Impact Of Social Media
Usage On Academic
Performance; Mediating
Role Of Attitude Towards
Learning - An Empirical
Study Of Private
University Students In
Ghana

# Jerry Jay Kraa

Christian Service University College (CSUC) School of Business P. O. BOX KS 3110, Kumasi, Ghana.

# **Stephen Banahene**

Christian Service University College (CSUC) School of Business P. O. BOX KS 3110, Kumasi, Ghana

# Joyce Ama Quartey

Christian Service University College (CSUC) School of Business P. O. BOX KS 3110, Kumasi, Ghana



# **ABSTRACT**

The study assessed the impact of social media on academic performance, the mediating role of attitude towards learning. The study was conducted on a total of 600 students selected from 6 private universities in Ghana out of which 421 responses were useable representing 70.16% response rate. Purposive and convenience sampling techniques were adopted in selecting respondents and 7-point Likert questionnaire was used to collect data. Explanatory research design was used. Stata version 13 and IBM statistical Package for Social Sciences version 20 were the software used in data analysis. The study used Structural Equation Model for data analysis and explored direct, indirect and total effect relationships as presented in the hypothesis. The findings indicated that social media positively and significantly impact on attitude towards learning and academic performance. The study also found attitude towards learning to positively and significantly impact on academic performance. The study found attitude towards learning to partially mediate the relationship between social media usage and academic performance of students in university students in Ghana. The study recommends that, students' associations should put programmes in their semester activities on developing positive attitude towards academic work.

Keywords: Social Media, Attitude Towards learning, Academic Performance, Ghana.

# 1. INTRODUCTION

Society the world over has witness tremendous change as a result of technological advancement especially in the area of the internet. Social media usage has also witness significant improvement facilitating learning in the academic cycle. According to Bosch (2009) many in the world at large have subscribe to the use of social networking platform including blogs, Myspace, Facebook and wikis for various degree of purpose. The educational system has also seen the need to integrate social networks to enhance academic performance (Tilfarlioglu, 2011). Mason (2006) is of the opinion that, social networking platforms are capable of promoting education and as well makes room for critical thinking by users. The use of social media has catch the attention of many students but some misuse these social media platform for non-academic purposes such as unhelpful charting (Kuppuswamy & Narayan, 2011). Notwithstanding the non-academic use of social media, most students are connected to each other through a web-based facility such as social media and discuss academic issues (Liccardi et al., 2007; Trusow et al., 2009). The significant role social media plays as far as learning is concerned cannot be relegated. Cain (2008) believed that, social media networks provide students with information materials with videos, pictures and audio to make learning very easy. Many authors believed that, social networking websites best serve educational mission and goals by linking students through collaborative sense making (Greenhow & Robelia, 2009; Madge, Meek, Wellens, & Hooley, 2009; Selwyn, 2009). However,



social media networks also divert student's attention to non-academic as well as inappropriate behaviours in a form of useless charting and time wasting (Kuppuswamy & Shankar, 2010).

Repeatedly, social networking websites are distinctively itemized for educational environment along with linkedin.com which is fully featured for education purpose and allows the user to rejuvenate his or her educational accreditation and make professional links. This is not far from the works of Ellison, Steinfield, and Lampe (2007) that believed social networking websites may capacitate collaborative sense making as most students used them in their study. A strong bond is established between social networking websites and students attitude towards learning (Nicole & Charles, 2007). Such connections could help students in condition of home assignments and projects in terms of job, internship and other opportunities. There is therefore a need for students to cogently and expertly utilize social media which may ameliorate academic performance. Student's academic performance monopolize a very vital place in education. Academic performance is therefore considered as a key canon to judge one's total aptitude and amplitude (Nuthana & Yenagi, 2009). A number of researchers have examined the role of perceptual variables behind performance such as study skills (Fazal, Hussain, Majoka, & Masood, 2012), study motivation (Nonis & Hudson, 2006), study behavior (Yang, Morris, Teevan, Adamic, & Ackerman, 2011), study habits (Bashir et al., 2012), and attitudes (Sarwar, Bashir, & Alam, 2010; Yu, Chancellor, & Cole, 2011) on academic performance. It is therefore necessary to develop the right attitude towards learning so as to get achieve expected academic performance. Credé and Kuncel, (2008) axamined how positive attitude has been accepted in education to help achieve the desied goal. It is worth stating that, most students fail because they lack the skills in using social media in their studies (Rana & Kausar, 2011). Again, most students spend time interating with their friends instead of using social media for academic purposes (Das and Sahoo, 2011). One may therefore not be wrong to say that social networking sites have the liability of negatively affecting the academic life and learning experiences of the student.

The Ghanaian educational sector has witnessed a great change as most people seek further education. There are many private universities that provides academic support to codicil the very few public owned institutions. There has been social media usage among Ghanaian students for both academic and non-academic work. Questions need to be asked whether positive attitude towards learning has been advanced hence the need for this study which examined the impact of social media usage on academic performance; the mediating role of attitude towards learning.

