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Constructivism Theory: The Factors Affecting Students' Academic Performance in Higher Education

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ABSTRACT: This paper aimed to use social media impact on student studies in higher education. Apart from enjoyment and academic purposes, many educational practices and processes have been influenced by social networks. This paper highlighted the use of media tools in higher education as well as indicates out some of the factors. Moreover, through a literature review of related articles, we aim to provide insights into the impacts of a social network on educational quality, actual use of social media, and performance impact in higher education. A questionnaire survey on constructivism was circulated among a total of 206 university students as the key method for collecting data. This research hypothesizes educational quality and actual social media use indicates a positive effect in education, all of which also hypothesizes constructivism for educational quality and actual social media that in turn improve students' satisfaction, and performance impact. Moreover, all research findings were attained through a quantitative method using the Structural Equation Modeling (SEM-AMOS). Findings of this research to indicate a positive effects students on their academic through behavioral intention to utilize social media to actual social media use for teaching and learning on higher education. Moreover, the results mention the use of social media for learning purpose, as well as social media to enables the sharing of knowledge, discussions, and information to enhance students' learning activities, Further studies are recommended which universities educators should take this into consideration when planning their curricula; it comes to the inclusion of technology in the teaching process.

Keywords: Constructivism theory, social media, educational quality, students' academic performance, Engagement.

1. INTRODUCTION

Social media development encourages steady progress on the global computer network providing application. The advent of social media has transformed communication and interaction through online and offline networks. The young people explained various reasons for its general daily use among young people around the world of people especially among a huge number who use social networks are students [1]. This application of technology is affecting to enhance the academic performance of higher education Students. Social media essentially supplement Students' academic performance in the classroom helps to the emergence of technology including Web 2.0 with its enriched features [2, 3].

social constructivism theory of engagement implements and Cooperative learning, interaction through which students can build self-skills acquired a person through experience or education by inadvertently gaining learning from a teacher and sharing experiences with their peers rather by actively engaging in their own learning processes [4,5]. Thus, this research is expected the gaps in knowledge to be filled by developing a Model of social media use to affect Students' Performance especially as influencing behavior of study in Malaysian Higher Education. Research findings showed of the higher education sector that high number of educators use social media as tools for informal collaboration in Asian nations, mostly for social networking purposes and communication, instead of using them for Students' academic performance processes [6].Therefore, this paper target to measure students' satisfaction students and performance impact through educational quality and actual social media use that contributes to a result of factors.

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Despite the prevailing of the large volume of such surveys especially so as to appraise them, researches viewed the use of social media as a means of achieving effective student academic performance that they were conducted through collaborative learning at higher education, learning in Malaysia is not sufficient and the process by which it can increase its an act of staging or presenting their study in academic performance. The U.S.A, U.K and Australia have been advanced until now that use social media for teaching and learning in academic institutions.

The propulsive force behind our study to devote time and attention to acquiring knowledge on an academic subject that it is one of the main impacts use social media, also this research contributes a rare model via theory of constructivist. One of the important learning constructivism that is derived Constructivist theory. It was developed that constructivism theory by many experts on a specialist in psychology such as "Vygotsky, Piaget and John Dewey" which blanks to fill up the targets through investigating literature on the features of students' behavioral purpose to make an application social media for educational quality and actual social media use to increase performance impact.

Our research focuses to make practical and effective use of social media more precisely on educational quality through collaborative learning, students' interaction, and engagement. Also, though collaborative learning, students' interaction, and engagement using social media to increase students' academic performance by social media usage for actual social media use.

This theory focuses on the acceptance or a statement is true that solving problems helps individuals in thinking, learning, and development [7]. Problem-solving assists individuals build their own unique experience and their expert skill or knowledge in the field to find a solution and as soon as they do, they all extract unique lessons [8]. The meaning of constructivism theory is seen as related to cognition activity that particular result or situation to mental models that reflect perceptions of reality. In general, constructivism theory aims to identify how a series of actions or steps taken in order to achieve the learning is applied in the classroom, and how knowledge is constructed. Therefore, this study aims to develop a model that measures of social media use to determine the level of students' engagement, interaction and collaborative learning through educational quality and actual social media use to increases students' satisfaction and academic performance.

1.1. Problem Statement

The use of social media led to academic difficulties [9; 10]. Use of social media influences Student Grade Point Average (GPA) and academic performance to relate to education [11; 12]. Research students use social media in learning which state something strongly to be the education a negative impact on concentration [13]. According to [14] Observation time selected to use social media tools intended for social purposes was not used for related to the provision of education. Accordingly, a negative effect was seen on the educational performance of students [15; 16].

