Acceptance Model (TAM)

The introduction of TAM occurred during the mid-1980s by IBM Canada Ltd. TAM was developed to evaluate the market on different PC-based applications. Those applications include processing images, multimedia, and pen-based computing (Davis and Venkatesh, 1996). In the technology acceptance model, the individual’s behavioral intention to use the information system can reflect the acceptance of the individual towards that system (Fan and Suh, 2014).

Davis (1989) proposed that TAM consists of several components: attitude, perceived usefulness of technology platforms, and ease of use. On the one hand, an attitude refers to a user’s evaluation of the usage of the system. Moreover, an attitude refers to the willingness to react positively or negatively towards a particular thing (Fishbein and Ajzen, 1975), while perceived usefulness is the extent to which a person sees that the usage of a particular system would affect his professional performance (Davis, 1989). Finally, perceived ease of use is how the user sees that the usage of certain systems does not require great effort (Davis, 1989).

The theory suggested by Davis (1989) was validated through numerous studies. They discussed the external variables: training, objective system design characteristics, computer self-efficacy, the nature of the implementation processes, user involvement in the design, etc. Those variables are theorized to affect behavioral intention and ultimately, their usage (Davis and Venkatesh, 1996).
Figure 2: Technology Acceptance Model

Variables of TAM as presented in figure 2 are; perceived ease of use, perceived usefulness, attitudes toward using (AT), behavioral intention to use (BI), and actual use. Perceived ease of use (PEOU/E) refers to how a user sees that using certain technology does not require effort. Perceived usefulness is the extent to which the user sees that utilizing certain technology will help him enhance his job performance (Davis et al., 1989). The user’s attitude toward using the system represents a significant factor that determines if he will use it or not. Using IT is considered a function of PU and PEOU (Davis, 1989). Behavioral Intention to Use (BI/USE) represents the usage intention towards a specific technology. This intention depends on the PU and attitude toward using this technology (Davis et al., 1989).

2.4 Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh et al. (2003) aimed to bring a unified view to the technology acceptance literature. Therefore, they merged different competing models into a unified model. The Unified Theory knows this Acceptance and Use of Technology (UTAUT). UTAUT is based on merged and collected elements from the Innovation Diffusion Theory, the Motivational Model, TRA, Theory of Planned Behavior, Model of PC Utilization, a combined TAM and TPB model, and Social Cognition Theory.

Venkatesh et al. (2003) collected their data from two organizations to test the UTAUT model. Their model had outperformed the eight other popular technology adoption and acceptance models. Venkatesh et al. (2003) said that
during their research, they found that researchers faced many similar constructs offered by many theories and reached that they chose constructs from the models or chose a favored model, which leads to ignoring the other models.

![Figure 3: Unified Theory of Acceptance and Use of Technology](image)


The UTAUT has many variables (Figure 3): expectancy effort, social influence, expectancy performance, conditions facilitating behavior intention, user behavior, and four moderators (gender, age, volunteer, and experience). Performance expectancy is defined as the degree to which the individual believes that the system usage will make him achieve performance gains (Moore and Benbasat, 1991). Effort expectancy represents the extent to which the system is expected to be easy to use (Davis et al., 1989). Social influence is defined as the degree to which the individual believes that important people expect his usage of a new system (Thompson, Higgins and Howell, 1991). Facilitating conditions are defined as the value in which the person believes in organizational and technical infrastructure occurrence, which helps support the usage of the system.

2.5 E-learning Acceptance Model (ELAM)

No research was found that examined the attitudes of both teachers and students in the framework of acceptance of e-learning. To overcome this lack ness, the UTAUT was adapted to the model of e-learning acceptance, and ELAM was proposed. In addition, the determinants keys are the same: effort expectancy, performance expectancy, conditions facilitating, and social influence, but the factors inside each determinant are different from the UTAUT, as it includes suitable variables for e-learning (Umran-Khan and Iyer, 2009).
In this model, Umrani-Khan and Iyer (2009) deal with the attitudes of students and teachers as the main factors that explain e-learning acceptance; the student’s preferred learning style and the teacher’s preferred teaching style are the main factors that influence the relationship between expected performance and behavioral intention to use e-learning.