#### 2. LITERATURE REVIEW

#### 2.1 SOCIAL MEDIA

The issue of social media with respect to its impact on student's academic performance has being a matter of concern to many stakeholders. In recent times, the use of internet has spread widely among many teenagers of



late (Young, 2006). This view is supported by Shana (2012) who stated that, many younger generation have cultivated the habit of using social network to build and develop new relationships. The use of social media mostly among tertiary students is increasing significantly (Martínez-Alemán & Wartman, 2008). Social media is seen as any form of expression that comes from word of mouth which are done through electronic means (Evans, 2010). Kaplan and Haenlein (2010) refers to social media as any form of internet-based application that creates and exchange contents that are used beget. Junco, Heiberger, and Loken (2011) define social media as anthology of an internet website, a service and practice which support participation, community building, collaboration as well as sharing. Mensah and Nizam (2016) in their submissions view social media some kind of web-based services that offers users the chance to create profile within a system that is bounded so as to share a common view. It is therefore important to note that, the use of social media allows users to create, work together and hence edit user contents. In the views of Lusk (2010), the use of social media platform such as Facebook, Blogs, Twitter, My Space and LinkedIn are all geared towards communicating with others.

Social media usage and its performance on academic performance is worth considering. Social Information Processing Theory (SIPT) as well as Media Equation Theory (MET) seeks to elucidate social media usage. SIPT refers to interpersonal communication theory developed by Joseph Waither in 1992 geared towards interpersonal face-to-face communication (Asemah, 2011). MET as noted by Griffin (2006) and cited in (E. Asemah & Edegoh, 2012) was adduced by Byron Reeves and Clifford Nass equates social media to real life where human attributes are given to social media usage. The implication is that, many users of the media tend to give human characteristics to inanimate objects making social media part and parcel of human existence. Ndaku (2013) sees social media as adversely affecting students study time, their spelling and the used of grammar. Most of these students spend much of their precious time on unnecessary social media exploitation instead of using it for academic purpose resulting in poor Grade Point Average (GPA). Nalwa and Anand (2003) is of the opinion that, those who are addicted users of social media use it for personal and professional responsibilities resulting in poor academic performance. The findings of Karpinski and Duberstein (2009) revealed that social media has an inverse relationship on academic performance due to its poor use. Other studies also show in appropriate use of social media by students inversely impact on academic performance (San-Miguel, 2009; Choney; 2010; Enriquez, 2010). For example, Facebook users were found to have a lower mean GPA than non-users; and as well spend lesser hours studying than non-facebook users (Kirschner and Karpinski, 2010). Students' academic performance is therefore affected by excessive use of facebook (Oye 2012), Kubey, Lavin, and Barrows (2001) however, found relationship positive and significant relationship between academic performance and use of social media platforms. The study therefore hypothesized that;

H<sub>1</sub>: Social media positively and significantly impact on academic performance of students in private universities in Ghana.

The attitude students exhibit towards learning has also been seen as significant determinant in improved academic performance (Popham, 2005). The findings of Karpinski and Duberstein (2009) as well as Oye (2012)



showed that most social media platform users do not exhibit any good attitude towards learning but rather use it for socializing purposes. Young (2006) found that, students relied more on internet to acquire information that suit their academic life not forgetting the entertainment aspect of it. Jeong (2005) found that, internet addiction to social media usage inversely related to students' attitude towards learning. Social media one way or the other affect students study habit with respect to quantum of time spent in examination preparation (Annetta, Minogue, Holmes, & Cheng, 2009). Other studies explained that, social media gives too much stimulation and therefore can distract students from finishing their coursework (Hurt et al., 2012; Patera, Draper, & Naef, 2008). Another idea for this may be that students who spend more time on social media may have difficulty balancing their online activities and their academic gestation hence, a reversed effect on learning attitude. This study therefore hypothesized that:

H2: Social media positively and significantly predict student's attitude towards learning among students in private universities in Ghana

#### 2.2 ATTITUDE TOWARDS LEARNING

Gardner (1980) sees attitude as overall feelings of a person towards a particular thing. Ajzan (1988) states that attitude of a person could be positive or of negative attributes to anything. Baker (1992) defined attitudes as a person persistent way of behaving in particular way. One will not be far to view attitude as beliefs, feelings, symbols or events. An attitude can therefore be seen as a relative attitude that a firm endures through its beliefs, feeling as well as behavioural tendencies towards events, groups or symbols (Vaughan & Hogg, 2005). The inner feeling of an individual whether unfavourable or favourable moved towards an object is also been seen as attitude (Ajzen, 2005; Fishbein & Ajzen, 2011). Any internal disposition that examines either positive or negative terms of an object coupled with cognitive as well as behavioural responses (Aiken, 2002). Attitude students show towards learning thus model of attitude is seen as beliefs, opinions as well as thoughts are believed to be favourable or unfavourable learning experiences that students build upon (Fazal et al., 2012).

