SCIENTIFIC CULTURE

www.sci-cult.com

SCIENTIFIC CULTURE, Vol. 12, No. 2.1, (2026), pp. 728-743
Open Access. Online & Print

DOI: 10.5281/zenodo.122.12662

UTILIZATION OF SOCIAL MEDIA PLATFORMS AS DIGITAL LEARNING SYSTEM IN HIGHER EDUCATION

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Received: 29/11/2025
Accepted: 09/12/2025

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ABSTRACT

These days, a lot of colleges and institutions embrace social media as a way for students to study and communicate with one other. Social media gives college students somewhere to share what they know, talk about their work, work together, and connect with other students, as well as access learning resources and other information. Conversely, social media platforms may become a source of distraction, potentially adversely affecting students' academic performance and contentment. Even though social media technologies are becoming more popular in universities all over the world, Malaysia has not fully studied how they affect students' academic performance when they use them to talk to each other and learn. More research is needed to find a solution to this problem. Consequently, this study investigated the variables affecting students' academic performance in relation to the use of social media for communication and e-learning systems. This work develops a theoretical model grounded on Task-Technology Fit (TTF), Technology Acceptance Model (TAM), and Communication Theory (CT). A quantitative study was conducted utilizing a survey with 161 student participants for data collection. Structural Equation Modeling (SEM) was employed to analyze the causal and mediated relationships among seven variables. The results showed that 11 of the hypotheses were true, which was in line with the data that was collected. One hypothesis was rejected, showing that what was expected in theory did not match what was found in practice. This process of testing hypotheses helps to improve and confirm the proposed structural model, which makes the study's overall results stronger. The proposed expanded model is useful for figuring out how students might use social media to talk to each other and learn to get better grades. Finally, the results of this study show that college students' use of social media is important for both communication and digital learning in higher education.

KEYWORDS: Social Media Platforms, Digital Learning System, Higher Education, SEM.

1. INTRODUCTION

The phenomenon of social media platforms has hit many countries around the globe including Malaysia. Statistics show that Malaysia is amongst the highest five countries in relation to the creation of Facebook accounts on a daily basis (Ainin et al., 2015; Al-Rahmi et al., 2018). As social media popularity and usage increase among students in higher education institutions, the literature has mostly investigated the social media usage amongst learners in educational environments, in addition to its value in education. Social media tools in literature are claimed to provide a chance to enhance learning with the assistance of social learning, increasing both instructor and students interactions, which improves student-focused communication and learning (Castillo and Haddud, 2018; Owusu et al., 2019; Al-Rahmi and Zeki, 2017).

Scholars have addressed numerous phenomena and issues in relation to the usage of social media in several social and academic contexts. Present social media literature suggests that there are several useful techniques that could be successfully and properly utilized in higher education. Although there are several studies focusing on social media usage and benefits in educational environments for instructors and students, there are still very few researches that focus on students' attitude towards the utilization of social media along with the factors influencing their behavioural intention to utilize social media platforms for the purposes of learning and communication in the Malaysian context (Choudhury and Pattnaik, 2020; Emerick et al., 2019).

Moreover, there is an increasing concern that extensive social media use could cause motivation loss among learners. Junco (2015) claimed that motivation could raise the inner desire of the student to perform well. Learners have a strong wish to collaborate besides learning using technology, and for that reason, their novelty might be confusing regarding the fact that social media encourages communication and learning (Şad and Özer, 2014). There is a negative influence on interactions among learners (Md et al., 2017). Hence, in addition to creating challenges in the academic transition of students from school to higher education stage, social media does influence learning experiences which could prevent and affect both students' satisfaction along with academic performance (Buckenmeyer et al., 2016). The effects of using social media were examined and it was discovered that it could also enhance learning achievements in several settings.

According to Stats (2016), 68.6% of the Malaysian population have reliable access to Internet services, and 64% of this population are utilizing social media networks. The Malaysian population number who are on social media is increasing to the number of 13 million and growing 350,000 new users approximately in 2012 first six months (Nordin et al., 2013). Thus, this could demonstrate the crucial role of the social media in the daily routine of Malaysian people, however, it still needs to be further and more in-depth investigated to comprehend the importance of using social media by people (Ferrara and Yang, 2015).

Using social media affects study habits and causes distraction from studies (May and Elder, 2018). Additionally, students need to be further self-directed in utilizing the increasing technology assimilation into education (Armstrong, 2019). Concerning the social media use for Communication and learning group work, learners are not aware of social media, even learners who stated a very negative experiences through the tool expressed that social media use for communication and learning appeared to attract them, however, they declared that they would rather use the media (Yau and Reich, 2019).Consequently, there is a common negative influence on learners academic performance regarding social media use (Bunce et al., 2017). In education, social media platforms impact the academic performance negatively of which observation performed by researchers who revealed that the impact is larger for male students than female students (Azizi et al., 2019).

There has been a considerable number of studies on social media networks. Recently, a new flow of studies in this area has begun to gain more attention regarding the usage of social media generally. Investigations regarding social media has been mostly performed in diverse aspects for example; privacy (Muhammad et al., 2017), psychology (Aalbers et al., 2019), health (Benton et al., 2017), marketing (Felix et al., 2017), cultural (Sheldon et al., 2019), social (Anderson and Jiang, 2018). The attention towards the importance of social media in higher education has been started and well-established in developed countries such as the UK, Australia as well as the USA. However, there is a lack of research (Al-Rahmi et al., 2015 a; Thai et al., 2019) in investigating the utilization of social media platforms as a supporting tool that affecting students' academic performance and satisfaction in higher education institutions and how it can enhance learning and communication quality among Malaysian higher education institutions. The third side is associated with the probability of modeling TTF, TAM, and communication theories through a

theoretical model of structures and relevant factors that occur in the educational setting within social media. Additionally, there is a very limited number of models that have investigated social media understanding besides how it influences students' satisfaction and academic performance in higher education institutions in Malaysia (Al-Rahmi et al., 2018; Hamat et al., 2019). Therefore, this study is a significant addition to the existing literature related to social media usage for communication and learning which is still developing. Moreover, it also contributes to the practice of investigating social media factors affecting students' satisfaction and academic performance in institutions of higher education in Malaysia.

