

## EXPLORING THE ROLE OF SOCIAL MEDIA IN ENHANCING EDUCATIONAL OUTCOMES

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### ABSTRACT

This research seeks to find out how social media can be used to improve students' motivation, creativity and performance. As prior research shows mixed results on the effects of social media on performance, this study will explore the relationship between social networking on academic performance and IM. The study uses an integrative approach that makes use of structural equation modelling (SEM) to confirm the proposed relationships between the usage of social media, the intrinsic motivation of the student, the student's creativity and academic performance. Data was obtained from a sample of higher-learning students. The findings of this study show the usage of social media is positively correlated with academic performance and this relationship is also mediated by student's intrinsic motivation. The level of motivation is made sure to go high for students who use social media in their academics hence creativity is higher and overall performance enhanced. These findings are consistent with motivation theories which have been proved in learning environments and the ability of social media to enhance achievements. It also offers another contribution to the body of knowledge in the area of the effects of social media on education to offer a roadmap on how the faculty and the ministries of education can harness the benefits of social media in realizing its intended objectives. Therefore, by developing factors that relate the use of social media to learning outcomes, this work offers a basis for future research to discover more about the use of the other aspects of technology in learning.

**Keywords:** Usage of Social Media, Student's creativity, Intrinsic Motivation, Academic Performance, Educational Technology

### 1. INTRODUCTION

The relationship between usage of social media(SM), student creativity and academic performance is well-established in educational research. In particular, creativity is a valuable trait among higher education students. Creativity allows graduates to generate innovative ideas and devise unique solutions to complex economic issues (Moses, 2006). This raises a crucial question: How can we enhance student creativity and academic performance? Several factors have been identified as influential in determining educational success.

These include traditional teaching methods, language proficiency, social and economic resources, and various aspects of parental involvement. Conventional practices involve the common forms of learning processes as implemented in institutions. Language mastery is very important because language disorders severely influence a student's degree of learning in any academic content area. Social and economic resources encompass the support and opportunities available to students, which can affect their

educational outcomes. Parental involvement in education is another critical factor. This includes active engagement by parents in their children's academic life, such as attending school meetings and assisting with homework. Parental expectations also play a role; parents' goals and standards for their children's academic and behavioral performance can influence their motivation and success. Family duties and commitments to support and provision of a favorable learning climate also add to a student's education (Lansford et al., 2009).

Based on these considerations, two possible avenues important for elevating the levels of creativity and performance among students can be named: stimulating students' motivation and effectively using social networks. The relationship between IM and academic achievement was established in earlier research. For example, Turner et al. (2009) paid particular attention to the fact that when students are intrinsically motivated, they are bound to excel in academic performance. IM is self-motivation, in which people engage in certain behaviors for fun as opposed to other rewards. Communication technologies, mainly SM or online networking platforms, can also enhance and positively affect learners' performance. Cox and McLeod (2014) argued that these platforms facilitate communication among teachers, students, and parents, enhancing the educational experience. Through interaction and sharing, SM as a collaboration model can help children share ideas and materials for their work, which, in turn, can support their creativity. Dabbagh and Kitsantas (2012) found that social networking tools can be practical educational platforms. These tools can provide students access to information and resources, foster collaboration, and support various learning activities. Expansion of SM presence allows students to interact with their peers, educators, and professionals, and such interactions positively affect the students' performance and creativity.

The current research focuses on three research questions: The current research seeks to establish the moderation effect of self-motivation on the relationship between the students' SM engagement and creativity with their performance. Filling that gap is the purpose of this research, for which the variable IM is postulated as the essential link between SM usage on the one hand and creativity

and academic achievement on the other. More curiously, the link between SM usage and creativity among learners has yet to be investigated in-depth, and thus, this research. Thus, considering the extrinsic motivation in the context of the study, the identified motivational factor can be further explored to discover the relation between creative use of SM and improved performance in student's academic achievements. Various studies done in the past have offered multiple points of view about the effects of SM in students. For instance, Alabi (2013) highlighted concerns about the adverse effects of online networking platforms on individuals' mental well-being. The extensive use of SM could potentially detract from students' overall mental health, leading to adverse outcomes. Similarly, David et al. (2012) postulated that SM usage may have an unfavorable impact on students' performance. Consequently, it has been found that the time and attention given to SM leads to a negative correlation between SM usage and academic commitment and performance.