Several studies have examined the role of students' study habits and their attitudes and how it impacts on academic performance. Osa-Edoh and Alutu (2012) found a high correlation between study habits or attitude and students' academic performance. One will not be wrong to say that when students assimilate or develop positive learning attitude, it will help improved their academic performance that their academic performance can be improved upon. In a more recent meta-analysis, Credé and Kuncel (2008) also found non-cognitive determinants such as study habit, learning skill and drive to study, to a large extent impact on academic performance. There is a significant relationship that exist between study habit and academic performance indicating that more positive attitude towards learning yield improved academic performance while poor learning attitude drops academic performance (Nuthana &Yenagi, 2009; Sarwar et al. 2010). These studies mean that, students who excelled in their academic work were found to be more realistic and discerning in their learning compared to those that develop lackadaisical poor learning attitude.



A study done by Hassanbeigi et al. (2011) found the relationship between various study skills and academic performance of university students and that the study skills scores of students with Grade Point Average (GPA) of 15 and above (out of 20) were statistically higher than those students with GPA of less than 15 in all of the seven skills. Issues associated with this this variance stems from efficient time management, efficient learning and concentrating during classes among others. This is evident in the works of Demir-Kaymark and Horzum, (2013) that found that, higher academic performance is achieved through study environment, efficient reading, listening to lectures doing homework among others. Kubiatko (2013) insists that if attitudes towards a subject and school are positive, also the achievement of students gets better through individual progress, improvement in terms of acquired knowledge, skills as well as competences. The works of Holúbková and Glasová (2011) also relate higher academic achievement with a positive attitude of a student towards school by identifying the purpose of scholling. The study therefore hypothesizes that;

H3: Attitude towards learning positively and significantly predict academic performance among students in private universities in Ghana

#### 2.3 ACADEMIC PERFORMANCE

Academic performance of students has been the theme of intensive studies in the current decade (Awang & Sinnadurai, 2011). It has been identified that, low academic performance of students in examinations has important consequences to educators, schools as well as educational system (Nouhi, SHAKOURI, & Nakhei, 2008). There is therefore a need to look into the issues that contribute to the academic performance of students. Academic performance has been described as the ability of the student to remember and has the ability to communicate the knowledge acquired whether written or oral when asked during examination (Hassanbeigi et al., 2011). Academic performance in many studies has been broadly measured in terms of grades and test scores (Kingdon, 2006; Rockoff, 2003). Studies have assessed several determinants in relation to academic performance of students. Most of these factors are non-cognitive variables such as study skills, motivation, behavior, habits and attitude on academic achievement (Credé & Kuncel, 2008; Demir Kaymak & Horzum, 2013; Nonis & Hudson, 2006; Sarwar et al., 2010; Tella, Tella, Toyobo, Adika, & Adewuyi, 2007; Yang et al., 2011). Some of the studies found some of these determinants to have a strong relationship with academic performance of students, while others concluded that, combination of the several determinant that could explain students' academic performance (Bashir et al., 2012; Nuthana & Yenagi, 2009).

It is important to note that, social media and its usage by student therefore calls for further research to ascertain its relationship with academic performance.

Studies done in the past have varied degrees of findings with respect to social media usage and its performance on academic performance. Whilst others found inverse, others also found direct as well as no relationship. Kirschner and Karpinski (2010) for instance found no relationship between social media usage and academic performance. Saunders (2011) also found that there was no significant differences in overall grade point average



(GPA) between those who use social media and those who do not. Choney (2010) and Enriquez (2010) found use of the social media sites to negatively affect academic performance of students. Some level of studies found that, students are of the opinion that, the use of social media has a direct relationship on their academic performance (Greenhow & Robelia, 2009; Liccardi et al., 2007; Madge et al., 2009; Mason, 2006; Selwyn, 2009). In view of this, to deal with this spurious relationship between social media and students performances, the researchers considered a mediating factor which is the students' attitude towards learning. The study therefore hypothesized that;

H<sub>4</sub>: Attitude towards learning mediates the relationship between social media usage and academic performance among students in private universities in Ghana

### 3. METHODOLOGY AND MEASUREMENT OF CONSTRUCT

#### 3.1 METHODOLOGY

The study adopted explanatory research design approach. The study population consisted of students in the private universities in the Ashanti Region of Ghana. Samples of 600 students were selected from six private universities with 100 from each institution. Stutely (2003) stated that, as small as of 30 samples is enough for successful statistical study if the characteristics of the respondents are homogenous in nature hence a sample of 600 is more than enough to be a representative of students from 6 private universities. Convenient and purposive sampling techniques were adopted in selecting respondent. The study used questionnaires in collecting primary data from the respondents. The questionnaires were closed ended on a 7-point Likert scale ranging from very strongly disagree (1) to very strongly agree (7) to the statements on the questionnaires. The researchers employed 6 additional field personnel who were trained to assist in data collection after the pilot testing was done. The study made use of IBM (20) Statistical Package for Social Science (SPSS) and Stata (version 13) in conducting the analysis. Confirmatory Factor Analysis (CFA) was done after which problematic indicators that loaded poorly were taken out. Structural Equation Model (SEM) was the main tool used to estimate the relationships. The study did control for programme of study, age of respondents and the institution attended in order to conserve statistical power.