2. LITERATURE REVIEW

2.1. Utilization of Social Media Platforms in Universities

latterly, the higher education learning topics switched from targeting information only, for life-long-learning in relations of abilities needed (Junco et al., 2016; Alenazy et al., 2019). these skills involved communication and collaboration are the skills that have been studied to be extremely beneficial through the employers (Johnson, 2015). Various assumptions have been forwarded in relation to active communication and collaboration for education, the most common one that is indicated by Dillenbourg et al. (2016),whereas identified it as a place where two individuals or more try learning or learn certain new knowledge simultaneously. Most research studied specific social media tools for instance Facebook, Twitter and Myspace, as inventions in education process, thus, this study trend appears enough by in view of the sweeping generality regarding social media term. Furthermore, social media has been utilized as social resources for learning to provide chances for learners to appreciate and validate creative work, encouragement towards peer graduates, as well as obtain and provide related assistance. Higher education context investigated Factors that include faculty use (Al-Rahmi et al., 2018; Arslan, 2019) student learning and communication (Al-Rahmi et al., 2015 b; Junco, 2015), impact on in addition to, relative to academic performance (Junco et al., 2016; Rashid and Asghar, 2016). Yang and Brown (2015) determined that university learners demonstrated more positive communication toward academic performance and colleague collaboration over cooperative blogs.

Usage of social media amongst universities and colleges students have been a great discussion topic amongst scholars all over the world. Various studies revealed that social media impact the education efficiency (Al-Zahrani, 2015; Elkaseh et al., 2016). Moreover, Social media over many researches demonstrated a positive influence on learning and teaching foreign language whereas social media can improve and enhance learners' oral language skills and their writing skills (Lin et al., 2016a). Kabilan et al. (2019) discover that university learners consider Facebook platform as a meaningful and useful online setting that can improve and support their English learning process.

As the features of social media platform were constructed solely for the purpose of enriching the way people communicate and interact socially, their application in education serves several advantages to pedagogy which can be beneficial toward education environment benefiting both for students and the instructors (Schweinsberg et al., 2018). Due to the values it brings to pedagogy, instructors in higher education are beginning to devote their resources including effort and time utilizing the tools to enrich and mediate student learning (Lantz-Andersson et al., 2018). about higher education perspective, several scholars suggest the deployment of social media which simplifies social education inside classes (Castillo and Haddud, 2018), enhances active learning by inspiring both learners and instructors to interact among each other (Taylor, 2017), then promotes the learning activities that are students-centered (Buzzetto-Hollywood et al., 2019).

through literature, major social media use that is frequently examined is continuous connectivity and its value it provides to the higher education institutions that improves student communication and learning (Al-Emran et al., 2019), which presents the learning type that is based on learners demands (Buzzetto-More et al., 2015). Furthermore, learners can retrieve swift updates regarding the information of the course as well as the course content whereas can be attained easily using the continuous connectivity of social media (Schiavi et al., 2019).

In the work of Pradeep (2018), the finding supports the notion that social media utilization eases material and knowledge sharing, and allows learners to join groups of their interest for study purposes. In the survey conducted and distributed to students, as much as 50% of them are in agreement that participation in group activity learning and knowledge sharing are two essential social media utilization aspects in learning context. Furthermore, educators could promote classroom learning through the integration of social media which could be achieved in numerous ways (Isaac et al., 2017).

However, in another study by Sapsani and

Tselios (2019) the authors noticed that the amount of the time devoted on Facebook platform was considerably negative correlated to college learner's both academic performance and satisfaction, thus, it was inadequately correlated with the amount of time spent organizing their own classes. Additionally, social media platforms might are capable to stimulate individual learning settings whereas more encouraging new educational methodology toward improving self-structured education (Dabbagh and Fake, 2017). Consequently, social media platforms could be considered as an essential technological tool that can encourage students to control their own education activities. Thus, a good example of practical usage of web-based applications along with tools which can be utilized to improve and build educational settings are, Blogs Wikis and Flickr.

2.2. Benefits of Social Media For Higher Education Institutions

Higher education has drawn widespread awareness from the community of research on the social media curriculum application for education objectives. Communication for education and inspiring intellectual abilities expression as well as metacognition is a basic role regarding learning upon social media in higher education institutions (Dron and Anderson, 2015). Several researches have showed how a higher learning level was accomplished as an outcome of social media usage for learner's homework (Al-Rahmi et al., 2015 c; Al-Rahmi et al., 2021; Al-Rahmi et al., 2022; Kukkonen et al., 2016). Thus, The relation among Blog and Twitter (Kimmons et al., 2017) as well as additional social media platforms (Novak et al., 2016) are for Technology Acceptance model, with TTF, and Communication to impact both learners satisfaction in addition to learners academic performance among the institutions of higher education.

3. RESEARCH MODEL AND THEORIES DEVELOPMENT

Information technology that does not present enough benefit will not be make use of (Khan et al., 2018). TTF theoretical measurable MIS construct and is part of a model of IT performance and utilization, is still developing. TTF basic ideas along with models built around it are demonstrated in Figure below (Melzer, 2019b). Combining TTF to SNS usage in the current research, deployment explains technology use or constant use. It's the performance of engaging technology for fulfilling tasks purposes (Goodhue and Thompson, 1995). Intention defined as a signal of person's willingness toward playing a particular performance, which is believed the instant behavior antecedent (De Leeuw et al., 2015). Social media Technology characteristics could be clarified over the framework of honeycomb, which described using seven operational building blocks: groups, reputation, relationships, existence, conversations, sharing, as well as identity (Kohli et al., 2015). See Figure 1.

