

The Relationship between Big Five Personality Traits and Procrastination among Students of International Islamic University Malaysia (IIUM)

Nishat Naila Hossain¹ and Monirul Alam Hossain^{2*}

¹Department of Psychology International Islamic University of Malaysia (IIUM), nishathossain19@gmail.com

²Head, Department of Business Administration Bangladesh University, Dhaka-1207, Bangladesh

*Correspondence: Monirul Alam Hossain, Email: monirulhossain@gmail.com; Website: www.mahossain.com

ABSTRACT- Background: The current study examines the relationship between the Big Five personality traits (Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism) and Procrastination (Active and/or Passive) among the undergraduate students of International Islamic University Malaysia (IIUM).

Sample: The participants of this study are 101 covering undergraduate students of IIUM that includes 20 male and 81 female, age ranging from 19 to 28 years old. (M = 22.81, SD = 1.7) who participated in this study. The research design of this study is Cross sectional survey design and participants were chosen by Convenient Random Sampling.

Methods: Personality traits were measured using Big Five Inventory (BFI) and procrastination was measured using "Tuckman Procrastination Scale" and "Active Procrastination Scale".

Findings: Karl Pearson's correlation indicates that this study supports some of the hypotheses. This study found significant relationship between different personality traits and passive procrastination and different dimensions of active procrastination. From the result of this study, it can be observed that conscientiousness has a relationship with both passive and active procrastination. Agreeableness positively correlated with only active procrastination. Neuroticism negatively correlated with both type of procrastination whereas extraversion positively correlated with passive procrastination and active procrastination.

Keywords: Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism, Personality, Active Procrastination, Passive Procrastination, Five Factor Model, undergraduate students, International Islamic University Malaysia (IIUM).

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1. INTRODUCTION

Procrastination derives from the Latin word pro, meaning "forward, forth, or in favor of" and crastinus, meaning "of tomorrow" (as cited in Steel, 2007). Procrastination is the act of delaying or postponing something. According to Hannok (2011), procrastination is an issue if it results in adverse outcomes or punishments are enforced on the procrastinator but dysfunctional procrastination has gained more research attention. A major problem that could be noticed is that in most of the university students are likely to delay their academic work or do it at the eleventh hour. As the young generation of today's world will lead the country in future or hold the important positions to serve the country, it is really important for the students to become proactive and hardworking from the early stage of their lives.

According to Hussain and Sultan (2010), procrastination seems to cause students to defer and postpone their academic works

turning out to be self-excuse and overlooking their works during the whole period of study. From the findings of their studies, it can be found that around 87% of the university students delay in preparing and submitting their assignments, and 68% of the students of their assignments in presentation. Therefore, it can be seen that, procrastination is a problem among university students. The personality of students may be responsible for causing this behavior of delaying tasks at the eleventh hour. The characteristics of the people which is responsible for certain consistent patterns of behavior, feeling and thinking of people is referred to as personality (Sandhya & Gopinath, 2019).

McCrae and Costa defined Personality as an individual's consistent pattern of thoughts, feelings and actions (as cited in Ayers et.al, 2007). Robert McCrae and Paul Costa (2008) described personality in terms of five big factors in their five-factor model. These are: Openness, Conscientiousness, Extroversion, Agreeableness and Neuroticism. According to McCrae and Costa (2008), the descriptions of the traits have been referred in table 1. Because of the difference in personality traits among students, some students managed to do their academic works in time while others failed to do so. For instance, from the findings of the research done by Swarsawati, Winarno and Goeritno (2017), neuroticism and extraversion had a positive significant relationship with academic procrastination.

The behavior pattern where people replaced high-priority task with unimportant work or trying to avoid difficulties by doing

unimportant work is called procrastination (Bellman, 2011). According to American Heritage Dictionary of the English Language (Fourth Edition) procrastination is "to put off doing something, especially out of habitual carelessness or laziness; to postpone or delay needlessly", and according to Cambridge International Dictionary of English, procrastination is "to keep delaying something that must be done, often because it is unpleasant or boring" (as cited in Sandhya & Gopinath, 2019). Procrastination is the tendency which has a deadline to postpone or delay the work. In other way, it means delaying urgently needed activities. It is a multidimensional problem that tends to influencing (prefer to work under pressure), cognitive (decision to procrastination) and same components of action (concluding task before the deadlines) (Sandhya & Gopinath, 2019).

Procrastination is the habit of doing less urgent task in contrast to more urgent work or even doing more enjoyable activities instead of less enjoyable one and thereby, putting it up to later (Sandhya & Gopinath, 2019).

For instance, a student needs to write an e-mail to a lecturer but while browsing the internet, instead of doing the required task, the concerned student may be playing online games or easily get distracted by focusing on another task in the internet. In this way, academic procrastination is occurring among students (Bellman, 2011). There are two types of procrastination. One is active and another is passive. Active procrastination is when one makes deliberate decisions to procrastinate because they feel they work well under pressure. Passive procrastination is when one finds themselves paralyzed by their indecision to act on a task within an appropriate timeframe (Chu & Choi, 2005). Abdullah (2017) stated that, there is an insignificant relationship between active and passive procrastination (not dealing with one dimension).

The relationship between big five personality and procrastination raised disagreement among the researchers in past (Sandhya & Gopinath, 2019; Chooi et.al, 2015). For example, in the research which is done by Sandhya and Gopinath (2019), their result showed a significant relationship between neuroticism; extroversion and preference for pressure; agreeableness in active procrastination among students. There was also a significant relationship between conscientiousness and preference for pressure, in active procrastination and irrational procrastination. In contradictory, the research by Chooi et.al (2015) found their correlational analyses which reported no significant associations between the five personality traits with procrastination behavior among university students. Therefore, further examination on this is required to clarify the confusion.

