Improving Student Academic Performance in Universities of Indonesia: Impact of Student Citizenship Behavior and Social Media Collaborative Learning

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The academic institutions must improve their academic performance by analyzing the contributing elements. The study's primary purpose was to explore the role of social media collaborative learning, student self-efficacy, organizational citizenship behavior, and student involvement in enhancing academic performance. This study also examined the role of student participation as a mediator. This study was quantitative and cross-sectional in nature. This study collected information from Indonesian university students. Students were asked to collect data using convenient sampling for this purpose. The data was acquired via a questionnaire based on previous research. The collected data were analyzed using SEM and smart PLS 3. The study's usable response rate was 70,6 percent. This study also elaborated on its limits and future directions. Academicians can use the study's findings for future research endeavors.

Keywords: Self-efficacy, engagement, academic performance, social media, Indonesia.

Introduction

Higher education plays a vital role in shaping the future of society. Higher education also plays a crucial role in influencing society's welfare, economy, and politics. If the education of the country is very good and of good quality, it will produce good human beings (Solas & Sutton, 2018). Due to many problems, the education sector in developing countries faces several challenges. The countries in the Asia region are facing the same challenges. Indonesia is one of the top emerging countries in Asia. It has worked a lot in its education sector. But still, Indonesia is also facing several challenges in the sector of education (Karim, 2021).

The estimated overall population of Indonesia is 260 million people. It was the fourth most populous nation on the planet. On the other side, it has constructed the world's third-largest democracy. More than 4.46 million students are enrolled in higher education in Indonesia. Nonetheless, Indonesia has substantial obstacles in the realm of higher education. Therefore, Indonesia must improve the academic performance of its institutions of higher education (Sukmayadi & Yahya, 2020).

In the context of this industry, a college education is essential. The country's education level affects the quality of services supplied by the business. The business's success is contingent on student participation and dedication to the institute. The number of institutes worldwide has increased significantly during the past decade. The institute's performance will be superior to those that fail to engage their students. This issue's success can motivate pupils to become scientific resources. Higher education institutions should exert great effort so that students can realize their full potential (Peercy & Svenson, 2016).

However, improving students' performance in higher education is a significant focus for higher education institutions. Academicians pay a great deal of attention to the aspects that can improve the academic performance of higher education institutions. Academic success is a broad concept that encompasses a variety of criteria. The growth of abilities, the acquisition of knowledge, and the completion of courses are all elements that might be classified as academic performance criteria. Academic performance is also measured by career advancement. Overall, a positive change in the student is regarded as an enhancement in the student's academic performance (Camelo & Elliott, 2019).

Students' academic performance has a substantial impact on the nation's economic growth. Because acquiring pertinent knowledge and skills is crucial for enhancing pupils' academic success (Jain et al., 2016). Therefore, students in higher education must prioritize performance enhancement (Alshalawi, 2022). To improve learning and instruction, student involvement is one of the essential components. Therefore, previous research has demonstrated a significant relationship between student engagement and academic success. Students with a high level of engagement will likely learn more. The same student will earn back grades and pursue higher education (Bryson & Hand, 2007)

According to scholars, pupils involved in school have more concentration and focus than students who are not engaged. Only students who are against have gained excellent motivation and talents throughout their educational careers. Students who exhibit a high level of cognitive engagement, emotional involvement, and good behavior are more likely to achieve in academic subjects. This project will also be beneficial to society. Therefore, it is crucial to encourage students' participation in educational institutions (Groccia, 2018)

In the past few decades, mobile technology has expanded tremendously. It has also seen growth in the category of social media. This category has provided an efficient framework for fostering collaboration and communication between stakeholders. Due to the rapid development of IT, a simulation of social media is now a need. The impact of social media on colleges has generated significant interest among researchers. In the context of higher education, the options provided by social media are nearly limitless. It has fostered cooperative learning among students and instructors (Sarwar et al., 2019).