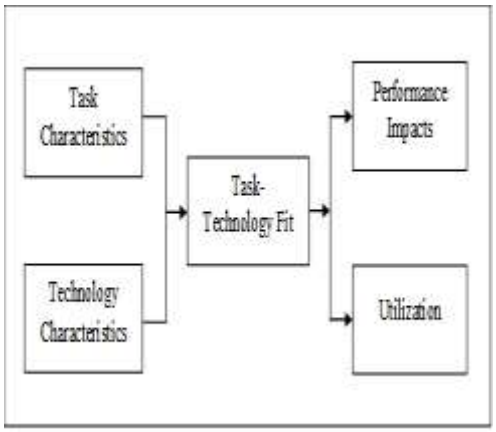

Figure 1: Task Technology Fit (TTF) Model (Goodhue, 1995).

Technology Acceptance Model (TAM) is basically founded on assumptions that ''perceived usefulness'' along with ''perceived ease of use'' both are genuine motivations towards using and accepting any new technology. Thus, Perceived Usefulness is described as ''to what extent people are persuaded about employing a system will enhance their performance'' (Davis, 1989). It exemplifies the beneficial findings that are derived from technology attributes that has being utilized (Alryalat et al., 2016). Although perceived ease of use is described ''to what amount an individual thinks whereas employing a specific system will be free of any psychological as well as physical effort'' (Silva, 2015). Additional researches examine as well that IT tools usage relies heavily on its perceived utility and ease of use (Yadegaridehkordi et al., 2019). Sites of Social networking are believed as an important tools in the process of learning and education for humans specifically for learners whereas they feel an easy-to-use (Al-Mashaqbeh, 2015). Figure 2 demonstrates the original TAM model. TAM has been developed by a previous theory so-called Theory of Reasoned Action (TRA), suggested by the Ajzen (1991), in determining and describing people's actions in a particular settings. Basis on TAM model, an individual's attitude reportedly affects system utilization behavioural intention. Thus, two determinants are considered to influence individuals' attitude, that are, perceived ease of use along with perceived usefulness. Thus, Perceived usefulness is "the extent

to which an individual supposes that using a specific system would improve his or her job performance" (Davis, 1989). In the Meantime, perceived ease of use describes how far a person considers of employing a system is easy to use. See Figure 2.

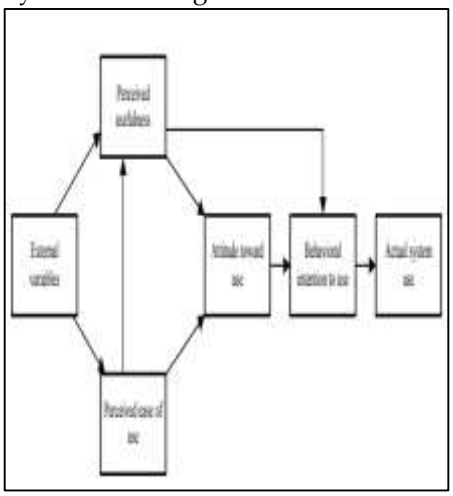

Figure 2: TAM Model (Davis Et Al., 1989).

Another study purpose was to study the association among hotel information system (HIS) consumers' beliefs and personal perceptions of the given system and their daily routine usage intention via the TAM, considering the main two external variables (motivational variables) of the model TTF (extrinsic motivation; system feature) and 'self-efficacy' (intrinsic motivation; personal feature). Data have been collected from hotel employees of 13 upscale hotels in Jeju, South Korea by (Kim et al., 2010), then path analysis was utilized in order to test both the hypotheses and structural model. Findings provided empirical evidence for an extended TAM and validated its robustness in predicting hotel employees' intention to HIS use. See Figure 3.

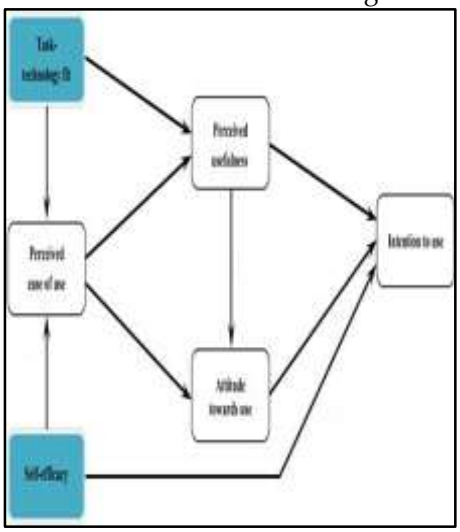

Figure 3: A Model Of TAM, TTF, And Self-Efficacy (Kim Et Al., 2010).

Alalwan et al., (2019), the research specifies that online communication, as well as collaboration learning over social media improves, the learners learning activities and allow to sharing knowledge, discussions and information, and therefore, they mention learners to employ social media for teaching purpose and must have inspired them through instructor at high education organizations. A paper was designed to alleviate differences in prior research in relation to social media use to communication in addition to collaboration besides its effects on learners' performance in higher education institutions. See Figure 4.

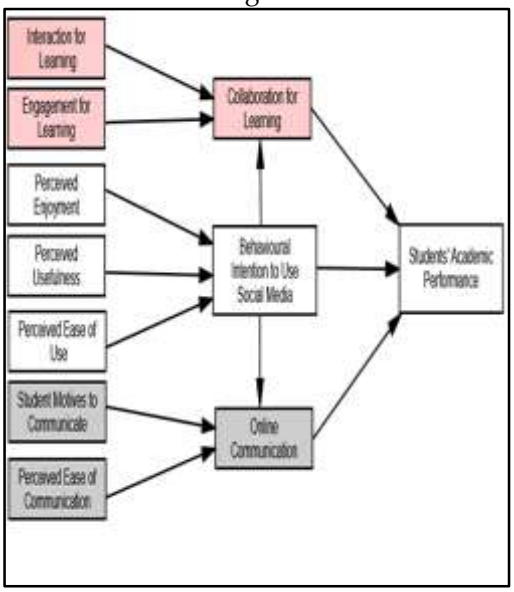

Figure 4: Model Of Social Media Use To Communication, And Collaboration (Alalwan Et Al., 2019).

