

Social Media Addiction and Academic Performance of University Students

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Abstract

Past studies have shown that social media addiction harms the student's academic performance. Therefore, the purpose of this study is to examine the relation between social media addiction and academic performance of third-and fourth-year students in the Faculty of Leadership and Management, Universiti Sains Islam Malaysia. In this study, a quantitative method was utilized, and 248 students were enrolled using stratified random sampling. Respondents completed online questionnaires consisting two sections: demographic information and the Social Media Addiction Scale (SMAS). The results indicated that respondents having a moderate level of addiction. In addition, the t-test yielded that there is no gender difference in terms of social media addiction, while the Pearson correlation showed that there was no significant relation between social media addiction and academic performance among the respondents. This study provides information for the university and their counselors to prepare a counseling guidance program for students who are facing a problematic social media use.

Keywords: *Social media addiction, Academic performance, University students, Social Media Addiction Scale.*

1.0 Introduction

Social media is one of the communication platforms which allows for social interaction and facilitates discussions among its users. With the advancement of information technology, especially the rapid popularity of social media such as Facebook, WeChat, or Instagram, the way of interpersonal communication methods has undergone tremendous changes in recent decades (Stone & Wang, 2018). However, excessive use of social media can lead to addiction.

Social media addiction is a type of internet addiction in which people have an overwhelming desire to use social media (Griffiths, 2000; Starcevic, 2013, as cited in Hou et al., 2019). Malaysians between 16 to 34 years old watch YouTube videos, with an average viewing time of 80 minutes, which is twice the world average (Moghavvemi et al., 2017). Teenagers and young adults have embraced social media sites as their way to connect with their peers around the world, share information, reinvent their personalities and their social updates. These data show the intensive use of social media applications among the young generation has increased, and it has raised attention over how the use of social media especially among undergraduate students correlates with their academic performance. Previous findings have proved this matter. One finding by Azizi et al. (2019) shows that there is a significant correlation between social networking addiction and students' academic performance. It indicates that academic performance decreases when excessive use of social networks increases. According to past studies, this issue happens because of the overuse of social networks. Moreover, Mushtaq and

Benraghda (2018) describe the overuse of social networks reduces the level of academic engagement and students' grades. Thus, the researcher thinks it is necessary to study the relations of the relationship between social media addiction and academic performance. This study aims to investigate the relationship between social media addiction and academic performance among university students in the Malaysian context.

2.0 Problem Statement

There is no doubt that social media have become one of the prominent technologies that have been used by people. Unfortunately, not everyone realized that excessive social media use can lead to negative outcomes such as social media addiction. According to Hou et al. (2019), individuals suffering from social media addiction are frequently over-concerned with social media and are driven by an uncontrollable desire to log on and use social media. In addition, this issue also contributes to the negative outcome on education perspectives. Azizi et al. (2019) claim that there is a negative correlation between social media use and academic performance. Uncontrolled use of social media reduces the study time. Therefore, it harms the performance of students. Besides that, male students have shown higher social networking addiction than females. This matter invited worrying towards the level of addiction among the university students.

However, there are limited current studies about the relationship between social media addiction and academic performance among university students, especially in Malaysia. Therefore, this study is specifically aimed to investigate the relationship between social media addiction and academic performance among third - and fourth-year Faculty of Leadership and Management (FKP) students in Universiti Sains Islam Malaysia (USIM), Malaysia.

3.0 Literature Review

3.1 Basic concepts

3.1.1 Social Media Addiction

Tutgun-Unal (2015, p 197) defines social media addiction as a “psychological problem which causes problems such as occupation, mood modification, relapse, and conflict in many areas of daily life such as private, business/academic, interpersonal in person's life by progressing with cognitive, affective and behavioral processes”. Similarly, Hou et al. (2019) describe it as one type of internet addiction, where the individuals manifest a compulsion to use social media to excess. Meanwhile, Ahmed & Vaghefi (2021), state social media addiction as “compulsive”, “excessive”, “problematic”, “maladaptive” or “pathological” social media use.

3.1.2 Academic Performance

Hijazi and Naqvi (2006) describes the academic performance as a multifaceted concept that includes various learner aspects that contribute to academic success. Daz-Morales and Escribano (2015) point out academic performance is the result of a combination of psychological, social, and economic factors that lead to proper multifaceted growth of students. In contrast, Narad and Abdullah (2016) states that academic performance is measured through teacher-assessed knowledge and/or educational goals set by students and teachers, or over a period and continuous assessment. Exams and goals may vary by person and institution. Similarly, Yusuf, Onifade and Bello (as cited in Kumar et al., 2021) show that academic performance is a quantifiable and visible behavior of students over a period, accumulating student achievements in a variety of assessments. According to York (as cited in Kumar et al., 2021), academic performance can be defined as the student's persistence, which can be understood as the academic progress of students to complete the degree, regardless of their background or problems with the institution.