![Figure 4: E-learning Acceptance Model](image)


As presented in Figure 4, variables of this model are; performance expectancy, perceived usefulness, effort expectancy, social influence, facilitating conditions, behavioral intention, actual use, learning style, teaching style, behavioral intention, and actual behavior. Performance expectancy is the extent to which teachers and students saw that using a particular system helps gain particular benefits inside the teaching-learning process. Perceived usefulness is defined as the degree to which both students and teachers see that e-learning would help them increase their performance. Effort expectancy is the expected effort teachers and students expect to make to use the e-learning tool. Social influence represents how students and teachers recognize the social pressure of e-learning. Facilitating conditions represent the degree to which teachers and students realize the support offered by the institution to use e-learning. Behavioral intention is defined as the individual’s decision toward the future of e-learning. Finally, actual usage leads to the variety and frequency of the used technology. Learning style represents a consistent way of learning provided to the learners. Teaching style represents a consistent teaching way of teachers (Umrani-Khan

[251]
and Iyer, 2009). The current study adopts the actual usage from E-Learning Acceptance Model.

2.6 Social Media Acceptance Model (SMAM)

The social media acceptance model is a model that was developed depending on ELAM, which is a model that extended from the model of UTAUT (Othman and Alias, 2017). Moreover, the SMAM model was developed to measure interactivity, flexibility, and self-efficacy. Those variables did not exist in the UTAUT (Udomsil and Pankham, 2016).

![Figure 5: Social media acceptance model](image)


Variables of SMAM are Performance (perceived flexibility and perceived usefulness); Communication Functionality (sharing, collaboration, and interaction); Effort (perceived ease of learning and perceived ease of use). Self (social media efficacy, enjoyment, and attitude) and intention to use social media for learning. Performance is defined as the extent to which both student and educator predict and believe that using the system helps them get benefit from the teaching-learning process. Therefore, this predictor is based on beliefs about flexibility and perceived usefulness. The effort is defined as the extent to which both educators and students saw that using the tools of e-learning requires effort, so it expresses the perceived use that refers to the users' expectations that the system is a free-effort one. Moreover, effort measures the ease of learning, which
expresses the user’s expectations that it is easy to learn the e-learning tool (Umran-Khan and Iyer, 2009).

Self has three dimensions: social media efficacy, enjoyment, and attitude. The enjoyment represents a dimension in self because the students found enjoyment and fun in using the tools of e-learning. The element of enjoyment represents a significant factor that provides the student with focus, enthusiasm, and motivation, which leads to his excellence (Crook, Ketchen Jr, Combs and Todd, 2008). On the other hand, self-efficacy is used in measuring self, which represents the user’s self-assurance regarding his skills in using technology, especially in utilizing social media for learning (Balakrishnan, Liew and Pourgholaminejad, 2015). Communication functionality determines the function of social media useful for collaboration, interaction, and sharing (Balakrishnan and Gan, 2016).

Finally, this research adopted the variables of performance (perceived flexibility and perceived usefulness), communication functionality (sharing, collaboration, and interaction), effort (perceived ease of learning and perceived ease of use), self (social media efficacy and attitude), and intention to use social media for learning from the Social Media Acceptance Model.

3. EMPIRICAL STUDIES

According to the previous section, the researcher determines the research variables depending on prior theories and models of social media adoption. This section introduces previous studies that had examined the relationships between variables.

3.1 Relation between Performance and Intention to Use Facebook for Education

This section investigates the relationship between performance (perceived usefulness and flexibility) and student intention to use Facebook for education through some previous studies that had examined this relation. Kanthawongs, Kanthawongs and Chitcharoena (2013) investigated the relationship between perceived usefulness and intention of students to use Facebook in education. The researchers assumed that students believed that Facebook represented an effective tool that helped them enhance their learning, while teachers preferred the traditional ways. Data was collected through a questionnaire from 57
business students in universities in Thailand. After analyzing the data, the results did not prove any relation between perceived usefulness and intention to use Facebook in education.

