FACTOR CONTRIBUTING TO INTERNET ADDICTION AND ITS INFLUENCE ON ACADEMIC PROCRASTINATION BEHAVIOR AMONG UUM STUDENTS

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ABSTRACT

The Internet has grown comprehensively and rapidly in recent years has led to the existence of an internet dependence dilemma (internet addiction) which leads to their low efficiency, lack of interest and motivation, postponing important academic tasks and jobs, and causing academic delays. This study was conducted to investigate the relationship of between particular factors contributing to internet addiction namely anxiety, depression, self-control and internet addiction itself with academic procrastination among undergraduate students from UUM College of Business (COB). This study is included 370 UUM COB undergraduate students by using questionnaire to collect data and data analysis is conducted using Statistical Package

for Social Sciences (SPSS) software. Descriptive analysis, reliability test, normality test, Pearson correlation analysis and multiple regression analysis were conducted to identifying relationship between independent variables and dependent variable. Results showed anxiety was found a significant relationship with academic procrastination. Besides that, depression and internet addiction were also significant contributing factor to academic procrastination. Lastly, existence of negative significant relationship between self-control and academic procrastination.

Keywords: anxiety, depression, self-control, internet addiction, academic procrastination.

INTRODUCTION

The existence of the internet was arguably one of the greatest inventions of the century, the birth of the Internet had connected between two eras and prompted the advent of the information age. The history of the Internet began with its development to be used as a worldwide web to enable fast-paced news sharing, email delivery, and data to a globally connected world. It has grown comprehensively and rapidly in recent years with the existence of almost every online entity covering education, health, telemedicine, entertainment, business and marketing as well as social networking. Internet's easy-to-access feature with provides numerous choices and entertainment temptation, which has caused the Internet to gradually become the vast majority of our daily lives, leading to a rapid increase in its usage and causing internet addiction. Being addicted to the Internet leads them to lack motivation and enthusiasm for life or goals, they ignore their real goals and purposes, turn a deaf ear to real life, and start living in a fool's paradise (Uzun et al., 2014). Long-term Internet addiction creates a habit of them, leading to their low efficiency, lack of interest and motivation, occurring academic procrastination among students, and delaying important academic tasks and jobs. Due to the constraints and the strict norms enforced as a result of the covid-19 pandemic, young people are turning to the virtual world to relieve boredom and deprivation. In addition, the arise of procrastination issues apart from internet addiction among students also being observed. Procrastination in the academic field with severe ratio has been identified by the meta-analysis of procrastination showed that 80-95% of college students, or

at least half of them having procrastination problem (Kim, 2015) and is becoming a more common phenomenon in the education sector.

It has been observed and reported with great concern that young students are becoming addicted to the internet over their phones and laptops. With the growth of obligations and expectations, the Internet has become an integral part of many people's daily routines. Not only is this dependency alarming and concerning, but it would also prove to be catastrophic for this generation due to various reasons. The underlying factors that contribute to addiction to the internet must be sought and studied in detail. Moreover, it is also crucial to understand how this influences the development of academic procrastinating behavior in students as the occurrence of academic procrastination also needs to receive attention. Based on the research of Steel (2007), as many as 80-90 percent of undergraduate college students have experienced procrastination in some form related to the academic task and about 20% of them reported chronic academic procrastination.

According to study, internet addiction is more widespread among people who have a high level of anxiety and it suggests that temporal perspective and self-control are dispositional structures that play a significant role as the factor contributed in procrastination and internet addiction issues (Jinha Kim et al., 2017). But there is a new question that arises about whether those factors are still relevant as contributing factors to internet addiction and remain same influence on academic procrastination if the research is done all over again based on new teaching methods now such as online learning. The emergence and spread of the pandemic Covid-19 around the whole world has greatly influenced and changed our daily lifestyle and has affected many sectors including the education sector around the world. The application of online learning norms from home has been implemented in universities around the world, changing the way of learning from face to face education to the use of digital platform for online learning. The changing of the study environment, and the complex student situation and family-related problems that need to be managed, will most likely affect the results of the same variables, since the transition of major problems had occurred, those factors may no longer be appropriate in measuring results in the state of online learning.