3.2 Theories Related to Study

3.2.1 Cognitive-Behavioral Model

David (2001) proposes a cognitive-behavioral model to explain elements related to internet-based addictions. This model highlight that ‘abnormal’ social networking emerges from maladaptive cognitions and is amplified by various environmental factor and eventually lead to compulsive and/or addictive social networking (Turne & Serenko, 2012 as cited in Sahin, 2018). According to Ahmed and Vaghefi (2021), the model describes the main cause of pathological Internet use as based on maladaptive thoughts that are coherent with social isolation. CBM depends on two types of factors, distal and proximal, both leads contributing to Pathological internet use (PIU). They explain psychopathological signs which include depression or anxiety, and Internet-associated activities are a distal factor. Maladaptive cognitions and social isolation or loss of social assistance are proximal factors of PIU. There are sorts of maladaptive minds in CBM: approximately oneself and the world. Maladaptive cognitions approximately oneself generally result from situations that include self-doubt, low self-efficacy, and occasional shallowness and are associated with the usage of the Internet for self-appraisal. Maladaptive cognitions about the world, are related to using the Internet as a substitute for the “real world.” The scholars insist that CBM can be extended although CBM is more focused on psychopathology. They claim that the model can be updated by including additional elements such as individual needs, motivation, personality traits, socio-environmental factors.

3.2.1.1 Individual needs/motivation

Ahmed and Vaghefi (2021, p.668) mention that “existing research findings propose that accepting gratification from specific needs could cause pathological use”. The most common use of social media is to develop a social relationship. It was shown that users were prone to addiction due to the desire to form a new relationship on social media. On the other hand, entertainment-related is also related to addiction. Users who use social media to entertain their entertainment needs are at risk of developing an addiction (Ahmed & Vaghefi, 2021).

There are research findings that show individual needs and motivations could moderate the correlation between social media and maladaptive cognitions or addiction. A previous study conducted by Koc and Gulyagci shows that users using Facebook specifically for social purposes made users more vulnerable to social media addiction (as cited in Ahmed & Vaghefi, 2021)

3.2.1.2 Situational cues

According to David, “stimuli such as the sound of a computer connecting with an online service, the tactile sensation of typing on a keyboard, and even the odor of one's office or primary place of using the Internet” (Ahmed & Vaghefi, 2021). It was found that situational cues could moderate the relationship between social media and maladaptive cognitions. The existing research by Li et al. (as cited in Ahmed & Bagheri, 2021) found that excessive social media use during the weekend puts the users at higher risk of developing an addiction. It is a potential conciliator of the relationship between social media and maladaptive cognitions that is in line with CBM.

3.2.1.3 Personality traits

The researchers believe that personality traits may act as moderators in the relationship between maladaptive cognitions and social media. Most of the studies examine the relationship between personality and addiction using the five-factor model of personality. Neuroticism, for example, is linked to a lower risk of addiction. According to Ahmed and Vaghefi (2021), a previous study found that this trait has an indirect relationship with social media. Brailovskaia and Margraf (2017) discovered that narcissism exacerbated the impact of intense Facebook use on social media addiction

3.2.1.4 Maladaptive cognitions

CBM describes maladaptive cognitions that arise from negative views of the world or oneself and lead to users becoming addicted to social media. According to (Ahmed & Vaghefi, 2021), users who used social media to gain recognition or gratification from others were more likely to develop a social media addiction due to low self-esteem or other factors. Users who have negative self-perceptions use social media to feel better.

3.2.1.5 Socio-Environmental Factors

Furthermore, Ahmed and Vaghefi (2021) conclude that the socio-environmental factor in CBM emphasizes social isolation or a lack of social support as a proximal factor that contributes to generalized PIU. It could be expanded to include both the social environment and personal struggles. It addresses the effect of loneliness on addiction. Users who are lonelier are more likely to develop social media addiction than others.

3.2.1.6 The component model of addiction

According to Aslan and Yaşar (2020), previous scholars state that Griffiths' (2005) components model of addiction consist of six criteria which are Salience (preoccupation with the behavior)

thinking too much about social media or being absorbed by social media, Tolerance (increasing engagement) spending more time on social media for getting more enjoyment, Mood Modifications (performing the behavior for relieving) using social media to reduce depression or forget problems to reduce negative feelings, Withdrawal (experiencing psychological and physical discomfort) a feeling of discomfort or stress when not using social media, Relapse or loss of control (unsuccessfully decreasing or controlling the behavior) failing to reduce social media time without success and Conflict (neglecting social, recreational, work, etc. things) ignoring works, studies.

3.2.2 Walberg's theory of educational productivity

According to Rugutt and Chemosit (2005), Walberg's (1981) theory of educational productivity is one of the very few theories of academic achievement. Walberg's theory of academic achievements concludes educational outcomes (cognitive, behavioral, and attitudes) are influenced by the psychological characteristics of individuals and their immediate psychological environments influence. Nine key variables affect educational outcomes including student ability/prior achievement, motivation, age/developmental level, the quantity of instruction, quality of instruction, classmate climate, home environment, peer group, and exposure to mass media outside of school (Rugutt & Chemosit, 2005).

