Social Media Use and Academic Performance Among Students at Pahang's Public Higher Education Institutions: A Correlation Study

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Abstract
Social media use is currently popular and frequently used, especially among young people. Therefore, it is necessary to empirically evaluate a correlational study of social media use and academic performance among students at Pahang's Public Higher Education Institutions. The objectives of this study are to examine the correlation between social media use, cognitive use, hedonic use, and social media types with academics among students at Pahang's Public Higher Education Institutions. Three hundred eighty-two respondents participated in this study. This study found that social use, cognitive use, and social media types correlate with academic performance. Meanwhile, there is no significant correlation between hedonic use and academic performance. The findings of the study will help higher education institutions improve their teaching strategies and communication methods to line up with current digital changes.
Keywords: Social Media, Social Media Use, Types of Social Media, Academic Performance, Public Higher Education Institutions.

Introduction
Social media contain interactive technologies that allow the creation, sharing, and aggregating of content, ideas, interests, and types of expression in virtual communities and networks (Mat Isa et al., 2022). These platforms are mainly web-based, enabling users to formulate service-specific profiles and share content (Mat Isa et al., 2022). A study by Ahmad et al. (2018) found that more than three out of every four university students use social media and spend between three to five hours daily. Today, social media usage among university students has raised academic curiosity about its impact.

Studies by Zhang et al (2024), has found that social media plays an increasingly important role in our daily lives, especially among university students. In addition, social media platforms are used for various purposes, such as communicating, exchanging information, having fun, and socialising (Zhang et al., 2024). Social media can be an excellent tool for students to develop and share educational material (Nurudeen et al., 2023). It provides a space for learning and for families to bond, which can positively impact student's grades (Zhang et al., 2024). In addition, a recent study shows a negative correlation between social media usage and academic performance (Tafesse, 2022). Therefore, there is critical need to conduct a correlation study between social media use and academic performance at higher education institutions.

Furthermore, social media usage also can lead to social media addiction (Nurudeen et al., 2023). It also led to poor health, poor concentration in class and poor time management (Nurudeen et al., 2023). Excessive use of social media can lead to behavioural problems, including addiction (Salari et al., 2023). Moreover, 18.4% of university students reported being addicted to social media (Salari et al., 2023). These factors can affect students' academic performance. For example, a study in Malaysia showed that the amount of time students spend on social media affects their academic performance (Mat Isa et al., 2022). Also, most students with high CGPA grades devote a minimum of average time on social media daily (Mat Isa et al., 2022). The negative effect of social media on academic performance in past studies opens space for researchers to explore other negative effects of social media on academic performance.

According to Nurudeen et al (2023), social media use for academic purposes only significantly impacts academic performance. Studied by Borton et al (2023) also found that there are several factors that significantly predict academic performance such as attention, motivation, and mental well-being. Therefore, due to the lack of literature on social media and academic performance among higher education institutions, there is an essential need to study the correlation between social media and academic performance among higher education institutions.

Problem Statement
Using social media in daily routines is common among university students (Kolhal et al., 2021). Usually, university students use social media for communication and networking. For example, they often use social media platforms like YouTube, WhatsApp, Facebook, Instagram, and Twitter to stay connected with peers, professors, and academic groups. Moreover, 70% of students use Facebook for social purposes, whereas only 49.7% of students employ it for educational purposes (Purple et al., 2022). University students spend a lot of their time on social media both during the day and at night, and it can be contended that such technologies play an important role in their daily lives (Kolhar et al., 2021). On the other hand, social media serves as a platform for sharing information, educational resources, and academic updates to stay informed about important announcements, events and study materials (Saini & Mir, 2023).

As well as that, digital technology can be especially helpful when used by faculty to encourage active learning rather than passive teaching methods, which can help improve

students' overall learning experience and support the United Nation's goal of providing inclusive and equitable education for all (Sivakumar et al., 2023). Research has shown that students often use social networking sites (SNS) to share academic content, such as lecture notes, homework, project papers, and instructional videos. Dropbox, WhatsApp, and YouTube are commonly used for document sharing (Sivakumar et al., 2023). Social media's impact on university students' academic performance is debated (Chowdhury, 2024). For instance, some studies showed a positive effect on students' academics, and others reported evidence that there were either negative or no effects on their academic performance (Alamri et al., 2020).

On the other hand, Excessive use of social media can lead to distractions and procrastination, potentially affecting study time and productivity, thus negatively impacting academic performance (Chowdhury, 2024). In addition to this, social networking addiction affects academic performance by increasing academic procrastination, decreasing sleep quality, and increasing academic stress (Sabri et al., 2024). Apart from this, the continuous notifications and ability to multitask on social media platforms can have a negative impact on concentration and focus while studying or attending lectures, possibly affecting academic performance. Participating in multitasking, such as checking social media while studying, might result in reduced efficiency and comprehension (Haverkamp et al., 2024). Besides, the constant and endless flow of information on social media can result in an excessive volume of data, making it difficult for students to categorize and give priority to academic content effectively. In this case, according to the research, media multitasking disrupts attention and working memory, lowering GPA, test performance, recall, reading comprehension, note-taking, self-regulation, and efficiency (May et al., 2018).