The current generation of students is exposed to a variety of technology. Students can communicate and learn from people of diverse cultures due to the modern online world. These web-based technologies play an essential role in fostering communication between students and teachers. With this social media platform, the feedback procedure is also affected and enhanced. Additionally, social media platforms have increased collaborative learning. In this aspect, modern technologies and social media have played a crucial role in facilitating collaborative learning. The virtual network has

facilitated collaborative learning through the exchange of expertise and materials, the development of critical and creative thinking, and communication among students. Therefore, utilizing social media technologies to facilitate collaborative learning is necessary (Al-Rahmi et al., 2015).

Organizational citizenship behavior is an essential aspect of prosocial conduct. In the majority of studies, OCB is considered an individual trait. Additionally, it is not acknowledged for the reward system at the previous level. The concept of organizational culture and behavior (OCB) is crucial to the performance and efficiency of organizations. This viewpoint has also been disputed and reinforced by other studies. The idea of organizational citizenship behavior (OCB) refers to phenomena that exceed the requirements of the function performed to meet the organization's objectives (Gefen & Somech, 2019).

Researchers favor organizational citizenship behavior because they feel that the performance of educational institutions can be enhanced with the assistance of all OCB in terms of student success. Institutions of higher education strive to teach their students how to engage with other organization members. Therefore, students' citizenship behavior is referred to as the student's contribution to the academic institution. Students will begin building all OCB if they see the lectures as valuable. Citizenship behavior increased the pupils' achievement, which subsequently affected their performance (Perveen et al., 2021).

In the literature of the last few decades, there is abundant evidence that self-efficacy has a significant and beneficial influence on achievement and motivation. Self-efficacy plays an essential role in resolving the situation. Compared to other pupils, kids with high self-efficacy employ more problem-solving skills. These kids can effectively tackle their challenges. They use more significant effort to resolve their challenges and problems while exercising critical thought. Therefore, researchers have concluded that self-efficacy is related to problem-solving, metacognition, and tactical thinking. Self-efficacy plays a crucial part in the development of self-critical thinking skills. These self-efficacy beliefs highlight the abilities of the students. Students with a high level of self-efficacy overcome their setbacks in fewer attempts than those with a lesser level of proficiency (Zander et al., 2018).

Universities employ digital technology to transfer knowledge in the year COVID 19 nevertheless. The dissemination of knowledge via social media is one of the most critical social media applications. This was a success story because COVID 19 did not provide face-to-face instruction. Therefore, social media plays a crucial role in engaging students in online classes (Khaola et al., 2022).

In light of this, the purpose of the current study is to investigate the effects of student citizenship behavior, social media collaborative learning, and academic self-Efficacy on student engagement in the collaborative learning environment in higher education and how these construct the academic performance of students in Indonesian universities. This study also explored the role of student participation as a mediator in Indonesian universities.

Literature Review

Academic Performance

One of the essential goals of education is to improve the students' academic performance. The teachers assess the knowledge gained by the students through their marks over a certain period. Their marks display the attainment of academic

performance of the students. Better Academic performance is the priority of the educational institutes. The person concerned with education shows much importance for academic performance. Academic performance is defined as competence, skill acquisition, and gaining knowledge in literature. It also includes Progress toward the carrier of the students. Moreover, when a person tries to get information regarding the performance of these students the main focus is on the students' academic achievement in terms of getting knowledge (MacCann et al., 2020).

Performance is the extent to which intellectual and academic Progress occurs among students. In literature, students' performance on exams, course assignments, and tests is defined by academic performance. Academic performance in this context refers to the student's capacity to earn excellent grades and advance in their profession (Nayak et al., 2018) Academic performance is of paramount importance in the higher education call to action. As a result, planners, policymakers, parents, and scholars have developed an interest in this topic. Decent academic achievement is a prerequisite for obtaining an excellent job and advancing in one's career. The consequences of academic excellence extend to the entire nation. According to their research, academic achievement is the fundamental factor for the success or failure of any educational institution (Narad & Abdullah, 2016). In addition, researchers highlighted the widespread impact of Academy performance on a secure future and improved professional possibilities. In addition to economic development, the academic formats of students also contribute to the prosperity of the nation through social action. The better the performance of students, the greater the growth of human resources within a country/the better performing students also contribute to the advancement of society (Agarwal & Mustafi, 2021).