According to Fraser et al. (1987), the first three variables; ability, motivation, age can be seen as the internal factor that can be assessed by "the usual standardized test". The next two variables which are quantity of instruction and quality of instructional experience measure instructional factors. Walberg and Tsai (1985 as cited in Kuterbach, 2013) define the quantity of instruction as the number of times students retain in learning. Quality of the instructional experience includes psychological and curricular experiences and can be seen as the appropriateness of the instructional experience. The last variables which are home environment, classroom or school environment, peer group environment, and mass media, are categorized as environmental factors (Fraser et al., 1987). The home environment defines as the assistance given to students while at home. Classroom and school environment, including classroom morale based on the classroom as a social atmosphere, has been measured through access to classroom materials. Meanwhile, peer group experience refers to how well students get along with each other outside of the school environment. The last variable, the mass media refers to the television viewing in minimum free time (Fraser et al., 1987).

3.3 Factor That Contributes to Social Media Addiction

The literature on social media addiction has highlighted several factors that contribute to the addiction. Nazir et al. (2020) state the four factors which are accessibility of the internet, lack of time management and adult control, and global economic environment. The literature discusses internet access on smartphones is seen as the biggest issue to social media dependency and contributes to social networking addiction.

Unorganized time management and lack of control from family become a factor in the community involvement in social networking addiction (Nazir et al., 2020). Individuals spend most of their time on social networking sites which then becomes a habit. The desire and demand to be online become the catalyst for the release of endorphins (hormones of satisfaction and pleasure), like people who experienced alcohol addiction. They will not realize how many hours they spend long hours scrolling and later become addicted (Idris, 2017). Social media sites are regarded as a necessity for filling a person's free time. The concept of 'free time is what drives them to use the internet indefinitely, resulting in addiction. The absence of social media makes them feel "empty".

In addition, Nazir et al., (2020) state most parents introduce their children to social media sites at a young age because they are preoccupied with their careers, causing their children to be neglected and deprived of love. As a result, children have their social site without parental supervision as early as the age of five. They conclude these conditions can lead to addiction in

children, resulting in a variety of health problems and intruding with the individual's life such as working or spending time with family.

Furthermore, the literature mentions how the current global economic situation in developed countries affects personal financial circumstances and family comfort. The cost of a computer is now more affordable, allowing many people to use it indefinitely with the help of Internet networks. In addition, the market price of smartphones is affordable to everyone regardless of age. This indirectly contributes to the addiction to social media sites.

Menayes (2015) on the dimensions of social media addiction among university students examines three factors that are associated with addiction. Factor 1 represents a decline in school performance, driving, not meeting friends, and thinking about social media when not using them. Factor 2 states social media overuse, neglecting schoolwork, feeling irritable, and lack of sleep due to social media usage. Factor 3 is dealing with boredom and the need to use social media. Results indicate the amount of time spent using social media is positively correlated with all factors of social media addiction. It describes when the individual will show symptoms of addiction when they spend more time using social media. Experience with social media was positively correlated with two of the three factors while negatively correlated with factor 3. This means that when a person has more experience with social media, the more likely he or she will be addicted to them.

3.4 The Relationship of Social Media Addiction and Academic Performance

From an educational perspective, previous research shows their respective result of the relationship between social media and academic performance.

Hou et al. (2019) conclude that addiction is negatively correlated with academic performance. It is based on the result of the self-rank measure of academic performances that was negatively associated with social media addiction. There are 3 reasons underlying this result. Firstly, social media addiction may indicate more time spent online and less study time. Students' time management disrupted and affected academic performance (Macan et al., 1990 as cited in Hou et al., 2019). Secondly, social media addiction interfered with the work of students, distracted them from staying focused. Studies have shown that multitasking harms the execution of specific tasks (Ophir, Nass & Wagner, 2009 as cited in Hou et al., 2019). Thirdly, students have difficulties encoding and remembering what they are learning (Oulasvirta & Saariluoma, 2006 as cited in Hou et al., 2019).

Azizi et al. (2019) also reported the same findings as Hou et al. (2019). It is based on the result of the correlation between social networking addiction and GPA in study samples. The study describes the higher the excessive use of social networks, decrease the academic performance. The result is consistent with the past studies, it states social networking addiction affects academic performance by producing academic procrastination, reducing sleep quality, and escalating academic stress. Overuse of social networks can decrease the level of academic engagement and students' grades although the platform can be a learning tool for the student to improve their academic engagement.

However, Rosuzeita et al. (2021) found out that there is no significant relationship between social media addiction and academic performance. The findings show that excessive use of social media did not harm their academic performance. The student's performance remained unchanged despite their addiction to social media platforms. These findings are consistent with past studies that found that there was no significant relationship between social media usage and academic performance. The study explains the main factor that led to poor academic performance was students' behavior and poor time management (Rosuzeita et al., 2021). Another reason was that students' use of social media positively influences them. 53.2% of students agree that using social media has helped them improve their grades, and half of the students can still perform well in academics even if they discontinue using social media (Othman et al., 2017). Another study found that college students' lack of focus harms their academic grades which is unrelated to social media (Mastrodicasa & Metellus, 2013 as cited in Rosuzeita et al., 2021).