Mouakket (2015) assured that social networking sites are considered the most means of social interaction, although few studies investigated SNS. Therefore, the researcher tried to investigate the factors that affect the intention to use Facebook (as a popular SNS) among students of universities. The researcher examined the impact of perceived usefulness, enjoyment, and subjective norms on using Facebook for education. Questionnaires included a targeted sample of undergraduate students in a major university in the United Arab Emirates. Data were analyzed through structural equation modeling. The results prove a significant impact of perceived usefulness, enjoyment, and subjective norms on the continuance intention to use Facebook for education. Furthermore, results had proved that satisfaction has direct and mediated effects on continuance intention.

Zaki and Khan (2016) assumed that perceived usefulness and ease of use could enhance the students’ intention to use Facebook for education. A survey method was conducted to gather the required data. Questionnaires were distinguished among students in KDU College at Penang Malaysia, and 325 responses were returned. Finally, the findings concluded that perceived usefulness and ease of use were strong predictors of usage intention, where perceived usefulness was stronger than ease of use.

From those previous studies, the first hypothesis of the study could be developed: performance (perceived usefulness and perceived flexibility) has a significant positive influence on student Intention to use Facebook for education.

H1: Performance has a significant positive influence on student intention to use Facebook for education.

3.2 Relation between Effort and Intention to Use Facebook for Education

This section investigates the relationship between effort (ease of use and ease of learning) and student intention to use Facebook for education through some previous studies that had examined this relation. Praveena and Thomas (2014)
investigated the relationship between perceived ease of use and student intention to use Facebook for education. Researchers chose Facebook as it is the most common worldwide site used for social interactions. To examine this relation, the researchers depended on a questionnaire. This questionnaire targeted students from different colleges located in Central Kerala, where 197 responses were collected. Data was analyzed by utilizing structural equation modeling. Results indicated that perceived ease of use had both direct and indirect impacts on using Facebook for education.

Balakrishnan and Gan (2016) assumed a relationship between effort, self, performance, and intention to use Facebook for education in Malaysia. Convenience sampling was utilized to select the research sample, as data were gathered depending on an online survey. The final sample consisted of 300 students at Malaysian institutions. Smart PLS 2.0 was conducted in analysis. The analysis concluded that effort, self, and performance significantly influenced intention to use Facebook for education, while effort had the least effect.

Hong (2018) depended on the technology acceptance model (TAM), the theory of planned behavior (TPB), and the social influence theory to test the influence of ease of use and perceived usefulness on the intention to use social media in the education process. Facebook was selected to represent social media sites, as it represented one of the most commonly used ones. A questionnaire was done and distributed among 251 undergraduates and graduate Korean students, where 228 complete questionnaires were received. The analysis assured that both perceived ease of use and perceived usefulness were positively related to the intention of Facebook usage in the educational process.

From those previous studies, the second hypothesis of the study could be developed: effort (ease of use and ease of learning) has a significant positive influence on student Intention to use Facebook for education.

\[ H_2: \text{Effort has a significant positive impact on student intention to use Facebook for education.} \]

### 3.3 Relation between Self and Intention to Use Facebook for Education

This section investigates the relationship between self (social media efficacy and attitude) and student intention to use Facebook for education through some
previous studies that had examined this relation. Yang and Lin (2011) tested the relationship between social media efficacy, social influence, perceived ease of use, and perceived usefulness of using Facebook as a learning tool. This research aimed to test employees’ intention in a manufacturing company in Taiwan to use Facebook as a learning tool. Data was gathered from 377 employees through a survey. The findings assured that all dimensions significantly influenced the intention to use Facebook, where ease of use had the strongest effect.

Facebook has become an initial method of communication in either the social or academic worlds. Kanthawongs et al. (2013) examined the influence of social media efficacy and perceived ease of use on the intention of students to use Facebook. Self-administrated questionnaires were distributed among students who enrolled in Bachelor of Business Administration majoring in marketing, business computer, and management at a Thailand university. The final sample consisted of 57 participants. Results proved that only social media efficacy significantly impacts the intention to use Facebook for education.

Moorthy; T’ing; Wei; Mei; Yee; Wern and Xin (2019) examined the effect of Self-represented in efficacy on using Facebook as a learning tool. Cross-sectional data were gathered and analyzed using Statistical Analysis Software (SAS). Questionnaires were distributed among a sample of students at a private university in Malaysia. Quota sampling was conducted, 300 questionnaires were distinguished among students, and 298 complete ones were collected. The findings assured that efficacy had a positive effect on the intention of students to use Facebook.

