

The Effect of Academic Motivation on Academic Procrastination Among Undergraduate Students in Malaysia

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Abstract

Academic procrastination is postponing academic tasks until feeling anxious to complete the tasks. It is believed that academic procrastination has been a common issue among students. Additionally, academic motivation is believed to be a crucial factor that determines the level of procrastination in academic matters. Therefore, this research aims to identify the effect of academic motivation on the academic procrastination in Malaysia Higher Educational Institutions. A total of 284 undergraduate students from Malaysia public and private universities were involved in this research. This research uses quantitative research design, which involves cross-sectional and correlational design. Academic Motivation Scale (AMS-C 28) and Procrastination Assessment Scale for Students (PASS) was used to measure academic motivation as independent variable and academic procrastination as dependent variable. Pearson correlation and multiple regression analysis were used to examine the relationship and effect. Findings from this research reveal that the undergraduate students have moderate level of academic procrastination. The findings also suggested that amotivation has a positive significant effect on academic procrastination. The research findings provide a reference to future researchers and implication to society that academic motivation is important to students. Overall, further investigation on this topic was encouraged.

Keywords: Academic motivation, academic procrastination, undergraduates.

Abstrak

Penangguhan akademik ialah menangguhkan tugas akademik sehingga berasa bimbang untuk menyelesaikan tugas tersebut. Penangguhan akademik didapati telah menjadi isu biasa dalam kalangan pelajar. Selain itu, motivasi akademik dipercayai menjadi faktor penting yang menentukan tahap penangguhan dalam hal berkaitan akademik. Oleh itu, kajian ini bertujuan untuk mengenal pasti kesan motivasi akademik terhadap penangguhan akademik di Institusi Pengajian Tinggi Malaysia. Seramai 284 pelajar sarjana muda dari universiti awam dan swasta di Malaysia terlibat dalam kajian ini. Kajian ini menggunakan reka bentuk kajian kuantitatif, yang melibatkan reka bentuk keratan rentas dan korelasi. Skala Motivasi Akademik (AMS-C 28) dan Skala Penilaian Procrastination untuk Pelajar (PASS) digunakan untuk mengukur motivasi akademik sebagai pemboleh ubah bebas dan penangguhan akademik sebagai pemboleh ubah bersandar. Analisis korelasi Pearson dan analisis Regresi Berganda diaplikasikan untuk mengkaji hubungan dan kesan pemboleh ubah. Dapatan daripada kajian ini menunjukkan bahawa pelajar prasiswazah mempunyai tahap penangguhan akademik yang sederhana. Dapatan kajian juga mencadangkan bahawa motivasi mempunyai kesan positif yang signifikan terhadap penangguhan akademik. Dapatan kajian memberi rujukan kepada penyelidik akan datang dan implikasi kepada masyarakat bahawa motivasi akademik adalah penting kepada pelajar. Secara keseluruhan, kajian lanjutan ke atas topik ini adalah digalakkan.

Kata Kunci: Motivasi akademik, penangguhan akademik, pelajar prasiswazah

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1.0 INTRODUCTION

Being in the fast-paced work modern era, it is undeniable that procrastination has become a prevalent issue across all individuals including university students as it hinders their productivity. Students have shown a higher tendency of procrastination compared to the employees (Beleau & Cocoradă, 2016). In the phenomenon of student procrastination, it is known as academic procrastination. Based on the previous studies, it has shown that about 80% of undergraduate students are procrastinators (Fentaw et al., 2022).

Basically, academic procrastination refers to the act of postponing academic tasks until experiencing high levels of anxiety (Solomon & Rothblum, 1984). When students procrastinate, they will delay completing their work without any reason until the submission deadline approaches. Previous research has shown the significant effect of academic procrastination in human life, especially in health and educational context. From the educational context, academic procrastination would contribute to low academic performance due to students not being able to meet the deadline (Hayat et al., 2020). For the health context, academic procrastination has an effect on mental health problems such as depression and it also predicts unhealthy lifestyles such as poor sleep quality (Johansson et al., 2023). A research by He (2017) found that more than 80% of students will experience anxiety among the students who procrastinate. Besides, it also reduces

a person's subjective well-being, which decreases a student's happiness (Arifiana et al., 2020). Through all the previous studies, academic procrastination is now understood to be a critical issue among the students.

Academic procrastination has been explored more often from the international perspective, such as the United States, Canada and Turkey (Tao et al., 2021). Thus, it limits the understanding on why there is academic procrastination and what effect on academic procrastination among Malaysian students. It should be noted that academic procrastination is a common issue among undergraduate students (Johansson et al., 2023). Although there is some research conducted in Malaysian context, but it tends to focus on the smaller population size of undergraduate students such as research on a certain college or university. Therefore, the lack of understanding on the underlying reason students procrastinate would make many people see that being lazy is the main reason for academic procrastination. In fact, based on previous research, it is found that academic motivation has become one of the major factors that contribute to the development of academic procrastination (He, 2017).