3.5 The Gender Differences of Social Media Addiction

Some of the previous research has found a correlation between these variables. Andreassen et al., (2017) state lower age, being a woman, current relationship, being a student, low-level education, low income, lower self-esteem, and narcissism parameters have high addiction. It indicates that being a female is one of the criteria of having high addiction to social media.

In addition, a separate study by Dhir et al., (2016) reveals that females share more selfies on social media. This study is consistent with that of Tutgun-Ünal (as cited in Aslan & Yaşar, 2020) who describes that female use more social media than males to receive emotional support, and males are negatively affected by social media. These findings reported the gender difference in terms of the purpose of the individual using social media.

An analysis by Azizi et al. (2019) about the relationship between social networking addiction and academic performance in Iranian students found out male students were significantly more addicted than female students. They conclude the gender differences of addiction were based on the time spent on social media. Bodur & Korkmaz (as cited in Aslan & Yaşar, 2020, p.484) have similar findings with Azizi et al. (2019). It was revealed that male students are more addicted to the telephone than female students. Meanwhile, female students are more internet-addicted than male students (Özsürünç et al., 2018 as cited in Aslan & Yaşar, 2020). These interpretations indicate different outcomes of general use of phones and the internet

However, Tutgun-Ünal (2020) found different findings. The result shows that there are no gender differences in social media addiction among new media and journalism students. It is similar to Aslan & Yaşar (2020) in measuring social media addiction among university students. The study shows there are no significant differences between genders based on the SMAS (Social media addiction scale) result while significant differences are seen conflict factor from the 6 component of addiction that was evaluated. The scholar explains male students neglect their homework and activities. On the other hand, females choose to use social media to communicate with existing friends and for shares which are not considered problematic social media usage (Aslan & Yaşar, 2020). Furthermore, the results of Wang in China, Jafarkarimi in Malaysia, and Blachnio et al. in Poland (as cited in Simsek et al., 2018) also describe that there is no relationship between gender and social media addiction. This leads to various interpretations of the fact that gender has an impact on the use of social media in some countries (Simsek et al., 2018).

3.6 The Gender Differences in Academic Performance

Goni et al. (2015) found that there is no significant gender difference in students' and academic performance. It is based on data analysis of the survey Students' Academic Performance Aptitude Test (SAPAT). T-test result reveals a small score that differentiates males and females. Thus, it achieves the objective of the studies.

However, other studies have different findings. A study found out that girls can outperform boys in secondary college training in two ways: they score better in standardized tests, and they drop out at a lesser rate (Frenette & Zeman, 2007 as cited in Tienxhi, 2017). There is a positive affiliation of performance in standardized tests, normal marks, and exact study habits with university enrolment. The better performance of female students compared to male college students is the answer for the gender gap in education, each in Malaysia and abroad (Tienxhi, 2017).

In the same vein, Hdi and Fagroud (2018) in their current study is to explore students' performance in special subjects according to their gender. The quantitative data are used to analyze the possible difference in academic achievement between males and females from the different subjects of several fields of study such as statistics and computing science representing science, fertilization and animal feeding represent agricultural subjects, and sociology and English for human sciences and language (Hdi & Fagroud, 2018). Observation shows that female educational achievement is changing in terms of number and performance. Female

college students presently now not only outnumber male students but additionally get better grades in all the classes of subjects. They conclude that the gender variable is no longer become a barrier in gaining knowledge of or educating college subjects. These scholars' proof that females are performed than males' students in achieving a better result in the class although in different studies courses.

4.0 Methodology

A quantitative research design using a survey method was used. The target population for this study were students from the Faculty of Leadership and Management (FKP) USIM. 248 third-year and fourth-year students were involved in this study. They were chosen based on a stratified random sampling method. The researcher divided them into strata based on gender characteristics. The data was collected using an online questionnaire which was distributed to the students. The questionnaire has been adapted from the instrument called Social Media Addiction Scale (SMAS) that was developed by Tutgun-Ünal and Deniz in 2015. The scale consists of 41 items and 4 factors were measured (occupation, mood modification, relapse, and conflict). SMAS has a 5-point Likert scale consisting of "Never", "Rarely", "Sometimes", "Often" or "Always" (Tutgun-Ünal, 2020). The higher score indicates the respondent is highly addicted to social media.

SMAS explains 59% of the variance and it is an acceptable rate as it is quite high in social sciences. Furthermore, the Cronbach alpha value which is the internal consistency coefficient of the scale was found to be .967 (Tutgun-Ünal & Deniz, 2015). The validity of SMAS was measured based on the convergent validity studies. It was determined based on the criterion "Facebook Addiction Scale" that was developed by Young and "Generalized Problematic Internet Use Scale 2" (GPIUS2). SMAS and the other two instruments were applied to 70 students simultaneously and the result shows the significant correlation between SMAS and FAS and GPIUS2 at a level of (p,0,01).