There are ten objectives of this study as follows:

- To examine the relationship between Openness and active procrastination among students.
- To examine the relationship between Conscientiousness and active procrastination among students.
- To examine the relationship between Extroversion and active procrastination among students.

- To examine the relationship between Agreeableness and active procrastination among students.
- To examine the relationship between Neuroticism and active procrastination among students.
- To examine the relationship between Openness and passive procrastination among students.
- To examine the relationship between Conscientiousness and passive procrastination among students.
- To examine the relationship between Extroversion and passive procrastination among students.
- To examine the relationship between Agreeableness and passive procrastination among students.
- To examine the relationship between Neuroticism and passive procrastination among students.

1.1 Theoretical Framework

Sandhya and Gopinath (2019) depicted in their study that the personality of an adult is the combination threatens of culture, personal family history (family background), temperament and the time when those people grew up. Hence, the way how students grew up and their behavior may lead whether they will procrastinate their academic work in future or not. Academic performance or "academic achievement" is the extent to which a student, teacher or institution has attained their short or long-term educational goals.

Completion of educational benchmark such as CGPA at the bachelor's degrees represent academic achievement. According to the findings of the study by Kim, Fernandez and Terrier (2017), extraversion and neuroticism (personality traits) are positively related to active procrastination. On the other hand, active procrastination predicts to a much more than the five-factor model and passive procrastination. (See Figure -1)

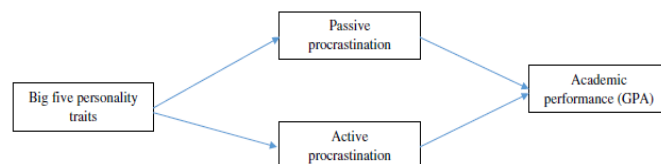


Figure 1: Theoretical framework; Source- Kim, Fernandez and Terrier (2017)

1.2 Conceptual Framework

Various factors may be responsible for causing the behavior of procrastination. According to Nadeem, Malik and Javid (2016), it is recognizable these days that students effortlessly give up on their life and accept their failure. This causes frustration among them and as a result it influences on their manner of decision making and self-guideline. As a result, students would rather have the behavior style like procrastination.

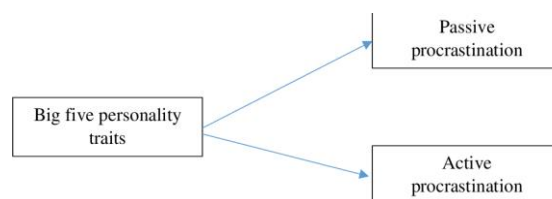


Figure 2: Conceptual model

On the basis of the work by Kim, Fernandez and Terrier (2017), the conceptual model (see *Figure 2*) the present study will examine the relationship between Big Five personality traits (Openness, Conscientiousness, Extroversion, Agreeableness and Neuroticism) and procrastination (active and passive). To investigate this, a study needs to be carried out among the undergraduate students of IIUM to check whether there is a relationship between big five personality and procrastination.

1.3 Implication of Past Studies with Present Study

The aim of this study is to investigate the relationship between Big Five personality traits i.e (openness, conscientiousness, extraversion, agreeableness and neuroticism) and procrastination (active and passive) among the undergraduate students of IIUM. This study is quite similar to the past studies. In some past studies of this topic, there was limitation on data collection where researchers focus in one gender only which might affect their study (Kader & Eissa, 2015). As a result, in this study respondents have been taken after consideration both male and female students as the sample of this study.

In terms of theoretical implication, most of the past studies mainly focused on the general term of procrastination instead of specific types of procrastination. (e.g., Bellman, 2011). A very few numbers of studies have focused on the two branches of procrastination. This study particularly emphasized on the two types of procrastination i.e., active and passive, and was only conducted on the students of International Islamic University Malaysia (IIUM), which may bring different results.

In terms of research implication, the findings of the study may contribute to explore the behavioral dimension of procrastination which can hamper the ability of students to manage their time life adequately (Chooi et.al, 2015).

In terms of practical implication, the findings of the study may expand the understanding of the relationship of personality traits which may be responsible for causing either active or passive procrastination among the sample students (Sandhya & Gopinath, 2019). In addition, this study may help students to improve themselves to become a proactive and identifying their strength and weakness through Personality Traits Approach.

There are ten hypotheses of this study:

1. H₁: The score in openness scale of BFI 44 scale will be related to the score in active procrastination scale.
2. H₂: The score in conscientiousness scale of BFI 44 scale will be related to the score in active procrastination scale.
3. H₃: The score in extroversion scale of BFI 44 scale will be related to the score in active procrastination scale.
4. H₄: The score in agreeableness scale of BFI 44 scale will be related to the score in active procrastination scale.
5. H₅: The score in neuroticism scale of BFI 44 scale will be related to the score in active procrastination scale.
6. H₆: The score in openness scale of BFI 44 scale will be related to the score in passive procrastination of Tuckman procrastination scale.

7. H₇: The score in conscientiousness scale of BFI 44 scale will be related to the score in passive procrastination of Tuckman procrastination scale.
8. H₈: The score in extroversion scale of BFI 44 scale will be related to the score in passive procrastination of Tuckman procrastination scale.
9. H₉: The score in agreeableness scale of BFI 44 scale will be related to the score in passive procrastination of Tuckman procrastination scale.
10. H₁₀: The score in neuroticism scale of BFI 44 scale will be related to the score in passive procrastination of Tuckman procrastination scale.