Student Engagement

Literature defines student engagement as the effort and time a student invests in classroom-based educational activities. Students' engagement comprises motivation and perception, and emotion about the activity. Cognitive engagement outside of class, student involvement inside of class, bodily attachment, and emotional engagement are the four elements that scholars have identified as constituting engagement. According to studies, there is emotional engagement, but only pupils will demonstrate an interest in the job. On the other hand, physical engagement represents the effort and time devoted by the learner. At the same time, cognitive engagement demonstrates the students' readiness to perform a specific activity (Laxminarayan et al., 2020).

Students' engagement is the extent to which they are involved in the formal learning process. It also refers to students' time, effort, and energy at schools and other educational institutions to accomplish their assignments. The pupils' engagement reveals their mental state in terms of overt behavior and method of thought. The researcher uses student engagement as a proxy to explain how students interact in academic activities to complete their educational assignments. If students are actively involved in academic activities, they will profit from their education. Three variables contribute to student engagement: cognitive, emotional, and behavioral. Behavioral engagement refers to kids' academic participation, whereas emotional engagement refers to their negative and positive reactions to school, teachers, and classmates. In contrast, cognitive engagement focuses on the students' willingness and thoughtfulness (Assel et al., 2019).

Student Engagement and Academic Performance

Scholars have regarded academic performance as the go outcome of student engagement. Despite that, there is extensive literature on these variables, but the relationship between these variables is inconsistent. In the context of this relationship, there are two major perspectives. Scholars have also reported a strong relationship between academic achievement and student engagement (Rashid & Asghar, 2016). On the other hand, King (2015) also said a positive correlation between emotional engagement and student behavior. Their mission ship between cognitive engagement and academic achievement was also found positive. Toyota researchers have pointed out that a comparison between cognitive engagement and emotional engagement produces more academic achievements (Lei et al., 2018). If there is a proper understanding of student engagement, the students' careers can move towards success.

Engagement is essential by which students develop their feelings regarding their institutes, professors, and peers, giving them a sense of belonging, affiliation, and connectedness. The retention rate of the students in the lessons will be high if students are actively engaged in the classrooms. Searchers have found that cognitive, emotional and behavioural engagement is positively related to students' performance. It is also supported by many other studies (Urquijo & Extremera, 2017). Scientists have demonstrated that look academic achievements of students will be high if they are engaged in their studies. The researchers also believe that the student's academic achievement will be best in the case of a high level of engagement (Delfino, 2019).

Social Media Collaborative Learning; Student Engagement

Social media is a highly effective instrument for fostering a high level of collaborative learning among students. Social media has the capacity to either harm or boost classroom outcomes. Learning through social media is frequently referred to as Web 2.0 learning in higher education. Unlike other websites, learning about social media requires students to utilize collaborative applications. They include social networking sites, content communities, blogs, and collaborative endeavors (Bozanta & Mardikyan, 2017). Academics play a crucial part in establishing an online community on social networking sites with a solid academic culture. Social media facilitates not only the sharing of knowledge but also student collaboration. The use of social media can promote students' research skills, knowledge sharing, discussion with teachers, and conversation with peers. According to a study conducted by Hamadi et al. (2021), the results of Facebook users at the graduate level are superior to those of Facebook users who are well-known. Students' learning is enhanced by using social media to complete their tasks.

Information technology's rapid expansion and development have spawned innovative concepts for integrating social media into educational settings. Several social media website solutions facilitate knowledge sharing, expert cooperation, and community building. With these technologies, people can simply communicate with one another. Virtual worlds, networking platforms, sharing tools, media, wikis, and blogs are examples of social media. Scholars have found that social media technologies have enhanced student involvement (Wandera et al., 2016).

Students may quickly establish connections with professionals through social media, create virtual communities, and eventually improve their overall learning. Multiple studies have found that social media can be an essential tool to enhance student learning. It has a significant impact; social media can enhance the course material. Only students who use social media extensively for academic purposes have high participation and contribution to the literary collaboration. This collaboration implies that students' engagement with technology will lead to an increase in their engagement with academics. It will foster a closer relationship between course content, educators, and students. It is consequently anticipated that social media will boost learning for all students (Tarantino et al., 2013).