Vallerand et al. (1992) define academic motivation as the reason perceived by individuals to perform the behaviour or engage in activities. Student behavior is influenced by three types of motivation which are intrinsic motivation (IM), extrinsic motivation (EM), and amotivation (Vallerand et al., 1992). Intrinsic motivation refers to academic tasks done for students' own sake, as well as for the enjoyment and satisfaction obtained by being involved in the activity (Ryan & Deci, 2000). On the other hand, extrinsic motivation is defined as being involved in academic tasks due to the external reward and obtaining some separable outcomes (Ryan & Deci, 2000). Lastly, Gagné and Deci (2005) refer amotivation as the absence of both intrinsic motivation as well as extrinsic motivation. Academic motivation has been a very big challenge to the students especially during the outbreak of covid-19 where face-to-face learning has switched to online learning. Especially undergraduate students, they need to face the technical issue and at the same time complete all their assessments virtually by group and individually. According to Camacho et al. (2021), they found that university students have faced low academic motivation due to anxiety and stress during the pandemic.

As now it is entering the post-pandemic situation, academic motivation has become a worthy variable, as it can show a difference of academic motivation before, during and after the pandemic. Previous research supported that intrinsic motivation is negatively related with academic procrastination while the amotivation is positively correlated with academic procrastination (Cerino, 2014). However, one of the recent research found that there is no significant relationship between intrinsic motivation and extrinsic motivation with academic procrastination (Yee and Lai, 2021). Besides, there is also research that shows that there is an effect of amotivation on academic procrastination instead of intrinsic motivation and extrinsic motivation (Yurtseven & Doğan, 2019).

Therefore, with respect to the inconsistent results related to academic motivation and academic procrastination, this research aims to investigate the effect of academic motivation on academic procrastination among undergraduate students in Malaysia. It will provide useful information about the possible type of motivation which may predict academic procrastination. Besides that, the current research also aims to determine the level of academic procrastination as well as the relationship between the two variables in Malaysian higher education context.

■ 2.0 LITERATURE REVIEW

2.1 Academic Motivation as Independent Variable

Academic motivation refers to the reason perceived by individuals to perform the behaviour or engage in activities (Vallerand et al., 1992). Weiner (1985) also has similar concept of motivation, which focuses on the "why" question of behavior, which means individuals tend to interpret and explain the causal factor for certain events and it could affect the individuals' response toward certain events, either response with high motivation or low motivation. From the university context, Wilkesmann et al. (2012) defined academic motivation as the desire to pursue and complete university studies. It means the motivation will determine whether students would proceed with their studies.

To understand academic motivation, Ryan and Deci (2000) have developed the self-determination theory (SDT). Self-determination theory (SDT) refers to an individual being able to manage their life without others influencing them and without any reinforcement. SDT focuses on the fact that the more self-determined, more autonomous form of motivation will result in low procrastination (Tisocco and Liporace, 2022). SDT proposed three types of motivation, intrinsic motivation (IM), extrinsic motivation (EM) and amotivation (Chen & Jang, 2010). With intrinsic motivation, people feel interested and experience pleasure and satisfaction in doing something and thus they do it automatically without any external reward (Gagné & Deci, 2005). Vallerand et al. (1992) has identified three types of intrinsic motivation, intrinsic motivation to know (IM-to know), intrinsic motivation toward accomplishment (IM-toward accomplishment) and intrinsic motivation to experience stimulation (IM-to experience stimulation), in which people are motivated to do something as they are interested to know new things, to achieve something or want to experience sensation such as excitement.

On the other hand, extrinsic motivation is controlled motivation. It occurs when people feel pressure in doing something, and thus they need the external reward to initiate the activity (Gagné & Deci, 2005). SDT presents the idea that extrinsic motivation would have different degrees of autonomous forms and controlled forms (Gagné & Deci, 2005). There are four types of extrinsic motivation, with increased autonomous form, starting from external regulation (reward, constraints or punishment), followed by introjected regulation (avoid guilt or achieve pride), identified regulation (personal value) and integrated regulation (fully embraced the values). While amotivation is defined as lack of both intentions to act and motivation, it means that an individual does not have any desire for any internal or external rewards (Ryan & Patrick, 2009).

Therefore, the concepts of motivation and self-determination theory can be related to the undergraduate students in this research because they are in the period where they will experience various frustrations and they have to be able to manage their life without others interference.

2.2 Academic Procrastination as Dependent Variable

Originally, the word “Procrastination” originated from the latin word *procrastinare*, which brings the meaning of to put off, prolong or postpone doing a task until next time (Rosário et al., 2009). According to Lay (1986), procrastination refers to the tendency to put off some necessary task that is a key to achieving a goal. Besides, Steel (2007) defined procrastination as voluntary delaying the action although they are aware of the negative and worse result of the action. Individuals who procrastinate are aware that they face worse outcomes for their actions such as struggle and face anxiety at a later time but they still want to procrastinate. In the academic context, Solomon and Rothblum (1984) refers to academic procrastination as an unnecessary behavior to postpone the task until experiencing the subjective discomfort. Solomon and Rothblum (1984) focus the definition of academic procrastination on behavioral delay and psychological distress, thus this research will focus academic procrastination on the degree of procrastination and the degree to which it causes a problem in six academic areas: writing a term paper, studying for exams, keeping up with reading assignments, academic administrative tasks, attendance tasks, as well as school activities in general.