The data collected was analyzed using Statistical Package for Social Sciences (SPSS) version 22. Descriptive analyses were used to analyze the demographic section including gender, program, and CGPA result by displaying the frequency and percentage distribution. The level of academic performance and social media addiction of the students were measured using tendency (means, medians, and other percentiles) and dispersion (standard deviations, ranges). In this study, the T-test was performed to identify the gender difference of social media addiction and academic performance among female and male students. Next, bivariate correlational analysis was conducted to assess the strength of direction of the relationship between these two constructs. In this study, the correlation analysis was computed to examine the strength and direction between the relationship of social media addiction and the academic performance of the students.

5.0 Result

Table 5 describes the distribution of the respondents in terms of their demographic information. It consists of the frequency and percentage of the respondents. The demographic background was including the gender, program, years, and CGPA of the students. Table 5 shows the distribution of respondents based on gender. The total number of respondents is 248, whereby male students are 39.5% (N=98). Meanwhile, the percentage of female students is 60.5% (N=150).

The table also indicated the distribution of respondents based on the course program. It consists of 5 programs. The total sample collected from third-and fourth-year students from the

Communication program is 18.5% (N=46) while the Counselling program is 18.5% (N=46). The respondent from Da'wah and Islamic Management is 29.0% (N=72) while Theology and Religious Studies were 21.4% (N=53). The number of respondents from New Media Communication is 12.5% (N=31). The number of respondents from Dak'wah and Islamic Management is the largest respondent than the other programs. Furthermore, Table 5 shows the distribution of respondents based on the study year. It shows the frequency of students who had to participate in this study whereby 52.4% (N=130) is from third-year students while the rest is 47.6% (N=118) respondent is from fourth-year students.

Moreover, the table summarizes the distribution of respondents based on the result of the examination among respondents. The percentage of respondents who had CGPA in the range is 3.50 until 4.00 is 34.7% (N=85) while the percentage of respondents who had CGPA in the range of 3.00 until 3.49 is 60.5% (N=150). Whereby, 4.8% (N=18) is the percentage for the respondent who had a range between 2.50 and 2.99. Thus, most of the respondents had a CGPA from a range of 3.00 until 3.49.

Table 5: Demographic of The Students

Characteristic		Frequency	Percentage
Gender	Male	98	39.5
	Female	150	60.5
Program	Communication	46	18.5
	Counseling	46	18.5
	Da'wah And Islamic Management	72	29.0
	Theology And Religious Studies	53	21.4
	New Media Communication	31	12.5
	Year Of Study	Third Year	130
	Fourth Year	118	47.6
Cgpa	3.50-4.00	86	34.7
	3.00-3.49	150	60.5
	2.50-2.99	18	4.8
	2.49-0	0	

5.1 Descriptive Analysis

Table 5.1.1 explains the mean and standard deviation of variable social media addiction. The mean value for social media addiction is 3.2370 with the value of standard deviation (0.57991).

Table 5.1.1: Descriptive Statistics

Variable	Mean	Standard Deviation
Social media addiction	3.2370	0.57991

Table 5.1.2 shows the level of social media addiction. The level was obtained based on the calculation of five scales of the questionnaire which is 1 is Never until 5 which refers to Always divided by a three-level scale which is 3: Low, Moderate, and High. Based on the calculation, the mean with 3.24 is at a moderate level. In other words, the current level of social media addiction among third and fourth-year FKP students is moderate.

Table 5.1.2: Level of Social Media Addiction

Level scale	Score
Low	0.00 -1.67
Moderate	1.68 -3.34
High	3.35 -5.00

Table 5.1.3 describe the mean and standard deviation of academic performance students. The mean value for academic performance is 1.7016 and the standard deviation is (0.55441).

Table 5.1.3: Descriptive Statistics of Academic Performance

Variable	Mean	Standard Deviation
CGPA	1.7016	0.55441

Table 5.1.4 shows the level of academic performance. The level was obtained based on the calculation of four scales of the CGPA which is 1 is 3.50 – 4.00 until 4 which refer to 0 – 2.49 divided by a three-level scale which is 3; Low, Moderate and High. Based on the calculation, the mean with 1.70 is at a moderate level. In other words, the current level of academic performance among third-and fourth-year FKP students is moderate.

Table 5.1.4: Level of Academic Performance

Level scale	Score
Low	0.00 -1.67
Moderate	1.68 -3.34
High	3.35 -5.00

5.2 T-Test Analysis

5.2.1 T-test analysis of gender difference in terms of social media addiction

	Gender				<i>df</i>	<i>t</i>	95% Confidence Interval of the Difference		<i>sig</i>
	Male		Female				Lower	Upper	
	M	SD	M	SD					
Social media addiction	3.29	0.572	3.21	0.584	246	1.067	-0.068	0.229	0.881

An independent sample t-test was conducted to compare the social media addiction for males and females. There are no significant difference in social media addiction for males (M = 3.29, SD = 0.572) and females M = 3.21, SD = 0.584; $t(428) = 1.07$, $p = .11$ (two tailed). The magnitude of the differences in the means (mean difference = .08, 95% CI : -1.80 to 1.87) was small (eta squared = .004)