The engagement of pupils through social media signifies the invention and physical prowess of students and educational excellence. Additionally, it refers to the time spent interacting with teachers for collaborative learning. Interaction affects the state of active participation. The virtual world is the epicenter of the information technology era of inaccurate information. Researchers discovered that almost one-third of students prefer to utilize social media to communicate with their peers, instructors, and coworkers.

In contrast, more than half of students choose social media during class time for wiki, chatting, blocking, and sharing. Therefore, information technology learning is a potent and sharp tool that has a significant impact on the academic performance of pupils. Students that share information with their peers will increase their knowledge. It has been demonstrated that ties to social networks are excellent indicators of knowledge transfer among students. Students can obtain a personalized environment through social media, which boosts their motivation and involvement (Gulzar et al., 2021).

Student Citizenship Behavior; Student Engagement

OCB is referred to as the voluntary behavior of the students toward the organizational benefits. OCB is referred to as employees' behavior in which employees are engaged to complete their motives. Scholars have defined OCB as an optional behavior that is not the employee's obligation. This concept is also explained as the worker's voluntary behaviour to complete the tasks outside their formal responsibilities to benefit the organisation. Students will get benefit From their understanding of OCB (Khatri, 2020).

One of the major customers of a university is the student. For the welfare of society and universities, they play a significant role. This is the responsibility of the students to follow the rules of the university and respect their seniors and professors. The university develops citizenship skills as they allow students to play the leadership roles we improve their society. In the setup of education attainment of learning, the actual test is the basis of assessment in the education institutes. If citizenship behaviour is developed the student's score will be high as well. The studentsThe students reveal that their academic activities are highly correlated with citizenship behaviour. The researchers report a robust relationship between academic achievements and OCB. This behavior also affects the students' engagement (Perveen et al., 2021).

The first term used to phrase organizational citizenship behaviour was the organ. The beneficial behaviour was the first reason back in the 1980s to use this term. The research on organizational citizenship behavior has been discussed in several different settings. But the study conducted in the context of higher education is very limited. Professional judgment is required in the profession of teaching. This is not

possible to write this in the teacher's job description. Therefore, OCB is the base of faculty performance in the context of higher education. A profound connection among the teacher is missing in the context of higher education, which affects the productivity of the students and the institute's performance is also concerning. Therefore, the students and teachers need to use their efforts and talents to achieve their goals (Shareef & Atan, 2018).

The organization's climate helps the organization and the educational institute achieve its goals and objectives. If the organization's employees are practising OCB, it shows dedication to the organization. OCB is one of the pro-social behaviors and provides benefits to the organization. Similarly, the engagement of the students is reflected through student citizenship behaviour. Scientists study the relationship between OCB and work engagement in the hospital sector. The results reported that OCB is significantly affecting the employment of employees (Abed & Elewa, 2016). Results also indicate a positive relationship between OCB and work engagement (Sahoo & Mohanty, 2019).

Scientists first suggested the concept of organizational citizenship behavior (OCB) almost four decades ago; consequently, this concept has been explored in numerous management domains. Historically, the notion of OCB has suggested that OCB influences workplace results. There is a favorable association between OCB, job happiness, and job performance, according to Lu, Zhao, and While (2019). Previous research has also observed the favorable association between OCB and job agreement. Researchers gathered information from high school institutions about job experience and discovered a positive correlation between work involvement and OCB. Multiple studies have found that OCB has a crucial role in team performance and employee engagement in the workplace, where collaboration is prevalent (Byun et al., 2020).