Definitions of social media have changed continually with a potentially improved characteristics to meet user specifications and demands. On the other hand, social networks are primarily created to satisfy the various niche markets to assist particular consumer's requirements and interest. Social media sites have the capabilities and function of social media in order to make it simpler for its consumers to add friends, send mails, take part in groups, create personal profiles, content development, applications development , find out about different users (McCay-Peet and Quan-Haase, 2017). The present internet, occasionally referred to as Web 2.0, permits for further Communication, modification and interaction, through the consumers (Kaplan and Haenlein, 2016) other than the previous type, that's used to be called web 1.0, which was less interactive and more inactive in its nature. They comprise of diverse and numerous items as mentioned by (Alwagait et al., 2015), for instance communication for learning through YouTube Blogs

and Facebook. Therefore, this research developed new model, Figure 1 illustrated the use of social media model for communication and learning were based on three theories, TTF, TAM, and communication. See Figure 5.

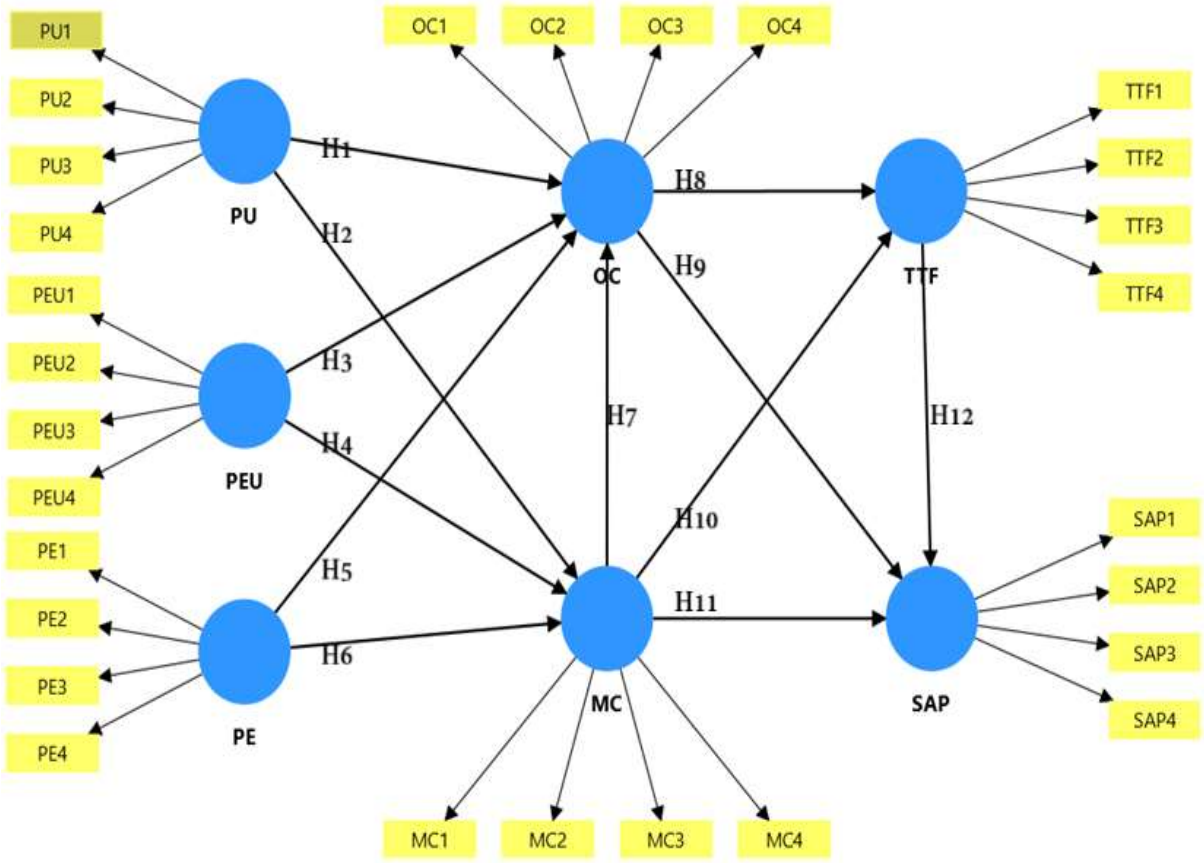

Figure 5: Research Model and Hypotheses.

4. RESEARCH METHODOLOGY

Two stages of data analysis were involved in the main study. At first stage, data screening was performed expending IBM SPSS Statistic Version 24. Phase two includes the evaluation of outer and inner study models using SEM through IBM SPSS and SmartPls Version 4. Prior to analysis, the data underwent multiple preparation procedures. First procedure involved encoding and entry of data into a database. Second, the data underwent data filtering and screening to locate any responses missing. For the hard copy participants, the data has been manually inserted into the database involving all cases. Lastly, data collected were undergoing various tests in IBM SPSS including, normality tests, frequency analysis, descriptive analysis, and handling missing values. Therefore, after data preparation, both outer and inner research model's assessment were conducted by means of SEM. This included the measurement as well as the structural model. SEM was utilized as main statistical procedure for various causes. Initial, it's a strongly suggested technique by many SEM experts being the most powerful and rigorous statistical research technique to address complicated models (Byrne, 2016d; Mueller and Hancock, 2018). SEM allows model fit and structural model assessment to be performed (Ringle et al., 2018).

Validity of constructs indicates to such a degree where a collection of measured variables are in fact representing theoretical latent constructs which such variables are meant to measure (Hult et al., 2018). It is commonly made up of sub-dimensions, that consist of discriminant validity and convergent (Blalock, 2017). Validity of convergences indicates the degree that indicators of particular structure converges; or shares a large percentage of variances (Silverman, 2016).Validity of convergences confirms a relationship extent of constructs in a similar model. When said this way, it is clear that validity of convergences are indicated through reliability (Mueller and Hancock, 2018). Second, evaluation of validity of discriminants scores is afforded through the utilization of AVE for every construct surpassing squared correlation of two or more construct variables. An AVE of above 0.5 signifies a correlation existence (Blalock, 2017; Schumacker, 2017). The last

phase in data analysis is testing the hypothesis. The Study conducted to test 12 hypotheses which was mentioned earlier in Figure 1. To test out its statistical significance of the parameter evaluated by the SEM, statistic test applied was Critical Ratio (C.R.), that signifies the parameter estimate divided according to its standard error (S.E.) (Byrne, 2016d). Based on Matthews (2017), immediate impact could be defined as association between double structures through a single direction. Put differently, it's a result which variables upon each other directly related.