In addition, while there are many social media models there is a limited model for evaluation of the ability research student performance and satisfaction through constructivism theory. Therefore, the research gap concerns the negative of reflection on actual social media use with consideration of relevant constructivism factors [17; 18]. And the negative of concerned with the actual doing or use for instrument models for measuring such factors in such a context in a single study [19; 20] and lack of intention to actual social media use to affect students' performance with consideration of relevant constructivism factors [2]. In addition, there is a lack of models that have researched the ability to understand actual social media use and how it has an effect on students' performance in Malaysian higher education [21; 22; 23].

Therefore, the main object of our study is to develop and to overcome weaknesses with constructivism including factors of educational quality and actual social media use in Malaysian higher education context through constructivism theory.

2. HYPOTHESES AND THEORETICAL MODEL

Research model studies all aspects of constructivism of collaboration learning, students' interaction, engagement, educational quality, and actual social media use). The contents of the model include

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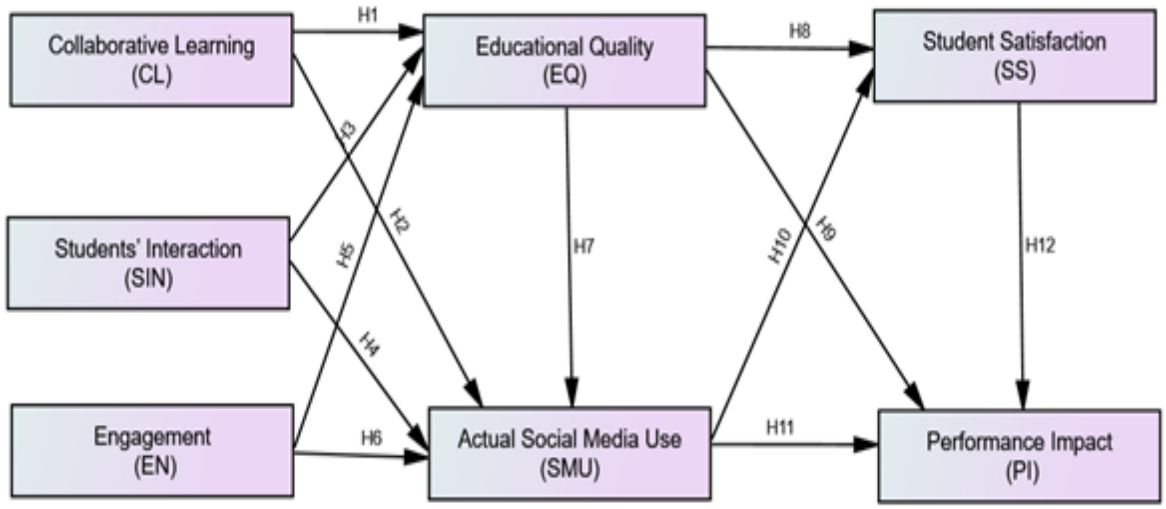
collaboration learning, students' interaction, engagement, educational quality, and actual social media use, educational quality; actual social media use, student satisfaction, and performance impact, consequently, it have an effect on students' performance in academics in Higher education Institutes (see Figure. 1).

Constructivism theory meaning is seen as a cognitive activity that produces mental models that are entitled to become aware of reality. Generally, constructivism theory aims to identify how to implement learning processes especially as used for learning purpose in the classroom and how knowledge is constructed [24]. In the social constructivist classroom, the instructor's role is to help learners build their knowledge and control the fact of having an educational reality of learners during the learning process. A Constructivist instructor lets the learner's responses drive a lesson, change instructional strategies, change content, and encourage peer interaction [25,26]. See figure 1.

Figure 1: Research model



2.1.Collaboration Learning

Collaborative learning is the educational approach of using groups to further improve the educational quality, value, or extent of learning through working together. In a collaborative learning environment learners to face social and emotional challenges when listening to different perspectives, and they are required to express and justify their ideas [27]. Collaborative learning is characterized by students' interactions and the idea is associated course content. Social media provides students with the opportunity to become or make larger more extensive their learning environment because only part of student learning takes place within the boundaries of the classroom [28].

This online community is a highly social environment, which forms as a result of shared interests. The changes in Web technology allow the public to move beyond the likes of a more produced or conducted by two or more parties working together for an experience. Social technologies such as "Facebook, twitter, YouTube and WhatsApp" allow for the shared development of ideas, products and services. This social sharing not only promotes the process of working together to the same end but also gives users an opportunity to learn from each other [29, 30] found that students build learning communities by working collaboratively to build knowledge. Social media is a tool to make an action or process easy for the development of these learning communities.

2.2.Students' Interaction

Social media enhance social interaction and reciprocity for the purposes of communication, enjoyment, and socialization [31, 32]. The interactive nature having an effect on each of many Web 2.0 social media tools allows learners to become active participants who co-create the learning experience

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with their peers and instructors, sharing and reflecting on their individual by giving students support to encouraging collaboration and communication. Moreover, these interactions boost the attainment of desired learning outcomes.

