“ARE YOU A BORN LEADER?”: A STUDY ON HOW PERSONALITY TRAITS INFLUENCE LEADERSHIP TENDENCIES AMONG PRIVATE UNIVERSITY STUDENTS IN GROUP PROJECTS

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PREFACE

This research project, as a compulsory part of the Bachelor of Business Administration (Honours) degree program, has the core value of enhancing professional knowledge through research on selected topics. We focused on the research topic “The Influence of Personality Traits on Leadership Tendencies Among Private University Students in Group Projects,” a topic of academic interest. This topic is especially important in Malaysian private universities, as group projects are a core part of academic learning that builds students’ collaborative, communication, and leadership skills-those skills that are essential for future career development.

Today, many problems are reported in group projects, such as unequal task allocation, free-riding behavior, and students' low level of motivation to assume leadership roles. These strategies are closely linked to personality differences among students and their readiness to take on responsibility, indicating that personality traits may have a marked influence on leadership tendencies. This research aimed to explain how the “Big Five personality traits”—Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness—affect the potential for students to demonstrate leadership behaviors in academic group contexts.

This study explains the Big Five personality theory framework and how it influences students' leadership willingness in group situations. Overall, the research is both a suggestion and an evidence-based argument—underlining the importance of taking personality differences into consideration when improving team work effectiveness, building leadership skills, and in supporting the long-term objectives of Malaysian institutions of higher education.

ABSTRACT

This study investigates the influence of Big Five personality traits on leadership tendencies among private university students in Malaysia, focusing on group projects. Leadership is important in teamwork and understanding how personality traits relate to leadership can help improve group performance and student development. A quantitative research design is used, with a structured questionnaire distributed to students in private universities in Klang Valley. Non-probability purposive sampling is applied to select students who are actively involved in coursework group projects. The study examines five personality traits, extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience, and explores their relationship with leadership tendencies, including people-oriented and task-oriented leadership. Data are analysed using statistical software to identify correlations and relationships between traits and leadership. Preliminary findings suggest that extraversion and conscientiousness are strong predictors of effective leadership, while high neuroticism may negatively affect leadership performance. The results provide useful insights on how personality traits shape leadership behaviour in group settings, which can help educators and programme planners enhance leadership development among students. This research contributes to understanding student leadership in private universities and offers practical recommendations to support leadership skills in collaborative projects.

Keywords: Big Five personality traits; leadership tendencies; extraversion; conscientiousness; neuroticism; agreeableness; openness to experience private universities; group project

Subject Area: BF698-698.9 Personality

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CHAPTER 1: INTRODUCTION

1.0 Introduction

This research was designed to examine how personality traits influence leadership tendencies among private university students in group projects. This chapter provides a comprehensive background to the study, with a focus on the core research question statement driving this research. Research objectives and problems are defined clearly and are further divided into overall goals and specific questions. To demonstrate the research value, the chapter provides an in-depth examination of the significance of an understanding of the relationship between personality traits and student leadership, with a special focus on improving leadership development and the employability of graduates. Lastly, this chapter presented the organizational framework of the dissertation by providing an overview of the chapter structure and a summary.

1.1 Research Background

The great challenges facing the education system in the 21st century can be variously described. Organizations are now requiring individuals to acquire new skills in the wake of the emergence of computer and numeric technologies, the revolution in interpersonal communication methods, and increasing global competitiveness. This has made the educational systems difficult to provide the appropriate continuous education (Miller, 2023). Leadership is a concept of global importance that has played a critical role in the shaping of individuals, organizations, and society. According to Leithwood & Riehl (2003), leadership is more than a role; it is a function that is defined by two central elements, namely, showing direction and influencing (as cited at Toker, 2022). Leadership development has become an important goal for universities to produce well-rounded graduates. This is because the goal of universities is to develop not only academic competence, but also soft skills such as communication, teamwork and leadership, which are increasingly important for university graduates (Tan et al., 2019). These skills are particularly relevant in group projects, in which students tend to take on informal leadership roles that reflect real-world dynamic changes. Through group work, students can build and apply leadership skills in the process of managing their group members (Bakar et al., 20)

Building on this, to prepare their students for the basic abilities needed in the 21st century, universities are placing increased importance on developing leadership, teamwork, and communication skills in their academics and co-educational programs. There are leadership development plans for university students that include readings, a discussion, a group project, collaboration with a tutor, a self-assessment of leadership skills and the values, and real-world experiences. According to Al-Mutairi (2021), real world experiencing of leadership behaviours by active students offers them the chance to try out leadership behaviours as well as help them to develop a skill set of leadership skills that are presented to them. Moreover, universities also undertake other initiatives from where students can acquire soft skills, such as long-term appointments, sporting, volunteer jobs and programs, arts and designs projects, long-term workers' workshops and classes, trips, or lessons in playing a music instrument.

According to Sherrod et al. (2002) and Zaff et al. (2003), these are referred to as extra-curricular activities. Despite the limited studies, several research studies have proven the positive effects of these activities (as cited at de Prada Creo et al., 2020). These organizations not only provide students with essential soft skills such as leadership, teamwork, and communication, they also offer a meaningful opportunity to see how individual personality influences leadership tendencies in a range of environments. Earlier research has shown that there is a significant association between leadership and soft skills in university student groups, suggesting that personality traits can play a significant role in molding the process of soft skills development (Business & Research, 2020).