The study conducted by Liu et al. (2017) found out that the use of face book was inversely proportional with the performance of students. They discovered that the more the students visited Facebook, the lower the performance and thus was worried that the use of face book might be the reason behind poor performance among students. However, this study adopts a different perspective. Rather than focusing solely on the potential negative impacts, in the case of its hypothesized relationship between SM and social outcomes such as; performance and creativity, it assumes a positive correlation between SM and academic results. When used effectively, the underlying assumption is that SM can enhance students' IM. This enhanced motivation is believed to improve academic performance and greater creativity.

IM, conversely, refers to persons undertaking certain activities 'for the fun of it', not for any buyer-seller exchanges. This type of motivation is important for students as it can make them more interested in the material taught in the classroom and elicit creativity. As a result of the SM use in education, it may lead to enhanced IM among students while learning as well as improving the students' performance and creativity. The hypothesis of this study is based on the idea that SM can serve as a platform that enhances students' motivation by providing access to a wide range of

information and resources, facilitating communication, and promoting collaboration. These factors also contribute to higher and more enjoyable levels of learning, which, in the long run, enhance scholastic performance as well as creativity. The study will likely show that intrinsically motivated students will perform better academically and conjointly exhibit creativity when SM is applied. This perspective challenges the predominantly negative views found in earlier research. When integrated thoughtfully into the educational process, SM can be a powerful tool for enhancing student motivation and performance. By focusing on the role of IM as a mediator, the study explains how SM usage can impact students' educational experiences. It provides a new perspective on the positive use of SM in learning, highlighting the possibility of positive outcomes when students are interested.

This viewpoint is confirmed in previous studies. Ruleman (2012) observed that the continuous advancement of technology and associated tools assists students in enhancing their communication skills, promoting effective teamwork, and fostering relationship-building. Theoretical model (figure 1) for this study has provided whereby, the relationship between SM use and academic outcomes is found to be moderated by IM.

## **2.0 Literature and hypothesis development**

### **2.1 Social media use and student IM**

The use of social networks has had a fundamental impact on people's communication in this world in both working and personal contexts. Kaplan and Haenlein (2010) pointed out that SM platforms have become endogenous to social existence, containing several aspects of existence, such as communication, booking processes, and many other activities. Their rise in popularity is reflected on their application in various sectors like commerce, media, learning, and entertainment among others (Rauniar et al., 2014). SM sites are defined as websites, applications and tools that are created to support networks, communication, as well as cooperation (Zincir, 2017). In the context of college education SM is used more and more to encourage social activities and sharing of information which in turn encourages the students. Balcikanli (2015) demonstrated that Facebook, a widely used SM platform, improves interaction levels between teachers and students and among

students. This tends to increase the quality of the interaction, which, as a result, improves the learning surroundings. Social networks are a universal platform through which it is easy to disseminate or acquire new information, which is beneficial in education (Burke et al., 2010).

SM accounts also enhance interaction with the content. Lankshear and Knobel (2011) propose that it makes the users of these platforms more engaged with the shared content since it is more of an organic action in learning. This increased engagement can be particularly beneficial in educational settings, where deep learning and focused collaboration are crucial. In the learning process motivation has a significant part. According to Donche et al. (2013), motivation is a key psychological construct with the potential to affect learners' performance in a very big way. Motivation is defined a key factor in the development of student achievement (Lim, 2004). Zheng et al. (2016) propose integrating SM into educational environments improves student retention, engagement, and motivation. Some postulate that SM may help students find abundant information and relevant materials to help them recover their motivation to study.

Therefore, the hypothetical expectation that arises out of this framework is that the use of SM has the potential to boost students' IM, leading to better performance and creativity. SM can create an enriched learning environment by providing students with access to a broad range of resources and facilitating communication with peers and educators. This environment supports more profound learning and encourages students to stay engaged with their studies. SM platforms offer valuable tools for enhancing education. They provide access to educational resources and create opportunities for collaboration and interaction. More contact can give way to having a more motivated and proactive student populace, hence, better academic results and innovation.