According to [33,34] cooperation for learning is an academic approach to learning and teaching that complete a task of learners working in an organized manner to solve a specific problem, involves a group or produce a new product. Experiences and Interpretations are blended to create education [35]. In addition, interaction with the learning environment is an effective factor in the learning process. Second, social media is a great platform for social connection, and utility that addresses college students for communication and interaction [36].

Social media make available for use a platform for student and teacher interaction and among students themselves. The use of Facebook as a venue for after-class discussion has shown that it can be that is of a great worth platform for promoting student engagement, collaboration and the sharing of ideas beyond face-to-face interactions [37].

2.3.Student Engagement

Student engagement refers to the degree of attention, curiosity, interest, optimism and barely controllable emotion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education. Social media resources have attracted the attention of millions of people worldwide; these same features can draw students' attention to the learning opportunities provided by their academic institutions [38].

A student who never is a participant in the class may actively participate in building his learning experience with his teachers, collaborating work jointly on an activity with his peers, especially to teaching and learning and may feel more comfortable expressing himself and action or strategy which may be adopted and ideas on Facebook, Twitter, or YouTube [39]. Engagement in the social media context leads to a learning of the environments or conditions in which students characterized by greater collaboration and the imparting or exchanging of information as a result of peer discussion and interactions. Moreover, the use of social media for educational and psychological well-being further links student learning through the academic engagement mechanism and increases engagement with the school and academics [40].

2.4.Educational Quality

Educational quality can be defined as the extent to which the IS system has succeeded in having a definite outline precisely marked to provide learners with a conducive learning environment in terms of collaborative learning [41]. It can be seen that the ideals of quality online education as mentioned above are well in line with the fundament truth or proposition that serves as the foundation for a system of belief or behaviour or for the educational quality of reasoning. Technology-enhanced delivery is revolutionizing education by a considerable amount of means of approaching or entering to quality educational resources that are provided at a much lower cost per student [42].

Online teaching will include to comprise or contain as part of learners as active participants or co-producers rather than as passive consume instructional content. Frame learning as a participatory social process that aims to support the aims and needs of personal life [43,44]. The quality of content on social media and the Internet is entirely contingent on or determined by members of the online community, while there may be real-time peer review to criticize misleading or inaccurate information, the quality of that content may be variable. Perhaps more importantly, recent research has revealed a lack of quality to the available body of information indicating whether a belief or proposition is true, an irregular assessment of skill or behavioural-based outcomes.

According to [45] some studies based on YouTube and Facebook have sought to initiate a moderation service to evaluate the quality of education, although many authors noted that this may not be concerned with the actual doing or use of recommendation given the volume of new content added to social media use on a daily basis.

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2.5.Actual Social Media Use

The actual usage is "described to the extent that the person uses the functions of the information system, depending on the nature, frequency and duration of the specific technology". In terms of Internet learning, actual usage is similar in terms of frequency, and duration of use [46, 47] extended the argument and revealed that user satisfaction as well as social media usage has a significant impact on technology while focusing on the quality view of shared information and technology quality [48].

Social media effects on students' learning performance through prior Studies have shown that it was appropriate for their teachers to use of using tools that state of being used for learning purpose as Facebook, where students and teachers can socialize together [49].Although an enormous ambit of studies on actual social media use aimed to explore influencing factors, there is a lack of studies about social media network that integrated with various parts that is absolutely necessary of all essential factors of actual social media to influence student performance in a study only [50]. Thus, in Malaysian higher education will be able to have the power to do conduct to research on social media to integrate all the factors associated with social media that are seen as a crucial step in understanding the use of social media for students to impact on student performance.

2.6. Student Satisfaction

Satisfaction is "defined as the perceptions of individuals about to what extent their needs, goals and desires are met" [51]. According to [52] having been discovered that traditional education technologies have an effect on student satisfaction through student involvement, and education performance and social media practices reinforce these effects [2] use of social media also creates an easy relationship between "group members that explains their satisfaction from active collaborative learning and improves their learning performance". This also applies to the way in which two or more students or people are connected to state of being connected them such as students and supervisors, where social media is instructed to exchange information and explanation.

According to [53] It also makes it easy for me to share data and provide easy oncoming to the learning community, and to be satisfied with interaction using instructors to use social media, and to achieve a typical percentage for University students, as it provides educators with a more understandable form these and academic success in higher education. In terms of satisfaction with using social media participation and achieving a higher percentage of student satisfaction for class participation, social media provides a lot of content and social media provides up-to-date content [54].

2.7.Performance Impact

Researchers have "defined both actual social media use and behavioral intention to use such as mediators variables in the investigation of factors influencing particular technologies" [55]. As regard to intentions of social media use, they showed to allow to be perceived in their study with Malaysian students using social media tools adversely affects social and non-social needs that using of social media and its impact on their academic performance.