To understand academic procrastination, Piers Steel and Cornelius J. König developed temporal motivation theory (TMT), which explains procrastination in terms of motivation. TMT proposed that people tend to procrastinate when they have low utility or motivation in doing the task (Siaputra, 2010; Steel & König, 2006). According to Steel and König (2006), there are four core features in TMT that can affect the motivation of a person, which are value, expectancy, impulsiveness, and delay. Value refers to the measure of how satisfying or motivating an outcome is thought to be (Siaputra, 2010). Expectancy is defined as the perceived likelihood of the success occurring (Steel & König, 2006). Impulsiveness refers to an individual's sensitivity to delay (Steel & König, 2006). Delay refers to the amount of time to get the expected reward (Steel et al., 2018). Value and expectancy are positively related to motivation while impulsiveness and delay are negatively related to motivation. For example, the higher an individual's impulsiveness, the lower the motivation and consequently lead to high procrastination.

Hence, the concept of academic procrastination and temporal motivation theory can be related to the undergraduate students in this research because they are the person who need to involve various type of academic tasks where they are the ones who tend to experience the subjective discomfort such as anxiety while they are procrastinate on academic tasks.

2.3 Relationship between Academic Motivation and Academic Procrastination

Research by Cerino (2014) has been conducted on academic motivation, self-efficacy and academic procrastination among undergraduate students. The findings shows that intrinsic motivation is negatively correlated to academic procrastination. In addition, EM-introjected was also found to have a significant negative relationship with academic procrastination. Besides that, amotivation was found to be positively correlated with academic procrastination. This research involved 101 undergraduate students from Northeastern public liberal arts university. The instruments used are Procrastination Assessment Scale for Students (PASS), Academic Motivation Scale (AMS), and General Self-Efficacy Scale (GSE) and the data was analyzed by using correlation and regression. The results show that students who lack both intrinsic and extrinsic motivation are more likely to procrastinate. The result was found similar in the Malaysian context. A study conducted by Kok (2016), examines the relationship between procrastination and the motivational aspects of self-regulation among 310 undergraduate students that come from two Universities in Perak. It was found that there is a significant negative relationship between intrinsic motivation and academic procrastination. There is also a significant positive relationship between amotivation and academic procrastination. In the aspects of extrinsic motivation, EM-identified found to have a significant negative relationship with academic procrastination. While EM-external regulation and EM-introjected found to have significant positive relationship with academic procrastination. A study by Fatimah et al. (2011) also found that students with high intrinsic motivation tend to have low procrastination.

Besides, research by Güdül et al. (2021) consisted of a sample of 1170 undergraduate students in Turkey. The study found that undergraduate students with low levels of academic procrastination have high levels of intrinsic and extrinsic motivation and low levels of amotivation. It indicated that extrinsic motivation and intrinsic motivation is negatively correlated with academic procrastination while amotivation is positively correlated with academic procrastination. Another study carried out by Oram and Rogers (2022) among 617 undergraduate students in Canada has reported similar findings. It was found that there is a negative relationship between intrinsic motivation and academic procrastination as well as there is a positive relationship between amotivation and academic procrastination.

From the previous research on relationship between academic motivation and academic procrastination, it is found that intrinsic motivation, extrinsic motivation and amotivation indeed has association with academic procrastination. It can be concluded that past studies suggest academic motivation has a significant relationship with academic procrastination. Therefore, three hypothesis was developed based on previous studies that are:

Hypothesis 1: There is a negative relationship between intrinsic motivation and academic procrastination among undergraduate students in Malaysia.

Hypothesis 2: There is a negative relationship between extrinsic motivation and academic procrastination among undergraduate students in Malaysia.

Hypothesis 3: There is a positive relationship between amotivation and academic procrastination among undergraduate students in Malaysia.

2.4 Effect of Academic Motivation on Academic Procrastination

Tisocco and Liporace (2022) carried out a study that aimed to examine the effect of academic motivation on procrastination among university students. Based on the findings, it is found that the IM-toward accomplishment, IM-to experience stimulation and EM-external regulation are the negative predictors of academic procrastination. While IM-to know, EM-identified, EM-introjected and amotivation are the positive predictors of academic procrastination. The researchers found that individuals might be less likely to procrastinate when they enjoy doing things for personal or intellectual reasons or aim to overcome their limit. Besides, a study conducted by Cerino (2014) has found that academic motivation has a greater influence on academic procrastination compared with self-efficacy. In the study, the

researcher found that the IM-to know, IM-to experience stimulation, EM-identified and amotivation are the significant predictor for academic procrastination. Other than that, a Turkey study conducted by Yurtseven and Doğan (2019) also found that amotivation has the effect on academic procrastination.