**H1: Social media has significant positive impact on student intrinsic motivation.**

### **2.2 Social media, students' creativity and academic performance**

SM has significantly transformed education by fostering increased student engagement, enhancing academic performance, and nurturing creativity. Being a very elastic tool, students can upload their

works, achievements, and experiences and, in this manner, help others to work hard and get the best. The collaborative nature of SM can profoundly impact academic success. Lau et al. (2017) argue that SM facilitates meaningful interactions between students and professionals, which can enhance students' academic performance by providing them with valuable feedback and support. In the digital age, students have access to many tools and resources through social media, which encourages multitasking, a practice associated with increased creativity. Calderwood et al. (2014) highlight that the availability of diverse resources and the ability to engage in multiple tasks simultaneously can stimulate creative thinking. Kirschner and Karpinski (2010) suggest that when managed effectively, multitasking can improve productivity while maintaining accuracy. This perspective implies that social media, by promoting multitasking, can enhance students' creativity. However, the impact of SM on academic performance has been the subject of debate, with studies presenting mixed results. Kirschner and Karpinski (2010) found that frequent use of Facebook is associated with lower academic performance. They attributed this to the amount of time students spend on SM at the expense of their studies. Similarly, Valkenburg and Peter (2011) also noted that students in low-performing groups spend more time on Facebook than those in the higher-performing group whose GPA was higher. This result indicates that over-socialization on SM can diminish academic initiatives.

A related study has revealed that SM has some advantages in increasing the student performance. Thus, Cheston et al (2013) argue that using the SM can improve performance because the media provides additional sources and opportunities for assistance in academics. It is important to note that Pasek and Hargittai (2009) found no depressed academic performance among the students featured in their research; social networking sites were described as having a complex impact on academic achievement as opposed to the rather simplistic conclusion adopted by previous research studies. Furthermore, Wang and Mark (2018) reported that regular use of SM platforms, such as Facebook, does not necessarily harm academic performance. Their study indicated that students with higher GPAs often use Facebook moderately, suggesting that controlled SM usage may not negatively affect

academic success. Therefore, SM in this context goes beyond what is conventionally seen as SM applications such as Facebook or WhatsApp. However, the last was initially designed for something other than education. Platforms tailored explicitly for academic use, such as Research Gate, Academia.edu, and SlideShare.net, are designed to facilitate knowledge sharing and collaboration. On the usefulness of SM for education, Jones (2008) continues the discussion of the utilization of SM for educational needs with particular reference to university students. Such specific sites can significantly contribute to students' academic and imaginative thinking through the offered information and information offering settings.

Creativity is essential to learning at any level, but higher education is important. Jahnke et al. (2017) emphasize creativity in academic study and found that creativity plays a crucial role in creative thinking and problem-solving. Online media and tools have been shown to enhance students' creativity and awareness, reinforcing their creative practices (Chai & Fan, 2018). collaborative group work using media platforms can expand students' collective knowledge, leading to increased creativity and improved academic performance (Junco et al., 2011). This collaborative aspect of SM provides opportunities for students to engage in interactive and productive learning experiences, which can contribute to their overall academic success.

From this conventional literature review, one can hypothesize that the existence of SM has a positive relationship with performance and creativity of the student. The relationship between an increase in the use of SM with enhanced IM and academic performance might be complex, However the paper has deduced that SM has a high positivity towards others students' experience. The key lies in how students use social media: when employed effectively, it can be a powerful tool for increasing engagement, fostering creativity, and supporting academic achievement. Future research should continue to explore this relationship, considering factors such as the type of SM platforms used, the frequency of use, and the nature of students' interactions online. Understanding these dynamics will be crucial for harnessing the full potential of SM in educational settings and addressing any potential drawbacks:

**H2: SM has a significant positive impact on students’ creativity.**

**H3: SM has a significant positive impact on the academic performance of students.**

**2.3 Intrinsic Motivation as a mediator**

Motivation is a crucial factor that makes people willing to perform activities often associated with goals. Motivation is the process through which the needs and wants of a particular person are triggered to achieve specific objectives (Alexander & Murphy, 1998). In education, motivation is a crucial determinant of academic success and creativity. Motivation is something that students require to enhance their capacity to handle the inevitable challenges posed in their endeavors (Pintrich and Schunk 2002). When motivated, students are better equipped to tackle obstacles and persist through difficulties, enhancing their academic performance and creative output (Wolters et al., 2005). Another growing field of concern is thus the link between the time spent on SM and students' motivation. In this connection, using SM can be helpful for students' motivation because it gives them access to resources and information, creates intergroup cooperation, and allows for the free expression of creativity. If utilized correctly, SM will complement students' learning process and reignite their interest in their coursework. This heightened motivation, in turn, can lead to improved creativity and academic performance. Students who utilize social networking sites for academic purposes are more likely to exhibit higher motivation, creativity, and achievement levels in their studies.

In their study, Razak and See (2010) revealed that motivation is essential in education as motivated students will not be challenged to attain good grades. For some scholars, motivation has a central role in education since it has a bearing on the

student's attitude toward learning and on staying powerful in academic work. Daniels (2008) also implicates that motivation is a very important ingredient in learning as he regards it as an indispensable component of learning. There is evidence to support that motivation brings about enhancement in learning and creativity as well as performance. For example, Razak and See (2010) noted that students engaged in electronic classes performed better than those who were not engaged in electronic classes. This result implies that technology and online platforms, including SM networks, may positively impact students' motivation and yield better academic performance. Similarly, Gasco et al. (2014) argue that motivation is crucial in learning, significantly affecting students' academic achievements. Inside class performance: motivated students have better regard for time and will attend all their classes, do all class activities and even practice with the learning materials on their own better performance (Sikhwari, 2007). The hypothesis arising from these insights is that SM usage positively impacts students' motivation, which, in turn, enhances their creativity and academic performance. SM can provide various tools and resources that support students' learning and creative endeavours. For example, platforms like Facebook, Twitter, and LinkedIn can facilitate student communication and collaboration, while specialized educational platforms can offer access to academic resources and professional networks. When applied appropriately by the learners, the motivation the learners have when studying is likely to improve their creativity and their performance rates.

**H4. The relationship between usage of SM and academic performance mediated by IM.**

**H5. The relationship between the usage of SM and the creativity of students is mediated by IM.**

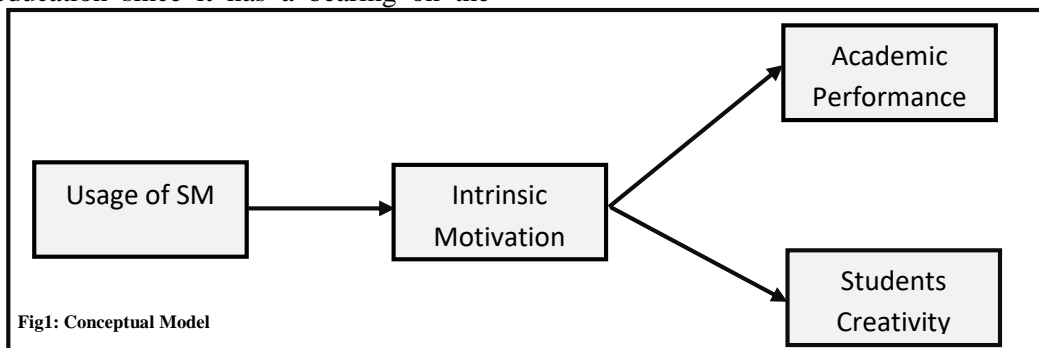


Fig1: Conceptual Model

**3.0 Methodology**

**3.1 Participants and Procedure**

Survey data has been used for data collection at the universities in the Sahiwal Division of Pakistan. The survey was self-administered, and prospective participants were undergraduate students from universities. It was done to establish their SM habits, IM, creativity levels, and academic performance. Participants were also made to understand that the information they provided in the survey would not be used to identify them in any way. They were also told that the information collected from them would not be utilized for any other purpose than to conduct research and that it would be strictly in compliance with all established ethical codes. Convenience non-probability sampling was used to collect the data from easily accessible participants, namely the students from the graduate classes. Those who agreed to participate in the study were given an online link through which they could fill out the questionnaire. Thus, 550 questionnaires were given to ensure that the required sample size of 280 was obtained. In response, 302 questionnaires were completed and returned making an actual percentage response of fifty-four percent. That equals 90% in all the groups and this vastly met the sample size needed for the study as stipulated by the researchers.