2. LITERATURE REVIEW

2.1 Five Factor Model of Personality (FFM)

In psychology, five-factor personality model is a model of a person's personality which divides it into five traits. Characteristics of personality are understood as pattern of thinking, feeling and actions that are fairly constant over a person's life. In another way, five factor model (FFM) is a dimensional description of the structure of personality that has quickly achieved the mainstream popularity among the psychologist.

The five-factor model (FFM) is composed of five personality traits, which is commonly referred by openness, conscientiousness, extraversion, agreeableness and neuroticism (McCrae & Costa, 2011). OCEAN, NEOAC or CANOE is the common acronym of the big five personality traits (Novikova, 2013). This allows the study of the human behavior focusing on the observation from the clinical practice. A 16 items inventory of the factors of personality was established by Raymond Cattell in 1940 and developed the instrument of the questionnaire of the Sixteen personality factor to examine these traits. Later the Five-Factor Model (FFM) was established by Robert McCrae and Paul Costa which representing personality in five specific factors (McCrae & Costa, 2011).

McCrae and Costa (2008) stated, "Five Factor Model (FFM) of personality is an empirical generalization about the co-variation of personality traits" (p. 159). This model of five factors has been the most compelling conceptualization of personality to date (Teven, 2007). According to this theory, the five dimension of personality comprise: Openness which is related to the receptivity of the new idea, curiosity, imaginative, intellectuality and the preference for varied sensation; Conscientiousness refers to the degree of determination and responsibility, self-control, persistence, willingness to achieve; Extraversion refers to the degree to which people experience positive emotions, sociability, high activity and assertive; Agreeableness is defined by being sympathetic, friendly compliance, trustworthy, selfless, and easily moved; Neuroticism is characterized by a degree to which people experience negative emotions (Ripski, LoCasale-Crouch & Decker, 2011; as cited in Karatas, 2015). Some examples of the component of Five Factor Theory of Personality System (FFT) are stated in the *table* given below:

Table 1: Description of some example of the component of Five Factor Theory of Personality System (McCrae & Costa, 2008)

Some Examples of FFT Personality System Components		
Basic tendencies	Characteristic adaptations	Objective biography
Neuroticism		
N3: Depression (a tendency to experience dysphoric affect—sadness, hopelessness, guilt)	Low self-esteem, irrational perfectionistic beliefs, pessimistic attitudes	“Betty” (very high N3) feels guilty about her low-prestige job (Bruehl, 2002)
Extraversion		
E2: Gregariousness (a preference for companionship Basic tendencies and social stimulation)	Social skills, numerous friendships, enterprising vocational interests, Characteristic adaptations participation in team sports, club memberships	J.-J. Rousseau (very low E2) leaves Paris for the Objective biography countryside (McCrae, 1996)
Openness to Experience		
O4: Actions (a need for variety, novelty, and change)	Interest in travel, many different hobbies, knowledge of foreign cuisine, diverse vocational interests, friends who share tastes	Diane Ackerman (high O4) cruises the Antarctic (McCrae, 1993–1994)
Agreeableness		
A4: Compliance (a willingness to defer to others during interpersonal conflict)	Forgiving attitudes, belief in cooperation, inoffensive language, reputation as a pushover	Case 3 (very low A4) throws things at her husband during a fight (Costa & McCrae, 1992a)
Conscientiousness		
C4: Achievement Striving (Strong sense of purpose Basic tendencies and high aspiration levels)	Leadership skills, long-term plans, organized support network, Characteristic adaptations technical expertise	Richard Nixon (very high C4) runs for president Objective biography (Costa & McCrae, 2005)

To analyze the types of personality that human possess, this model has been used widely. In addition, this model has further been used in academic settings. Past studies have shown that some factors of personality have strong relation with academic procrastination and performance (Kim, Fernandez and Terrier, 2017). In particular for this present study, personality traits have found to have relationship with active and passive procrastination.

2.2 Procrastination and Personality

Personality traits are very significant in describing about the procrastination. This is also known as the function of personality having the indication of the behavioral delay (Karatas, 2015). It is argued that academic procrastination does not support the impact by personality traits and motivational drive which affects individual's aim (Grund & Fries, 2018). However, Steel (2007) proposed 'irritating homework' as one of the effective traits in procrastination. As it is known that people prefer to avoid distracting stimuli, hence the factor of personality are based on the tendency of individual to perform the assigned work; perhaps, an unpleasant work is more desired to be delayed (Kitsantas, Steen & Huie, 2017). However, in 2005, a case was filled in where it was stated that, all the behavior of procrastination are not dangerous or are precursors to the negative consequence of the behavior (Chu & Choi, 2005). Pychyl & Flett (2012) suggested that, much more still

need to be learnt about tendency to procrastinate based on the individual differences.

Among the factors of personality, extraversion is most common and most complex reason of procrastination. Extraverts are usually defined as easygoing, enthusiastic, outgoing, energetic, expressive, passionate and interesting (as cited in Steel, 2007). Students who show higher rates of extraversion were found to have poorer coping skills for academic success. As a result, it might push them to a greater tendency to procrastinate (as cited in Sandhya & Gopinath, 2019).