In the Malaysian context, a study conducted by Zaid & Afnezul (2021) has identified the role of academic motivation in academic procrastination. This research involved 80 undergraduate students. It was found that intrinsic motivation negatively predicts academic procrastination. It is because students will avoid committing the academic procrastination when they have high intrinsic motivation in which they will enjoy what they do and like their course. On the other hand, students with low intrinsic motivation tend to do the academic tasks due to external factors. Zaid & Afnezul (2021) found that extrinsic motivation is the positive predictor of academic procrastination, which indicates that students do not really want to do the academic tasks and they do it because they want the external reward or due to the external factors.

From the previous study on the effect of academic motivation on academic procrastination, it is found that most research conclude and agree that intrinsic motivation, extrinsic motivation and amotivation indeed have its effect on academic procrastination. Therefore, three hypothesis was developed based on previous studies that are:

Hypothesis 4: There is a significant negative effect of intrinsic motivation toward academic procrastination among undergraduate students in Malaysia.

Hypothesis 5: There is a significant negative effect of extrinsic motivation toward academic procrastination among undergraduate students in Malaysia.

Hypothesis 6: There is a significant positive effect of amotivation toward academic procrastination among undergraduate students in Malaysia.

■3.0 METHODOLOGY

3.1 Research Design, Participants and Settings

This research used quantitative, correlational and cross-sectional research design to examine the relationship between academic motivation and academic procrastination as well as the effect of academic motivation on academic procrastination. In this research, academic motivation serves as an independent variable while academic procrastination serves as a dependent variable. The target population of this research is the undergraduate students who are currently in Malaysia, which involve students in public university and private university. According to Krejcie and Morgan (1970), the total sample size required for this research is at least 384 respondents because there are about 638,133 of undergraduate students enrolled in 2021 when reference to latest statistics provided by the Ministry of Higher Education (MoHE) on 18 May 2022. The sampling technique used in this research is convenience sampling which is a type of non-probability sampling. One of the main purposes of using convenience sampling in this research is because there is no detailed information for the undergraduate students' population. The researcher cannot get the details of the full name list of undergraduate students in Malaysia. Therefore, probability sampling methods are not suitable to use in this research. By using convenience sampling, it is convenient to select samples from the population because the samples are always close at hand with us and always available (Obilor, 2023). To collect the data in this research, a questionnaire was created in the form of google form, and distributed link to respondents through online platforms such as whatsapp, telegram, instagram and facebook. Besides, a QR code link to questionnaires also created in order to collect respondents physically. Respondents are estimated to take 5-10 minutes to complete the questionnaire which consist of three sections: (A) demographic information, (B) Academic Motivation Scale (AMS-C 28), and (C) Procrastination Assessment Scale-Students (PASS). Participants in this research are voluntary, and they have the right to reject participating in this research.

3.2 Research Instrument

The 28 items of Academic Motivation Scale (AMS-C 28) which were developed by Vallerand with other researchers in 1992 was used to measure undergraduates' motivation. This instrument uses the five-point likert scale, ranging from (1) does not correspond at all to (5) corresponds exactly and there is no inverse scoring in this instrument. There are seven subscales in the instrument with three types of motivation, intrinsic motivation (IM), extrinsic motivation (EM) and amotivation. Intrinsic motivation consists of three subscales, IM-to know, IM-toward accomplishment, and IM-to experience stimulation. While three subscales of extrinsic motivation are EM-identified, EM-introjected, and EM-external regulation. The final score for intrinsic motivation and extrinsic motivation will be summed up from all the mean scores of all IM subscales and all EM subscales. The three scales of AMS-C 28 have good internal reliability with a cronbach alpha value of 0.81 (Vallerand et al., 1992). For the current study, the Cronbach's alpha value for three dimensions, intrinsic motivation, extrinsic motivation and amotivation are respectively $\alpha = 0.904$, $\alpha = 0.885$ and $\alpha = 0.851$, which is considered as excellent and good reliability.

Besides, Procrastination Assessment Scale for Students (PASS), an instrument developed by Solomon and Rothblum in 1984 was utilised to measure undergraduate students' academic procrastination. This research adopted the first part of the PASS which consists of 18 items with six procrastinate academic areas such as writing a term paper, studying for exams, keeping up with reading assignments, academic administrative tasks, attendance tasks, and school activities in general. This instrument uses the five-point likert scale, ranging from (1) never to (5) always. According to Kok (2016), the English version of PASS needs to have minor changes to avoid the semantic vagueness or misunderstanding among university students in Malaysia. The minor modification is to have a bracket of "writing an assignment" behind the dimension of "writing term paper" and have a bracket of "keeping up weekly tutorials" behind the dimension of "keeping up with weekly assignment. The minor change is done because undergraduate university students in Malaysia might not have the term paper and weekly assignment. From each dimension, it consists of three items which ask students about their degree of procrastination on the task, degree of problem to the students due to procrastinating on the task, and the extent of students wanting to