The formula for eta squared is as follows:

$$\begin{aligned} \text{Eta squared} &= \frac{t^2}{t^2 + (N12 + N2 - 2)} \\ &= \frac{(1.067)^2}{1.067^2 + (98 + 150 - 2)} \\ &= \frac{1.1384}{1.1384 + (246)} \\ &= \frac{1.1384}{247.139} \\ &= 0.004 \end{aligned}$$

5.2.2 T-test analysis of gender differences in terms of academic performance

	Gender				<i>df</i>	<i>t</i>	95% Confidence Interval of the Difference		<i>sig</i>
	Male		Female				Lower	Upper	
	M	SD	M	SD					
Academic performance	1.85	0.525	1.61	0.554	246	3.408	0.101	0.103	0.001

Note : M = Mean, SD = Standard Deviation

An independent sample t-test was conducted to compare the academic performance for males and females. There is significant difference in academic performance for males (M = 1.85, SD = 0.525) and females M = 1.61, SD = 0.524; $t(428) = 3.41$, $p = .11$ (two tailed). The magnitude of the differences in the means (mean difference = .24, 95% CI : -1.80 to 1.87) was moderate effect (eta squared = 0.05)

The formula for eta squared is as follows:

$$\begin{aligned} \text{Eta squared} &= \frac{t^2}{t^2 + (N12 + N2 - 2)} \\ &= \frac{(3.408)^2}{3.408^2 + (98 + 150 - 2)} \\ &= \frac{11.614}{11.614 + (246)} \\ &= \frac{11.614}{257.614} \\ &= 0.05 \end{aligned}$$

5.3 Correlation

Table 5.3.1: Correlation between Social Media Addiction and Academic Performance

		CGPA	SMA
CGPA	Pearson Correlation	1	-.050
	Sig. (2 tailed)		.431
	N	248	248
SMA	Pearson Correlation	-.050	1
	Sig. (2 tailed)	.431	
	N	248	248

Table 5.3.1 shows the correlation between CGPA, and social media addiction that was examined using Pearson correlation. There was a negative relationship and not significant relationship between social media addiction and CGPA, $r = -0.050$, $n = 248$, $p > 0.05$.

Table 5.3.1: Correlation between each Variable

	CGPA	Occupation	Mood Modification	Relapse	Conflict
CGPA		-0.035	-0.081	-0.002	-0.041
Occupation			0.612**	0.652**	0.681**
Mood Modification				0.546**	0.523**
Relapse					0.744**
Conflict					

Table 5.3.2 shows the correlation between the variables. All correlation between CGPA and social media addiction subscales such as occupation, mood modification, relapse, and conflict are negative and is not significant, except for the correlation between each other variable of social media addiction which shows a positive and significant correlation.

6.1 Discussion

6.1.1 The Gender Differences in Terms of Academic Performance

This current study show there are no significant difference in terms of social media addiction for males $M = 3.29$, $SD = 0.572$ and females $M = 3.21$, $SD = 0.584$. The significant value show $p > 0.05$. Therefore, it fails to reject the null hypothesis (H_0). It can be concluded that there are no significant gender differences in terms of social media addiction.

This is supported by findings by Tutgun-Ünal (2020) and Aslan and Yaşar (2020) who reported that there are no gender differences in social media addiction. The result shows there are no significant differences based on the SMAS (Social media addiction scale) result while there are significant differences are seen in conflict factor based on the 6 component of addiction that was evaluated. According to researchers, male students neglect their homework and activities. Meanwhile, females prefer to use social media to communicate with existing friends and to share information, which is not considered problematic social media usage. In addition, this current study also aligns with the study of Wang in China, Jafarkarimi in Malaysia, and Blachnio et al. in Poland (as cited in Simsek et al., 2018).

However, this study is contradicted by Andreassen et al. (2017) and Dhir and Tutgun-Ünal (as cited in Aslan & Yaşar,2020) which state that there is a correlation between gender and social media addiction. The previous study emphasized female gender is one criterion of having high

addiction to social media. Meanwhile, other studies reported the gender difference in terms of the purpose of the individual using social media. It was revealed that males are negatively affected by social media, while females share more selfies and use social media more than males to receive emotional support. In contrast, Azizi et al. (2019) found out male students were significantly higher than female students. They conclude that the gender differences in addiction are due to the amount of time spent on social media. This finding was also consistent with Bodur and Korkmaz (as cited in Aslan & Yaşar, 2020, p.484). Male students were found to be more addicted to the phone than female students.

Thus, the present study reports that there are no gender differences in terms of social media addiction. Several past studies have supported the current study although it is being conducted in another country, it gives a general hint on how gender impacts the use of social media.

6.1.2 The Gender Differences in Terms of Academic Performance

In this study, the result shows a significant difference in academic performance for males $M = 1.85$, $SD = 0.525$ and females $M = 1.61$, $SD = 0.524$. The significant value shows $p < 0.05$. Thus, the alternative hypothesis (H_a) was accepted. This result had been supported by Frenette and Zeman (2007) as cited in Tienxhi (2017) that there are gender differences in academic performance, but the study describes that females outperform males in secondary college training in two ways: they perform better on standardized tests and drop out at a lower rate. Similarly, Hdi and Fagroud (2018) state that female educational achievement is changing in terms of number and performance, according to observations. Female college students now outnumber male students and outperform them in all subject classes. They conclude that the gender variable is no longer an impediment to learning or teaching college subjects. The research shows female students outperform male students in terms of achieving a higher grade despite studying different subjects. In contrast, it is contradicted by Goni et al. (2015) who state there is no significant gender difference in students' academic performance. It is based on data analysis of the survey Students' Academic Performance Aptitude Test (SAPAT). T-test result reveals a small score that differentiates males and females.