Procrastination can be conceived as lack of conscience if viewed from the perspective of personality. It is further stated that, this approach of understanding personality's impact on procrastination has gained attention as an alternative way of understanding the maladaptive form of living in the world (as cited in Sandhya and Gopinath, 2019). From the past study about conscientiousness, it is seen that, people who possess conscientiousness were less likely to procrastinate. Further, it has been stated that individuals who have shown low conscientiousness rates have a higher propensity to procrastinate (Johnson & Bloom, 1995). This can be explained as student who has low level of conscientiousness tends to procrastinate. According to Sandhya and Gopinath (2019), in other words, for active procrastination, students with low emotional stability can postpone the submission of assignments

and the preparation for the exam since they might or might not be feel able to meet expectations.

Neuroticism is somewhat close to fear, trait anxiety or negative outcome (Steel, 2007). Researchers have generally argued that, due to being stressful and aversive, if individuals postpone their activities, then people who are much more susceptible to tension should procrastinate more (as cited in Steel, 2007).

Nevertheless, most of the previous researches did not find any relationship of agreeableness and openness with procrastination (e.g., Steel & Klingsieck, 2016).

2.3 Active Procrastination

Active procrastination is a form of procrastination where the decision to postpone is intentionally taken in the context of urgency and the work is carried out closer to the deadline for seeking pressure and encouragement to do the work (Chowdhury, 2016). According to Strunk (2012), people sometimes intentionally procrastinate to obtain a benefit from a task. Some researchers suggested that active procrastination embraced in a certain way which can be motivationally and academically efficient. They further stated that, it is related to the positive results like good GPA, better health and performance, mental health etc. (Chu and Choi 2005; Choi and Moran 2009 as cited in Chowdhury, 2016). Besides, the review of meta-analysis of Steel (2007) stated that students tend to postpone their work as a technique of encouragement by gathering resources and dealing with coming deadlines. On the other hand, Pychyl (2009) argued that "active procrastination is a contradiction and theoretical impossibility". In addition, a few researchers argued that active procrastination has an adaptive nature that could justify educators' support of well-intentioned procrastination efforts (Schraw et al., 2007).

Researchers have found that, active procrastinator can regulate their own learning behavior (Crokin et.al, 2011), and show a wide number of positive characteristics like self-efficacy, better time management and dependence on task-oriented strategies to cope under stress (Choi, 2005). In contradictory, Cao (2012) argued that "Active procrastinators had "low mastery-approach goal, high performance avoidance and work-avoidance goal, and low intrinsic motivation and task value." This study measures four dimensions of active procrastination and outcome satisfaction (Sandhya and Gopinath, 2019). As a result, getting a high level of self-efficacy, control over stressor, motivation and the like, active procrastinator has more tendency to achieve positive outcomes. In addition, they are capable to finish their task on time by utilizing their time effectively though they put off their work until the last moment.

Again, preference for pressure means the time pressure to finish the task before the deadline works as a motivating factor for the active procrastinator to complete their work on time. Furthermore, to experience this challenge they tend to do their tasks at the last minute (i.e., at the eleventh hour). Intentional decision means that active procrastinator are not organized in planning to complete their work and like to shift their attention from one task to another task. Finally, ability to meet deadline means an active procrastinator experience the last-minute

pressure to finish the task by having the capability to finish the minimum amount of time which is needed to complete it.

2.4 Passive Procrastination

Passive procrastination means that the person is delaying their work with no mean and at the end point they are feeling helpless and incapable of performing their tasks at the end. Passive Procrastination is originating from inadequate self-regulation, impetuosity, pessimistic attitude about self-efficacy and less effective approaches to deal with negative emotions and stress (Saneca, 2020). Passive procrastinator postpones their tasks regardless of understanding the need to start task (Wessel, 2019). The classical passive procrastinators attempt to overlook their duties without any meaning to simply perform the work, and find themselves helpless when they have to act in a certain duration of time (Chu & Choi, 2005).

According to Haberli & Hicks (2015), passive procrastinator unintentionally procrastinates because of being incapable to take decision to complete a task effectively and in time. These researchers further stated that meeting the deadlines leads passive procrastinators to feel under pressure and therefore, create negative thoughts about their ability to produce successful results. Cao (2012) found that older students are passive procrastinator. The study of Kim & Seo (2013) reveals that due to the lack of ability to take the decision in time, passive procrastinator postpone their work until the last minutes. Finally, Wessel (2019) found that behavioral delay can be predicted by the passive procrastination.

2.5 Relationship between FFM and Active Procrastination

Till today, there is the necessity to know about the tendency to procrastinate and the factors which are responsible for such kind of behavior. Since patterns of procrastination have been shown to be fairly stable in time and circumstances to decide the individual's behavior, personality is an important psychological factor (Goeritno, Winarno & Swaraswati; 2017). This kind of behavioral pattern can be explained from previous studies.

The study of Kim, et.al, (2017) revealed that as people who are extrovert are active and assertive and they might not procrastinate. However, they could only do it purposely if they have the tendency to reach their goal effectively. In addition, from the findings of the studies of Kim et.al, (2017) and Zhou (2019), it can be seen that there is a relationship between extraversion and personality traits. This means they prefer to procrastinate intentionally with the goal of being more effective and allocating their time and resource in a better way (Zhou, 2019). On the other hand, the study of Choi and Moran (2009) found a significant positive relationship with extraversion and active procrastination. On the contrary, extraversion had a significant relationship with preference of pressure (Sandhya & Gopinath, 2019). However, previous studies also found significant relationship between neuroticism and active procrastination (Kim et.al, 2017; Zhou 2019). This indicates that people who have neuroticism do not involve in active procrastination.