decrease their procrastinate behavior on that task. According to Solomon and Rothblum (1984), the first two items, extent of procrastination and degree of problem will be summed up to determine the procrastination level, because they focus the definition of academic procrastination on behavioral delay and psychological distress. The score for each dimension or academic area will range from 2 until 10 and the score with 6 academic areas will range from 12 to 60 (Solomon & Rothblum, 1984). PASS has good and acceptable reliability with a cronbach alpha of value 0.74 (Fischer & Corcoran, 1994). For the current study, the Cronbach's alpha value for six academic area, writing a term paper (writing an assignment), studying for exams, keeping up with weekly assignments (keeping up weekly tutorials), academic administrative tasks, attendance task, and school activities in general are respectively $\alpha = 0.751$, $\alpha = 0.764$, $\alpha = 0.826$, $\alpha = 0.827$, $\alpha = 0.851$, and $\alpha = 0.857$ which is considered as good and acceptable reliability.

3.3 Data Analysis

In this research, IBM Statistical Package for Social Sciences (SPSS) version 27 was used to conduct the analysis with the data collected. Descriptive analysis was applied to analyse the demographic data of the respondents and to identify the level of academic procrastination among undergraduate students in Malaysia. Meanwhile, inferential analysis, consisting of Pearson correlation and multiple linear regression were used to determine the relationship between academic motivation and academic procrastination and to identify the effect of academic motivation on academic procrastination.

4.0 RESULTS

A total of 292 undergraduate students were involved in this research by filling out the online, but there are eight questionnaires that were excluded due to the incomplete response. Therefore, a total of 284 undergraduate students from Malaysia public and private universities were analysed. From the analysis, female students constitute the majority of the respondents, with a total of 190 respondents (66.9%) compared with the male students with a total of 94 respondents (33.1%). In terms of age, the highest percentage of age group is 22 to 25 years old (51.8%), followed by 18 to 21 years old (46.1%), 26 to 29 years old (2.1%) and the lowest with no respondents that is above 30 years old. In the ethnicity aspects, the majority of the respondents are Chinese with a total of 162 students (57.0%), followed by Malay with 100 students (35.2%), other ethnicities (4.6%) and Indian (3.2%). Besides, among the respondents, fourth year undergraduate students constitute the highest percentage with 36.6%, followed by second year (22.2%), first year students (21.1%) and lastly third year students with 20.1%. In the aspects of place of study, public universities constitute the majority of the respondents with 235 students (82.7%) while private universities consist of 49 students (17.3%). Table 1 shows the demographic profiling of the respondents.

Table 1 Demographic Profiling of the Respondents

Factor	Category	Frequency	Percentage (%)
Gender	Male	94	33.1
	Female	190	66.9
Age	18 - 21	131	46.1
	22 – 25	147	51.8
	26 – 29	6	2.1
	30 and above	0	0.0
Ethnicity	Malay	100	35.2
	Chinese	162	57.0
	Indian	9	3.2
	Others	13	4.6
Year of Study	First Year	60	21.1
	Second Year	63	22.2
	Third Year	57	20.1
	Fourth Year	104	36.6
Place of Study	Public University	235	82.7
	Private University	49	17.3

4.1 Level of Academic Procrastination

The first objective of this research is to examine the level of academic procrastination among undergraduate students in Malaysia. According to the descriptive analysis, the overall mean of academic procrastination among undergraduate students is in medium level, with a mean score of 3.02 and a standard deviation of 0.738. According to the descriptive analysis, the highest mean value of academic area is writing a term paper (writing an assignment) which has the mean value of 3.39, which means students exhibit the highest procrastination

on writing the assignment. On the other hand, attendance tasks have the lowest procrastination which has the mean value of 2.47. Table 2 displayed the level of academic procrastination among undergraduate students. Level of procrastination was divided into three categories: low, medium, and high. Based on the table, it is shown that the majority of the students show moderate levels of academic procrastination which constitute 182 respondents (64.1%). On the other hand, 15.5% of the respondents demonstrated a high level of academic procrastination, and 20.4% of respondents exhibited a low level of academic procrastination.

Table 2 The Level of Academic Procrastination

Total Mean Score	Result	
	Frequency	Percentage (%)
Low	58	20.4
Moderate	182	64.1
High	44	15.5

4.2 Relationship between Academic Motivation and Academic Procrastination

The second objective of this research is to identify the relationship between academic motivation and academic procrastination among undergraduate students. The Pearson correlation analysis was conducted on 284 students. The data should be normal before using pearson correlation. Table 3 revealed the result of the correlation between academic motivation and academic procrastination.