Thus, the present study found out that there are significant gender differences in terms of academic performance which is not supported from the past studies. The present study gives a new result, but it needs to be interpreted with a large sample are based on the small number of students in one faculty. Besides, the data are based on the self-reported method. Thus, it affects the accuracy of the findings.

6.1.3 The Relationship Between Social Media Addiction and Students' Academic Performance

Based on Table 5.3.1, there is no significant correlation between social media addiction and academic performance. The result shows that the correlation between CGPA and social media addiction is $r = -0.050$, $p = 0.431 > 0.05$ which indicates a negative relationship but not a significant correlation. In addition, the result of correlation between CGPA and all subscales of social media addiction also shows negative correlation and not a significant relationship. The result between CGPA and occupation is $r = -0.035$, $p = 0.585 > 0.05$, CGPA and mood modification is $r = -0.081$, $p = 0.201 > 0.05$, CGPA and relapse is $r = -0.002$, $p = 0.973 > 0.05$ and conflict is $r = -0.041$, $p = 0.520 > 0.05$.

Because $p > 0.05$, it fails to reject the null relationship. It can be concluded that there is no relationship between social media addiction and academic performance. This finding is aligned with past studies conducted by Rosuzeit et al. (2021). They found out that there is no significant relationship between social media addiction and academic performance. The findings show that their excessive use of social media had no negative impact on their academic performance. Although they are addicted to social media platforms, some students' grades remained unchanged. This interpretation is consistent with previous studies that found no significant

relationship between social media usage and academic performance, as students' behavior and poor time management were the key factors that led to poor academic performance. Another reason is that students' use of social media has a positive influence on them. 53.2% of students agree that using social media has helped them improve their grades, and half of the students can still perform well academically if they stop using social media (Othman et al., 2017). According to Rosuzeita et al. (2021), another study by Mastrodicasa and Metellus in 2013 discovered that academic grades are influenced by students' inability to focus, which has nothing to do with social media.

In contrast, some researchers have found a significant relationship between social media addiction and academic performance. For instance, Azizi et al. (2019) found out there is a negative and low significant correlation between social networking addiction and students' academic performance. It is based on the result of the correlation between social networking addiction and GPA in study samples. It can be defined as the higher the excessive use of social networks, the lower the academic performance. Social networking addiction affects academic performance by increasing academic procrastination, decreasing sleep quality, and increasing academic stress. Although several platforms such as Twitter can be used as a learning tool to improve their academic engagement, excessive use of social media can reduce academic engagement and students' grades.

Similarly, in Hou et al.'s (2019) research, addiction has a negative correlation with academic performance. Their conclusions were based on the results of a self-rank measure of academic performance that was found to be negatively associated with social media addiction. There are three reasons for this. Firstly, social media addiction causes more time spent online and less time spent studying. Excessive use of social media can disrupt student time management and harm academic performance (Macan et al., 1990 as cited in Hou et al., 2019). Secondly, it distracted them and made it difficult for them to focus. Multitasking has been shown in studies to be detrimental to task execution (Ophir, Nass & Wagner, 2009 as cited in Hou et al., 2019). Third, social media can easily distract students, causing them to struggle to encode and remember what they are learning (Oulasvirta & Saariluoma, 2006 as cited in Hou et al., 2019).

The findings in this study have contributed to the understanding of the correlation between social media addiction and academic performance. As recommendation for future research, this study can be more widely conducted and include all government and private institutions in Malaysia. This is because this study only focuses on one faculty in a university. This result cannot be generalized for all university students in Malaysia. Future research must discuss specifically the social media addiction factor based on the cognitive, social, and environmental aspects that could lead to overuse of social media addiction and the way to reduce social media addiction among the students. It gives general knowledge to the counselors to reduce the behavioral symptoms of problematic uses of social media addiction.

7.0 Conclusion

This study describes the relationship between social media addiction and academic performance among university students using a sample of 248 students of various programs in one faculty. It can be concluded that there is no relationship between social media addiction and academic performance among the students. There was also no significant gender difference in terms of social media addiction. In addition, the level of social media addiction is at a moderate level. This result maybe should be highlighted because the students are at risk of a high level of addiction.

Although several studies have been conducted to study the negative relationship between social media addiction and academic performance, this research found a new finding which is there is no relationship between social media addiction and academic performance. Given an important insight about social media addiction and its relationship with academic performance, similar

studies are recommended in other faculty and other universities to obtain more convincing findings.