From the research by Zhou (2019) it is seen that agreeableness was a negative predictor of active procrastination which contradicts with the result of Tang, Li & Wang, 2015; Kim, et.al (2017) and Sandhya & Gopinath (2019), where there was no relationship between active procrastination and agreeableness. That means people who have 'agreeableness as the personality trait might be easily distracted by other factors if they have so many tasks to do (Seddigh, Berntson, Platts & Weaterlund, 2016). To clarify this dynamic of the relationship, this study consists of one of the objectives to examine the link between these two variables (i.e., agreeableness and active procrastination).

There is a study carried out by by Zhou (2019) which found that conscientiousness is only correlated with the ability to meet deadline, and intentional decision to procrastinate. This indicates the sample students who were conscientious able to intentionally control their action to achieve their target and meeting the deadlines. Again, from the study of Sandhya and Gopinath (2019), it was found that conscientiousness had significant relationship with preference for pressure and intentional decision. In contradictory, the study of Tang, Li & Wang (2015) and Kim et.al, (2017), there was no relationship between conscientiousness and active procrastination which is contradictory from earlier similar studies.

Furthermore, Neuroticism was found as the significant predictor of active procrastination (Tang, Li & Wang, 2015; Kim et.al, 2017; Sandhya & Gopinath, 2019; Zhou, 2019).

From the earlier similar studies, openness was not related with active procrastination (Kim et.al, 2017; Zhou, 2018). However, from the study of Zhou (2019) which was conducted among university students, it was found that openness was correlated with the ability to meet deadline. This indicates that, students who were open to new opportunities were more likely to find new strategies for achieving their objectives.

2.6 Relationship between FFM and Passive Procrastination

Now, it is already known that extraversion is defined by the general tendency to experience positive emotions, as well as by traits such as sociable, lively, and active. In the big five theory of personality, extraversion is one of the personality traits. This kind of people usually likes to participate in the social gathering and interacting with people. From the earlier studies of Nadeem, Malik & Javaid (2016) and Kim et. al, (2017) who conducted their researches taking into account of university students as their samples, it was found that the sample students who were extravert are productive and involve in many activities to take charge of any situations so that they are not engaging in passive procrastination.

Conscientiousness is related with competence and self-discipline (Kim et. al, 2017). For instance, a student who is conscientious in studies does not let personal prejudices influence taking decision about the study plan and submit the assigned task before the deadline. In previous studies, it is found that, there was a significant negative relationship between conscientiousness and passive procrastination (Choi & Moran,

2009; Nadeem, Malik & Javaid, 2016; Kim et. al, 2017; Wu, 2018; Zhou, 2018). After all, the meta analyzes show that, passive procrastination derives from lack of self-regulatory of self-regulatory and is significantly correlated with impulsiveness, inability to concentrate, boredom, liability, sensation seeking and in a negative way with the conscientiousness and self-control (Steel, 2007).

In the study of personality psychology, neuroticism is one of the Big Five higher-order personality traits. There is clearly a strong similarity of neuroticism and to the point of procrastination. Actually, neuroticism is analogous to fear, adjective anxiety and negative affection (as cited in Ghandi, Fakri & Doosti, 2017). Besides, Ghandi, Fakri and Doosti (2017) stated that, researcher think people are too afraid of doing homework which are stressful and as a result they procrastinate to delay their anxiety. However, specifically, neuroticism is positively related with passive procrastination which is significant at the 5% level (Wu, 2018; Zhou, 2018). As people having neuroticism are not emotionally stable, hence they have stronger tendency of procrastinate passively.

In addition, Agreeableness is defined as the ability to control impulse well and is goal and task-based behavior (Costa & McCrae, 2008). Agreeableness was not related with passive procrastination (Nadeem, Malik & Javaid, 2016; Kim et. al, 2017; Wu, 2018; Zhou, 2018). This can be found as people who have the personality trait of 'agreeableness' are responsible so that they will prefer to finish their assigned task in a planned way.

Finally, Openness is linked to being smart, imaginative and broad minded (Choi & Moran, 2009). That means, students who have the characteristics of openness are smart, imaginative and would not like to delay to complete their assigned task. From the previous researches, it is found that, openness was negatively related with passive procrastination (Nadeem, Malik & Javaid, 2016; Zhou, 2018). This result aligned with the characteristics of openness. To verify the previous studies whether there is any link with these two variables, this present study will clarify it.

Finally, inconsistent results can be found from previous studies. Due to lack of adequate number studies, researches on active procrastination and personality traits among undergraduate students in Malaysia, confusion regarding relationship between the five factors with active procrastination, an in-depth study is needed to investigate regarding this finding of the studies. It is worthwhile to mention that one of the hypotheses of this study is that there will be an association between personality traits and the style of procrastination.

3. METHODOLOGY

3.1 Research Design

Cross sectional survey design is the research design for this type of study. This study is quantitative in nature which is aiming to investigate whether there is any relationship between big five personality traits and procrastination (both active and passive).

3.2 Sample of the Study

The total number of participants in this present study was 101 undergraduate students (local and international and male and female) of International Islamic University Malaysia (IIUM) from all level of study and departments. For this type of study, the minimum sample size would be 90 based on the formula which was developed by Green (1991). This rule of thumb formula as Green (1991) suggested that $N > 50 + 8m$; where, N is the number of participants and m is the number of predictor or independent variable (Green, 1991). In order to exclude the respondents who had missing data, the data were collected from more than 90 participants.

Here, in this study, two of the participants' data were excluded from sample due to this issue.

The involvements of participants were chosen by Convenient Random Sampling. For the participants, advancing in English language is an important element in order to understand and fill up the scale and survey.