#### 3.2 MEASUREMENT OF RESEARCH CONSTRUCTS

In measuring variable used in the study, social media usage variables were adapted from the works of (E. S. Asemah & Edegoh, 2013); Mensah & Nizam, 2016; Lusk, 2010; Junco al et., 2010 and amended to suit the Ghanaian situation. 16 questions were developed from these authors but after the CFA purification, 4 variables were selected based on the fit indices. Attitude towards work was also adapted from the works *of Tapia*, & Marsh II, 2004; Tapia et al. 2004; and Hassanbeigi et al. 2011. 12 questions were developed from these authors but after the CFA purification, 5 variables were selected based on the fit indices. Variables measuring academic



performance were adapted from Shapiro and Kratochwill (1988) and Hassanbeigi et.al, 2011. 10 questions were developed from these authors but after the CFA purification, 4 variables were selected based on the fit indices.

#### 3.3 VALIDITY AND RELIABILITY ASSESSMENT

To evaluate the reliability and validity of each construct, CFA was run for each sample and refined using Stata 13 to show a good fit. The final CFA results show a good fit to the data. For the variables of social media, a satisfactory model fit was obtained: γ2 (degree of freedom (d.f) = 6.08 (2); p=.0478; root mean square error of approximation (RMSEA) = .070; Standardized mean square residual (SRMR) = 0.015; Tucker Lewis Index (TLI) = .981; and Comparative Fit Index (CFI) = .994. Acceptable results were obtained for attitude towards learning: γ2 (d.f)=5.41 (5); p=.3674; RMSEA=.014; SRMR=.017; TLI=.998; and CFI=.999. For academic performance, acceptable results were achieved: χ2 (d.f) =2.33(2); p=.3116; RMSEA=.020; SRMR=.009; TLI=.998; and CFI=.999. After purification, numerous items were removed from the models because they loaded poorly on the factor. The criterion used was 0.4 as advised by (Bagozzi and Yi (2012)). Factor loadings for each construct are significant at 1% for the three variables that supports convergent validity of the measures (Bagozzi & Yi, 1988). Reliability was assessed using three indicators of convergent and discriminant validity: composite reliability, average variance extracted (AVE), and highest shared variance (HSV). The Average Variances Extracted (AVE) were greater compared shared variances between constructs, meaning satisfactory discriminant validity (Fornell & Larcker, 1981). In both samples, construct reliability assessment for each construct generates indices that are greater than the recommended .70 cutoff (Bagozzi &Yi, 1988). By using Fornell and Larcker's (1981) procedure, discriminant validity of each construct was assessed by examining whether the AVE for each construct was higher than the shared variances (i.e., squared correlations) of construct used. Discriminant validity is demonstrated for each construct for both samples, as the AVE for each construct is greater than the HSV between the constructs. Cronbach alpha was also used to assess internal consistency among the variables. Alpha value of above 0.7 was achieved for each construct used. Table 1 and 2 shows CFA results and fit indices respectively.

Table 1: CFA results

Variables	Factor loading	T Values
Social Media: CR=.866; AVE=0.7321; HC=.466Alpha=0.8247; VIF=1.76		
Today, the use of social media in academic studies is a necessity	.7345918	25.81
Social media platforms enhanced recycled academic information	.791491	31.54
Social media is an easy and improved way of knowledge acquisition	.8702242	39.62
Social media usage improves quality of student's skills	.5678425	15.12
Attitude Towards Learning: CR=0.76; AVE=0.6340; HC=.462Alpha=0.76; VIF=2.04		
I attempt every question asked by lecturer during class	.5164858	11.74
I consider learning to be enjoyable through positive attitude	.6888101	19.21
I encourage myself and continue with difficult problems even if I can't do it	.7247261	21.06
I have no trouble learning concepts even if quite cumbersome	.6533517	17.49
I enjoyed working with others to solve problems	.5334761	12.36
Academic Performance: CR = .853 AVE=.7301 Alpha=.0.8293; HC= .466; VIF=2.95		
Consistency with academic work	.6689068	20.66
Abiding by instructions from lecturers	.8397571	35.46



Grade points merits efforts	.8056543	32.01
I find it easy recalling materials from previous lecture	.6521101	19.45

Source: Researchers Field work, 2017; Cronbach alpha: alpha, Construct validity (CR), Variance Inflation Factor (VIF), Highest Correlation (HC). Average Variances Extracted (AVE);

Table 2: Measurement Invariance Tests (Fit Indices)

Variables	χ2	d/f	p-value	RMSEA	CFI	SRMR	TLI
SM	6.08	2	0.0478	0.070	994	0.015	0.981
ATL	5.41	5	0.3674	0.014	0.999		0.998
AP	2.33	2	0.3116	0.020	0.999	0.009	0.998

Notes:  $\chi$ 2=Chi-square d.f.=Degree of freedom;  $\chi$ 2/d.f = normed Chi-square; RMSEA=Root mean standard error of approximation; CFI=Comparative fit index; SRMR=Standardized mean square residual; TLI=Tucker Lewis Index

#### 3.4 CORRELATION MATRIX

To check whether the strength of correlation among the variables will affect further statistical analysis; a multicollinearity test was run using the Pearson correlation statistics. For robustness, it is recommended that the correlation statistics should not exceed 0.7 (Hair. et al., 2014; Pallant, 2007). The correlation result shows positive and significant relationship among the variables. Correlation is significant at 0.01. It can therefore be concluded that multicollinearity is not a serious threat in this study. The correction matrix is shown in table 3 below