Table 3 Correlation Analysis of Relationship between Academic Motivation and Academic Procrastination

Variables	Academic Procrastination	
	Pearson Correlation (r)	Sig (2-tailed)
Intrinsic Motivation	0.054	0.368
Extrinsic Motivation	0.029	0.625
Amotivation	0.333*	<0.001

Note: *indicate $p < 0.05$

Based on Table 3, the result demonstrated that there is no significant relationship between intrinsic motivation and academic procrastination as well as between extrinsic motivation and academic procrastination as the p value is greater than 0.05. While for amotivation, the findings demonstrated that amotivation significantly correlated with academic procrastination ($r = 0.333$, $p < 0.001$). This finding indicated that there is a significant positive and weak relationship between amotivation and academic procrastination. The positive significant relationship indicates that the higher the amotivation, the higher the academic procrastination.

4.3 Effect of Academic Motivation on Academic Procrastination

The third objective of this research is to study the effect of academic motivation on academic procrastination among undergraduate students. Multiple linear regression was conducted on 284 students and the findings are presented in Table 4.

Table 4 Regression Analysis of Effect of Academic Motivation on Academic Procrastination

Model	Academic Procrastination		
	β	t	p-value (beta)
Intrinsic Motivation	0.014	0.194	0.846
Extrinsic Motivation	0.091	1.254	0.211
Amotivation	0.352	6.130	<0.001*
R	0.348		
R^2	0.121		
F	12.836		
p-value	<0.001		

Note: *indicate $p < 0.05$

Referring to Table 4, there is a statistically significant difference between independent variable, academic motivation and dependent variable, academic procrastination, as shown by the significant p-value of <0.001 . R value of 0.348 indicates a positive weak relationship between academic motivation and academic procrastination. R square value of 0.121 suggests that academic motivation will predict the change of academic procrastination by 12.1%. Furthermore, among three types of academic motivation, amotivation showed a significant effect toward academic procrastination as the p-value (beta) is smaller than 0.05. Beta value of $\beta = 0.352$ indicates that effect is positive and the increase of amotivation by one unit will result in 0.352 increase in academic procrastination ($\beta = 0.352$, $p < 0.05$). Besides, there is no significant effect of intrinsic motivation and extrinsic motivation toward academic procrastination as the p-value is 0.846 and 0.211, in which $p > 0.05$.

■5.0 DISCUSSION AND RECOMMENDATION

5.1 Level of Academic Procrastination among Undergraduate Students in Malaysia.

The first objective of this research is to identify the level of academic procrastination among undergraduate students in Malaysia. Based on the findings of descriptive analysis, it is found that the highest procrastination of the academic task is writing an assignment and it is in accordance with Solomon and Rothblum (1984) finding. This research finding also articulates that the majority of the undergraduate students demonstrated a moderate level of academic procrastination and this finding is consistent with several studies, such as Uma et al. (2020) and Kok (2016). Uma et al. (2020) supported this result that this situation can be due to the academic task being too boring, difficult and time-bound. In reference from Uma et al. (2020), undergraduate dental students will be more focused on their patient work instead of the academic work due to the nature of academic tasks, and along with poor time management, it could contribute to moderate to high academic procrastination. By applying to undergraduate students in this research, undergraduate students may focus more on their non-academic work such as on curricular activities and thus it may cause them to lack time management on writing an assignment. This is also supported by Aziz et al. (2017) research, which found that students will tend to procrastinate when they participate in various extracurricular activities because there are many tasks that need to be done. Therefore, the overall moderate level of procrastination could be due to the students who tend to focus more on school activities but at the same time having a high procrastination on writing assignments.

From an international perspective, this research finding is also on the same trajectory with Mahasneh et al. (2016) by supporting that it is due to the students' individual characteristics. Students who perform well academically often have strong self-motivation, and thus they believe that their own abilities, capacities, work style and performance will determine their success (Mahasneh et al., 2016). On the contrary, students who rely on external factors will believe that their success depends on luck and chance instead of their own effort and performance (Mahasneh et al., 2016). Therefore, it makes sense that the majority of the undergraduate students are at a moderate level of academic procrastination as they might have different levels of intrinsic motivation and extrinsic motivation to effect them in different academic tasks.

However, there are a number of studies that contradict with this research findings, which indicated that undergraduate students have a low level of academic procrastination (Lakshminarayan et al., 2013) and high level of academic procrastination (Tahir et al., 2022). It is noteworthy that both investigations were conducted among a specific group of undergraduate students in two specific colleges and universities, which the students are in the medical sector. Therefore, the findings might not be applicable to the study, as this research is focused on all types of undergraduate students from various universities. Nevertheless, we need to acknowledge that every student is different, they will have different levels of academic procrastination due to various factors such as goal setting style, time management style, and self-reward (Tahir et al., 2022). For example, 20.4% of undergraduate students in this research possess a low level of academic procrastination and 15.5% of undergraduate students show high levels of academic procrastination, this might be due to their different time management style. Low procrastinate students would prefer to have a planned schedule on complete tasks while high procrastinate students would tend to complete all the tasks in one day without any planned (Tahir et al., 2022).