Moreover, the prevalence of unrealistic and exaggerated standards propagated on social media platforms has the potential to adversely affect individuals' self-esteem and concentration, which, in turn, can have a detrimental impact on their academic self-assurance and performance. Besides, many observers and researchers believe that due to the increase in the usage of social networking sites, people have become victims of lower self-esteem and self-growth (Jan et al., 2017).

Even so, students are advised to establish detailed study schedules and impose clear restrictions on social media usage to focus on their academic goals. This approach enables students to efficiently allocate their time and minimize disruption caused by social media. For instance, according to Chowdhury (2024), excessive use of social media can cause procrastination and diversion, which can have a bad effect on study habits and productivity, ultimately leading to poor academic achievement. In addition, suggest methods to minimize interruptions, such as utilizing productivity software to limit access to social media during scheduled study periods or deactivating notifications. By encouraging a focused approach where student dedicates their attention to one subject at a time, the outcomes of learning can be improved while minimizing the adverse impacts of multitasking on social media.

In addition, according to a study conducted by Sabri et al (2024), the excessive use of social networking sites has a negative impact due to increased procrastination, poor sleep quality, and increased academic stress. Therefore, reducing outside distractions to encourage

concentrated study sessions can help reduce the negative effects of multitasking on social media and improve student learning. Advocating for comprehensive wellness methods that encompass sufficient sleep, regular physical activity, and mental health assistance is crucial to reducing the negative impacts of excessive social media usage. This strategy emphasizes the significance of holistic well-being in efficiently controlling the impact of social media on academic achievement. In this case, the spread of unrealistic and exaggerated standards on social media can have a harmful impact on a person's self-esteem and concentration. This, in turn, can result in decreased confidence and academic performance (Jan et al., 2017).

In short, the negative effects of social media usage among university students are distraction, slacking and poor performance among university students. Poor self-esteem and academic confidence can be further provoked by multitasking and applying unrealistic standards. Such healthy practices like sleep, physical exercise, and mental health therapy can be effective. This means that controlling the use of ICT and managing study time is important for achievement. Hence, the purpose of this study is to examine the correlation between social media usage and academic performance among students at Pahang's Public Higher Education Institutions.

Objectives of the Study
The following objectives of this study are to examine the correlation between social media usage and academic performance among students at Pahang's Public Higher Education Institutions.

The Significance of the Research Study
This study could advance our theoretical understanding of the relationship between social media usage and academic performance, ultimately contributing to the advancement of knowledge in this field. Understanding the link between social media use and the academic performance of students is crucial for university management to understand student habits and their impact on education better. This insight will enable the university to align teaching strategies and communication methods with the current digital landscape.

Literature Review
Social Media Use
The term social media-originated in 1994 on a Tokyo-based online media platform called Matisse, marking the dawn of the commercial Internet era when the inaugural social media platforms emerged over time, both the number of platforms and active users have proliferated significantly, rendering social media one of the Internet's most pivotal applications (Aichner et al., 2021).

Social media has become an integral aspect of individuals' everyday routines, with many people dedicating several hours each day to platforms such as Messenger, Instagram, Facebook, and other well-known social media networks (Karim et al., 2020). Many researchers are dedicated to studying the impact of social media on various aspects of human life and activity, making it a significant area of interest and research (Bartosik-Purgat et al., 2017). A previous study has reported that in 2019, the global social media user count reached 3.484 billion, showing a 9% increase compared to the previous year (Karim et al., 2020).

In addition, In January 2020, Twitter had a 38% male user base, while Snapchat boasted a 61% user share (Karim et al., 2020). Social media platforms are central to our interactions, with users spending significant time on Facebook, Twitter, Instagram, and more (Ulvi et al., 2022). However, while social media fosters connectivity, excessive use can lead to negative experiences and impact user's mental health (Masedu et al., 2014).

The traditional Uses and Gratifications (U&G) studies have identified three major types of needs that can be gratified by different media, including social needs, such as the need to strengthen contact with family, friends, and acquaintances, and the hedonic needs, such as the effective need for pleasurable and emotional experiences; and cognitive needs, such as the need to seek information, knowledge and understanding (Katz et al., 1973). The User and Gratification approach suggests that individuals use various media to satisfy their social needs to maintain connections, their emotional needs for enjoyment and pleasure, and their intellectual needs for acquiring information and understanding (Katz et al., 1973).

Social Use

Social media is also a user-centric space, where anyone with internet access via their smartphone or computer can voice their opinions and connect with a wider online audience (Naslund et al., 2016). Social media fosters community and helps maintain relationships, potentially enhancing mental health outcomes when accurate information and advice are sought (Masedu et al., 2014). Previous studies show that no matter how students use social media, they experience both good and bad effects, and there is no single way of using social media that leads to only positive or negative outcomes (Taehyuk et al., 2023).

The Uses and Gratifications Theory says that people may use social media mainly to connect with others, and those who use it for social connection can also end up feeling isolated and comparing themselves to others, which can lead to negative effects like feeling lonely and having low self-esteem (Ruggiero, 2000).