According to [54] showed that the adoption of social media uses as a teaching network system of interconnected between students in education, in that case, the creation of a Facebook group specifically to discuss math's content outside the class could greatly enhance undergraduate student participation, satisfaction and performance in a course. According to [56] the advanced and having become to improve use of the social media platforms such as Facebook has been a worldwide phenomenon for some time. While it has long been a hobby for some computer literate individuals have evolved into the social norm and lifestyle for students worldwide.

3. RESEARCH METHODOLOGY

In this article, our survey evaluated a sample of a prepared questionnaire evaluating of two specialists. The University Tun Hussein Onn Malaysia(UTHM). In this article, collected data after UTHM has given me permission. This selected research model contained as part of a whole being use of social media users

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to train and communicate both gender groups of males and females through a questionnaire survey on constructivism model as undergraduate and postgraduate students, and demographic data of obtained data were assessed applying of the different items was utilized of The Likert scale of 5- points, including elements.

The "questionnaire was online distributed, and then all respondents were said students in order to obtain an answer or write them up for feedback on the use of social media for education and communication, also the respondents' opinion on its effect on academic performance and evaluate data collected with SPSS, SEM-Amos and Structural Equation Modeling. SEM-Amos are regarded that the main statistical procedures used in our study involving two stages, the first phase structural investigation model, and second phase stage followed the construction of the validity of the measures, the convergence validity of the measures, the discriminant validity of the measure, This method was suggested by [56, 57, and 58].

3.1.Sample Characteristics

For the purposes of the study, we distributed 206 questionnaires, of which 206 were answered. After manual analysis of the questionnaires, all questionnaires were filled out. Usable questionnaires 54 were from "Female" (26.2%) and 152 (73.8%) from "Male". moreover, 11 respondents (5.3%) were between 18 - 20 years old, 37 (18%) were between 21-24 years old, 82 (39.8%) were between 25 - 29 years old, 38 (18, 4%)) were between 30 - 34 years old. 24 (11.7%) were between 35 - 40 years old, 7 (3.4%) were between 41 - 45 years old and 7 (3.4%) were 46 years or older.

The distribution of respondents based on the process of concentrating on and becoming used in social media use was as follows: 92 respondents were from Engineering (44.7%), 46 respondents were from Management (22.3%), 33 respondents were from science& Technology (13.9%), 24 respondents were from social science (11.7%), 8 respondents were from Business Administration (3.9%), and 1 respondent was from English literature (0.5%).

3.2.Measurement Instruments

The validity of the content of the measuring scales was confirmed by the construction elements used in previous studies. The study questionnaire consisted of two parts: the questionnaire items, in which basic demographic data (gender, age, institutions and specialization) were collected, and the questionnaire items, which were measured as following; collaborative learning (CL) was adapted 5 items from [59,60], students' interaction (SIN) was adapted 5 items from [61,62,63], engagement (EN) was adapted 5 items from [64], performance impact (PI) was adapted 5 items from [65,63], students' satisfaction (SS) was adapted 6 items from [66,67], actual social media use (ASMU) was adapted 6 items from [68], and finally, educational quality (EQ) was adapted 6 items from [69].

4. RESULT AND ANALYSIS

In this paper, associated factors influenced student satisfaction, and also performance impact. Considering behavioral intent for effective use of social media use, and also based on academic students' performance impact for teaching and learning with a Cronbach's reliability coefficient of 0.924. Discriminant validity was assessed based on three conditions: The variable indices had to be less than 0.80 as recommended by [69]. Then, the equal to or more than 0.5 considered the value of average variance extracted "inter construct correlations (IC)" linked with factor is lower than of square average variance extracted (AVE) [70]. In addition, the "construct's investigation of loading a factor gave to equal to composite reliability value equal or greater than 0.70," and crematory factor value 0.7or above and also items factor and supposed to be acceptable, having Cronbach's Alpha [69].

4.1.Measurement Model Analysis

This study used SEM-Amos as a main statistical method for analyzing result based on confirmatory factor analysis (CFA) in AMOS 23. This model analyzed over convergent validity, uni-dimensionality, consistency and discriminant validity. In addition, Hair et al. [69] our suggested that model evaluation

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should be considered through the process of estimating higher likelihood using well-adapted strategies such as “chi-square, normalized quoted square, normalized fit index (NFI), relative fit index (RFI) comparative fit and index (CFI), incremental fit index (IFI), parsimonious goodness fitness index (PGFI), and also mention of root mean square error of approximation (RMSEA) and mention of root mean square residual (RMR)” according to [69]. Table 1 provides a summary of the appropriate fit indices used to evaluate the models, for a mediator of measures and dependent variables, and Figure 3 measurement constructivism theory.