From those previous studies, the third hypothesis of the study could be developed: self (social media efficacy and attitude) has a significant positive influence on student Intention to use Facebook for education.

H₃: Self has a significant positive impact on student intention to use Facebook for education.

3.4 Relation between Communication Functionality and Intention to Use Facebook for Education

This section investigates the relationship between communication functionally (interaction, collaboration, and sharing) and student intention to use Facebook for education through previous studies that had examined this relation.
Balakrishnan (2017) studied different dimensions that affect the intention to use social media for learning purposes. Those dimensions were communication functionally, self, effort, and performance. The researcher saw that Facebook, Twitter, and YouTube represented the most popular sites globally. The researcher also depended on the Social Media Acceptance Model adapted factors from the Unified Theory of Acceptance and Use of Technology (UTAUT) and the E-Learning Acceptance Model (ELAM). An online survey was done, where 300 responses were received from students. The findings indicated that all previous dimensions significantly impacted the usage intention, where self had the most effective effect.

Hossain, Kim and Jahan (2019) examined the effect of social interaction and subjective norms on students’ intention to use Facebook. The researchers utilized the uses and gratification theory. An online survey was conducted in January and February 2018. This survey depended on the random sample method. The total sample consisted of 295 Bangladesh participants who use Facebook, where 267 were valid for analysis. The findings indicated that social interaction and subjective norms had a significant impact on the student’s intention to use Facebook.

Samed, Mohammed, Horani, Hamdi and Khasawneh (2020) tested the effect of collaboration, enhanced communication, and sharing on the intention of students to use social media in the educational process. Questionnaires were distributed among undergraduate and postgraduate students at three universities in Jordan. A total of 403 complete responses were collected and analyzed. Structural equation modeling was used in the analysis. Findings had shown that collaboration and enhanced communication had a positive effect on usage intention, while sharing had an insignificant effect.

From those previous studies, the fourth hypothesis of the study could be developed; communication functionally (interaction, collaboration, and sharing) has a significant positive influence on student Intention to use Facebook for education.

**H₄**: Communication functionality has a significant positive impact on student intention to use Facebook for education.
3.5 Relation between Motivations and Intention to Use Facebook for Education

This section investigates the relationship between motivations (cognitive needs, affective needs, personal integrative needs, integrative social needs, and tension release needs) and student intention to use Facebook for education through some previous studies that had examined this relation. Hashim, Tan and Rashid (2015) studied the relationship between cognitive, affective, social needs, and intention to use social media in education. A web survey was done with a seven-point Likert scale. This survey was sent to undergraduate and postgraduate students from a university in the United States of America. From 255 surveys, only 191 responses were valid for analysis. Data were analyzed using Partial least squares, and the findings proved that each cognitive, affective, and social need positively influenced the intention to use social media in education.

Thongsri, Shen, Bao and Alharbi (2018) examined the influence of cognitive need, affective need, social need, and performance expectancy on using SNS through mobile in the learning process. The researchers adopted the unified theory of acceptance and use of technology (UTAUT) and uses and gratifications theory (UGT). The quantitative method was utilized in a developing country, Thailand, by developing a questionnaire. Questionnaires were distributed among 400 undergraduate students at Prince of Songkla University, and 359 responses were collected. Results indicated a significant influence of cognitive need, affective need, social need, and performance expectancy on using m-learning (mobile learning).

Wiafe, Koranteng, Kastriku and Gyamera (2020) tested the relation between affective needs, perceived effort, credibility, and intention to use social networking sites (SNSs) for education. Data was gathered through a survey, and the final sample consisted of 416 participants. After analyzing the gathered data, results had proved that affective needs, perceived effort, and perceived credibility had a significant effect on the intention to use social networking sites (SNSs) for education.

From those previous studies, the fifth hypothesis of the study could be developed; motivations (cognitive needs, affective needs, personal integrative
needs, social integrative needs, and tension release needs) have a significant positive influence on student Intention to use Facebook for education.