Cognitive Use

The cognitive use segmentation on social media use refers to social media revolving around generating and sharing one's content, as well as accessing and consuming content created by others (Markus et al., 2004). The cognitive use of social media can also involve sharing viewpoints, stories, ratings, discussions, personal images and videos (Leung, 2009). The social networking platform has evolved into a means of fostering interpersonal connections, enabling users to catalogue the individuals with whom they have established relationships while granting them visibility into the network of associations maintained by others (Özkent, 2022). Scientists often use social media platforms to produce and debate ideas, share real-time information, spread their research, and find collaborators (Obar et al., 2015).

Next, due to the recent global pandemic, social media users' motivations for sharing content have significantly shifted, with the author's previous research indicating that people now tend to utilize social media platforms to address challenges in their personal and professional lives (Xie, 2023). Social media aids in fortifying relationships by enabling the

sharing of significant life events through status updates, photographs, and other mediums, simultaneously reinforcing and complementing face-to-face interactions (Aichner et al., 2021). A study by Sponcil et al (2013), revealed that for 91.7 per cent of students, the primary motivation for utilizing social media is to facilitate communication with family and friends, underscoring its prevalence as a common tool for familial interaction (Sponcil et al., 2013).

The study further revealed that 50 per cent of students communicated with family and friends via social media daily, while another 40 per cent engaged in such communication at least a few days per week (Sponcil al., 2013.). Williams and Merten suggest that using social media in everyday life helps strengthen relationships with family, and it has become an important way for migrant families who are spread out across the world to stay in touch (Williams et al., 2011).

Hedonic Use

Hedonic use encompasses utilizing social media platforms for recreational purposes, such as leisure activities, passing time, relaxation, escapism, and entertainment (Ali-Hassan et al., 2015). Social media platforms offer a form of entertainment that can provide temporary relief from anxiety by presenting users with content designed to give pleasure and enjoyment (Dzogbenuku et al., 2022). Social media platforms have become increasingly recognized for their ability to provide users with engaging and enjoyable content (Lee et al., 2012). Originally meant to connect people, social media has become a major source of entertainment for its users (Scholz, 2021).

Millennials pioneered the social media revolution, shaping how these platforms transformed from communication tools into major entertainment (Fondevila-Gascón et al., 2020). The rise of social media platforms, initially designed for communication, has transformed how Millennials consume entertainment, shifting them away from traditional television (Bilro et al., 2022). In entertainment psychology, funny and enjoyable content (hedonic) creates different experiences and effects on viewers than inspiring and meaningful content (eudaimonic) (Janicke-Bowles et al., 2022).

Social Media Types

Social media comes in various forms, including blogs, collaborative projects, content communities, social networking sites, virtual game worlds, virtual social worlds, and academic social networking sites, and these seven categories have been popular for a long time, even before the COVID-19 pandemic (Treem et al., 2016). Academic Social Networking Sites (ASNS) are a type of social media designed for researchers to connect and share their work (Veletsianos, 2013).

Several distinct genres have emerged within the broader landscape of social media platforms (Ndung'u et al., 2023). These include Academic Social Networking Sites (ASNS) designed for scholarly exchanges such as ResearchGate, personal blogs for individual content creation mostly distinguished from platforms like X, also known as Twitter, collaborative projects that allow joint content development like Wikipedia, and content communities focused on media sharing including SlideShare and YouTube (Ndung'u et al., 2023).

Social Networking Sites (SNS) like Facebook, Pinterest, LinkedIn, Instagram, Snapchat, and WhatsApp allow users to create personal profiles, connect with friends, and exchange messages (Kimmons et al., 2014). Virtual social media encompasses Virtual Game Worlds (VGWs) like World of Warcraft, which simulate face-to-face interactions in 3D settings, and Virtual Social Worlds (VSWs) like Second Life, where users can create avatars and engage in high levels of self-disclosure within a realistic virtual environment often used for educational purposes (Kaplan et al., 2010).

Students at university levels regularly manage to be involved in a variety of social media platforms such as Instagram, Facebook, LinkedIn, and Twitter (Nwazor et al., 2015). Previous studies found that addiction towards social media affects user's daily life routines (Brooks et al., 2020). Studies have found that, in December 2019, Facebook had 2.5 billion monthly active users, Twitter had 330 million, and Instagram boasted over 1 billion active monthly users globally (Ulvi et al., 2022).

Academic Performance

Academic performance refers to the student's achievement encountered during the educational journey, whether at school or university. When students achieve better academic performance, it will influence the present and the upcoming future of their lives (Kell et al., 2013). The use of social media encounters among students raises the worry that it can lead to a bad impact on academic performance (Casale et al., 2020). Social media usage among students affects academic performance, resulting in a 20% decline in grades (Idubor, 2015). For instance, social media helps provide useful information, but it still gives negative values by making students obsessed with it and can drop their academic performance (Hou et al., 2019).