Academic Self-Efficacy; Student Engagement

There are numerous definitions of self-efficacy in the literature. Trust is the mix of self-reliance and self-confidence, according to academics. It is vital to highlight that self-efficacy is not measured by how much a person likes oneself or how much they enjoy doing the job. On the other hand, self-efficacy refers to a person's perception that the task will be accomplished at his employment. In the context of higher education, self-efficacy is a crucial component of students' success since it influences their decisions. Academic self-efficacy is defined as a student's perception of their personal belief in their capacity to attain educational goals. Academic self-efficacy is studied in various contexts, including academic success, academic motivation, and gender (Yokoyama et al., 2019). Studies have investigated the connection between self-efficacy and instructional effectiveness. Self-efficacy was proven to be a significant predictor of motivation and engagement. Self-efficacy predicts the likelihood of achieving a goal.

The belief in one's self-efficacy leads to an individual's outstanding achievement via consistent effort and dedication. A person with a high level of self-efficacy can manage their failures with relative ease. At the same time, individuals with poor self-efficacy struggle to regulate their shortcomings. Consequently, self-efficacy can influence the choice of the individual. In other words, those with poor self-efficacy will find it challenging to perform educational assignments (Hayat et al., 2020).

Student engagement, which has been characterized in various ways in prior research, is another significant phrase that was coined to describe the self-sufficiency relationship. One of the provided definitions describes getting as how an individual manages their situation. It is also known as the individual's conviction that the intended academic outcomes will be attained. The student believes that the work can be accomplished to increase student involvement. Conversely, if students lack confidence in their ability to achieve their academic goals, they will deem it needless to expend effort on this endeavor. As said, they will not attempt to finish the assignment. The results indicate that students have a high level of self-efficacy and are highly engaged with their peers. Because these pupils devote more time to studying. To achieve objectives, self-efficacy influences academic performance (Dogan, 2015).

Certification is also selected for the motivational aspects that influence student learning and engagement. If pupils have a high level of self-efficacy, this will result in a high level of engagement. As a result of what you intended, the student's learning will increase. Furthermore, this link flows in the opposite direction toward self-efficacy. Therefore, if a student is engaged, they will study more and perform better in their chosen field. Self-efficacy is also associated with students' willingness to execute the assignment. A person with a high level of self-efficacy will exert more significant effort in challenging circumstances (Shao et al., 2015).

Therefore, this individual's behavior and emotional engagement are influenced by self-efficacy. This study by Dai et al. (2020) corroborates the favorable association between involvement and self-efficacy. Self-efficacy plays a vital role in motivating pupils to participate in academic activities. A high level of self-efficacy increases the likelihood that the student will be engaged (A.-M. Adams et al., 2020).

The following hypotheses are formulated based on the above review of literature

H1: Academic self-Efficacy significantly affects student engagement.
H2: Student citizenship behavior significantly affects student engagement.
H3: Self-efficacy significantly affects academic performance.
H4: Social media collaborative learning positively affects student engagement.
H5: Student engagement mediates the relationship between SCB and AP.
H6: Student engagement mediates the relationship between ASE and AP.
H7: Student engagement mediates the relationship between SMCL and AP.

Below is given the framework of the current research study

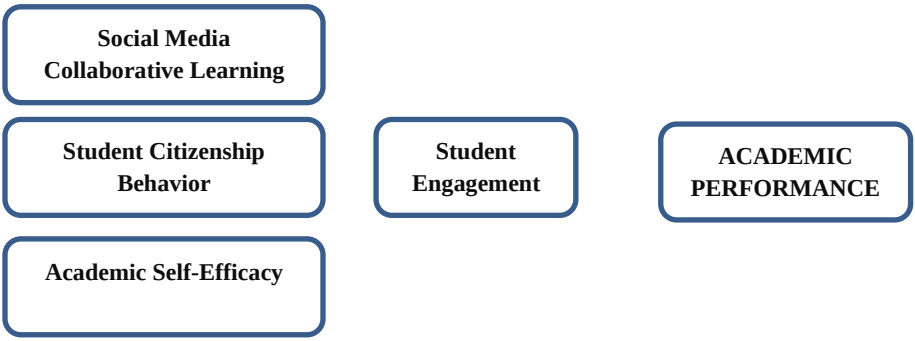

Figure 1. *Theoretical Framework*

Methodology

Respondents to the present study were students at Indonesian public universities. In this study, convenient sampling was used to achieve this objective. The initial phase was data cleansing and detection of outliers. A questionnaire was used to obtain the information from the respondents. In total, 300 questionnaires were delivered to university students. Two hundred twelve usable responses were returned, which were preserved for further examination by the researchers.