While variety of circumstances and factors could affect to the one person motivation, it is supported by the Temporal Motivation Theory (TMT) proposed by Steel and König, where they explain the procrastination is due to the one person motivation, and there are four elements that can affect a person motivation, which are the value of outcome, expectancy of success occurring, sensitivity to delay, and amount of time to get the expected reward (Steel & König, 2006). Every person will have different levels for each element, thus individuals will have different levels of academic procrastination. Therefore, the level of academic procrastination would not be in a definite high or low level, there would be a moderate level also.

5.2 Relationship between Academic Motivation and Academic Procrastination among Undergraduate Students in Malaysia.

The second objective of this research is to determine the relationship between academic motivation and academic procrastination among undergraduate students in Malaysia. As hypothesized, the findings have revealed a significant positive relationship between amotivation and academic procrastination among the undergraduate students in Malaysia. This result of finding is consistent with other earlier findings that demonstrated a positive correlation between the variables (Cerino, 2014; GÜDÜL et al., 2021; Kok, 2016; Oram & Rogers, 2022; Vij & Lomash, 2014). This correlation revealed that a higher level of amotivation was associated with higher level of academic procrastination (GÜDÜL et al., 2021). In simple words, students who have no academic motivation tend to procrastinate more when it comes to academic tasks (Cerino, 2014).

In the aspects of intrinsic motivation, current study has found that there is no significant relationship between intrinsic motivation and academic procrastination which is contrary to hypothesis. The result of this research was aligned with a few earlier study (Yee & Lai, 2021; Yun, 2019), but was contradict with most of the research (Cerino, 2014; Fatimah et al., 2011; GÜDÜL et al., 2021; Kok, 2016; Oram & Rogers, 2022; Pelikan et al., 2021; Vij & Lomash, 2014). According to the self-determination theory, an individual with high intrinsic motivation will be able to manage their life without others influencing them and without any reinforcement (Ryan & Patrick, 2009). By using self-determination theory, this research suggests that individuals will have a low level of procrastination if they have a high level of

intrinsic motivation. However, present research does not show any correlation between intrinsic motivation and academic procrastination. One possible explanation of this insignificant relationship might be due to the self-efficacy of the students. Self-efficacy refers to the students' belief in their ability to carry out the task in order to achieve specific goals (Bandura, 1977). Students with high intrinsic motivation does not mean that they will have high self-efficacy in carrying out the task. It can be supported by Katz et al. (2014) studies, which suggest that having intrinsic motivation alone is not enough and not effective to prevent procrastination. Students will have a high level of procrastination when they have low self-efficacy even though they have high intrinsic motivation (Katz et al., 2014). Therefore, students who have high intrinsic motivation might have different levels of procrastination due to their self-efficacy.

From the aspects of extrinsic motivation, it is also contrary to the hypothesis which current study also found that there is no significant relationship between extrinsic motivation and academic procrastination. This result finding is consistent with most of the studies, which show no significant relationship between extrinsic motivation and academic procrastination (Cerino, 2014; Oram & Rogers, 2022; Yee & Lai, 2021; Yun, 2019; Yurtseven and Doğan, 2019). One possible explanation for this result is due to perfectionism. Students with high extrinsic motivation will have high perfectionism, which they set on an unrealistic high standard on task (Akpur & Yurtseven, 2019). Eventually, they feel unable to achieve the unrealistic high standard and it leads to high procrastination. Hence, high extrinsic motivation is not enough to associate with procrastination.

5.3 Effect of Academic Motivation on Academic Procrastination among Undergraduate Students in Malaysia.

The third objective in this research is to study the effect of academic motivation on academic procrastination among undergraduate students in Malaysia. As hypothesized, the findings have revealed that amotivation has a significant positive effect on academic procrastination among the undergraduate students in Malaysia. Lot of previous research was found aligned with the current findings including Cerino (2014), Tisocco and Liporace (2022) and Yurtseven and Doğan (2019). Yurtseven and Doğan (2019) supported the findings by explaining that amotivation makes students find no value in academic tasks and thus they would start to procrastinate as they become less willing to complete academic tasks.

From the aspect of intrinsic motivation, the current result contradicts with the hypothesis. Current study found that intrinsic motivation has no significant effect on academic procrastination. This finding was supported by Yurtseven and Doğan (2019), which stated that problem solving skills have an effect on procrastination instead of intrinsic motivation. Students with a low level of problem-solving skills tend to have a high level of procrastination. However, most of the research was not aligned with the result, which the researchers found that intrinsic motivation has significant effect on academic procrastination (Cerino, 2014; Tisocco & Liporace, 2022; Zaid & Afizul, 2021). The inconsistent findings might be due to different achievements in academic tasks. From Zaid and Afizul (2021) study, they found that high achieving students will tend to avoid procrastination as they enjoy and like what they do. While low achiever students will have high procrastination on completing tasks as that is not what they want (Zaid & Afizul, 2021). Therefore, it can be applied to this research that students who have high intrinsic motivation might have different level of procrastination on different academic tasks based on their achiever level on each academic area and this causes that the overall level of academic procrastination is similar across each individual student even though their intrinsic motivation is high.