Research Methods

The study applied a cross-sectional research design. This study targeted students at Pahang's Public Higher Education Institutions. The unit of analysis is individual. The G*Power 3.1.9.7 was employed to determine the minimum sample size. Based on two predictors, an effect size of 0.15, an alpha level of 0.05, and a power level of 0.95, 107 samples were recommended. However, considering Hair et al. (2014) advice, a greater sample size enhances the accuracy and reliability of PLS-SEM results. The researcher distributed 406 questionnaires, and 382 were returned. The researcher used a convenience sampling technique because the respondents volunteered to join the study (Sundram et al., 2023). In addition, the questionnaire questions were adopted and adapted from the past studies. The independent variables for this study are social media use included in social use (Ali-Hassan et al., 2015), cognitive use (Ali-Hassan et al., 2015), hedonic use (Ali-Hassan et al., 2015), and social media types (Tkáčová et al., 2021). The dependent variable of this study is academic performance (Hardré et al., 2011). The Likert scale of "Strongly Disagree" to "Strongly Agree," or a numerical scale from 1 to 7, in which the respondents are expected to give their sentiment strength to certain statements concerning the impact of social media usage on study performance. Item modification was made to meet the study context and validated by the field experts.

Results and Findings
Reliability Analysis
Table 1
Reliability Statistics

Variables	Cronbach's Alpha	N of Items
Social Use	.822	5
Cognitive Use	.822	5
Hedonic Use	.837	4
Social Media Type	.859	7

This study used Cronbach's Alpha to calculate the reliability of the Likert Scale used in the questionnaire given, and it was able to determine reliability and consistency (Tavakol et al., 2011). The result of Table 1 indicates that all variables in this study have a good internal consistency (Cronbach, 1951).

Demographic Profile of Respondents
This part gives details of the descriptive result used to obtain the respondents' profiles, which were recorded in the questionnaire and answered by the respondents among students at Pahang's Public Higher Education Institutions. The demographic data profile of respondents included in the questionnaire of this study was gender, age, education level, the frequency of social media use per day, and the current cumulative grade point average (CGPA).

Table 2
Respondents Gender

Items	Frequency	Percent
Female	237	62.0
Male	145	38.0
Total	**382**	**100.0**

Table 2 shows the gender of all the respondents in this study. 38.0% were male and 62.0% were female. The frequency of each gender is 237 for females and 145 for males.

Table 3
Respondents Age

Items	Frequency	Percent
18-20	242	63.4
21-23	132	34.6
24-27	7	1.8
28-30	1	.3
Total	**382**	**100.0**

Table 3 shows the ages of all the respondents in terms of years. The majority of the respondents (63.4% with a frequency of 242) are 18-20 years old, (34.6% with a frequency of 132) are 21-23 years old, (1.8% with a frequency of 7) are 24-27 years old and (0.3% with a frequency of 1) are 28-30 years old.

Table 4
Respondents Education level

Items	Frequency	Percent
Pre-Diploma	2	.5
Diploma	238	62.3
Bachelor's Degree	142	37.2
Total	**382**	**100.0**

Table 4 shows that most respondents had a diploma of 62.3%, and the frequency was 238. In addition, respondents with a 37.2% frequency of bachelor's degrees had a frequency of 142, and 0.5% frequency of 2 were from Pre-Diploma.

Table 5
The Frequency of Social Media Use Per Day by The Respondents

Items	Frequency	Percent
1 Hour - 2 Hours	32	8.4
2 Hours - 3 Hours	84	22.0
3 Hours - 4 Hours	97	25.4
4 Hours and Above	169	44.2
Total	**382**	**100.0**

Table 5 shows the frequency of students who used social media (Per Day) was most of the respondents (44.2% with a frequency of 169) used 4 hours and above, (25.4% with a frequency of 97) used 3-4 hours, (22.0% with a frequency of 84) used 2-3 hours, and the least (8.4% with a frequency of 32) in which 1-2 hours.

Table 6
Respondents Current Cumulative Grade Point Average (CGPA).

Items	Frequency	Percent
2.00 - 2.99	26	6.8
3.00 - 3.49	191	50.0
3.50 - 4.00	165	43.2
Total	**382**	**100.0**

Table 6 shows the highest CGPA among the students, which is 3.00-3.49, which is a percentage of 50.0%, and the frequency is 191 students. Next, the CGPA of 3.50-4.00 was 43.2%, and the frequency was 165. Therefore, the percentage of students who get 2.00-2.99 is 6.8%, and the frequency is 26.

Correlation Result
A correlation coefficient measures the two variables that associate that can create either a negative correlation, a positive correlation, or no correlation at all (Schober et al., 2018). Therefore, this part will discuss the correlation result for this study.

Table 7
Correlation Result

		SU	SU	HU	SMT	AP
SU	Pearson Correlation	1	.600**	.248**	.445**	.340**
	Sig. (2-Tailed)		.000	.000	.000	.000
	N	382	382	382	382	382
CU	Pearson Correlation	.600**	1	.241**	.554**	.307**
	Sig. (2-Tailed)	.000		.000	.000	.000
	N	382	382	382	382	382
HU	Pearson Correlation	.248**	.241**	1	.301**	.068
	Sig. (2-Tailed)	.000	.000		.000	.187
	N	382	382	382	382	382
SMT	Pearson Correlation	.445**	.554**	.301**	1	.378**
	Sig. (2-Tailed)	.000	.000	.000		.000
	N	382	382	382	382	382
AP	Pearson Correlation	.340**	.307**	.068	.378**	1
	Sig. (2-Tailed)	.000	.000	.187	.000	
	N	382	382	382	382	382

**. Correlation Is Significant at the 0.01 Level (2-Tailed).

Indicator: SU= Social Use, CU= Cognitive Use, HU= Hedonic Use, SMT= Social Media Type, AP= Academic Performance.