Regarding demographics, the sample contains nearly an equal number of men and women. The majority of respondents were older than 20 years. Thirty-one percent of respondents were between the ages of 20 and 25, 34 percent were between 25 and 30, and the other respondents were older than this.

The researcher included a cover letter with the questionnaire to validate the ethical status of the current investigation. This cover letter clearly defined the questionnaire's purpose. This cover letter also included all pertinent information on the researchers, including their names, email addresses, and phone numbers. This cover letter also contained information about the institute for which the applicant works. This is a crucial stage since the respondent must be fully aware of the researcher gathering the data. It will boost the responders' confidence. All of the responders' personal information was assured to be kept confidential. It was guaranteed that they would remain anonymous. In addition, the data submitted by respondents will be used exclusively for this study.

A questionnaire based on the Likert 5 scale was designed for this investigation. All of the questionnaire items were modified from previous research. The six items of academic self-efficacy were adapted from previous research. The items of student citizenship behavior were adapted from Lee and Allen (2002), the items of student engagement were adapted from Miller and Rowan (2006), and the items of academic performance were adapted from Pintrich and De Groot (1990), and the items of social media collaborative learning were adapted from Ansari et al. (2013). The questionnaire was pilot-tested by professionals and academics with extensive knowledge in management studies. This final questionnaire was sent personally to the study's respondents. The collected data was evaluated utilizing SPSS 26 and clever PLS 3.3.3. For evaluating data using PLS-SEM, Memon et al. (2021)'s suggestions were followed.

Results

The analysis through PLS starts with a measurement model. For the assessment of the measurement model, discriminant validity, reliability, convergent validity, and item loading was used. The outer loading was assessed for the confirmation of convergent validity. The recommendations by Hair Jr et al. (2014) that factor loading should be more than 0.50 for the retention of items were followed. According to figure 2 and table 1, the researcher fulfills this criterion. All of the items retained in the study ranged from 0.590 and 0.844.

For the second step of convergent validity, this study examined AVE for the variables used in the present study. According to Fornell and Larcker (1981), the threshold value of AVE is 0.50. As per the values mentioned in table 2, all variables had an AVE of more than 0.50. Moreover, Cronbach Alpha and composite reliability (CR) were used for the reliability of the items. According to Nunnally (1978), the acceptable value for CR and Cronbach Alpha is 0.70. As per the details in table 2 below, these criteria are fulfilled.