The research mainly to understand and study the factors which contribute to the prevalence of internet addiction among students and

to identify the impact of anxiety on academic procrastination among undergraduate students. Also, the relationship between depression and academic procrastination among undergraduate students will be analyse. Assessment towards the relationship between self-control and internet addiction influence the academic procrastination among undergraduate students is analyse. The outcome of the research helps extract the positive outcomes and synthesis for the young generation to get rid of the addiction.

LITERATURE REVIEW

Previous studies have been conducted by (Chung et al., 2019) to investigate and understand the link and relationship between school/ family factors, personal factors, environmental variables, and appraised characteristics of the internet as they ameliorate. Internet addiction among adults, according to the public health model. The results of the study showed as many as 6% of adults were classified as severe internet addiction. Through a comparison of different groups based on addiction, it was revealed that the people in the addicted group had started internet use earlier as compared to the others, as well as showing higher levels of aggression, compulsivity, depression, and weaker family band and cohesion. This group was also shown to have higher and easier access to internet facilities, such as PC cafes, and excessive exposure to online gaming ads. According to multiple logistic regression, adults who exhibit addiction to the internet are more influenced by environmental factors as compared to the school or family-related factors (Chung et al., 2019). Jiang (2017) revealed that there is an association between various personality traits with risky behaviors and with internet addiction. Long-term gaming on online platforms shows significant impact on both risk behaviors and internet addiction among persons who used the internet excessively.

The study had identified the following eight risk factors that were significantly linked to IGD, anxiety, the impulsivity of functional and dysfunctional nature, belief self-control, desire to pursue the appetitive goals, money associated with gaming, game time allocation in weekdays, meeting attendance in offline communities, and membership of gaming communities (Rho et al., 2017). Study had further revealed the harmful use of the internet among the students was also influenced by certain factors, such as purpose, gender, time,

and place of accessing Internet facilities. Some other factors that determine the extent of this problem are the parents' addiction and family structure. The study concluded that environmental stressors, familial issues, and the pressure of studies play an important role in this behavior (John & Kavitarati, 2017). Another researcher, Seyrek and his team aimed to investigate the prevalence of internet addiction, and the association between anxiety, sociodemographic factors, attention deficit hyperactivity disorder (ADHD) and depression and internet addiction in the adults and it was revealed in the results that roughly 1.6% of students were suffering from internet addiction (IA), while 16.2% were suspected to have internet addiction. A substantial correlation was found to exist between internet addiction and anxiety, attention disorder, depression, and hyperactivity symptoms in adults (Seyrek et al., 2016)

Steel (2007) presented a model highlighting procrastination that possesses the complexity of the interaction between characteristics of personality and the task variables. He emphasized that a person who is under moderate pressure and who participates in a sequencing activity that delays the initiation of a task is more prone to procrastination. According to the analysis of affective factors influencing procrastination behavior, it was found that the majority of individuals surveyed who tended to procrastinate or complete their work had significant levels of anxiety (Moon & Illingworth, 2005) and there were also certain studies indicating that self-control and impulsivity are also key aspects that determine procrastination in individuals.

To understand the correlation between internet addiction and procrastinating behavior among Chinese students, Geng and associates conducted a study in 2018. The study incorporated an extended research methodology to investigate the association between Internet addiction (IA) and procrastinating behavior along with the underlying mechanisms. The study used a cross-sectional style of conduct and questionnaire based surveys were used to collect all the necessary information. It was disclosed in the correlational analysis that the association between Internet addiction and procrastination was affirmative. The study also revealed that core self-evaluations played a positive role in self-control among the participants. Both variables, Internet addiction and procrastination, were substantially and inversely correlated with self-evaluation and self-control, sequentially. Moreover, social adjustment and core self-evaluations

had positive correlation, but no substantial correlation with the rest of the considered variables. The results of the study also backed the moderated mediation model, particularly the fact that a high standard of social adjustment could mask the impact of Internet addiction on procrastinating behavior and hamper the indirect consequences of Internet dependability on procrastination through self-assessment. The study concluded that procrastinating behavior among the students was triggered and ameliorated by excessive internet addiction and can be reduced significantly by incorporating social adjustment, self-control and core self-evaluations (Geng et al., 2018).