Table 7 shows the findings on the correlation between social use, cognitive use, hedonic use and social media type towards academic performance. The results indicate there was a weak, positive and significant correlation between social use (r=0.340, p<0.01), cognitive use (r=0.307, p<0.01) and social media types (r=0.378, p<0.01) toward academic performance. However, the correlation between hedonic use and academic performance was very weak performance (r=0.068, p<0.01).

Discussion
Based on the findings, students who use social media more regularly often perform better academically (Rashid et al., 2020). This association highlights how social media use may affect students' time management abilities, study habits, and maybe even their access to educational materials (Rashid et al., 2020). The COVID-19 pandemic has made changes towards universities and institutions that use social media in teaching and learning mechanisms that have a positive impact on students learning (Coman et al., 2020). These results highlight the necessity for educators and students to think about how social media use might positively or negatively affect academic progress, even though the precise processes behind this link need further investigation. According to Al-Rahmi et al. (2019), by engaging with social media platforms. The students can increase their learning performance through an open learning tool environment.

Furthermore, social use lets people socialize more with each other, which builds a strong connection between the users (Ndung'u et al., 2023). Social use also encourages socialization, which has a positive impact on students' academic performance for them to stay communicated with their lecturer and, at the same time, increase motivation in their learning journey (Al-Rahmi et al., 2020). According to Wakefield and Frawley (2020), social use allows students to stay in communication and enables students to work as a team and obtain new information related to their studies. Then, the interactions between students on social media help students find the answers to the questions that relate to their courses (Khan et al., 2021). Social media use also encourages relationships between students and educators (Pekkala & van Zoonen, 2021).

Moreover, social media has the potential to create collaborative learning environments where students can exchange education-related materials and content (Ansari et al., 2020). The previous study found that the faculty used cognitive elements to share content, make content and assemble information (Sobaih et al., 2020). According to Pekkala and van Zoonen (2021), social media platforms in the education field help students to engage to exchange views or ideas and talk about information published through online content within the student community that is related to their study. Social media has been used as educational content material for students to enhance their understanding towards their studies (Bhandarkar et al.,2021).

Past research has stated that hedonic use can negatively impact academic performance because it causes distractions for individuals (Sobaih et al., 2016). A previous study stated that hedonic purposes for technology use can affect academic performance negatively (Sobaih et al., 2016). Social media use for fun was a waste of time during learning and teaching (Trigland & Wasko, 2009). Social media use for entertainment can cause one to lose concentration and can be a waste of time that leads to inefficiency in daily routine (Ndung'u et al., 2023). Then, students love to spend most of their time on social media platforms rather than for academic purposes, which can lead to their being unable to concentrate on their studies (Bekalu et al., 2019). Another study proved that most students are quite addicted to social media since they prefer to engage with social media to enjoy and have fun. Sometimes, they neglect their commitment to their studies, which has a negative impact on academic performance (Kolhar et al., 2021). Social media is also used by students for entertainment purposes rather than learning purposes, such as watching dramas or movies, playing online games and engaging in conversation through social media platforms (Abbas et al., 2019). The hedonic use of social media also leads to a waste of time on education and academic work (Ndung'u et al., 2023).

Social media plays an important role in the field of education and student's life (Sivakumar, 2020). This association is consistent across the sample, highlighting the possible influence of students' social media usage on their academic performance. Based on these results, more research into the usage of certain social media platforms and how they affect study habits, information processing, and time management may be necessary to help students alike maximize academic success in the digital era (Sivakumar, 2020). Most medical

students use social media platforms to obtain knowledge content related to their studies with their teachers (Liu et al., 2016).

Conclusion

The purpose of this study was to conduct a correlational study of social media use and academic performance among students at Pahang's Public Higher Education Institutions. This study was to determine the correlation between social use, cognitive use, hedonic use and social media type towards academic performance. It was discovered through statistical analyses that three determinants of social media use (social use, cognitive use and social media type) had statistically significant and positive correlation with the academic performance among students at Pahang's Public Higher Education Institutions. However, hedonic use is very weak, and there is no significant correlation toward academic performance. This proves that the findings of this study are consistent with past research, which has found that hedonic use has no significant impact on academic performance. As a result, this study adds to the existing body of knowledge about social media use literature by providing additional insights into the use of academic performance among Higher Education Institutions.

References

Abbas, J., Aman, J., Nurunnabi, M., & Bano, S. (2019). The impact of social media on learning behavior for sustainable education: Evidence of students from selected universities in Pakistan. *Sustainability*, *11*(6), 1683.

Ahmad, R., Hassan, N. A., Tajuddin, J. M., & Wimpi, Y. T. (2018). A study on social media usage among private university students in Klang Valley. *The Sultan Alauddin Sulaiman Shah Journal (JSASS)*, *5*(2), 257-268.

Aichner, T., Grünfelder, M., Maurer, O., & Jegeni, D. (2021). Twenty-Five Years of Social Media: a Review of Social Media Applications and Definitions from 1994 to 2019. *Cyberpsychology, Behavior, and Social Networking*, *24*(4), 215–222. https://doi.org/10.1089/cyber.2020.0134

Alamri, M. M., Almaiah, M. A., & Al-Rahmi, W. M. (2020). Social Media Applications Affecting Students' Academic Performance: A Model Developed for Sustainability in Higher Education. *Sustainability*, *12*(16), 6471. https://doi.org/10.3390/su12166471

Ali-Hassan, H., Nevo, D., & Wade, M. (2015). Linking dimensions of social media use to job performance: The role of social capital. *The Journal of Strategic Information Systems*, *24*(2), 65-89.