Table 1: Summary of Goodness Fit Indices for the Measurement Model

Type of measure	Acceptable level of fit	Values
“Root-Mean Residual (RMR)”	Near to 0 (perfect fit)	.039
“Normed Fit Index (NFI)”	> 0.90.	.907
“Relative Fit Index (RFI)”	> 0.90.	.920
“Incremental Fit Index (IFI)”	> 0.90.	.934
“Tucker Lewis Index (TLI)”	> 0.90.	.921
“Comparative Fit Index (CFI)”	> 0.90.	.923
“Root-Mean Square Error of Approximation (RMSEA)”	< 0.05 indicates a good fit.	.034

4.2 Measurement Model for Reliability and Validity

Differential validity examines the level of evidence, which includes different indicators for different concepts [71]. Based on the obtained average variance extracted (AVE), all values exceeded 0.50 (cutoff) with a p-value of 0.001, indicating that a different validity was agreed for each construct examined [69]. On the other hand, according Hair et al., (2012) described that the correlations of elements between constructions can only be a square root of the mean variance that they share in one of the constructions. In addition, the obtained composite reliability has been provided and the recommended value is obviously 0.70 or more. In addition, the recommended value of 0.70 and greater than Cronbach's alpha values. In addition, the average variance extracted (AVE) values were within the recommended value of (0.50) and above. This suggests that exceeds 0.50 and the total factor load is significant and therefore corresponds to the suggested reference [69.70].

The following sections are presented that data obtained from the measurement model. the results of gender validity (male and female) and reliability for academic performance according to constructivism theory as shows in table 2, behavioral intention, and actual social media use. The CFA was carried out in the next phase of “the SEM to analyze the proposed hypotheses”. All values of Average variance extracted (AVE) and composite reliability (CR), and CA is accepted; therefore, it was found of discriminatory validity. In addition, the values have shown in the range and obtained of composite reliability are from.835 to .981, all of which exceed the limit value of “0.70. Added to this, Cronbach’s Alpha values ranged between as .875 to .984”, all beyond the “cut-off value equal to 0.70.Moreover, average variance extracted (AVE) ranged between.764 to .589 exceeding the proposed value equal to 0.50. This suggests that the total factor load is negligible and exceeds 0.50, thus, meeting the provided references” [70]. See table 2, figure 2 and figure 3.

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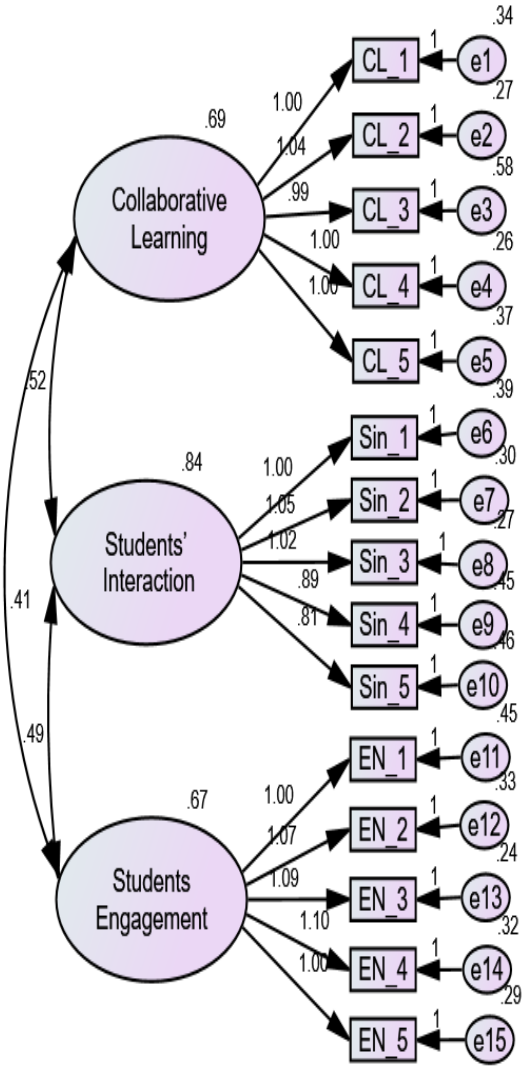