4.1. Measurement Model Development

As mentioned earlier, the constructs measured were based on their appearance and application in prior literature. Therefore, in this research the measurement element or the study measures were to be adapted from validated structures in previous literary studies. (Straub, 2018) recommended to use again previous validated instruments at the time using survey techniques. Consequently, in the present research, the formulation of each measure was only modified to fit the context of the study. Table 1 shows 7 constructs and 28 items employed for the factor's measurement incorporated in the research model. A 5-point Likert scale of measure was utilized throughout all these items going from 'Strongly Disagree' refer to as '1', to 'Strongly Agree' refer to as '5'.

Table 1: Lists The Constructs Measurement Used In This Study.

Constructs	Code	Items	Support Evidence
Perceived Usefulness	PU	4	Kim *et al.* (2010)
Perceived Ease of use	PEU	4	Kim *et al.* (2010)
Perceived Enjoyment	PE	4	Alalwan et al. (2019)
Online Communication	OC	4	Arshad and Akram, 2018
Motives to Communication	MC	4	Alalwan *et al.* (2019)
Task-technology fit	TTF	4	Goodhue and Thompson (1995)
Students' Academic Performance	SAP	4	Almogren et al., 2024

4.2. Results And Data Analysis

This research analysis is utilizing (SEM) following the dual steps method as the main statistical technique as recommended by Denis (2018). These steps are to evaluate the validity of measurement model first followed by the development of structural model as the second step. Data screening and preparation are performed for data analysis processes to ensure the data collected are according to the standard requirements of (SEM) such as normality, outliers, missing data, and analysing the demographic profile of survey respondents. These analysis processes including Reliability and validity testing as well as confirmatory factor analysis, (SEM) goodness fit and the structural model development beside 12 hypothesis testing. To ensure validity, the survey items designed to align with the research objectives, and content validity confirmed through three expert reviews. After that the reliability of the survey instrument assessed using internal consistency measures by Cronbach's alpha (See Table 2).

Table 2: Testing Model Fit.

NO	Constructs	Code	Items	Cronbach's Alpha
1	Perceived Usefulness	PU	4	0.813
2	Perceived Ease of use	PEU	4	0.911
3	Perceived Enjoyment	PE	4	0.846
4	Online Communication	OC	4	0.892
5	Motives to Communication	MC	4	0.928
6	Task-technology fit	TTF	4	0.883
7	Students' Academic Performance	SAP	4	0.874

Quantitative data were collected from 161 university students and analyzed using statistical software such as SPSS and SmartPLS, as recommended by Hair et al. (2020). Table 3 presents demographic data and factors for descriptive analysis.

Table 3: Demographic Data and Factors For Descriptive Analysis.

Factors of Descriptive Analysis		Frequency	Percent
Gander	Male	98	60.87%
	Female	63	39.13%
	Total	**161**	**100.00%**
Age	18-21	82	50.93%
	22-25	64	39.75%
	26-29	15	9.32%
	Total	**161**	**100.00%**
level of Study	Postgraduate	59	36.65%
	Undergraduate	102	63.35%
	Total	**161**	**100.00%**

4.3. Measurement Model of Confirmatory Factor Analysis (CFA)

All of the numbers in Table 4 of this study meet

the necessary requirements for R-square, average variance extracted (AVE), composite reliability (CR), and factor loadings (FL). Confirmatory factor analysis (CFA) is a crucial component of the measurement model in structural equation modeling (SEM). CFA examines the relationships between observable variables and their underlying constructs. CFA checks how well the proposed measurement model fits by using theory to make a priori associations. This guarantees that the observed variables precisely reflect the intended latent constructs (Brown, 2015). See Table 4 for more information on how this method makes the measurement model more valid and reliable.

Table 4: Measurement Model of Confirmatory Factor Analysis (CFA).

Factors	Code	FL	CA	CR	AVE	R-square
Perceived Usefulness	PU1	0.844	0.813	0.907	0.711	0.000
	PU2	0.914				
	PU3	0.900				
	PU4	0.849				
Perceived Ease of use	PEU1	0.674	0.911	0.952	0.783	0.000
	PEU2	0.816				
	PEU3	0.837				
	PEU4	0.830				
Perceived Enjoyment	PE1	0.710	0.846	0.893	0.698	0.000
	PE2	0.822				
	PE3	0.790				
	PE4	0.859				
Online Communication	OC1	0.852	0.892	0.842	0.637	0.710
	OC2	0.904				
	OC3	0.866				
	OC4	0.584				
Motives to Communication	MC1	0.793	0.928	0.921	0.706	0.571
	MC2	0.769				
	MC3	0.840				
	MC4	0.811				
Task-technology fit	TTF1	0.807	0.883	0.876	0.716	0.461
	TTF2	0.913				
	TTF3	0.888				
	TTF4	0.866				
Students' Academic Performance	SAP1	0.901	0.874	0.855	0.694	0.623
	SAP2	0.885				
	SAP3	0.800				
	SAP4	0.723				

The measurement model and route coefficients together form the basis for a thorough SEM analysis. A strong measurement model makes sure that latent constructs are valid and reliable. Path coefficients show how these constructs are related to each other in a certain way. They help us understand the basic structures of the events being looked at and the study model that was made (see Figure 6).