Ali-Hassan, H., Nevo, D., & Wade, M. (2015). Linking dimensions of social media use to job performance: The role of social capital. *The Journal of Strategic Information Systems*, *24*(2), 65–89. https://doi.org/10.1016/j.jsis.2015.03.001

Al-Rahmi, W. M., Yahaya, N., Alamri, M. M., Aljarboa, N. A., Kamin, Y. B., & Saud, M. S. B. (2019). How cyber stalking and cyber bullying affect students' open learning. *Ieee Access*, *7*, 20199-20210.

Al-Rahmi, W. M., Yahaya, N., Alturki, U., Alrobai, A., Aldraiweesh, A. A., Omar Alsayed, A., & Kamin, Y. B. (2022). Social media–based collaborative learning: The effect on learning

success with the moderating role of cyberstalking and cyberbullying. *Interactive Learning Environments*, *30*(8), 1434-1447.

Barton, B. A., Adams, K. S., Browne, B. L., & Arrastia-Chisholm, M. C. (2021). The effects of social media usage on attention, motivation, and academic performance. *Active Learning in Higher Education*, *22*(1), 11-22.

Bartosik-Purgat, M., Filimon, N., & Kiygi-Calli, M. (2017). Social media and higher education: An international perspective. *Economics and Sociology, 2017, vol. 10, núm. 1, p. 181-191*.

Bekalu, M. A., McCloud, R. F., & Viswanath, K. (2019). Association of Social Media Use with Social Well-Being, Positive Mental Health, and Self-Rated Health: Disentangling Routine Use from Emotional Connection to Use. *Health Education & Behavior*, *46*(2), 69–80. https://doi.org/10.1177/1090198119863768

Bhandarkar, A. M., Pandey, A. K., Nayak, R., Pujary, K., & Kumar, A. (2021). Impact of social media on the academic performance of undergraduate medical students. *Medical Journal Armed Forces India*, *77*(1), S37–S41. https://doi.org/10.1016/j.mjafi.2020.10.021

Bilro, R. G., Loureiro, S. M. C., & Santos, J. F. (2021). Masstige strategies on social media: The influence on sentiments and attitude toward the brand. *International Journal of Consumer Studies*, *46*(4). https://doi.org/10.1111/ijcs.12747

Brooks, H. Z., & Porter, M. A. (2020). A model for the influence of media on the ideology of content in online social networks. *Physical Review Research*, *2*(2). https://doi.org/10.1103/physrevresearch.2.023041

Casale, S., & Banchi, V. (2020). Narcissism and problematic social media use: A systematic literature review. *Addictive behaviors reports*, *11*, 100252.

Chowdhury, E. K. (2024). Examining the benefits and drawbacks of social media usage on academic performance: a study among university students in Bangladesh. *Journal of Research in Innovative Teaching & Learning*. https://doi.org/10.1108/jrit-07-2023-0097

Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *Sustainability*, *12*(24), 10367.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, *16*(3), 297-334.

Dzogbenuku, R. K., Doe, J. K., & Amoako, G. K. (2022). Social media information and student performance: the mediating role of hedonic value (entertainment). *Journal of Research in Innovative Teaching & Learning*, *15*(1), 132-146.

Fondevila-Gascón, J.-F., Polo-López, M., Rom-Rodríguez, J., & Mir-Bernal, P. (2020). Social Media Influence on Consumer Behavior: The Case of Mobile Telephony Manufacturers. *Sustainability*, *12*(4), 1506. https://doi.org/10.3390/su12041506

Hair, J. F., Gabriel, M., & Patel, V. (2014). AMOS covariance-based structural equation modeling (CB-SEM): Guidelines on its application as a marketing research tool. *Brazilian Journal of Marketing*, *13*(2).

Hardré, P., Beesley, A., Miller, R., & Pace, T. (2011). *Faculty Motivation to do Research: Across Disciplines in Research- Extensive Universities Mid-continent Research for Education and Learning*. https://www.missouristate.edu/LongRangePlan/_Files/Faculty_Motivation_to_Do_R

esearch.pdf

Haverkamp, Y. E., Bråten, I., Latini, N., & Strømsø, H. I. (2024). Effects of media multitasking on the processing and comprehension of multiple documents: Does main idea summarization make a difference? *Contemporary Educational Psychology*, *77*, 102271. https://doi.org/10.1016/j.cedpsych.2024.102271

Hou, Y., Xiong, D., Jiang, T., Song, L., & Wang, Q. (2019). Social media addiction: Its impact, mediation, and intervention. *Cyberpsychology: Journal of psychosocial research on cyberspace*, *13*(1).

Idubor, I. (2015). Investigating social media usage and addiction levels among undergraduates in University of Ibadan, Nigeria. *British Journal of Education, Society & Behavioural Science*, *7*(4), 291-301.