3.3 Measures

3.3.1 Tuckman Passive Procrastination Scale

This scale has been developed by Tuckman to measure the passive procrastination among students. Actually, this scale is consisting of 35 items. But based on past studies, it is found that 16 items from those 35 items are best for measuring the passive procrastination among students (Özer, Sackes & Tuckman 2013). Tuckman (1990) stated that "out of the 35 items, 16 had loadings of .30 or higher on this factor. The computed reliability of his study (Cronbach's alpha) for the result of 16 item scale was .86." Tuckman (1990) further proposed that this type of scale can be used as a way of identifying students who are more likely to delay all the college requirements (Tuckman, 1990). As a result, in this study, 16 items from that scale is chosen to measure the passive procrastination among students, (e.g., the researchers postpone starting in on things we don't like to do). Among those items, four of them are reversely coded (e.g., the researchers put the necessary time into even boring tasks, like studying). This scale is having 4-point Likert scale, which is ranging from 1 (that's not me, for sure) to 4 (that's us, for sure) has been used in this study. To check the reliability of this scale, it is found in this study that the value of Cronbach's alpha is .89 which indicates very good internal consistency reliability for the scale with this sample.

3.3.2 Active Procrastination Scale

Active Procrastination Scale was developed by Choi and Moran (2009) to measure the active procrastination that scale is consists of 16 items. Active Procrastination Scale measures four dimensions of active procrastination and each dimension is evaluated by using 4 items. The dimensions are: outcome satisfaction (e.g., if I put things off until the last moment, I am not satisfied with their outcomes) preference for pressure, (e.g., we were upset and reluctant to act when we were forced to work under pressure) intentional decision (e.g., we intentionally put off work to maximize my motivation) and ability to meet deadline (e.g., we often fail to accomplish goals that we set for ourselves).

Except 'intentional decision', all other three dimensions are reversely coded. This scale is using 7-point Likert scale, ranging from Not at All True = 1 to Very True = 7. Past studies reported that the reliability of this scale is .77 and for all the dimension, the Cronbach's alpha is ranging from .76 to .86 (Kim, Fernandez and Terrier, 2017). However, this study has found that the Cronbach's alpha value is ranging from .53 to .85 for the four dimensions and the reliability of the scale is .73.

3.3.3 Big Five Inventory (BFI)

Personality traits domains i.e., Openness, Conscientiousness, extraversion, agreeableness and neuroticism are measured by using Big Five Inventory Scale (BFI), which was developed by John and Srivastava (1999). There are 44 items in this self-report inventory, with a five-point Likert scale ranging from Strongly Disagree = 1 to Strongly Agree = 5. There are 10 items for openness (e.g., we see ourselves as someone who is original, comes up with new ideas), 9 items for conscientiousness (e.g., we see ourselves as someone who does a thorough job), 8 items for extraversion (e.g., we see ourselves as someone who has an assertive personality), 9 items of agreeableness (e.g., we see ourselves as someone who is considerate and kind to almost everyone) and 8 items for neuroticism (e.g., we see ourselves as someone who gets nervous easily). In this scale some of the items are reversely coded to measure neuroticism, one of the items is (e.g., we see ourselves as someone who is emotionally stable, not easily upset).

To check the reliability of this scale, the past studies reported that the Cronbach's alpha for openness was 0.66, conscientiousness was 0.73, extraversion was 0.75, agreeableness was 0.65 and neuroticism was 0.80 (Swarsawati, Winarno and Goeritno, 2017). Again, this study found that Cronbach's alpha for openness is .73, conscientiousness is .83, extraversion is .78, agreeableness is .80 and neuroticism is .82.

Table 2: Mean, standard deviation and Cronbach's alpha of the scale (n = 101)

	M	SD	No of item	a
Passive Procrastination	39.85	9.03	16	.89
Active Procrastination	59.7	11.52	16	.73
Outcome satisfaction	12.20	4.64	4	.71
Preference for pressure	12.52	5.21	4	.85
Intentional decision	18.66	4.19	4	.52
Ability to meet deadlines	16.29	5.36	4	.81
BFI				
Openness	34.13	5.54	10	.73
Conscientiousness	29.21	5.86	9	.83
Extraversion	23.44	5.03	8	.78
Agreeableness	33.18	5.63	9	.80
Neuroticism	24.97	5.84	8	.82

3.4 Procedures

The study was conducted by using questionnaire method. The survey was distributed through an online survey form. The link of the Google form was shared with the undergraduate students of IIUM through social media platforms like WhatsApp and Facebook. The survey was consisting of four sections: demographic background, Big Five Inventory (BFI), Active Procrastination Scale and Tuckman Procrastination Scale.

At the beginning of the study, the participants were provided with an informed consent form to address the voluntary of their participation, objective of the research, anonymity and confidentiality of the present study. In addition, if the prospective respondents only agree and clicked the 'agree' button in the form only then they can proceed to fill up the survey. Furthermore, the participants are free to withdraw themselves from the study without any penalty. Finally, the researchers' email addresses were provided for any enquires of the participants. By using Pearson correlation, the collected data was analyzed.

4. RESULTS

Table 3: Descriptive statistic of the demographic profile of the participants (n=101)

	n	%
Gender		
Male	20	19.8
Female	81	80.2
Nationality		
Local	69	68.3
International	32	31.7
Level of study		
Level 1	5	5
Level 2	14	13.9
Level 3	23	22.8
Level 4	58	57.4
Level 5	1	1

Table 4: Descriptive statistic of the age of the participants (n=101)

	n	Min	Max	M	SD
Age	101	19	28	22.81	1.7

From the descriptive statistics of the demographic profile of the participants it can be seen that total percentage of male and female students is 19.8% (n=20) and 80.2% (n=81) respectively. Among the participants, 68.3 % (n=69) was local and 31.7% (n=32) was international. Undergraduate students has been from different levels of study; level -1 (5%), level-2 (14%), level-3 (22.8%), level-4 (57.4%) and level-5 (1%). The age ranges of the students are from 19 to 28 years old.