**3.2 Measures**

While developing the questionnaire, a five-point Likert scale was adopted which ranged from 1, which meant “strongly disagree” and 5 equal to “strongly agree”. The respondents' use of SM was gauged using a 14-item scale modified by Ali-Hassan et al. (2015). The respondents' IM was evaluated using a four-item Jaramillo et al. (2007) scale. A six-item scale from Zhang and Bartol (2010) and Meng et al. (2017) was used to assess the students' creativity. Four-item scale was used to assess academic achievement developed by Maqableh's (2021).

**4.0 Data Analysis**

Confirming the research model and hypothesis as well as analyze the data used in the study will be done and presented in the Data Analysis chapter. The chapter will begin with assessing sampling

adequacy using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity to ensure the data is suitable for factor analysis. We will then address potential biases by conducting a Common Method Bias (CMB) test to determine if any systematic bias has affected the results. Following this, the chapter will investigate the evaluation of multicollinearity using the Variance Inflation Factor (VIF) to check for any high correlations among independent variables that might distort the results. Reliability analysis, primarily through Cronbach's Alpha, will be conducted to assess the internal consistency of the measurement scales, ensuring that the constructs are reliably measured. Validity tests, including Convergent Validity (through Average Variance Extracted, AVE) and Discriminant Validity (using the Heterotrait-Monotrait Ratio, HTMT), will be performed to confirm that the constructs are both distinct and accurately measured. After that, the chapter will engage in testing of path analysis in the form of Structural Equation Modeling (SEM) in order to determine the relationship between the variables and understand direct, indirect, and mediated effects within the determined model. The findings from these analyses will be interpreted and discussed in the context of the study's hypotheses, providing insights into the significance and implications of the results.

**4.1 Common Method Bias**

**Table 4.1 Common Method Bias**

Component	Extraction	sum of squared
	loadings	loadings
	%	of Cumulative %
	variance	
1	30.850	30.850

The extraction sum of squared loadings shows that the first component accounts for 30.850% of the variance, below the 50% threshold. This suggests that common method bias is not likely a significant issue in data, as most of the variance is not concentrated in a single factor. This indicates that the relationships observed in data are more likely to be due to the actual constructs rather than artifacts of the data collection method.

4.2 KMO and Bartlett's Test

Table 4.2 KMO test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.884
	Approx. Chi-Square	4880.992
Bartlett's Test of Sphericity	df	378
	Sig.	0.000

The Kaiser-Meyer-Olkin (KMO) test checked the adequacy of sample. Thus, if the hypothesized factors are restricted to 884 in number, then the extracted sample is highly suitable for factor analysis. A KMO value above 0.8 is considered excellent, implying that the data collected can support the analysis. Bartlett's Test of Sphericity yields an approximate chi-square value of 4880.992 with 378 degrees of freedom, and the test is highly significant ( $p < 0.000$ ). This significant result confirms that the correlations between variables are sufficiently large for factor analysis, indicating that the data is appropriate for this type of analysis.

4.3 Correlation

Table 4.3 Correlation values

	1	2	3	4
SM	1			
IM	0.514**	1		
AP	0.214**	0.154**	1	
SC	0.405**	0.320**	0.273**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Note: SM: social media, IM: IM, AP: academic performance, SC: student creativity

From the correlation table, it was evident that all the study variables were positively and significantly related. Results revealed that SM usage positively correlates with IM at 0.514. A value of 0.514 suggests that with high usage of the SM platforms, there is enhanced motivation. SM also shows moderate positive correlations with student creativity (SC) at 0.405 and academic performance (AP) at 0.214. Additionally, IM has a moderate correlation with student creativity (SC) at 0.320 and a weaker but significant correlation with academic performance (AP) at 0.154. Lastly, student creativity (SC) correlates moderately with academic performance (AP) at 0.273. All correlations are significant at the 0.01 level.