Jan, M., Soomro, S. A., & Ahmad, N. (2017). Impact of Social Media on Self-Esteem. *European Scientific Journal, ESJ*, *13*(23), 329–341. https://doi.org/10.19044/esj.2017.v13n23p329

Janicke-Bowles, S., Raney, A. A., Oliver, M. B., Dale, K. R., Zhao, D., Neumann, D., ... & Hendry, A. A. (2022). Inspiration on social media: Applying an entertainment perspective to longitudinally explore mental health and well-being.

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

Karim, F., Oyewande, A. A., Abdalla, L. F., Ehsanullah, R. C., & Khan, S. (2020). Social media use and its connection to mental health: a systematic review. *Cureus*, *12*(6).

Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The public opinion quarterly*, *37*(4), 509-523.

Kell, H. J., Lubinski, D., & Benbow, C. P. (2013). Who rises to the top? Early indicators. *Psychological Science*, *24*(5), 648-659.

Kimmons, R., & Veletsianos, G. (2014). The fragmented educator 2.0: Social networking sites, acceptable identity fragments, and the identity constellation. *Computers & Education*, *72*, 292-301.

Kolhar, M., Kazi, R. N. A., & Alameen, A. (2021). Effect of social media use on learning, social interactions, and sleep duration among university students. *Saudi journal of biological sciences*, *28*(4), 2216-2222.

Kolhar, M., Kazi, R. N. A., & Alameen, A. (2021). Effect of social media use on learning, social interactions, and sleep duration among university students. *Saudi Journal of Biological Sciences*, *28*(4), 2216–2222. https://doi.org/10.1016/j.sjbs.2021.01.010

Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in human behavior*, *28*(2), 331-339.

Leonardi, P. M., & Vaast, E. (2017, June 28). *Social Media and Their Affordances for Organizing: A Review and Agenda for Research*. Papers.ssrn.com. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2993824

Leung, L. (2009). User-generated content on the internet: an examination of gratifications, civic engagement and psychological empowerment. *New media & society*, *11*(8), 1327-1347.

Liu, Q., Peng, W., Zhang, F., Hu, R., Li, Y., & Yan, W. (2016). The effectiveness of blended learning in health professions: systematic review and meta-analysis. *Journal of medical Internet research*, *18*(1), e2.

Markus, Ann, G., & Majchzak, L. M. (2004). Time Flies When You're Having Fun: Cognitive

Absorption and Beliefs about Information Technology Usage. *MIS Quarterly*, *24*(4), 665–694. https://doi.org/10.2307/3250951

Masedu, F., Mazza, M., Di Giovanni, C., Calvarese, A., Tiberti, S., Sconci, V., & Valenti, M. (2014). Facebook, quality of life, and mental health outcomes in post-disaster urban environments: the L'Aquila earthquake experience. *Frontiers in public health*, *2*, 286.

Mat Isa, W. N. S. F., Mohd Rodzi, N. A., Libasin, Z., Idris, N. A., Mazeni, N. A., & Jaafar, R. (2022). The effectiveness of social media use among university students in Malaysia.

May, K. E., & Elder, A. D. (2018). Efficient, helpful, or distracting? A literature review of media multitasking in relation to academic performance. *International Journal of Educational Technology in Higher Education*, *15*(1), 1–17. https://doi.org/10.1186/s41239-018-0096-z

Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The Future of Mental Health care: Peer-to-peer Support and Social Media. *Epidemiology and Psychiatric Sciences*, *25*(2), 113–122. https://doi.org/10.1017/s2045796015001067

Ndung'u, J., Vertinsky, I., & Onyango, J. (2023). The relationship between social media use, social media types, and job performance amongst faculty in Kenya private universities. *Heliyon*, *9*(12).

Ndung'u, J., Vertinsky, I., & Onyango, J. (2023). The relationship between social media use, social media types, and job performance amongst faculty in Kenya private universities. *Heliyon*, *9*(12).

Nurudeen, M., Abdul-Samad, S., Owusu-Oware, E., Koi-Akrofi, G. Y., & Tanye, H. A. (2023). Measuring the effect of social media on student academic performance using a social media influence factor model. *Education and Information Technologies*, *28*(1), 1165-1188.

Nwazor, J., & Chukwudi. (2015). Social Media and Academic Performance of Business Education Students in South-East Nigeria. *Online)*, *6*(25). https://files.eric.ed.gov/fulltext/EJ1078529.pdf

Obar, J. A., & Wildman, S. (2015). Social media definition and the governance challenge: An introduction to the special issue. *Telecommunications policy*, *39*(9), 745-750.

Olayiwola Alfa Abdullahi, Mahadi Bahari, Suraya Miskon, & Mohamad. (2024). Social Media Addiction and Academic Performance: A Bibliometric Analysis Approach. *International Journal of Academic Research in Business & Social Sciences*, *14*(1). https://doi.org/10.6007/ijarbss/v14-i1/20536

Özkent, Y. (2022). Social media usage to share information in communication journals: An analysis of social media activity and article citations. *Plos one*, *17*(2), e0263725.

Pekkala, K., & van Zoonen, W. (2022). Work-related social media use: The mediating role of social media communication self-efficacy. *European Management Journal*, *40*(1), 67-76.