A qualitative analysis of the results showed a direct and positive correlation between the development of procrastinating habits among the students due to excessive internet dependency (Malyshev & Arkhipenko, 2019). Hayat studied the effects and influence of Internet addiction in promoting academic procrastination among the students of a medical school. The sample consisted of 233 students from a medical university who were selected and recruited for this study through convenience sampling method. The process of data collection was managed using two reliable and valid questionnaire-based surveys. One survey was based on Young's Internet addiction questionnaire (IAT-20), which comprised of 20 questions, established on a 5-point Likert-type scale. The other survey consisted of Solomon and Rothblum academic procrastination questionnaire, which had 18 questions established similar to the previous one. To process the data in SPSS software, researchers used One-Way ANOVA, Pearson correlation, and independent T-test, while contemplating a significance level of $p < 0.05$.

Results of this study depicted that 3.43% of the students were in the strata of severely addicted to the internet and roughly 28.85% of these portrayed a high prevalence of procrastinating behavior towards academics. The study also indicated a substantial and positive correlation between academic procrastination and Internet addiction. Furthermore, a positive correlation was also found to exist between the dimensions of academic procrastination, such as preparing for an exam, working on a paper, showing punctuality with weekly assignments, attending conferences, academic performance and completing administrative tasks, and Internet addiction. Finally, it was also revealed that the male students and residents of hostel facilities portrayed a higher level of addiction to internet and possessed procrastinating behavior compared to their female counterparts and

those who lived in their own homes. In conclusion, this research disclosed that a substantial number of students possessed higher levels of Internet addiction and showed procrastinating behavior. It also highlighted that students showing higher Internet addiction were at higher risk of showing negative outcomes (Hayat, 2020).

RESEARCH METHODOLOGY

Figure 1 shows that this paper examines the factors contributing to internet addiction and influence on academic procrastination of university undergraduate students in describing the relationship between anxiety and academic procrastination. In other words, the dependent variable in this paper is academic procrastination and the independent variable is the anxiety, depression, self-control and internet addiction.

Figure 1

Theoretical Framework
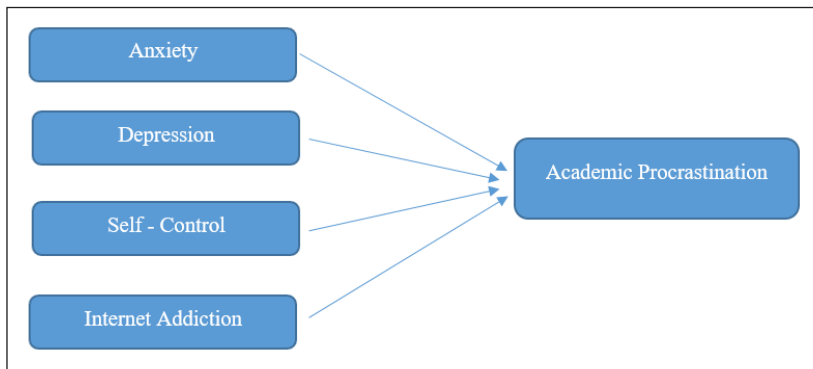
This study has utilized a quantitative design and pursued the association between the variables, determining anxiety, depression, self-control as contributing factors towards internet addiction, internet addiction itself and its impact on academic procrastination using questionnaire survey via google form along with the objectivism and post-positive alignment.