H₅: Motivations have a significant positive impact on student intention to use Facebook for education.

3.6 Relation between Intention to Use Facebook and Facebook Actual Use in Education

This section investigates the relationship between student intention to use Facebook for education and Facebook's actual usage through some previous studies that had examined this relation. Tao (2009) have held focus groups and pre-and post-questionnaires to examine the relationship between usage intention and actual usage. The researcher aimed to investigate if the public health students were used the e-resources in their learning process as they intended or not, as well as if the determinants of usage intention could predict the actual use of e-resources or not. The population of the research was all graduates students enrolled in the School of Public Health at Midwestern university in the USA during the 2008 spring semester. Pre-questionnaire was held from late March to early April, while the post-questionnaire was held from April to early May, as well as two focus group interviews were made. The results showed that the intention to use e-learning was significantly related to the actual usage.

Wee; Ariff; Zakuan; Tajudin; Ismail and Ishak (2014) have noticed the relation between intention and actual usage by adopting a case study of buying organic food in Malaysia. Data was collected through a questionnaire from supermarkets and surrounding areas in Kluang, Johor in Malaysia. The final sample consisted of 288 questionnaires, with a response rate of 96%. The findings have indicated that the intention of buying had a significant effect on the actual buying intention.

Marandu, Makudza and Ngwenya (2019) examined the relationship between the intention of students to use online learning and the actual usage of those students through utilizing the Technology Acceptance Model. Zimbabwe was selected as a case study. A survey questionnaire was held targeting students at Bindura University of Science Education (BUSE). Results assured that usefulness represented a significant predictor for the intention to use online learning, while
ease of use had no significant relation with intention. In addition, a significant relation was proved between the student’s intention to use online learning and the actual usage.

From those previous studies, the sixth hypothesis of the study could be developed; the intention to use has a significant positive influence on social media use.

**H₆**: Intention to use Facebook has a significant positive impact on social media use in education.

### 3.7 Relation between Facebook Actual Use and Student Engagement

This section investigates the relationship between Facebook’s actual usage and student engagement through some previous studies that had examined this relation. Ivala and Gachago (2012) examined the extent to which social media usage affects the engagement of students. The researchers depended on various methods to collect data about the variables: in-depth interviews, focus group interviews, and documents review. The targeted population was three courses at a South African university of technology. In-depth interviews were made with three lecturers who used Facebook and blogs in teaching, while focus group interviews included six students in each one of them. Results indicated that the appropriate usage of blogs and Facebook as a learning tool enhanced students' engagement in the learning process.

Diraditsile and Gamakabadi (2018) claimed to test the impact of social media usage on the collaboration and engagement of students, putting the focus on the usage of Facebook. The descriptive survey design was adopted, which targeted undergraduate students in the Bachelor of Social Work program at the University of Botswana. A number of 100 questionnaires were distributed, and all questionnaires were returned correctly with a 100% response rate. Findings indicated that all the participants were using social media to interact with their friends, discuss issues of national interest and connect with their classmates for online study. The results also showed that 98% of them had active accounts on Facebook. Despite all benefits that social media offers, there are dangers associated with social media. For instance, 70% of participants assured that they use social media while studying although it is distracting.
Gautam and Bahl (2020) investigated the effect of social media usage in enhancing student engagement in India. India was chosen because it was noticed that students’ engagement was recently increased frequently. Researchers say that the quantitative method was more suitable for this research than the qualitative one. Therefore, they collected their data through a questionnaire distributed among students of private institutes in three districts of Punjab, India. After analyzing the data using SPSS, results proved a significant relationship between social media use and student engagement.

From those previous studies, the seventh hypothesis of the study could be developed; social media use has a significant positive influence on student engagement.

H7: Social media use has a significant positive effect on student engagement.