Purple, K., Lee, T. X., Ong, J. R., Tee, S. Y., & Yam, K. Y. (2022). *IMPACT OF SOCIAL MEDIA USE ON ACADEMIC PERFORMANCE AMONG*. http://eprints.utar.edu.my/4941/1/fyp_PR_2022_KP.pdf

Rashid, M. I., Malik, M. J., Pitafi, A. H., Iqbal, J., Anser, M. K., & Abbas, M. (2020). Usage of social media, student engagement, and creativity: The role of knowledge sharing behavior and cyberbullying. *Computers & Education*, *159*, 104002. https://doi.org/10.1016/j.compedu.2020.104002

Ruggiero, T. E. (2000). Uses and Gratifications Theory in the 21st Century. *Mass

Communication and Society, *3*(1), 3–37. https://doi.org/10.1207/s15327825mcs0301_02

Sabri, F., Basri, F. N., & Rahimi, M. K. A. (2024). Social Media Addiction and Academic Performance of University Students. *Ulum Islamiyyah*, *34*(2), 1–17. https://doi.org/10.33102/uij.vol34no2.476

Saini, N., & Mir, S. A. (2023). Social media: Usage and the impact on education. *Journal of Namibian Studies: History Politics Culture*, *33*, 4670-4689.

Salari, N., Zarei, H., Hosseinian-Far, A., Rasoulpoor, S., Shohaimi, S., & Mohammadi, M. (2023). The global prevalence of social media addiction among university students: a systematic review and meta-analysis. *Journal of Public Health*, 1-14.

Scholz, J. (2021). How Consumers Consume Social Media Influence. *Journal of Advertising*, *50*(5), 1–18. https://doi.org/10.1080/00913367.2021.1980472

Sivakumar, R. (2020). Effects of social media on academic performance of the students. *The Online Journal of Distance Education and e-Learning*, *8*(2), 90-97.

Sivakumar, R. (2020). Effects of social media on academic performance of the students. *The Online Journal of Distance Education and e-Learning*, *8*(2), 90-97.

Sobaih, A. E. E., Hasanein, A. M., & Abu Elnasr, A. E. (2020). Responses to COVID-19 in higher education: Social media usage for sustaining formal academic communication in developing countries. *Sustainability*, *12*(16), 6520.

Sobaih, A. E. E., Moustafa, M. A., Ghandforoush, P., & Khan, M. (2016). To use or not to use? Social media in higher education in developing countries. *Computers in Human Behavior*, *58*, 296–305. https://doi.org/10.1016/j.chb.2016.01.002

Sponcil, M., & Gitimu, P. (2013). Use of Social Media By College Students: Relationship to Communication and Self-Concept. *Journal of Technology Research Use of Social Media*. https://www.aabri.com/manuscripts/121214.pdf

Sundram, V. P. K., Chandran, V. G. R., Atikah, S. B., Rohani, M., Nazura, M. S., Akmal, A. O., & Krishnasamy, T. (2016). Research methodology: Tools, methods and techniques. *MLSCA, Selangor*.

TaeHyuk , B. K., Wang, Y.-W., Callaway, J., Abebe, I., Cruz, T., & O'Connor, S. (2023). Benefits and harms of social media use: A latent profile analysis of emerging adults. *Current Psychology*, *42*(27). https://doi.org/10.1007/s12144-022-03473-5

Tafesse, W. (2022). Social networking sites use and college students' academic performance: testing for an inverted U-shaped relationship using automated mobile app usage data. *International Journal of Educational Technology in Higher Education*, *19*(1), 16.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, *2*, 53.

Tkáčová, H., Pavlíková, M., Jenisová, Z., Maturkanič, P., & Králik, R. (2021). Social media and students' wellbeing: An empirical analysis during the covid-19 pandemic. *Sustainability*, *13*(18), 10442.

Treem, J. W., Dailey, S. L., Pierce, C. S., & Biffl, D. (2016). What we are talking about when we talk about social media: A framework for study. *Sociology Compass*, *10*(9), 768-784.

Trigland, R., & Wasko, M. (2009). Knowledge transfer in MNCs: Examining how intrinsic motivations and knowledge sourcing impact individual centrality and performance. *Journal of International Management*, *15*(1), 15–31. https://doi.org/10.1016/j.intman.2008.02.001

Ulvi, O., Karamehic-Muratovic, A., Baghbanzadeh, M., Bashir, A., Smith, J., & Haque, U. (2022). Social media use and mental health: a global analysis. *Epidemiologia*, *3*(1), 11-25.

Veletsianos, G. (2013). Open practices and identity: Evidence from researchers and educators' social media participation. *British Journal of Educational Technology*, *44*(4), 639-651.

Wakefield, J., & Frawley, J. K. (2020). How does students' general academic achievement moderate the implications of social networking on specific levels of learning performance? *Computers & Education*, *144*, 103694.

Xie, L. (2023). User's Motivation in Sharing Information on Social Media. *BCP Business & Management*, *43*, 153–158. https://doi.org/10.54691/bcpbm.v43i.4635

Zhang, X., Abbas, J., Shahzad, M. F., Shankar, A., Ercisli, S., & Dobhal, D. C. (2024). Association between social media use and students' academic performance through family bonding and collective learning: the moderating role of mental well-being. *Education and Information Technologies*, 1-31.

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