Figure 2: Constructivism Model

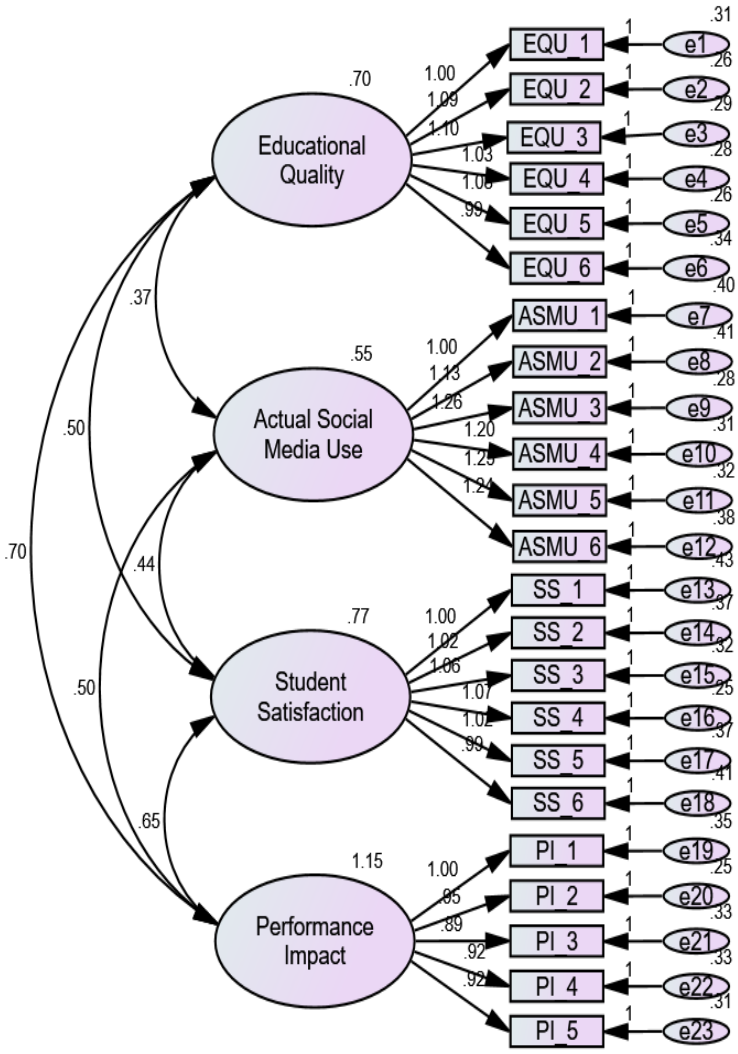

Figure 3: Actual social media use

Table 2: Validity and reliability for the male and female students group

	CL	EN	SIN	EQ	ASMU	SS	PI	AVE	CR	CA
CL	.902							.689	.859	.893
EN	.340	.863						.764	.871	.986
SIN	.502	.421	.849					.754	.975	.875
EQ	.549	.347	.463	.985				.689	.965	.890
ASMU	.430	.378	.546	.466	.893			.598	.835	.901
SS	.653	.486	.573	.548	.581	.906		.679	.870	.984
PI	.369	.460	.472	.436	.458	.487	.931	.589	.981	.879

4.3 Structural Model Analysis

The impact of students' performance use social media tools have studied 'through constructivism', factors of Behavioral Intention, and actual social media use on the purpose of using social media as students an objective of actual use of social media for teaching on higher education as well as participation of different groups ((male) ,and female)) by path analysis of modeling. All results have

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shown based on learning and teaching of students' performance; also, the results were compared in the discussion of the hypothesis test. See figure 4.