From the aspect of extrinsic motivation, this research also discovered that extrinsic motivation has no significant effect on academic procrastination which also contradicts with the hypothesis. There are a few studies that were aligned with the finding of this research (Cerino, 2014; Yurtseven & Doğan, 2019), but there were also studies that was not aligned with this finding (Tisocco & Liporace, 2022; Zaid & Afizul, 2021). This inconsistent result might be due to the sustainability of extrinsic motivation. Extrinsic motivation is less sustainable than intrinsic motivation, which means that extrinsic motivation is short-term and its effect will decrease over time (Dodds et al., 2022). For example, students would agree that they study a bachelor's degree because they want to get a better salary. However, the extrinsic reward, to get a better salary, over time would lose its effectiveness in preventing procrastination they would feel that it is not worth it for them to put too much effort in completing all task requirements because effort doesn't contribute significantly to their salary later, but in fact it did contribute significantly. It can be proven by Aziz et al. (2017) studies, where the findings show that the high-ranking factor of procrastination for fourth year students is undervaluing of reward while first year students place the factor of undervaluing of reward at the lower ranking. Therefore, the sustainability of extrinsic motivation might have an effect on the extrinsic motivation to academic procrastination.

5.4 Limitations

In this research, there are several limitations in this research throughout the implementation of this research. First and foremost, one of the limitations of this research is this research depended solely on self-report measures. It should be noted that the respondents might have the social desirability, where the respondents might be inclined to provide responses that align with social expectations or what they think the researcher wants, rather than expressing their true views (American Psychological Association, 2018). For example, respondents might have the tendency to answer the procrastination in lower scale compared to they actually do.

Besides, another limitation in this research is that this research uses convenience sampling. The nature of convenience sampling is the researcher would distribute the questionnaire based on the researcher's convenience and accessibility. This would lead to there being samples who might not present the population. For example, the sample required in this research are undergraduate students who are still studying, while there might be respondents who are graduating from their undergraduate studies and it could not represent the population as a whole. And the convenience sampling also leads to the unbalance of the number of participants based on university. From current study, it can be seen that most of the respondents come from public universities. Therefore, the findings might not be able to well represent the undergraduate students in private universities.

Other than that, current study which focuses on undergraduate students is also one of the limitations. It is because these research findings could not generalise to all types of students studying in Malaysia. There are also other types of education in Malaysia other than the undergraduate education, such as primary studies, secondary studies, pre-university level studies, postgraduate studies as well as master studies. Therefore, the findings from the current studies cannot be generalised to the other students except the undergraduate students.

5.5 Recommendations

There are few recommendations given for future research in order to address these limitations so that the future research findings could be more valid and reliable. First of all, a mixed method approach can be used in future studies. It is an approach that uses both qualitative and quantitative approaches in collecting data. This approach can be ensured to reduce social desirability bias. For example, future researchers can adopt the interview approach as well as the self-report approach to obtain the data from the respondents.

Besides, it is recommended that future researchers use probability sampling to address the second limitation. It is because probability sampling ensures that all people in that population have the equal chance of being chosen no matter from different cultural backgrounds. For example, stratified sampling can be used in future studies as this type of sampling can make sure the diverse group of respondents be involved in the study. Researchers can divide the population into sub-group, according to gender, race, and universities. After that, select the respondents from each sub-group and thus ensure that there is a balanced number of respondents viewing form demographic information.

Last but not least, future research also could focus on other types of students to address the third limitation. For example, future researchers could focus on the pre-university students because they are the students who are about to enter the undergraduate studies. The focus on pre-university students could also determine whether there is a difference of level of procrastination between pre-university students and undergraduate students.

6.0 CONCLUSION

In conclusion, the current research has achieved all of the objectives. The research findings revealed that most the undergraduate students in Malaysia possess a moderate level of academic procrastination. Besides that, amotivation is found to be positively correlated with academic procrastination. While intrinsic motivation and extrinsic motivation has no significant relationship with academic procrastination. In addition, amotivation is found to positively affect academic procrastination. Meanwhile, intrinsic motivation and extrinsic motivation has no significant effect on academic procrastination. These research findings are also found to have theoretical and practical implications, this research provided an in-depth and extensive review of previous research and theories. It also contributed to a deeper understanding and served as a point of reference for future researchers exploring the association between amotivation and academic procrastination. From the aspects of practical implication, the result of this research will be useful to many parties, such as students and universities. For example, students can reflect on themselves as a mean to understanding the extent of their procrastination in their academics, identify their core issue and search for suitable strategies to help them decrease the academic procrastination. Universities also could have an idea on which academic tasks that students have the highest procrastination and lowest procrastination and design the academic tasks that match undergraduate students' style. Overall, further investigation on this topic was encouraged.

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Conflicts of Interest

The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper

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