4.4 Reliability statistics and VIF

Table 4.4 Reliability statistics

Variable items	VIF	Regression weights	Cronbach alpha	CR(rho_a)	CR(rho_c)	AVE
SM1	1.355	0.734	0.906	0.911	0.841	0.501
SM2	1.633	0.684				
SM3	1.864	0.559				
SM4	1.557	0.656				
SM5	1.850	0.525				
SM6	1.891	0.732				
SM7	1.604	0.703				
SM8	1.568	0.694				
SM9	1.806	0.647				
SM10	2.822	0.653				
SM11	2.771	0.702				
SM12	1.640	0.652				
SM13	2.549	0.710				
SM14	1.439	0.644				
IM1	2.985	0.791	0.778	0.780	0.857	0.600

IM2	2.008	0.809				
IM3	1.576	0.757				
IM4	2.036	0.740				
AP1	1.783	0.876	0.784	1.034	0.841	0.572
AP2	2.204	0.681				
AP3	3.507	0.745				
AP4	3.007	0.708				
SC1	2.601	0.670	0.855	0.880	0.889	0.574
SC2	3.318	0.826				
SC3	3.143	0.794				
SC4	3.438	0.712				
SC5	3.502	0.801				
SC6	1.807	0.730				

Note: SM= social media, IM= IM, AP=academic performance, SC= student creativity, CR= composite reliability, AVE= average variance extracted

The reliability statistics and VIF values measure provided for the variables in this research show that the constructs in this study have adequate reliability and minimal multicollinearity. Cronbach's alpha values for SM usage (SM), IM, academic performance (AP), and student creativity (SC) are 0.906, 0.778, 0.784, and 0.855, respectively, which are all above the commonly accepted threshold of 0.70 (Nunnally & Bernstein, 1994). This indicates that the items within each construct are related or in other words are positively correlated. The composite reliability (CR) values such as CR(rho\_a) and the CR(rho\_c) also support the reliability of the constructs since they are higher than 0.70 benchmark (Hair et al., 2019). Further, the average variance extracted (AVE) has also been calculated for all the constructs, and it is higher than 0.50; the constructs explain more variance from the indicators than they do error variance, thus following Fornell and Larcker's (1981) suggestions.

The VIF values lie in between 1 and 8.355 to 3.507 which is less than 5 hence ruling out multicollinearity is not an issue for this model. (Hair et al., 2011). Specifically, lower VIF values suggest that the predictor variables are not highly correlated, reducing the risk of inflated standard errors and biased regression coefficients. This ensures that the regression weights derived from the model are stable and reliable. Generally, the reliability or internal consistency factors and validity indicate that the measurement model is internally valid to support the study's conclusions.

#### 4.5 Validity statistics

**Table 4.5 Validity statistics**

	AP	IM	SC	SM
AP				
IM	0.225			
SC	0.329	0.418		
SM	0.247	0.664	0.480	

Note: SM= social media, IM= IM, AP=academic performance, SC= student creativity

The provided HTMT (Heterotrait-Monotrait) ratio values indicate the discriminant validity of the constructs measured in the study, as evaluated through Partial Least Squares (PLS). The authors Henseler et al. (2015) identified that the cut-off value for HTMT is below 0.90 indicate that discriminant validity has been achieved, therefore implying that the initiated constructs are unique. In this analysis, HTMT value between the constructs are depicted as under: 0.225 for academic performance (AP) and IM, 0.329 for academic performance and student creativity (SC), 0.247 for academic performance and SM usage (SM), 0.418 for IM and student



creativity, 0.664 for IM and SM usage, and 0.480 for student creativity and SM usage. All values are well below the threshold of 0.90, indicating good discriminant validity among the constructs. All the studied variables are differentiated from one another which are proving the discriminant validity among variables.