3.8 Relation between Facebook Actual Use and Student Academic Performance

This section investigates the relationship between Facebook’s actual usage and student academic performance through some previous studies that had examined this relation. Maqableh, Rajab, Quteshat, Masa’deh, Khatib and Karajeh (2015) aimed to test the extent to which the usage of social media affects students’ academic performance. To achieve this aim, a survey was done. This survey targeted bachelor’s students who studied the Social Media Network course as an elective course at the different faculties at the University of Jordan. Data was collected using drop-and-collect surveys that cover large samples of the population. The final sample consisted of 366 undergraduate students. Hypotheses were tested by utilizing descriptive analysis, ANOVA test, and T-test. Findings proved a significant influence of social media usage on academic performance. In addition, there was a significant effect of social media usage per week on academic performance. On the other hand, no differences were concluded in the effect of SNSs usage on academic performance due to age and academic achievement.

Alshuaibi, Alshuaibi, Shamsudin and Arshad (2018) purposed to test the relationship between social media use, student engagement, and academic performance in higher education in Malaysia. The researchers targeted business students at a public university in Malaysia, where questionnaires were
distributed randomly, and 227 responses were received. Structural equation modeling-partial least square (SEM-PLS) was used in the analysis process. Results proved a significant relationship between social media use and academic performance, where this relation was mediated by student engagement (cognitive engagement).

Leyrer-Jackson and Wilson (2018) investigated the influence of social media use on academic performance. The researchers collected primary data through a questionnaire. Questionnaires were distributed among undergraduate students that study biology at a four-year university in the USA. Finally, questionnaires were collected from 234 participants. The collected data proved that female students were more capable of using social media websites than male ones. It was also concluded that students’ GPAs were negatively affected by the number of hours students spend on social media. Therefore, social media usage had a negative effect on academic performance.

From those previous studies, the eight hypotheses of the study could be developed; social media use has a significant positive influence on students' academic performance.

H8: Social media use has a significant positive impact on students’ academic performance.

3.9 Relation between Facebook Actual Use and Student Satisfaction

This section investigates the relationship between Facebook’s actual usage and student satisfaction through some previous studies that had examined this relation. Sahin (2017) investigated the impact of social media usage on students' satisfaction in Turkey. The researcher depended on a survey to collect data on the required variables. The survey targeted students from different grade levels at the Faculty of Education in the Ahi Evran University, Turkey. A number of 612 responses were collected and analyzed using Pearson correlation coefficient and regression methods. The results proved that social media addiction had a negative impact on the students’ satisfaction.

Social media applications, which have a great population among students, have recently gained a significant impact on education sustainability. Alamri, Almaiah and Al-Rahmi (2020) examined the role of social media usage in enhancing academic performance and student satisfaction in higher education by adopting
the technology acceptance model (TAM). A quantitative method was conducted, and 192 surveys were collected from students at King Faisal University. Structural equation modeling was conducted in analyzing the collected data. The findings proved a positive relationship between social media usage and students’ academic performance and satisfaction.

Rahman, Ramakrishnan and Ngamassi (2020) examined the role of social media usage in enhancing students’ satisfaction. A five-point Likert scale questionnaire was used to gather the required variables. Online questionnaires were sent utilizing the survey tool Qualtrics. The targeted population was undergraduate students in the College of Business at a Historically Black College and University (HBCU) located in Southwestern the USA. From 135 sent questionnaires, only 109 valid responses were returned. It was concluded that social media usage positively influenced student satisfaction.

From those previous studies, the ninth hypothesis of the study could be developed; social media use has a significant positive influence on student satisfaction.

H₉: Social media use has a significant positive impact on student satisfaction.

3.10 Conclusion

From the above-developed hypotheses, the research framework could be shown as follows:
4. RESEARCH DISCUSSION

The research aims to develop a framework that examines the relationship between performance and intention to use Facebook for education. It is observed that many previous studies explain this relation, which indicated that performance has a significant positive influence on student intention to use Facebook for education (Kanthawongs et al., 2013; Mouakket, 2015; Zaki and Khan, 2016). In addition, effort and intention to use Facebook for education were examined by several studies (Praveena and Thomas, 2014; Balakrishnan and Gan, 2016; Hong, 2018), which confirmed that effort has a significant positive impact on student intention to use Facebook for education (Balakrishnan and Gan, 2016; Hong, 2018; Praveena and Thomas, 2014).