Table 3: Correlation Matrix

Variables	Mean	S.D	SM	ATL	AP
SM	4.8981	1.32273	1		
ATL	5.0553	1.12111	.466**	1	
AP	4.7561	1.26300	.336**	.462**	1

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).SM: Social Media; ATL: Attitude towards Learning; AP: Academic Performance

# 4. ANALYSIS AND DISCUSSION

#### 4.1 DEMOGRAPHIC INFORMATION

The work involved a sample of 412 respondents. A descriptive summary of the respondents shows that most of them are female (236) representing 57.3% and 176 representing 42.7% are males. Even though the males are more than the females in tertiary institution, more females participated in the study. Females are also glued to social media usage to their male counterpart. Looking at the age distribution of the respondents, it is observed that the majority of the respondents, 220 (representing 53.4%) fall within 20-30-year age bracket. This is followed by respondents whose ages are between 31-40 years (91) representing 22.1%. A total 69 respondents representing 16.7% fell under 20 years and only one matured student is above 50 years. The general observation is that, most young and vibrant youths are devoting much time and effort to improve their education and hence working and school at the same time. On a whole, students studying business related courses such as accounting,



marketing, human resource management, and procurement studies dominated student's enrolment in private universities in Ghana. 231 respondents are studying business related courses representing 56.1% whiles 181 respondents representing 43.9 are pursuing other tertiary courses. Table 4 below shows demographic characteristics of respondents.

Variables Frequency Percentage (%) Gender 176 42.7 Male 236 57.3 Female Age distribution under 20 years 69 16.7 20-30 years 220 53.4 31-40 years 91 22.1 41-50years 31 7.5 0.2 51 years and above **Programme of Study** Business Administration 231 56.1 Others course 181 43.9

Table 4: Demographic information

#### 4.2 RELATIONSHIP BETWEEN AM, ATL AND AP

The study hypothesized that, there is significant and positive relationship between social media, attitude towards learning and academic performance. The study found out that social media impacted positively on academic performance of student in Ghana. The coefficient of .1464749 with standard error of .0466048. This implies that, when there is an intensified use of social media for academic purpose, the result will be an improved performance. Social media is statistically significant making a unique prediction to explaining academic performance when the variance in the model is controlled for. The T statistics (Z) records 3.14 with P values thus significant at 0.002. Thus, H<sub>1</sub> is therefore supported. The finding does not support the work of Karpinski (2009) who found that social media has a negative association with students' academic performance which is much greater than the advantages derived through the use of social media platforms. Also, the study rejects the works of Choney (2010), San-Miguel (2009) and Enriquez (2010) studies on students' use of the social media sites which revealed a negative effect of the use of social media sites on students' academic performance. Kirschner and Karpinski (2010), on the other hand, found that Facebook users reported a lower mean GPA than non-users; additionally, Facebook users reported studying fewer hours per week than non-users. This study however found that, when social media is used appropriately, the results will improve academic performance. Social platforms are mainly used by students for socializing activities rather than academic purpose (Oye, 2012) hence if not utilized well the results will be low academic performance.

The results of the study also showed a positive relationship between student's attitude towards learning and academic performance in Ghana. The coefficient of .3952536 with standard error of .0369383 was recorded.



This implies that, the use of social media for academic purpose drives student's attitude towards learning. Social media is statistically significant making a unique contribution to explaining attitude towards learning when the variance in the model is controlled for. The T statistics (Z) records 10.70 with P values thus significant at 0.000. Thus, H<sub>2</sub> is also supported. The findings do not support the work of Jeong (2005) who observed that, internet addiction for that matter social media usage is significantly and negatively related to students' attitude towards learning as well as emotional responses to academic activities. Also, the findings of Annetta et al. (2009) and Junco (2012b) reported that, social media can also negatively affect student study habit in terms of the amount of time students spend preparing for class and preparing for exams. Main reasons for this negative impact is that social media provides so much stimulation and hence can distract students from completing their coursework (Hurt et al., 2012; Patera et al., 2008). The findings from Ghana however state that, social media helps students to developed positive attitude and habit towards learning even as they use social media for other reasons apart from learning.

The study found that, there is positive relationship between attitude towards learning and academic performance (coefficient .4399719; Z=8, P=0.000). Attitude towards learning is statistically significant making no unique contribution to predicting academic performance when the variance in the model is controlled for. Thus, H<sub>3</sub> is also supported. Sarwar et. al (2010), found a significant relationship between student attitudes and academic performance exists. The implication for Ghanaian students is that, if positive attitude is developed towards learning, the resultant effect is improved academic performance. Table 5 shows the relationship between SM, ATL and AP.