4.6 Path analysis

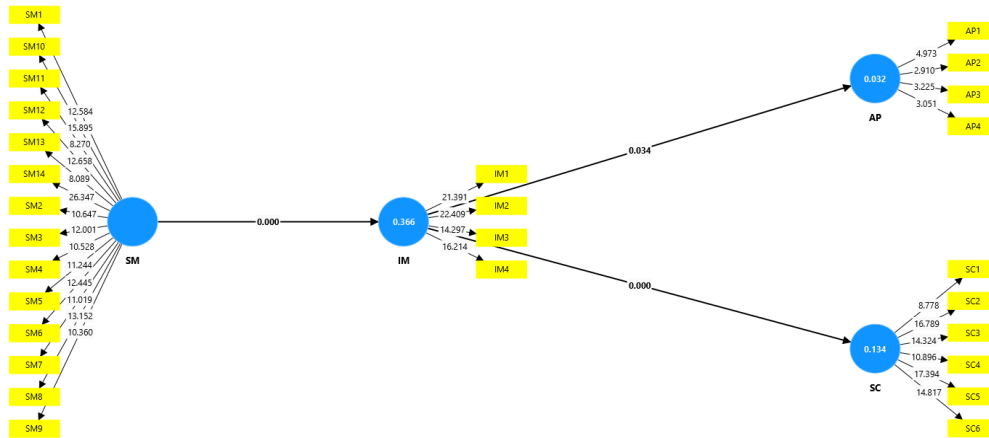


Figure 1: Path Analysis

4.7 Hypothesis direct results

Table 4.6 Direct Results

	Original sample	Sample mean	Standard deviation	T statistics	P values
IM -> AP	0.180	0.196	0.085	2.127	0.034
IM -> SC	0.366	0.373	0.077	4.754	0.000
SM -> IM	0.605	0.609	0.053	11.328	0.000

Note: SM= social media, IM= IM, AP=academic performance, SC= student creativity

The data provided suggests a significant positive relationship between IM and both academic performance (AP) and student creativity (SC). The path from IM to academic performance shows a sample mean of 0.196 with a standard deviation of 0.085, resulting in a t-statistic of 2.127 and a p-value of 0.034. This indicates that IM positively impacts academic performance, with a statistically significant effect, meaning that as students' IM increases, their academic performance is likely to improve. Similarly, the relationship between IM and student creativity is even more robust, with a sample mean of 0.373, a standard deviation of 0.077, and a t-statistic of 4.754, yielding a p-value of 0.000. This suggests that IM is critical in

enhancing student creativity, and the effect is highly significant.

Furthermore, the empirical data shows a positive relationship among the usage SM and IM. The path coefficient from SM to IM is 0.609, with a standard deviation of 0.053, resulting in an impressive t-statistic of 11.328 and a p-value of 0.000. This strongly indicates that the use of SM has a significant and positive effect on students' IM. These findings underscore the crucial role of SM as a tool that can enhance students' internal drive, positively influencing their academic performance and creativity. The results provide compelling evidence for integrating SM into educational strategies to foster motivation and improve educational outcomes.

4.8 Mediation results

Table 4.7 Indirect Results

	Original	Sample	Standard deviation	T statistics	P values
SM -> IM -> AP	0.109	0.121	0.054	2.009	0.045
SM -> IM -> SC	0.222	0.230	0.061	3.647	0.000

Note: SM= social media, IM= IM, AP=academic performance, SC= student creativity

Results of the analysis on mediation involvement reveal that IM equally acts as a mediator within the SM-AP and SM-SC relations significantly. The indirect effect of SM on academic performance through IM shows a sample mean of 0.121, with a standard deviation of 0.054, a t-statistic of 2.009, and a p-value of 0.045. This suggests that the relationship between SM usage and academic performance is partially mediated by IM. In other words, SM indirectly enhances academic performance by increasing students' IM, and this mediation effect is statistically significant.

In the same manner, it showed that the mediation effect of IM on the relationship between SM usage and creativity of the students is more significant. The indirect path from SM to student creativity via IM has a sample mean of 0.230, a standard deviation of 0.061, a t-statistic of 3.647, and a highly significant p-value of 0.000. This indicates that IM significantly mediates the relationship between SM usage and student creativity, meaning that social media's positive influence on creativity is primarily channeled through its impact on IM. This study has shown that self-interests are imperative for coupling the SM usage to performance and creativity with performance, thus the need to enhance the motivation through social media.

### **5.0 Discussion**

The incorporation of SM in learning practice has many benefits that include enhancing the learning experience of students, motivation, creative and performance. The research aim of this study is to find out how these students are motivated by use of social media, thus boost their performance and innovativeness. By examining the correlations among SM usage, student motivation, creativity, and academic achievement, the study offers insights into how digital platforms can be leveraged to support educational goals. This study proposes that SM usage positively impacts student motivation, which in turn enhances creativity and academic performance. Hypotheses were analyzed using SPSS and PLS relating to the hypothesized relationships in the present study.