Furthermore, the relation between self and intention to use Facebook for education was clarified that showed that self (social media efficacy and attitude) has a significant positive influence on student intention to use Facebook for education (Kanthawongs et al., 2013; Moorthy et al., 2019; Yang and Lin, 2011). In addition, the impact of communication functionality on intention to use Facebook for education was expounded, which agreed that communication functionality has a significant positive impact on student intention to use
Facebook for education (Balakrishnan 2017; Hossain et al., 2019; Samed et al., 2020).

Moreover, the research examines the relationship between motivations and intention to use Facebook for education, which this relation is investigated by several previous studies, which agreed on motivations (cognitive needs, affective needs, personal integrative needs, integrative social needs, and tension release needs) has a significant positive influence on student Intention to use Facebook for education (Hashim et al., 2015; Thongsril et al., 2018; Wiafe et al., 2020). In addition, the relationship between student intention to use Facebook for education and Facebook actual usage is studied by several studies that reached intention to use has a significant positive influence on social media use (Marandu et al., 2019; Tao, 2009; Wee et al., 2014).

Furthermore, the relationship between Facebook actual usage and student engagement is clarified, which confirmed that social media use has a significant positive influence on student engagement and these results agreed with the research result (Diraditsile and Gamakabadi, 2018; Gautam and Bahl, 2020; Ivala and Gachago, 2012).

The research clarifies the relationship between Facebook actual usage and student academic performance and the result agreed with many studies which indicated that social media use has a significant positive influence on students' academic performance (Alshuaibi et al., 2018; Leyrer-Jackson and Wilson, 2018; Maqableh et al., 2015). In addition, the relationship between Facebook actual usage and student satisfaction through some previous studies confirmed the result of the current research as they reached social media use has a significant positive influence on student satisfaction (Alamri et al., 2020; Rahman et al., 2020; Sahin, 2017).

5. RESEARCH CONCLUSION

This research aimed to investigate factors that affect the intention of students to use Facebook as an educational tool. According to the above literature, it is noticed that the independent variables of this study are; performance (perceived usefulness and perceived flexibility), effort (ease of use and ease of learning), self (social media efficacy and attitude), communication functionally (interaction, collaboration, and sharing) and motivations (cognitive needs, affective needs,
personal integrative needs, integrative social needs, and tension release needs). In contrast, the dependent variables are student engagement, academic performance, and student satisfaction, where the intention to use Facebook and Facebook usage are mediators. Accordingly, the research framework could be developed as follows:

This research aims to develop a framework that identifies factors that affect the intention of students to use Facebook as an educational tool. The researcher depends on previous theories and models of social media adoption to select suitable variables. Finally, the researcher succeeded to develop the model, which examines the effect of performance (perceived usefulness and perceived flexibility), effort (ease of use and ease of learning), self (social media efficacy and attitude), communication functionally (interaction, collaboration and sharing) and motivations (cognitive needs, affective needs, personal integrative needs, integrative social needs, and tension release needs) on intention to use Facebook in education. The model also investigates the relationship between intention to use Facebook and Facebook usage. Finally, the model includes the effect of the Actual usage on student engagement, academic performance, and student satisfaction.

6. RECOMMENDATIONS FOR FUTURE RESEARCH

According to the developed model, the research recommends for future researchers include this model in their research, as this model resulted from gathering different theories and models of social media adoption (Uses and Gratifications Theory (UGT), E-Learning Acceptance Model (ELAM), and Social Media Acceptance Model (SMAM), which helps in providing a more proper and detailed understanding of the behavior of user among users of different social media platforms.

This study focused on Facebook as a social media platform. Future research may apply this model on different platforms like Twitter, Instagram, or other platforms. In addition, student engagement and academic performance may be measured differently and in detailed constructs in future research. Finally, future research may add more relevant variables like learning styles, student retention, student loyalty, or student preferences.
REFERENCES


Theoretical Framework for Exploring Factors Affecting Student’s Intention to Use Facebook in the Egyptian Universities

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الاطار النظري للعوامل التي تؤثر على نية الطلاب لاستخدام الفيسبوك في الجامعات المصرية

الكلمات الدالة: استخدام وسائل التواصل الاجتماعي، فيسبوك، النظرية الموحدة لقبول واستخدام التكنولوجيا، نظرية الاستخدام والإشباع.

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