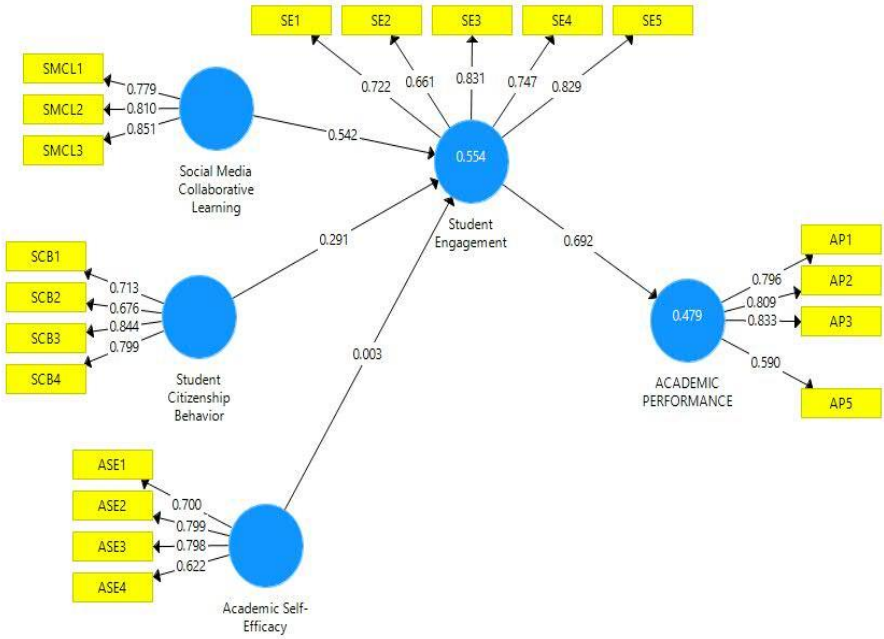

Figure 2. *Measurement Model*

Table 1: *Factor loading*

	AP	ASE	SCB	SE	SMCL
AP1	0.796				
AP2	0.809				
AP3	0.833				
AP5	0.590				
ASE1		0.700			
ASE2		0.799			
ASE3		0.798			
ASE4		0.622			
SCB1			0.713		
SCB2			0.676		
SCB3			0.844		
SCB4			0.799		
SE1				0.722	
SE2				0.661	
SE3				0.831	
SE4				0.747	
SE5				0.829	
SMCL1					0.779
SMCL2					0.810
SMCL3					0.851

Table 2: *Reliability and validity*

	Cronbach's Alpha	CR	AVE
AP	0.763	0.846	0.583
ASE	0.713	0.822	0.538
SCB	0.759	0.845	0.579
SE	0.817	0.872	0.579
SMCL	0.744	0.854	0.662

Two methods were adopted in the present study to examine the discriminant validity. One is the Fornell and Larcker (1981), also known as the square root of AVE. In terms of Fornell and Larcker (1981) approach, the rule of thumb is that the square root of the AVE of every variable must be more than the correlation of the remaining values. The second approach used in this research is the HTMT approach. The discriminant validity according to HTMT is established if the value within the matrix is less than 0.90 Gold et al. (2001). As per the results in table 4 below, all matrix values are less than 0.90. Therefore, based on the results mentioned in table 1, table 2, and table, discriminant validity and convergent validity are confirmed to meet the requirements of the reflective measurement model.

Table 3: *Fornell and Larcker*

	AP	ASE	SCB	SE	SMCL
AP	0.763				
ASE	0.488	0.733			
SCB	0.665	0.513	0.761		
SE	0.692	0.381	0.590	0.761	
SMCL	0.656	0.422	0.549	0.703	0.814

Table 4: *HTMT*

	AP	ASE	SCB	SE	SMCL
AP					
ASE	**0.666**				
SCB	0.852	**0.710**			
SE	**0.826**	**0.491**	**0.716**		
SMCL	**0.830**	**0.582**	**0.722**	0.894	

It is essential to assess the collinearity among the items to examine the structural model through VIF. According to Hair et al. (2011), the values of VIF in the reflective model must not exceed 5. The same is evident from the results in table 5 below that the importance of VIF is less than 5 meeting the requirements to establish that this study does not have the issue of multi-collinearity.

Table 5: *VIF*

	AP	SE
ASE		1.411
SCB		1.661
SE	1.000	
SMCL		1.489

In this study, a basic bootstrapping procedure was adopted by using 5000 subsamples based on the recommendations of Chin (1998). The outcome of the structural model represents the significance of the relationship between the proposed hypothesis. The direct results are mentioned in table 6 below, showing the statistically significant and insignificant relationships.

Table 6: *Direct results*

	Beta	SD	T value	P Values
ASE -> SE	0.003	0.059	0.050	**0.480**
SCB -> SE	0.291	0.066	4.394	**0.000**
SE -> AP	0.692	0.038	18.279	**0.000**
SMCL -> SE	0.542	0.069	7.826	**0.000**

The study findings indicate that ASE does not have a significant positive effect on Student engagement (Beta= 0.003, t=0.050). Therefore, H1 of the present study is not supported. However, the study results indicate that SCB and SE have a significant positive relationship (t=4.394, t=0.291), supporting H2. The same is the statistical finding regarding the relationship between SE and AP where SE has an important positive relationship with AP (Beta=0.692, t=18,729). Likewise, the statistical results confirm that SMCL and SE have a significant positive relationship and support H4 (t=7.826, Beta=0.542).