The questionnaire was distributed using a google form via link to all UUM COB undergraduate students through email delivery,

questionnaire distribution in WhatsApp group, and through UUM largest Facebook group "Newseed" to obtain all required data. Data were collected throughout a period of 3 months. Survey data collected were kept in the password-protected account of the primary investigator and the data were then downloaded merely to the password-protected computer of the principal investigator.

Statistical package for social sciences (SPSS) version 28 was used for examining the factors of internet addiction, internet addiction itself and their impact on academic procrastination. Using SPSS program to measure descriptive analysis toward demographic of sample, applying normality test to identify the normal distribution, Cronbach's alpha test to determine the reliability of each item of represented variables in the questionnaire and the reliability of the opinion of the sample. Pearson correlation coefficient to identify how a relationship of correlation between variables studied. Multiple regression analysis to ascertain the degree to which each variable predicts academic procrastination.

The questionnaire consisted of 4 sections representing demographics, factors contributing to internet addiction variables (anxiety, depression, and self-control), internet addiction test, and academic procrastination scale which were applied to obtain relevant data for analysis.

Anxiety is measured using the Depression Anxiety Stress Scales II (DASS-II) by (Lovibond & Lovibond, 1995) in this study as a contributing factor to internet addiction. The Depression Anxiety Stress Scales II (DASS-II) by (Lovibond and Lovibond, 1995) also being used to directly measuring the depression level of the students with depression scale comprised using Likert type scoring from 0 = not at all to 3 = very likely. The measurement of self-control ratings was done by using Self-Control Rating Scale developed by Tangney et al. (2004) as a tool for assessing self-control. Each item was graded on a Likert scale that ranged from 1 (not at all) to 5 (very likely).

Young (1998) has proposed the Internet Addiction Test (IAT) on the basis of the DSM-IV standard and relied on the investigation of pathological gambling addiction. The scale comprises of 20 items and utilizes a five-point scoring approach. Lastly, A hypothetical project was used for directly measuring the extent of procrastination in utilizing the internet. The procrastination scale was comprised of five points from 1 = ever and 5 = often. This project has emphasized on the core element of procrastination, which is voluntarily selecting

the delayed task for competing with another task (Steel, 2007) and encompasses the emotional attitude toward the delayed task (Pychyl et al., 2000). In this regard, the scoring would suggest that participant's procrastination would be easier to measure after using the internet, when the scoring is higher.

The target population for this study is College of Business (COB) undergraduate students from Universiti Utara Malaysia (UUM). Currently, there are totally 11142 undergraduate students under College of Business (SBM undergraduate students = 3718, IBS undergraduate students = 886, SEFB undergraduate students = 3173, TISSA undergraduate students = 1720, and STML undergraduate students = 1645). According to Krejcie and Morgan (1970), sample size of 11142 total populations is 370. Therefore, a total of 370 UUM COB undergraduate students will be chosen to participants in this study and for answering questionnaire.

DATA ANALYSIS AND RESULTS

Correlation Analysis between Variables

Table 1

Correlation Analysis between Variables

		Anxiety	Depression	Self-Control	Internet Addiction	Academic Procrastination
Anxiety	Pearson correlation	1	.766**	-.708**	.663**	.764**
	Sig.(2 tailed)		<.001	<.001	<.001	<.001
	N	370	370	370	370	370
Depression	Pearson correlation	.766**	1	-.758**	.679**	.737**
	Sig.(2 tailed)	<.001		<.001	<.001	<.001
	N	370	370	370	370	370
Self-Control	Pearson correlation	-.708**	-.758**	1	-.591**	-.701**
	Sig.(2 tailed)	<.001	<.001		<.001	<.001
	N	370	370	370	370	370
Internet Addiction	Pearson correlation	.663**	.679**	-.591**	1	.785**
	Sig.(2 tailed)	<.001	<.001	<.001		<.001
	N	370	370	370	370	370
Academic Procrastination	Pearson correlation	.764**	.737**	-.701**	.785**	1
	Sig.(2 tailed)	<.001	<.001	<.001	<.001	
	N	370	370	370	370	370

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

According to table 1, it is shown a correlation coefficient of .764 with a significant value of .001 indicates a strongly positive significant correlation between anxiety and academic procrastination. Next, the result show depression variable had a strong positive significant relationship with academic procrastination indicated by a significant value lower than 0.05 (p <.001) and a correlation coefficient value of .737. Self-control is negative significant related to academic procrastination with significant value (p <.001) and correlation coefficient value of -.701. Lastly, positive significant relationship between internet addiction and academic procrastination with significant value (p <.001) and correlation coefficient value of .785.