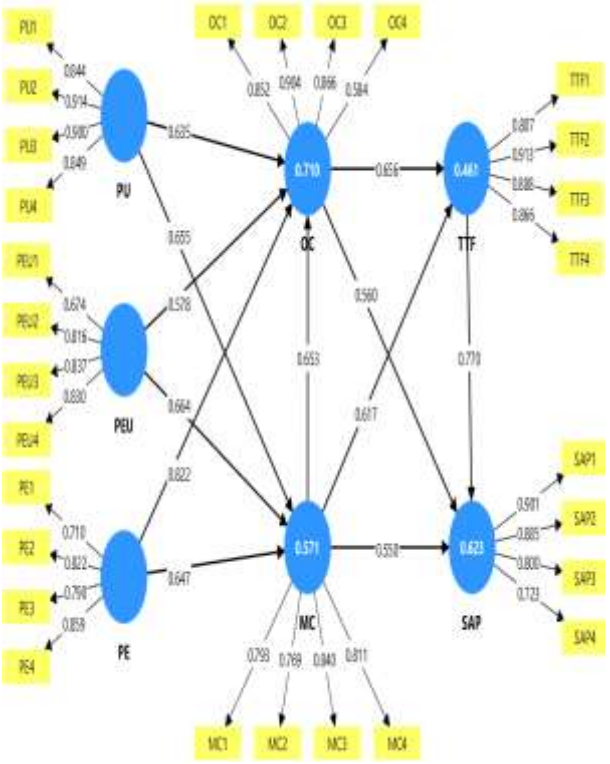

Figure 6: Measurement Model and Path Coefficients.

4.4. Validity Of Discriminants

Discriminant validity is a crucial component of study design and analysis. Henseler et al. (2015) say that it is important to make sure that measurements are reliable and that the constructs being studied are different and fit the theoretical framework. See Table 5.

Table 5: Validity Of Discriminants.

Factors	Code	PU	PEU	PE	OC	MC	TTF	SAP
Perceived Usefulness	PU	0.910						
Perceived Ease of use	PEU	0.499	0.891					
Perceived Enjoyment	PE	0.511	0.459	0.854				
Online Communication	OC	0.566	0.478	0.437	0.881			
Motives to Communication	MC	0.435	0.651	0.507	0.500	0.887		
Task-technology fit	TTF	0.543	0.458	0.509	0.541	0.602	0.863	
Students' Academic Performance	SAP	0.654	0.457	0.548	0.632	0.549	0.529	0.854

4.5. Hypotheses Testing And SEM

Researchers may use Structural Equation Modeling (SEM) to see how many different variables are connected to each other in one framework. SEM provides a comprehensive framework for hypothesis testing, allowing researchers to examine both the

measurement and structural aspects of their theoretical models. Hair et al. (2020) assert that SEM elucidates the intricacies of varied interconnections via the formulation and rigorous testing of 12 hypotheses. Figure 7 shows that this, in turn, increases empirical research in many domains.

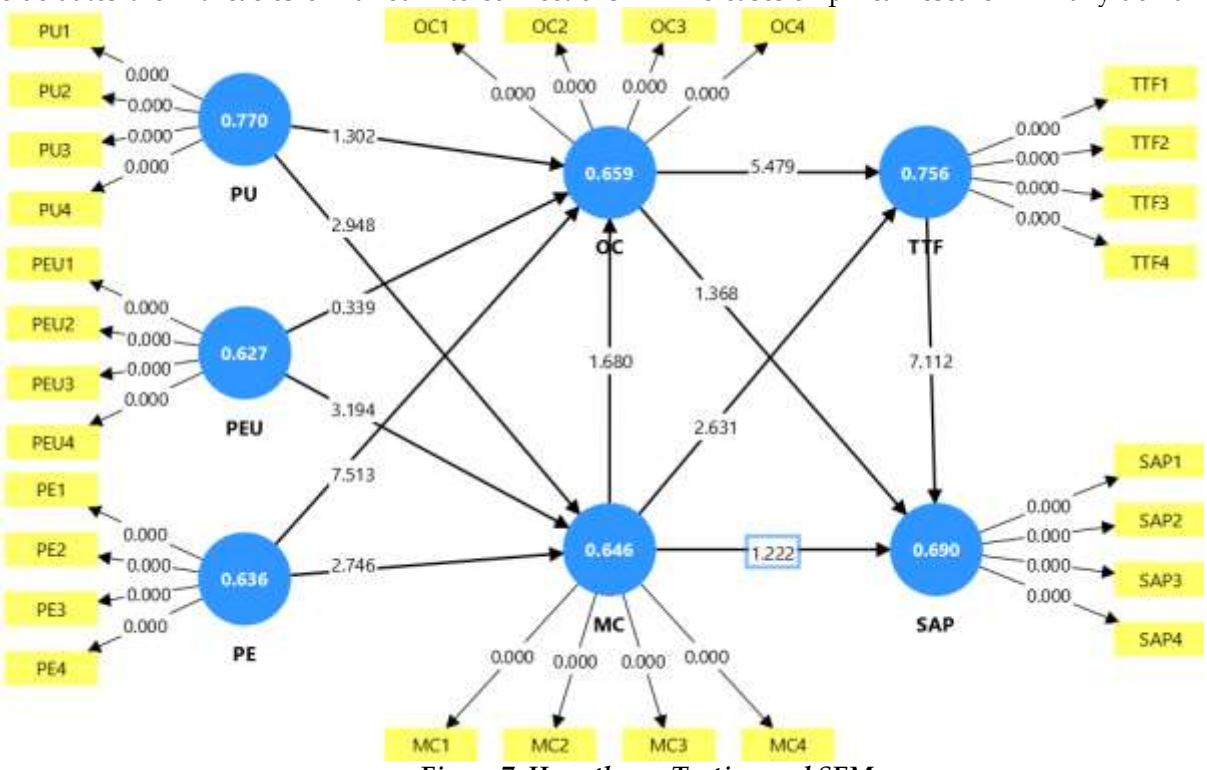

Figure 7: Hypotheses Testing and SEM.

In this investigation, the results showed that 11 hypotheses were acceptable, which was in line with the data that was collected. On the other hand, one hypothesis was rejected, showing that the theoretical predictions and the real-world facts did not match up, as seen in Table 6. This procedure of hypothesis testing helps improve and confirm the suggested structural model, which makes the study results stronger overall.

Table 6: Hypotheses Testing and SEM.