To test the mediation relationship of student engagement with other study variables, the researcher runs bootstrapping of PLS-SEM as proposed by Preacher and Hayes (2004). Mediation in any study is established when statistical results of the indirect effect of the confidence interval vial are all negative or positive. The indirect results of the study are mentioned in table 6 below.

Table 7: *Mediation results*

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
SCB -> SE -> AP	0.201	0.048	4.147	**0.000**
ASE -> SE -> AP	0.002	0.042	0.049	**0.480**
SMCL -> SE -> AP	0.375	0.056	6.653	**0.000**

The study results indicate that SE successfully mediates among SCB and AP (Beta=0.201, t=4.147). This supports the H5 proposed above. Likewise, SE also mediates successfully among SMCL and AP supporting H7 (Beta=0.375, t=6.653) supporting H7. But, the mediation effect of SE between ASE and AP is not statistically significant (Beta=0.002, t=0.049). Thus, H6 of the study is rejected.

At the end of the structural model, the R square value is vital to examine so the strength of the relationships among proposed variables can be assessed. According to Chin (1998), the minimum value of R square must be more than 0.10. This rule of thumb is fulfilled in this study as per the results in table 7. According to the findings, AP is affected by 47.9% from the IVs, and SE is affected by 55.4% by the predicting variables.

Table 8: *R square*

	Original Sample (O)
AP	**0.479**
SE	**0.554**

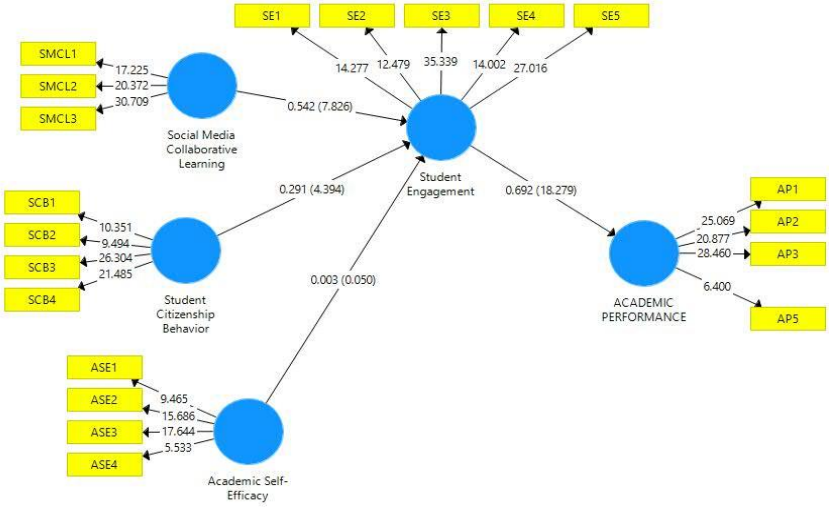

Figure 3: *Structural Model*

Discussion and Conclusion

In the current competitive atmosphere of the higher education sector, students' performance must be continually evaluated and enhanced. Therefore, higher education institutions must investigate the elements to improve their performance. This study investigated the connection between academic self-efficacy, SMCL, OCB, student engagement, and academic success. The study's statistical findings demonstrated that student self-efficacy plays a crucial role in fostering student engagement. Students with a high level of self-efficacy have a high level of attention because they believe the task objectives can be attained. These results are comparable to those of J. G. Adams and Walls (2020).

The data also indicate that social media collaborative learning is a significant predictor of student involvement. Because students can readily communicate with their instructors and peers for educational objectives, these outcomes are identical to those presented by Bozanta and Mardikyan (2017). On the other hand, student engagement in academic activity also plays a crucial role in enhancing students' academic achievement. One probable explanation is that the individual engaged in educational activities will devote more time to these pursuits. Therefore, the pupils' skills and knowledge will increase. Consequently, the academic achievement of the students will be improved. These results are comparable to those of Gefen and Somech (2019).

In the past, numerous research has addressed the function of OCB within the context of management studies. However, very little research has examined its function in academic settings. This research has closed this gap. Future research may employ the framework of this study in any other geographical context. Academics can utilize the outcomes of this study for future research. In addition, academic institutions can apply this research to improve students' academic performance.

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