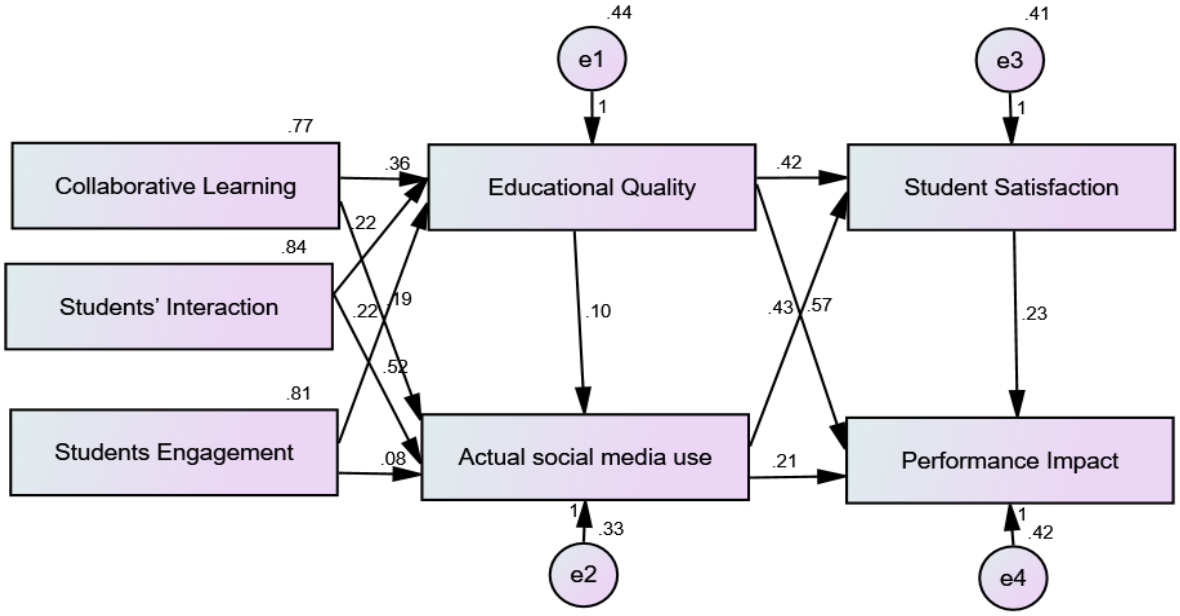

Figure 4 Figure 4: Research Structural Model Analysis

Figure 4 shows all hypotheses of seven key constructs the twelve hypotheses were accepted students have collaborative learning with peers this is lead to educational quality (0.36-H1), both gender groups of male and female students have collaborative learning with peers. That's mean, this is lead to actual social media use from collaborative learning (0.19-H2), both gender groups of male and female students have students' interaction with peers. That's mean, this is lead to educational quality from students' interaction (0.22-H3), and both gender groups of male and female students have students' interaction with peers. That's mean, this is lead to actual social media use from students' interaction (0.52-H4), both gender groups of male and female students have students' engagement with peers. That's mean, this is lead to educational quality from students' engagement (0.22-H5).

Both gender groups of male and female students haven't students' engagement with peers. That mean this isn't lead to actual social media use from students' engagement (0.08-H6), and both gender groups of male and female students haven't educational quality with peers. That means this isn't lead to actual social media use from educational quality (0.10-H7), and both gender groups of male and female students have educational quality with peers. That's mean, this is lead to students' satisfaction from educational quality (0.42-H8), and both gender groups of male and female students have educational quality with peers. That's mean; this is lead to performance impact from educational quality (0.57-H9), and both gender groups of male and female students have actual social media use with peers. That's mean; this is lead to students' satisfaction from actual social media use (0.43-H10), and both gender groups of male and female students have performance impact with peers. That's mean; this is lead to performance impact from actual social media use (0.21-H11), and both gender groups of male and female students have students' satisfaction with peers. That's mean; this is lead to performance impact from students' satisfaction (0.23-H12).

4.4 Constructivism theory hypotheses

The first direct effect of the constructivism theory addressed is assumptions. As below-mentioned in Table 3 and above-mentioned of Figure 4., the relation between correlation educational quality is positive through collaborative learning "$\beta = .364$, $t = 6.918$ $p<0.001$ representing that the first hypothesis" (H1) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that

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educational quality has collaborative learning students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion. The next step of effect direct is that peers have a significant positive correlation with collaborative learning, resulting effect to actual social media use "β = .19, t = 3.718 p<0.001 representing that the second hypothesis" (H2) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that actual social media use has collaborative learning students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion.

The next step of effect direct is that peers have a significant positive correlation with students' interaction, resulting effect to educational quality "β =. 219, t = 4.337 p<0.001 representing that the third hypothesis" (H3) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that educational quality has students' interaction students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion. The next step of effect direct is that peers have a significant positive correlation with students' interaction, resulting effect to actual social media use "β =. 521, t = 11.328 p<0.001 representing that the fourth hypothesis" (H4) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that actual social media use has students' interaction students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion.

The next step of effect direct is that peers have a significant positive correlation with engagement, resulting effect to educational quality "β =. 224, t = 4.364 p<0.001 representing that the fifth hypothesis" (H5) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that educational quality has engagement students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion. The next step of effect direct is that peers have a significant positive correlation with engagement, resulting effect to actual social media use "β =. 048, t = 2.994 p<0.001 representing that the sixth hypothesis" (H6) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that actual social media use has engagement students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion.

Table 3: Hypothesis testing results of structural model constructivism Model

H	Independent	Relationship	dependent	Estimate	S.E.	C.R.	P	Result
H1	CL	→	EQ	0.364	0.053	6.918	***	Supported
H2	CL	→	ASMU	0.193	0.051	3.718	***	Supported
H3	Sin	→	EQ	0.219	0.05	4.337	***	Supported
H4	Sin	→	ASMU	0.521	0.046	11.328	***	Supported
H5	EN	→	EQ	0.224	0.051	4.364	***	Supported
H6	EN	→	ASMU	0.048	0.047	2.994	**	Supported

4.5 Actual Social Media Use Hypotheses

The next step of effect direct is that peers have a significant positive correlation with educational quality, resulting effect to actual social media use "β =. 047, t = 3.004 p<0.001 representing that the seventh hypothesis" (H7) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that actual social media use has educational quality students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion. The next step of effect direct is that peers have a significant positive correlation with educational quality, resulting effect to actual social media use to students' satisfaction "β =. 421, t = 6.955 p<0.001 representing that the eighth hypothesis" (H8) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that students' satisfaction has educational quality students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion. The next step of effect direct is that peers have a significant positive correlation

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with educational quality, resulting effect to actual social media use to performance impact "β = .571, t = 8.362 p<0.001 representing that the ninth hypothesis" (H9) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that performance impact has educational quality students to exchanging information with peers or use social media are used appropriately through the exchange of information, discussion.