Multiple Regression Analysis

Table 2

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.864	.746	.743	.35438

a. Predictors: (Constant), Internet Addiction, Self-control, Anxiety, Depression

Table 3

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	134.493	4	33.623	267.728	<.001
	Residual	45.839	365	.126		
	Total	180.332	369			

a. Dependent Variable: Academic Procrastination
b. Predictors: (Constant), Internet Addiction, Self-control, Anxiety, Depression

The adjusted R Square value is used to identify the percentage of independent variables (anxiety, depression, self-control, internet addiction) contributing to the dependent variable. From table, the adjusted R square is .743 and converted to percentage, showing the model consists of anxiety, depression, self-control and internet

addiction explains 74.3% of the variance in academic procrastination. The table show significant level of p <.001 indicate the model is very significant toward academic procrastination.

Table 4

Coefficient Value Table

Model	Unstandardized B	Coefficient Std. Error	Standardized Coefficient Beta	t	Sig.
1 (Constant)	.637	.209		3.054	.002
Anxiety	.304	.049	.279	6.242	<.001
Depression	.103	.049	.102	2.087	.038
Self-control	-.133	.033	-.172	-4.043	<.001
Internet Addiction	.603	.053	.429	11.346	<.001

a. Dependent Variable: Academic Procrastination

The result of the table 4 had shown that anxiety, depression, self-control and internet addiction is making a statistically significant contribution to the prediction of academic procrastination with significant level less than 0.5. The result also had shown that the direction and level of correlated coefficient to academic procrastination. The standardized coefficient beta value of anxiety (.279), depression (.102) and internet addiction (.429) explain the positive relationship and significant contribution to academic performance. As the following variables, internet addiction (.429) act as strongest variable toward prediction of academic procrastination, followed by anxiety (.279) and depression (.102). The self-control variable showing a negative relationship with academic procrastination indicated by negative beta value (-.172).

CONCLUSION

This study's findings showed a positive significant relationship between anxiety, depression, internet addiction with academic procrastination and a negative significant relationship between self-control and academic procrastination. Next, the results explained that the model including anxiety, depression, self-control, and internet addiction contribute 74.3% of the variance. All independent variables were significant predictors of academic procrastination. The researcher's encouragement to think positively and maintain positive

emotions, self-control along with not practicing internet addiction allows students to reduce academic procrastination.

This study was conducted with target respondents from the college of business (COB) undergraduate students in UUM, causing the results would only be specific to the undergrad students and not so accurately represented for the general population because every stratum and characteristics of the population is different may lead to different study findings. This study only focuses on a few factors such as anxiety, depression, self-control, and internet addiction that might contribute to academic procrastination. Thus, there are still a lot of more factors are still unknown, uncertain and might be great contribute to academic procrastination and there is some likelihood that opposing results would have arisen if a combination of methods was used. The respondents might find that the response choice is inflexible since they are provided beforehand in the questionnaire. The study might also produce biased or having a false result as students might be scared or feel insecure while sharing their personal information or details.

Future studies can be conducted by covering the recruitment of target respondents from other segments of the population, such as the elderly, working people, primary and secondary school students which can provide a more holistic view of how anxiety, depression, self-control and internet addiction act as contributing factors to academic procrastination. Recommendation for future studies to increase the sample sizes and contact with students from diverse geographical regions and socioeconomic levels in future studies will generate more credible results. Besides, future research can include other factors such as family-related, environmental, or even social factors that might act as contributing factors to academic procrastination to provide more information on the study.

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