Table 5: Relationship between Social Media (SM), Attitude towards Learning (ATL) and Academic Performance (AP)

Independent variable	Coef.	OIM Std. Err	Z	P> z	95% Conf.	Dependent variable
SM	.1464749	.0466048	3.14	0.002	.0551313	AP
SM	.3952536	.0369383	10.70	0.000	.3228558	ATL
ATL	.4399719	.0549864	8.00	0.000	.3322006	AP

SM: Social Media; ATL: Attitude Towards Learning; AP: Academic Performance

# 4.3 MEDIATING ROLE OF ATTITUDE TOWARDS LEARNING (ATL) BETWEEN SOCIAL MEDIA (SM) AND ACADEMIC PERFORMANCE (AP)

Mediation seeks to identify and explicate the mechanism that underlies an observed relationship between an independent variable (SM) and a dependent variable (AP) via the inclusion of a third explanatory variable, known as the mediator (attitude towards learning). Rather than hypothesizing a direct causal relationship between the social media and academic performance, a mediation model hypothesizes that the social media causes the mediator variable, (attitude toward learning which in turn causes the dependent variable (academic performance). Having certified the measurement instrument's suitability for statistical analysis, the structural equation modeling was used to explore the relationship between the variables. Specifically, to ascertained



whether attitude towards learning performed any mediating role in the relationship between social media and academic performance. MacKinnon et al (2000) believed that, there are many ways that can be used to test hypotheses with respect to establishing mediation. One of the commonly method that is adopted has to do with causal steps strategy, propounded by (Baron and Kenny (1986)). Thus, the investigator estimates the paths of the model, using Ordinary Least Square (OLS) regression or SEM, that ascertain the degree to which many criteria are met. Baron and Kenny (1986) propose some important but not sufficient conditions which must be met in order to claim mediation is happening. For mediation conditions: X (Independent variable) is significantly related to M (Mediator); M is significantly related to Y (Dependent variable). The relationship of X to Y diminishes when M is in the model. That means that, each of the constructs should show proof of a nonzero monotonic association with each other, and the relationship of X to Y must decrease substantially upon adding M as a predictor of Y (Kenny, Kashy, & Bolger, 1998).

The study expects attitude towards learning to mediate between social media and academic performance. Examining the standard estimates of the mediation model, it is observed that the direct paths from social media to academic performance is positive and statistically significant ( $\beta$ =0.1464749; Z=3.14; P=0.002). The indirect path of social media through attitude towards learning to academic performance is also positive however statistically significant ( $\beta$ =0.1739005; Z=6.41; P=0.000). The total effect for social media usage is also positive and statistically significant ( $\beta$ =0.3203754; Z=7.23; P=0.000). Base on the assumption by Baron and Kenny (1986) attitude towards learning partially mediate the relationship between social media and academic performance. The implication is that, the presence of social media on its own will impact positively and significantly on academic performance. There is also another way that academic performance can be enhanced and thus through student's attitude towards learning. H<sub>4</sub> is supported; thus, partial mediation. Table 6 shows direct, indirect and total effect of the hypothesized construct.

Table 6: Direct, Indirect and Total Effects

Path	Direct Effect (D)	Indirect Effect (I)	Total Effect (D+I)	Form of Mediation
$SM \longrightarrow ATL \longrightarrow AP$	.1464749(.05) **	.1739005(.02) **	.3203754(.04) **	Partial

SM=Social Media ATL=Attitude towards learning AP=Academic Performance

#### 4.4 SUMMARY OF HYPOTHESIZED CONSTRUCT

Social media positively and significantly predict both academic performance and attitude towards learning and attitude towards learning also positively predicts academic performance. Attitude towards learning partially mediates the relationship between social media and academic performance. This implies that, social media in its own can impact on academic performance however, if positive attitude towards learning are intensified, academic performance can also be realized. Table 7 presents summary of the hypothesized construct



Table 7: Summary of hypothesized construct

	Hypothesis	Status
H1	Social media positively and significantly predict academic performance	supported
H2	Social media positively and significantly predict attitude towards learning	supported
НЗ	Attitude towards learning positively and significantly predict academic performance	supported
H4	Attitude towards learning mediate the relationship between social media and academic performance	Partial Mediation

# 5. POLICY IMPLICATION AND CONCLUSION

Policy wise, there is a need for tertiary universities to imbibe seminars for students on attitude towards learning. Resource persons should motivate students to develop positive attitude towards their academic work since it enhances academic performance. Students' associations should put programmes in their semester activities on developing positive attitude towards academic work and invite resource persons with requisite skills and experiences to speak on such themes. Religious associations are not left out when it comes to the issue of students developing attitude towards learning. As part of their religious semester programmes, more attention should be geared towards enlightening student on the need to develop positive attitude not only to their religious responsibilities but also to academic work. Social media usage for academic work should also be encourage among tertiary education students. The emergence of the internet for that matter development of social media plays a significant role in enhancing acquisition of knowledge. Social media if utilized well will enhance academic performance. Attitude that Ghanaian students developed towards their studies through the use of the social media such as facebook, wassap, twitter among others will in the long run impact positively and significantly on their academic performance

#### 6. REFERENCES

Ajzen, I. (2005). Attitudes, personality, and behavior: McGraw-Hill Education (UK).

Annetta, L. A., Minogue, J., Holmes, S. Y., & Cheng, M.-T. (2009). Investigating the impact of video games on high school students' engagement and learning about genetics. *Computers & Education*, *53*(1), 74-85.