Earlier study would provide documentation for these observations. Another study by Kusurkar et al. (2013) also pointed out that motivation was right averse to using the right studying techniques. Introducing new technologies can increase

students' motivation, performance, and creativity (Lepper, 1985). Chai and Fan (2018) found that electronic media and tools positively impact student creativity and knowledge, while Junco et al. (2011) highlighted that SM promotes creativity through collaboration and information exchange. Hartnett (2016) observed that integrating mobile and online technology in education increases motivation and improves academic performance. Zheng et al. (2016) also emphasized that SM helps maintain and enhance students' motivation and commitment to education.

SM is now a way of life; it is how people communicate socially and in their working environment. SM includes social Network Sites like Facebook, Twitter, linked in, and Instagram, enabling communication, collaboration, and information sharing in areas like education (Rauniar et al., 2014). These platforms enable users to connect with others, share knowledge, and engage in discussions that can enhance learning (Zincir, 2017). In education, SM can be a powerful tool for fostering collaboration and communication among students and educators. Balcikanli (2015) found that Facebook increases interaction between teachers and students and among students. The reported positives concern students' academic achievement and creative learning outcomes, which can be realized through SM to acquire resources, share knowledge, and work on group assignments.

A saying goes, 'one cannot teach a beast'; it is even worse to try and teach a bored student; that is why motivation is a significant factor in learning. This perspective motivates students to participate in academic tasks, solve problems, and accomplish their academic objectives. Alexander and Murphy (1998) describe motivation as the force that propels individuals towards goal-directed activities, while Pintrich and Schunk (2002) emphasize its importance in education. Motivation influences students' ability to persevere through difficulties and remain engaged in their studies (Wolters et al., 2005). The relationship between SM usage and student motivation is of particular interest. SM can enhance students' motivation by providing them with resources and opportunities for collaboration. Razak and See (2010) emphasized the importance of motivation in accomplishing academic success; however, the absence of motivation could demerit academic performance. Daniels (2008) stated that

motivation can also be considered a critical part of the learning process. Empirical studies support the idea that motivation positively affects academic performance and creativity. Razak and See (2010) found that students participating in electronic classes demonstrated better academic performance. Motivation significantly impacts learning outcomes, with motivated students more likely to engage in class activities and achieve higher academic results (Gasco et al., 2014).

### 5.1 Theoretical Contributions

In this research, the author discusses the effects of SM on motivation, creativity, and, eventually, academic achievement among students. Consequently, the study examines the psychological processes of IM and the role of SM use and academic performance. In this sense, the present study proves that SM can boost motivation and, therefore, learners' performance and creativity, thus pointing to the utilitarian role of digital tools in education.

### 5.2 Implications for Practice

The findings of this study could be helpful to educators in the following ways: SM can, therefore, be utilized as a strategy to mobilize learners, enhance their creativity, and produce better results. School teachers should be able to adopt SM in the teaching, learning, and student engagement processes. Perceiving the positive factors contained in social networks, educators can build an environment that will foster students' learning and personal growth.

### 5.3 Future Research Directions

The present study furnishes significant findings, although it has specific implications that must be explored in future research. Because survey data was used, there is a risk of bias in the results, and future studies could employ different types of methods, which include using experiments or non-conventional tools for measuring creativity among students. Also, the study was conducted in a particular cultural setting, and the results cannot be applied universally. Future work should understand how these factors mediate performance, creativity, motivation, and self-efficacy amongst students/persons of different cultural backgrounds. Therefore, it is equally important to discuss other adverse effects of SM

use, including distractions, to develop ways of achieving efficiency in its use for learning.

### 6.0 Conclusion

The present research establishes that SM significantly increases students' motivation, creativity, and academic achievements. The resources and opportunities for collaboration available via SM have the potential to affect the student learning process positively. The study adds to the knowledge of the effects of SM on learning and provides suggestions for integrating available technology to enhance students' achievement. Technology keeps developing, and therefore professionals should undertake a consideration of available advanced items to be used in education.

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