Hypotheses Relationship		Path coefficients	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
H1	PU -> OC	0.635	0.231	0.065	1.302	Supported
H2	PU -> MC	0.655	0.326	0.043	2.948	Supported
H3	PEU -> OC	0.578	0.076	0.194	0.339	Unsupported
H4	PEU -> MC	0.664	0.230	0.099	3.194	Supported
H5	PE -> OC	0.822	0.324	0.032	7.513	Supported
H6	PE -> MC	0.647	0.179	0.054	2.746	Supported
H7	MC -> OC	0.653	0.329	0.039	1.680	Supported
H8	OC -> TTF	0.656	0.200	0.023	5.479	Supported
H9	OC -> SAP	0.560	0.348	0.073	1.368	Supported
H10	MC -> TTF	0.617	0.450	0.081	2.631	Supported
H11	MC -> SAP	0.550	0.521	0.036	1.222	Supported
H12	TTF -> SAP	0.770	0.339	0.054	7.112	Supported

5. DISCUSSION AND IMPLEMENTATION

The present work seeks to formulate a theoretical model of social media use for communication and learning, grounded on pertinent TTF, TAM, and CT aspects. This research focuses on the assessment of a validated and trustworthy theoretical model for social media to understand the communication and learning aspects that affect students' academic performance.

This research is a notable contribution to the evolving literature about the use of social media for communication and learning. It also helps with the practice of looking at how social media affects students' academic performance in Malaysian colleges and universities. The significance of the

study is predicated on the relationship between social media and the university-level communication and learning among staff and students, which facilitates enhanced knowledge acquisition for students. Consequently, elements influencing users in these educational contexts need more study. At the same time, the rapid growth of social media platforms throughout the world shows how important it is to do more research on how these platforms are used for teaching and learning.

In the practical contribution section, this study enables stakeholders in faculties, departments, and research management divisions within universities, along with the ministry of higher education, to gain a thorough understanding of how social media utilization for communication and learning influences students' academic performance and satisfaction through technology acceptance and interactivity. As a result, students will be encouraged to utilize social media for schoolwork. The research also seeks to provide a tool and elements for educational institutions to assess and evaluate students' academic performance and satisfaction about technology use.

The findings of this study enhance the current knowledge and theories related to social media usage, while also aiding in the development of critical constructs and the validation of a theoretical framework for social media utilization. These findings are considered a crucial milestone for subsequent research related to social media. Finally, these studies could have implications for the Malaysian education system as a whole. In Malaysia, higher education is very important, and both colleges and universities can use social media to help students do better in school and be happier with their education. These results are therefore relevant to university students worldwide.

The hypotheses suggest a correlation among factors that may influence TTF, TAM, and CT concerning social media use for communication and learning, hence affecting learners' academic performance and satisfaction. Consequently, hypotheses were examined using a two-stage structural equation modeling approach. The first step was evaluated for its validation (unidimensionality, validity, and reliability) in accordance with Byrne (2016a). In the second stage, the structural model was used to do further tests on these variables to see whether it suited the data that had been reported. The outcomes of the present study substantiate the research model, as shown in Figures 7 and Table 6, with the hypothesis about the directed relationships among the model's variables. Consequently, the research hypotheses are evaluated as follows:

5.1. Perceived Usefulness

The statistical analysis showed that the research data showed a strong and positive effect of PU on OC ($\beta = 0.635$, $p < 0.001$). So, the hypothesis one (H1) was accepted by strong and positive relationship between PU and OC. Similarly, the statistical analysis showed that the research data showed a strong and positive effect of PU on MC ($\beta = 0.655$, $p < 0.001$). So, the hypothesis two (H2) was accepted by strong and positive relationship between PU and MC supports Davis et al.'s (1989) claim that perceived utility is linked to how customers feel about a system application's ability to improve work performance in an organizational setting. Adams et al. (1992) and Davis et al. (1989) both found that how useful something seems to someone is a big part of why and how they use it.

5.2. Perceived Ease of Use

The statistical analysis showed that the research data showed a negative effect of PEU on OC ($\beta = 0.578$, $p < 0.339$). So, the hypothesis three (H3) was rejected and negative relationship between PEU and OC. Except, the statistical analysis showed that the research data showed a strong and positive effect of PEU on MC ($\beta = 0.664$, $p < 0.001$). So, the hypothesis four (H4) was accepted by strong and positive relationship between PEU and MC. In research, perceived ease of use describes the level whereas a person think about particular system's use is not going to involve any hard work (Sánchez-Adame et al., 2018; Taherdoost, 2018). Consequently, this research describes perceived ease of use as the level whereas a learner believes that utilizing social media would be effortless. Davis et al. (1989) claimed that an application perceived to be simpler to use over another is probably understood by consumers.

5.3. Perceived Enjoyment

The statistical analysis showed that the research data showed a strong and positive effect of PE on OC ($\beta = 0.822$, $p < 0.001$). So, the hypothesis five (H5) was accepted by strong and positive relationship between PE and OC. Similarly, the statistical analysis showed that the research data showed a strong and positive effect of PE on MC ($\beta = 0.647$, $p < 0.001$). So, the hypothesis six (H6) was accepted by strong and positive relationship between PE and MC supports Seo et al. (2017), perceived enjoyment describes the level whereas of utilizing social media activities are considered enjoyable regardless of the expected the system performance. users Participation in online

social media platforms is expected to be enjoyment is perceived in the process. Research by Hsu (2017), a study was conducted in clarifying the behaviour to adopt in learners towards Approval of Internet-based learning form: the role of intrinsic and extrinsic motivation, by proposing TAM model combined along with motivational theory. Research deemed perceived enjoyment as basic catalyzer, moreover, perceived usefulness and perceived ease of use in relation to TAM.

5.4. Motives To Communicate

The statistical analysis showed that the research data showed a strong and positive effect of MC on OC ($\beta = 0.653$, $p < 0.001$). So, the hypothesis seven (H7) was accepted by strong and positive relationship between MC and OC. Theorizing the classroom communication as a exceptional site of social connections, students claim that it is important to realize reasons for learners creating interactions with their teachers (Myers, 2017). Thus, Motives may be described as learners' personal justifications for communicating with their lecturers (Amiryousefi, 2018).