Asemah, E., & Edegoh, L. (2012). *Social media and insecurity in Nigeria: a critical appraisal*. Paper presented at the Being a paper presented at the 15th National Conference of African Council for Communication Education, which took place at the conference Hall of Federal University of Technology, Minna, Nigeria.

Asemah, E. S. (2011). Selected mass media themes. Jos: Jos university.

Asemah, E. S., & Edegoh, L. (2013). Influence of social media on the academic performance of the undergraduate students of Kogi State University, Anyigba, Nigeria. *Journal of Research and Contemporary Issues*, 7.

Awang, M., & Sinnadurai, S. K. (2011). A Study on the Development of Strategic Tools in Study Orientation Skills towards Achieving Academic Excellence. *Journal of Language Teaching & Research*, 2(1).

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94.

Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the academy of marketing science*, 40(1), 8-34.



Baker, C. (1992). Attitudes and language (Vol. 83): Multilingual Matters.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.

Bashir, A., Lei, C., Cloet, I. C., El-Bennich, B., Yu-Xin, L., Roberts, C. D., & Tandy, P. C. (2012). Collective Perspective on Advances in Dyson—Schwinger Equation QCD. *Communications in Theoretical Physics*, 58(1), 79.

Bosch, T. E. (2009). Using online social networking for teaching and learning: Facebook use at the University of Cape Town. *Communicatio: South African Journal for Communication Theory and Research*, 35(2), 185-200.

Boyd, D. M. (2008). Taken out of context: American teen sociality in networked publics: University of California, Berkeley.

Cain, J., Scott, D. R., & Akers, P. (2009). Pharmacy students' Facebook activity and opinions regarding accountability and e-professionalism. *American journal of pharmaceutical education*, 73(6), 104.

Choney, S. (2010). Facebook use can lower grades by 20 percent, study says. Retrieved, 11(7), 2014.

Credé, M., & Kuncel, N. R. (2008). Study habits, skills, and attitudes: The third pillar supporting collegiate academic performance. *Perspectives on Psychological Science*, *3*(6), 425-453.

Das, B., & Sahoo, J. S. (2011). Social networking sites-A critical analysis of its impact on personal and social life. *International Journal of Business and Social Science*, 2(14).

Demir Kaymak, Z., & Horzum, M. B. (2013). Relationship between online learning readiness and structure and interaction of online learning students. *Educational Sciences: Theory and Practice*, *13*(3), 1792-1797.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.

Enriquez, J. (2010). Facebook and other online social networking sites can lower grades, study says. *online*), <u>http://seerpress.com/facebook-and-other-online-social-networking-sites-can-lower-gradestudy-says/6935</u>.

Evans, D. (2010). Social media marketing: An hour a day: John Wiley & Sons.

Fazal, S., Hussain, S., Majoka, M. I., & Masood, S. (2012). The role of study skills in academic achievement of students: A closer focus on gender. *Pakistan Journal of Psychological Research*, 27(1), 37.

Fishbein, M., & Ajzen, I. (2011). Predicting and changing behavior: The reasoned action approach: Taylor & Francis.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.

Gardner, R. C. (1980). On the validity of affective variables in second language acquisition: Conceptual, contextual, and statistical considerations. *Language learning*, 30(2), 255-270.

Greenhow, C., & Robelia, B. (2009). Old communication, new literacies: Social network sites as social learning resources. *Journal of Computer-Mediated Communication*, 14(4), 1130-1161.

Griffin, E. (2006). A first look at communication theory: McGraw-hill.

Hassanbeigi, A., Askari, J., Nakhjavani, M., Shirkhoda, S., Barzegar, K., Mozayyan, M. R., & Fallahzadeh, H. (2011). The relationship between study skills and academic performance of university students. *Procedia-Social and Behavioral Sciences*, *30*, 1416-1424.

Hurt, N. E., Moss, G. S., Bradley, C. L., Larson, L. R., Lovelace, M., Prevost, L. B., . . . Camus, M. S. (2012). The 'Facebook'effect: college students' perceptions of online discussions in the age of social networking. *International Journal for the Scholarship of Teaching and Learning*, 6(2), 10.

Jeong, T.-G. (2005). The effects of internet addiction and self control on achievement of elementary school children. *Korean journal of yeolin Education*, *5*(3).

Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of computer assisted learning*, 27(2), 119-132.



Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.

Karpinski, A., & Duberstein, A. (2009). A description of Facebook use and academic performance among undergraduate and graduate students, Technology Research Poster Session.

Kenny, D., Kashy, D., & Bolger, N. (1998). Data analysis in social psychology (In D. Gilbert, S. Fiske, & G. Lindzey (Eds.). The handbook of social psychology (Vol. 1, pp. 233–265): Boston, MA: McGraw-Hill.

Kingdon, G. G. (2006). Teacher characteristics and student performance in India: A pupil fixed effects approach.

Kirschner, P. A., & Karpinski, A. C. (2010). Facebook® and academic performance. Computers in Human Behavior, 26(6), 1237-1245.

Kubey, R. W., Lavin, M. J., & Barrows, J. R. (2001). Internet use and collegiate academic performance decrements: Early findings. *Journal of communication*, *51*(2), 366-382.