The mean level of the participants of their personality traits, passive procrastination and active procrastination are shown in above mentioned table 4. From the table it is clear that undergraduate students of IIUM have high level of openness and agreeableness, and moderate level of neuroticism, conscientiousness and extraversion.

4.1 Relationship between BFI and Passive procrastination

The relationship between big five personality traits i.e. openness, conscientiousness, extraversion, agreeableness and neuroticism (as measured by BFI 44) and passive procrastination (as measured by Tuckman Passive Procrastination Scale) was investigated using Pearson product moment correlation coefficient. Preliminary analyses were

performed to ensure no violation of the assumption of normality, linearity and homoscedasticity. From the result, it can be observed that openness and agreeableness are not correlated with passive procrastination among the students.

There is a medium and negative correlation between neuroticism and passive procrastination, $r = -.30$. In addition, there is a strong and positive correlation between conscientiousness and passive procrastination among the students, where $r = .58$. Furthermore, there is a medium, positive relation between extraversion and passive procrastination, where, $r = .33$, $p < .01$. There is a positive relationship between extraversion and passive procrastination which is significant at the 5% level.

Table 5: Correlations between Big Five Personality Traits and Passive Procrastination

	O	C	E	A	N
Passive Procrastination	.19	.58**	.33**	.18	-.29**

Where, N.B. ** = $p < .01$. O = Openness to experience. C = Conscientiousness. E = Extraversion. A = Agreeableness. N = Neuroticism.

4.2 Relationship between BFI and active procrastination

It can be seen that openness is not related with any of the dimensions of active procrastination. There was a negative relationship between conscientiousness with intentional decision. However, there was a strong and positive relationship between conscientiousness and ability to meet deadlines. There was a medium and positive relationship between extraversion and ability to meet deadlines. Agreeableness had a small positive relationship with ability to meet deadline. Neuroticism had a negative and medium relationship with outcomes of satisfaction, preference for pressure and ability to meet deadline.

Table 6: Correlations between Big Five Personality Traits and Active Procrastination

	O	C	E	A	N
Outcome Satisfaction	.11	.14	.14	.19	-.41**
Preference for Pressure	.08	.14	.16	.15	-.39**
Intentional Decision	.1	-.21*	-.06	.19	.11
Ability to Meet Deadline	.19	.51**	.31**	.26**	-.33**

N.B. ** = $p < .01$. * = $p < .05$. O = Openness to experience. C = Conscientiousness. E = Extraversion. A = Agreeableness. N = Neuroticism.

5. DISCUSSION OF THE RESULTS OF STUDY

The findings from this present study show that there is a relationship of personality traits with both active and passive procrastination. As this study focuses only towards undergraduate students of IIUM and the age range is not wide hence, the generalization of the study to other people from

different countries and other age range and professions will be not be applicable to this research.

As from the result of the present study it was found that, there shows a positive relationship between conscientiousness and passive procrastination among the undergraduate students of IIUM, Malaysia. However, as seen from the result of Pearson Correlation Coefficient that $r = .58$ therefore the correlation found between these two variables is strong. That means, undergraduate students of IIUM who possess the 'conscientiousness' as the personality traits are not capable to take decisions effectively and feel under pressure to meet the deadline and hence, this result supports the hypothesis. On the other hand, this result contradicts with the earlier studies as they found negative relationship between these two variables (Nadeem, Malik & Javaid, 2016; Kim et. al, 2017; Wu, 2018; Zhou, 2018).

From the result of this study, it was found that, extraversion was positively correlated with passive procrastination, where, $r = .33$, $p < .01$, and it was found that the strength of this correlation is medium which supports the hypothesis. This means, those undergraduate students of IIUM who are extravert tend to postpone their tasks until the eleventh hour which leads to poor performance, and that increases their level of stress. On the contrary, this result contradicted with previous studies where they found negative relationship between the variables (Nadeem, Malik & Javaid, 2016; Kim et. al, 2017). However, Zhou (2018) did not find any relationship between these two variables.

Additionally, from this study, it was found that there was a negative relationship between neuroticism and passive procrastination, where $r = -.29$. Earlier similar studies support this finding (e.g., Wu, 2018; Zhou, 2018). However, this can be explained by the characteristics of neuroticism. Students having neuroticism as a part of their personality traits have low self-esteem, irrational perfectionist beliefs, and attitude of pessimistic (McCrae & Costa, 2008). Hence, the sample students do not have any motivation to work under pressure, have tendency to experiences negative emotions like depression, and ultimately failed to meet the deadline. Wu (2018) and Zhou (2018) also found similar result in their studies. Again, neuroticism was negatively correlated with active procrastination in this study. This means, students having neuroticism do not achieve any satisfactory outcome, and they procrastinate unintentionally. Moreover, this result is supported by the previous studies where researchers found the same result (Tang, Li & Wang, 2015; kim et.al, 2017; Sandhya & Gopinath, 2019; Zhou, 2019), and this study supports the hypothesis.

In line with the previous study conducted by Kim et.al (2017), there was no relationship between openness and passive procrastination among students. But previous studies found both negative and positive relation between these two variables (Nadeem, Malik & Javaid, 2016; Zhou, 2018). Due to get different results from various researchers previously, there is no specific explanation to describe the relationship between these two variables.