5.5. Online Communication

The statistical analysis showed that the research data showed a strong and positive effect of OC on TTF ($\beta = 0.656$, $p < 0.001$). So, the hypothesis eight (H8) was accepted by strong and positive relationship between OC and TTF. Similarly, the statistical analysis showed that the research data showed a strong and positive effect of OC on SAP ($\beta = 0.560$, $p < 0.001$). So, the hypothesis nine (H9) was accepted by strong and positive relationship between OC and SAP supports although motivation is a potent sign of the reasons behind communicating among learners in the class, however, it doesn't show the way learners sense regarding that communication. Thus, Murray and Christison (2019) identified motivation as force to maintain and initiate an engagement in education. attitudes importance is particularly important to communication online; therefore, they hypothesize about attitudes as well as motivations. As Cheung and Yin (2018) claims, attitudes online are likely to have differential outcomes and antecedents, thus affecting personal communication forms uniquely. Moreover, Gonulal (2019) description of attitudes as a comparatively beliefs enduring structure around situation or an object causing one to act in certain special way to improve a degree for understanding online communication attitudes.

5.6. Task-Technology Fit

The statistical analysis showed that the research data showed a strong and positive effect of MC on TTF ($\beta = 0.617$, $p < 0.001$). So, the hypothesis ten (H10) was accepted by strong and positive relationship between MC and TTF. Similarly, the statistical analysis showed that the research data showed a strong and positive effect of MC on SAP ($\beta = 0.550$, $p < 0.001$). So, the hypothesis eleven (H11) was accepted by strong and positive relationship between MC and SAP supports. The theory suggests that the fit degree among technology (support) and tasks, will affect the technology utilization and work performance. The model of task technology fit (TTF) model claims that people will accept a technology on basis of the fit degree among the task requirements and technology characteristics (Goodhue, 1995; Goodhue & Thompson, 1995). It is likely that, while users perceive a technology like being innovative, they will not adopt as long as they believe this technology is unfit to their tasks and would not enhance their performing (Abbas et al., 2018).

5.7. Students' Academic Performance

The statistical analysis showed that the research data showed a strong and positive effect of TTF on SAP ($\beta = 0.770$, $p < 0.001$). So, the hypothesis twelve (H12) was accepted by strong and positive relationship between TTF and SAP supports. According to Saha and Karpinski (2016) social media through fields of research affects Students' academic performance and satisfaction of their users; In reality, social group formed on the Facebook was found to make it easier for learner development. Nevertheless, there are several exceptional instances where results show positive correlation between Twitter and Facebook (Amador and Amador, 2017; Goh et al., 2017) and that incorporation could enhance education (Tartari et al., 2019).

Because social networking apps are so popular all over the world, it is important to look at how people really use them for learning. Social media apps are now one of the most popular ways to share information and knowledge, connect with people from around the world, and promote businesses online. This has led to an increase in their use for supporting learning activities and related communication and collaboration.

Many academics and institutions of higher education have already created learning tools based on different social media platforms to give students the help they need to talk about and share their study interests, work together, and get to learning materials.

This implementation method might, however,

have an effect on the students' academic objectives since it could be a source of distraction that makes negative or non-learning sharing more likely. Because of these worries, it is important to look into the social media use elements that have the most impact on TTF, TAM, and CT and that directly affect higher education level SAP.

The contributions of the current study are grounded on theoretical, implementation, and empirical studies. This study further advances the ideas of TTF, TAM, and CT. This study in Malaysia examined the integration of these three theories within the higher education sector for the use of social media platforms for learning and communication, which impacts TTF and SAP. The contribution of this will be further elucidated in the following subsections:

- The main theoretical contribution of this study is included in the formulation of a model that integrates the use of social media platforms for educational and communicative objectives, influencing SAP via TTF, TAM, and CT elements (refer to Figure 1).
- This research has produced substantial practical implications and contributions by synthesizing TTF, TAM, and CT theories into a unified model, offering strong validation of the benefits and deepening the understanding of social media utilization for educational and communicative purposes to enhance SAP in Malaysian higher education. Future studies should employ the methodology of this research to assess the efficacy of social media in enhancing children's well-being and academic performance. This is what we will do in Saudi Arabia from now on.

6. CONCLUSION, LIMITATIONS AND FUTURE WORKS

The main goal of this research is to create a model of how students in Malaysia use social media for communication and learning that affects their academic performance and satisfaction in higher education. This will be done along with a study to see if the TTF, CT, and TAM theories are correct about how they affect SAP at universities. Therefore, this research significantly enhances the developing literature regarding the utilization of social media for communication and education. It also helps us look into how social media affects Malaysian college students' happiness and academic success. The study's importance is based on the link between social media and communication and learning at the university level between staff and students, which helps students learn more. There are two basic ways that this research might make a difference: via practical contributions and theoretical contributions. The study examines the TAM, TTF, and CT aspects influencing the use of social media for communication and learning objectives, contributing to theoretical understanding. This study enables practitioners and researchers to understand the pertinent communication and learning aspects that influence students' academic success and the happiness of research learners. Moreover, this work introduces a distinctive paradigm that integrates TAM, TTF, and CT within the realm of academic research.

The research has made theoretical, practical, and academic contributions to knowledge; nonetheless, it has encountered some limits that must be appropriately addressed. This section of the study underscores these limitations to serve as a reference for other researchers intending to do analogous studies. The data for this research was limited to a single institution in Malaysia. Additional research is advised to gather data from a more extensive cohort of students across other universities to improve and generalize the results.

Second, the nature of social media use indicates that behavioral and social variables might influence the intention to engage with social media. The usage, impact, and behaviors associated with social media may differ according to cultural variations among users. Due to geographical constraints, this research collected data only from respondents in Malaysia. Consequently, cross-cultural study including a wider geographical sample distribution about the use of social media platforms for communication and learning may provide more comprehensive results for future investigations.

Competing interests: On behalf of all authors, the corresponding author states that there is no conflict of interest.

Acknowledgement: This research was funded by the General Directorate of Scientific Research & Innovation, Dar Al Uloom University, through the Scientific Publishing Funding Program.

Consent for publication: All authors have read and agreed to the published version of the manuscript.

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