Kuppuswamy, S., & Narayan, P. S. (2011). The impact of social networking websites on the education of youth.

Lampe, C. A., Ellison, N., & Steinfield, C. (2007). *A familiar face (book): profile elements as signals in an online social network.* Paper presented at the Proceedings of the SIGCHI conference on Human factors in computing systems.

Liccardi, I., Ounnas, A., Pau, R., Massey, E., Kinnunen, P., Lewthwaite, S., . . . Sarkar, C. (2007). *The role of social networks in students' learning experiences.* Paper presented at the ACM Sigcse Bulletin.

Lusk, B. (2010). Digital natives and social media behavior: an overview. The Prevention Researcher, 17(S1), 3-7.

Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). Facebook, social integration and informal learning at university: 'It is more for socialising and talking to friends about work than for actually doing work'. *Learning, media and technology, 34*(2), 141-155.

Martínez-Alemán, A. M., & Wartman, K. L. (2008). Online social networking on campus: Understanding what matters in student culture: Routledge.

Mason, R. (2006). Learning technologies for adult continuing education. Studies in Continuing Education, 28(2), 121-133.

Mutsotso, S., & Abenga, E. (2010). Study methods for improving quality learning and performance in higher education. *Educational Research and Reviews*, 5(12), 808.

Nalwa, K., & Anand, A. P. (2003). Internet addiction in students: A cause of concern. CyberPsychology & Behavior, 6(6), 653-656.

Ndaku, A. (2013). Impact of Social Media on the Students' Academic Performance: A Study of.

Nicole, E., & Charles, S. (2007). The benefits of Face book" Fiends;". Social Capital and College Students' Use of OnlineSocial Network Sites. Journal of Computer-Mediated Communication.

Nonis, S. A., & Hudson, G. I. (2006). Academic performance of college students: Influence of time spent studying and working. *Journal of Education for Business*, 81(3), 151-159.

Nouhi, E., SHAKOURI, A., & Nakhei, N. (2008). Study habits and skills, and academic achievement of students in Kerman University of medical sciences.

Nuthana, P., & Yenagi, G. V. (2009). Influence of study habits, self-concept on academic achievement of boys and girls. *Karnataka Journal of Agricultural Sciences*, 22(5), 1135-1138.

Osa-Edoh, G., & Alutu, A. (2012). A survey of students study habits in selected secondary schools: Implication for counselling. *Current Research Journal of Social Sciences*, 4(3), 228-234.

Patera, M., Draper, S., & Naef, M. (2008). Exploring magic cottage: A virtual reality environment for stimulating children's imaginative writing. *Interactive Learning Environments*, 16(3), 245-263.

Popham, W. J. (2005). Students' Attitudes Count. Educational Leadership, 62(5), 84.

Rana, S. A., & Kausar, R. (2011). Comparison of Study Habits and Academic Performance of Pakistani British and White British Students. *Pakistan Journal of Social & Clinical Psychology*, 9(1).

Rockoff, J. (2003). The Evidence of Individual Teachers on Student Achievement: Evidence from Panel Data. *Report published by the Kennedy School of Government, Harvard University, ED*, 475274.



Sarwar, M., Bashir, M., & Alam, M. (2010). Study attitude and academic achievement at secondary level in Pakistan. *Journal of College Teaching & Learning (TLC)*, 7(2).

Saunders, M. N. (2011). Research methods for business students, 5/e: Pearson Education India.

Selwyn, N. (2009). Faceworking: exploring students' education-related use of Facebook. *Learning, media and technology, 34*(2), 157-174.

Shana, L. (2012). The influence of social networking sites on students" academic performance in Malaysia. Available from: http. *utechacademic. edu. shanleebrown* (Accessed 13/9/2014).

Stutely, R. (2003). Numbers guide: Bloomberg Press.

Tella, A., Tella, A., Toyobo, O. M., Adika, L. O., & Adewuyi, A. A. (2007). An assessment of secondary school teachers uses of ICT's: Implications for further development of ICT's use in Nigerian secondary schools. *TOJET: The Turkish Online Journal of Educational Technology*, 6(3).

Tilfarlioglu, F. Y. (2011). An international dimension of the student'S attitudes towards the use of English in web 2.0 technology. *TOJET: The Turkish Online Journal of Educational Technology*, 10(3).

Trusov, M., Bucklin, R. E., & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: findings from an internet social networking site. *Journal of marketing*, 73(5), 90-102.

Vaughan, G., & Hogg, M. A. (2005). Introduction to social psychology: Pearson Education Australia.

Wenden, A. (1991). Learner strategies for learner autonomy. New York.

Yang, J., Morris, M. R., Teevan, J., Adamic, L. A., & Ackerman, M. S. (2011). *Culture matters: A survey study of social q&a behavior*. Paper presented at the Fifth International AAAI Conference on Weblogs and Social Media.

Young, B. (2006). A study on the effect of internet use and social capital on the academic performance. *Development and Society*, 35(1), 107-123.

Yu, C.-P., Chancellor, H. C., & Cole, S. T. (2011). Measuring residents' attitudes toward sustainable tourism: A reexamination of the sustainable tourism attitude scale. *Journal of Travel Research*, *50*(1), 57-63.