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References

- Arifah Idris (2017). "*Remaja dan Ketagihan Internet*". MyHealth Kementerian Kesehatan Malaysia. <http://www.myhealth.gov.my/remaja-dan-ketagihan-internet/>
- Ahmed, E., & Vaghefi, I. (2021). Social Media Addiction: A Systematic Review through Cognitive-Behavior Model of Pathological Use. In Proceedings of the 54th Hawaii International Conference on System Sciences (p. 6681).
- Al-Menayes, J. J. (2015). Dimensions of social media addiction among university students in Kuwait. *Psychology and Behavioral Sciences*, 4(1), 23-28.
- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive behaviors*, 64, 287-293.
- Aslan, İ., & Yaşar, M. E. (2020). Measuring Social Media Addiction among University Students. *International Journal of Contemporary Economics and Administrative Sciences*, 10(2), 468-492.
- Azizi, S. M., Soroush, A., & Khatony, A. (2019). The relationship between social networking addiction and academic performance in Iranian students of medical sciences: a cross-sectional study. *BMC psychology*, 7(1), 1-8. <https://doi.org/10.1186/s40359-019-0305-0>.
- Brailovskaia, J., & Margraf, J. (2017). Facebook Addiction Disorder (FAD) among German students—A longitudinal approach. *PLoS one*, 12(12), e0189719.
- Díaz-Morales, J. F., & Escribano, C. (2015). Social jetlag, academic achievement and cognitive performance: Understanding gender/sex differences. *Chronobiology international*, 32(6), 822-831.
- Dhir, A., Pallesen, S., Torsheim, T., & Andreassen, C. S. (2016). Do age and gender differences exist in selfie-related behaviours?. *Computers in Human Behavior*, 63, 549-555.
- Goni, U. (2015). Gender Difference in Students' Academic Performance in Colleges of Education in Borno State, Nigeria: Implications for Counselling. *Journal of Education and Practice*, 6(32), 107-114.

- Hdii, S., & Fagroud, M. (2018). The effect of gender on university students' school performance: the case of the National School of Agriculture in Meknes, Morocco. *Kultūra ir visuomenė: socialinių tyrimų žurnalas*, 2018, nr. 9 (1), p. 67-78.
- 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). <https://doi.org/10.5817/CP2019-1-4>.
- Kumar, S., Agarwal, M., & Agarwal, N. (2021). Defining And Measuring Academic Performance of Hei Students-A Critical Review. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(6), 3091-3105.
- Kuterbach, J. M. (2013). *A model of academic enablers and academic performance among postsecondary learners*. The Pennsylvania State University.
- Mushtaq, A. J., & Benraghda, A. (2018). The effects of social media on the undergraduate students' academic performances. *Library Philosophy and Practice*, 4(1).
- Moghavvemi, S., Ainin Sulaiman, Noor Ismawati Jaafar & Nafisa Kasem. (2017, July). Facebook and YouTube addiction: the usage pattern of Malaysian students. In *2017 international conference on research and innovation in information systems (ICRIIS)* (pp. 1-6). IEEE.
- Narad, A., & Abdullah, B. (2016). Academic performance of senior secondary school students: Influence of parental encouragement and school environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities Special Issue*, 3(2), 12-19. <http://dx.doi.org/10.21659/rupkatha.v8n2.02>
- Nazir, F., Omar, N., Aripin, M. A., & Hisham, M. H. M. (2020). A Case Study of Social Media Addiction Among Malaysians. *Solid State Technology*, 63(4), 1839-1851.
- Othman, W. R., Fariha, Z., & Ngah, N. H. (2017). Impact of Social Media Usage on Students Academic Performance in Terengganu, Malaysia. *Journal of Applied Environmental and Biological Sciences*, 7(5), 142-143
- Rugutt, J. K., & Chemosit, C. C. (2005). A Study of Factors that Influence College Academic Achievement: A Structural Equation Modeling Approach. *Journal of Educational Research & Policy Studies*, 5(1), 66-90.
- Sahin, C. (2018). Social Media Addiction Scale-Student Form: The Reliability and Validity Study. *Turkish Online Journal of Educational Technology-TOJET*, 17(1), 169-182.
- Simsek, A., Elciyar, K., & Kizilhan, T. (2019). A comparative study on social media addiction of high school and university students. *Contemporary Educational Technology*, 10 (2), 106-119. <https://doi.org/10.30935/cet.554452>
- Tienxhi, J. Y. (2017). The Gender Gap in Malaysian Public Universities: Examining the'Lost Boys. *Journal of International and Comparative Education (JICE)*, 1-16.

- Tutgun-Ünal, A., & Deniz, L. (2015). Development of the social media addiction scale. *AJIT-e: Bilişim Teknolojileri Online Dergisi*, 6(21), 51-70.
- Tutgun-Ünal, A. (2015). Sosyal medya bağımlılığı: Üniversite öğrencileri üzerine bir araştırma [Social media addiction: A study on university students]. *Doctoral Thesis*. Marmara University, *Institute of Social Science*, İstanbul, Turkey.
- Tutgun-Ünal, A. (2020). Social Media Addiction of New Media and Journalism Students. *Turkish Online Journal of Educational Technology-TOJET*, 19(2), 1-12.