From the findings of this study, agreeableness was not correlated with passive procrastination. Previous studies also found similar result, thus support the finding (Nadeem, Malik & Javaid, 2016; Kim et. al, 2017; Wu, 2018; Zhou, 2018). This means, undergraduate students of IIUM, who possess 'agreeableness' as a part of their personality trait are cooperative in nature. As a result, they will organize their work from the beginning, and finish the task in time.

Next, while explaining the relationship of active procrastination and personality traits, it was found that, conscientiousness is negatively related with one of the dimensions of active procrastination, i.e., intentional decision ($r = .21$, $p < .05$) but have positive relationship with another dimension, i.e., ability to meet the deadline ($r = .51$, $p < .01$). This can be explained by the characteristics of the conscientiousness. It is well known that students who possess conscientiousness as the personality trait are more likely to be responsible, and control their actions to meet the deadline. That is why conscientiousness was positively correlated with the ability to meet the deadline.

In addition, the negative correlation of conscientiousness with the intentional decision (one of the dimensions of active procrastination) shows that students do not intentionally postpone their task. This result aligns with the study by Zhou (2019), where negative correlation was found between conscientiousness and intentional decision (one of the dimensions of active procrastination) (where, $r = -.18$). On the contrary, the result of this study shows the relationship between conscientiousness and ability to meet deadline (one of the dimensions of active procrastination) contradicts with the study by Zhou (2019) where he found a negative result ($r = -.24$). Again, the earlier similar studies have different types of relationship between these two variables, and a few studies did not find any relationship at all (Tang, Li & Wang, 2015, Kim et.al, 2017; Sandhya and Gopinath, 2019).

The findings of this study found a positive relationship between extraversion and ability to meet deadline (one of the dimensions of active procrastination) among the undergraduate students of IIUM; ($r = .31$). This can be explained by the characteristics of the students who are extravert. Usually, these students are proactive and eager to take charge of any situations. As a result, they are able to meet the deadline in time and hence, the hypothesis is accepted. Earlier similar studies also found positive significant relationship with extraversion and active procrastination in general, and another dimension of active procrastination (Choi and Moran; 2009; Sandhya & Gopinath, 2019).

Besides, agreeableness is positively correlated with the ability to meet deadline (one of the dimensions of active procrastination) i.e., one of the factors ($r = .26$); which is similar with the studies by Tang, Li & Wang, (2015); Kim et. al (2017) and that is why the hypothesis to be accepted. As the undergraduate students who are characterized by altruism, hence they tend to meet the deadline of their tasks in time. However, in few of the previous studies, some of the researchers found negative relationship and no relationship at all (Sandhya & Gopinath, 2019; Zhou, 2019).

From the findings of this study, it is seen that, openness does not have any association with active procrastination among undergraduate students of IIUM. This result is as same as some previous studies in where the researches take students as the sample (kim et.al, 2017; Zhou, 2018). This might be the reason of similarity.

6. LIMITATIONS AND SUGGESTIONS

The first limitation of this study is related to the sample. The data was collected from only the undergraduate students from a university in Malaysia (International Islamic University Malaysia (IIUM)). As a result, to describe the procrastinating behavior, the findings this study cannot be generalized to other population of different countries or with a wider population. Again, there seems to be a limitation regarding the number of male and female students. The number of sample students could be balanced at the first place. That is the proportion of the male and female students.

Besides, this study was conducted among undergraduate students only and without postgraduate students as a part of the sample of the study. So, future research can be made considering Malaysian context where so far there is no research conducted on this topic in different universities in general. Furthermore, research can be made after considering male students of a university. In addition, after considering female students of a university further research can also be made.

In this study, as the sample size is not larger, so better result might be obtained by considering a larger sample of the students. It can be advised that future research can be made by taking into consideration a larger sample in order to get more valid and reliable results.

This research dealt with procrastination mostly in based on two categories, i.e., active and passive procrastination. Nonetheless there is a chance that both of them can occur over a wide spectrum. Additionally, an individual could have the characteristics of both types of procrastination. For addition, consideration of the probability of procrastination happening across a wide spectrum is suggested.

This study considers the link between personality traits and procrastination. Apart from the personality traits, there may be different factors like mental wellbeing, financial problems, social media, family pressure, cultural difference and the like, which could be leaded to the behavior of procrastinate of the sample students. Finally, this study only focused on the educational setting and in future, similar type of study can be carried out under professional settings and understanding the behavioral, and procrastination style of employees and providing training to the employee who are passive procrastinator.

7. CONCLUSION

The main objective of this study is to examine the relationship between big five personality traits (openness,

conscientiousness, extraversion, agreeableness and neuroticism) and active and passive procrastination among undergraduate students of IIUM. This study adopted cross-sectional design, measures the variables using the scale and participants who were selected by using convenient random sampling. From earlier studies, it was found that the relationships were not clear and they were overlapping with other studies. This study contributes to the existing literature by demonstrating empirical evidence that there is a strong significant relationship between conscientiousness with both passive and one of the dimensions of the active procrastination but negatively correlated with another dimension. In addition, openness does not correlate with both passive and active procrastination.

Again, agreeableness does not correlate with passive procrastination but correlate with one of the dimensions of active procrastination. Further, it was found that neuroticism is negatively correlated with both type of procrastination whereas extraversion positively correlated with passive procrastination and one of the dimensions of active procrastination. This study can be empirically implemented to various educational setting that can be based on the results obtained from this study. Institution may provide special training to the students who have certain personality traits like neuroticism to motivate, and push them to focus on the study. Their daily routine activities can also be recorded and observed for this type of study.

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