The next step of effect direct is that peers have a significant positive correlation with actual social media use, resulting effect to students satisfaction "β =. 0.428, t = 7.147 p<0.001 representing that the tenth hypothesis" (H10) that's mean an important and positive relation, in other words, in the current hypothesis, it is shown that all students have actual social media use to students satisfaction, social media are used appropriately through the exchange of information, discussion or exchanging information with peers. The next step of effect direct is that peers have a significant positive correlation with actual social media use, resulting effect to performance impact "β =. 0. 207, t = 3.044 p<0.001 representing that the eleventh hypothesis" (H11) that mean an important and positive relation, in other words, in this hypothesis, it is shown that all students have actual social media use to performance impact, social media are used appropriately through the exchange of information, discussion or exchanging information with peers. The next step of effect direct is that peers has a significant positive correlation with students satisfaction, resulting effect to performance impact "β = .229, t = 3.233 p<0.001 representing that the twelfth hypothesis" (H12) that's mean an important and positive relation, in other words, in this hypothesis, it is shown that all students has students satisfaction to performance impact, social media are used appropriately through the exchange of information, discussion or exchanging information with peers. See table 4.

Table 4: Hypothesis testing results of structural model Actual social media use

H	Independent	Relationship	dependent	Estimate	S.E.	C.R.	P	Result
H7	EQ	→	ASMU	0.047	0.061	3.004	***	Supported
H8	EQ	→	SS	0.421	0.061	6.955	***	Supported
H9	EQ	→	PI	0.571	0.068	8.362	***	Supported
H10	ASMU	→	SS	0.428	0.06	7.147	***	Supported
H11	ASMU	→	PI	0.207	0.068	3.044	**	Supported
H12	SS	→	PI	0.229	0.071	3.233	**	Supported

5 DISCUSSION AND IMPLICATIONS

The results of our research appear completely encouraging to giving students support or use for the successful use of social media for academic learning. This research provides insights into students' academic performance/achievements and the way in which two or more students are connected to state of being connected for learning to their collaborative learning, students' interaction, and student engagement, and educational quality, actual use of social media, student satisfaction, and performance impact.

There was almost complete acceptance about their positive cooperation, communication, to student and contribution among students for educational purposes. Most students seemed that accepted the use of social media as a useful educational tool. While the research efforts are shown as "or we can say the expectation", it has also been observed that students face some difficulties in achieving academic performance in enhancing education. The use of social media facilitates a context characterized by the educational quality, actual use of social media that helps students practice in clusters to complete tasks rather than successfully complete studies. Based have as the foundation on the findings and findings of this research, social media use may promote that positive or enabling atmosphere of value for collaborative learning, students' interaction, and students' engagement to educational quality for use social media, and also actual social media use.

It improves teaching and learning atmosphere by encouraging students to collaborative or conducted by two or more parties working together for learning and interaction for the actual use of social media and

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by enabling group discussions as well as completing work or research projects that enhance the impact of students' performance as this research has proven regardless of previous researches [1; 69]. This also applies to the lecturer/supervisor relationship with students where social media allows clarified to make social media less confused and more clearly comprehensible for instructions and information exchange and. "there are several positive issues for supporting and upgrading educational processes from during tools of social media use in education in parallel with successful educational outcomes.

They examine the areas the use of social media tools may affect (e.g., educational purpose, online communications, academic performance, and interaction for learning) and support that use of social media tools can create to bring students into existence a more efficient educational environment and increase educational performance [72]. Students that use social media use daily for their studies have to expect to use the use of social media as likely to happen and certain positive of their results in the examinations, or, the most majority of top student's use of tools in education for study purposes[73].

6 Conclusion and future work

The results of this study support students who are effective in collaborative learning, student interaction, and student engagement and eventually impact to have an effect on the development or behavior of their academic performance. The results also presented that collaborative learning, students' interaction, student engagement to increase the quality of students' teaching to use social media in education, and eventually have an effect on their academic performance. Moreover, the results showed that the quality of students' educational to actual social media influences positively their education and ultimately their academic performance.

The communication technology has emerged highly useful personal as a Social media use for collaborative learning. They commend to the integration of social media use into the higher education as like that supports individual-level use. The results also confirmed to use of constructivism theory in examining students' actual use of social media to increase to make greater in using academic achievement in instruction for education. Overall, collaborative learning through social media enhances student learning activities, student engagement, facts, information, and skills acquired by students through experience or education, information exchange, and facilitates peer discussion.

This research has provided to understanding that novel outcomes new results; however, there are still some drawbacks. One limitation is that the research sample size in this research was limited to a single Malaysian university. Therefore, cross-cultural research in broader geographical sample distribution regarding the utilization of social media platforms for education and communication learning might provide findings in more depth for future research. Further studies are recommended which Universities educators should take this into consideration when planning their curricula; it comes to the inclusion of technology in the teaching process.

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