Personality traits refer to consistent patterns in how individuals think, feel, and behave (Soto, 2018). The Big Five model is the most widely accepted framework, comprising Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness (Hughes et al., 2020). Simply put, Openness relates to creativity and curiosity; Conscientiousness to discipline and responsibility; Extraversion to sociability and energy; Agreeableness to cooperation and empathy; and Neuroticism to emotional instability (Chan et al., 2017). This model is often applied in leadership research, especially in the long-standing debate on whether leaders are born or made. Some argue that leadership is innate, driven by traits like confidence and charisma (Sposato, 2023), while others believe it is developed through experience and learning

(Mulholland, 2019). For example, highlighted how student leadership can be cultivated through coaching and development (Penttilä, 2021). This debate is still ongoing, but a growing number of people agree that talent and nurture both contribute to leadership development.

In addition, a student's family background may affect their personality and confidence in taking on leadership roles. students from private universities are generally from more privileged backgrounds. Those from high-income families often have greater access to resources, the wider world, and supportive parents, which may reinforce their characteristics. For instance, family function means the collaborative efforts of family members to create and sustain a balanced family system. Well-functioning households work as open systems, students from such backgrounds are encouraged to grow an independent capacity while retaining their emotional ties. Characterised by acceptance without conditions, caring relationships and mutual support, such households allow students to constructively address conflicts and respond positively to each other's needs. The heart of family functioning is the systemic nature of the household – its ability to adjust to life changes, to manage conflicts, to promote unity amongst its members and to uphold proper borders (Zakiei et al., 2020).

Although the significance of job readiness is gaining increasing attention, many graduates leave university still lacking the critical abilities, attitudes, and perceptions needed to enter the workforce effectively (Kaur et al., 2008). According to Sousa & Rocha (2017), graduates frequently have difficulty obtaining and maintaining a position despite the existence of job openings, due to key soft skill deficits. These deficits included leadership, teamwork, communication skills, creative problem solving, and time management, as well as personal responsibility and integrity (Asefer & Abidin, 2021). Forsyth (2019) study showed Malaysian graduates in general excel in ICT competencies, teamwork, leadership, and in time management, but gaps remain in communication skills, in analytical thinking, and in problem-solving abilities. Those interpersonal and professional skills are critical for efficient collaboration and high performance in the workplace (Asefer & Abidin, 2021). Therefore, higher education institutes need to offer opportunities for systematic soft skills building across students' entire academic journey, especially by considering how the individual's personality traits (such as the Big Five personality dimensions) affect the students' development of leadership roles in team projects.

In group projects, students frequently assume leadership responsibilities without being explicitly designated. Leadership can emerge organically when individuals take initiative to organise group tasks, manage time, or motivate peers. Even without formal roles, one or more members may be recognised as leaders, a phenomenon known as "emergent leadership." Personality traits such as extraversion and conscientiousness increase the likelihood of students stepping into such roles during teamwork (Emery et al., 2013), highlighting how leadership tendencies often stem from individual traits and social interactions rather than formal group structures. However, there is currently a lack of research focusing on the personality traits of Malaysian student leaders, and findings from other contexts may not be fully applicable due to geographic, cultural, and situational differences (Sing Chai, 2015). Moreover, most existing studies concentrate on public universities, limiting the generalisability of their conclusions. Expanding research to include student leaders from private universities would provide a more comprehensive understanding of how personality traits influence leadership across diverse educational environments (Muhammad et al., 2024).

Therefore, this research seeks to examine how certain personality traits such as Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism that influence the leadership roles of Malaysian university students who participate in group projects. This research included a sample of participants from a private university, with the aim of filling the existing research gap and gaining a deeper insight into how personality traits influence leadership behaviour in different education settings. This research aims to fill this gap by examining the impact of the Big Five personality traits on people-oriented and task-oriented leadership strategies among student leaders. The findings are expected to provide a deeper understanding of how personality traits shape leadership behaviours, while also offering empirical insights for designing more effective leadership development programs in Malaysian universities (Muhammad et al., 2024). Furthermore, since graduate mobility and professional development are always strategic focuses for universities, student leadership has a key role in preparing students to acquire 21st-century skills. These skills include ethical leadership, an entrepreneurial mindset, adaptive capabilities, and cross-cultural understanding (Skalicky et al., 2018).

1.2 Problem Statement

In Malaysian private universities, group work is commonly used as a classroom teaching technique. Active idea sharing within a group can promote motivation, critical thinking, and the development of social skills among students, as well as improve attitudes toward learning and help to develop a deeper appreciation for different cultures (Abd Rahim et al., 2023). Even though university students are often encouraged to develop leadership skills through group learning, many are still hesitant to take on leadership roles. A lot of students don't like taking on leadership roles, which means they don't like to start the conversation. But when someone does take the lead, they're happy about it. A few studies have found that students with a stronger sense of responsibility are more into taking on leadership roles (Donelan & Kear, 2023). Even if they have the potential to do so, students often avoid leadership positions (Zeynep Aycan et al., 2024).

Even in situations where group work is essential, people preferred group work with friends over working with unknown peers or informal group dynamics. This suggests that individuals are hesitant in situations where leadership responsibilities are unclear (Vogel & Wood, 2023). In addition to personality factors, lack of clear expectations for the role and inadequate teacher instruction may make students unwilling to take on leadership roles, especially in an informal group environment where a formal leader is not designated. Many students are initially afflicted by feelings of self-doubt, a fear of public speaking, and a reluctance to assume a leadership role. These problems can reduce team effectiveness and restrict opportunities to developing 21st-century core skills such as ethical leadership, collaborative abilities, and problem solving. However, as time goes on, participation in a leadership activity has helped the student to build self-confidence, actively participate in team tasks, and initiate responsibility in a leadership role. This demonstrates a reluctance to lead in settings in which leadership responsibilities are unclear. In informal team settings, where no formal leader is designated, the formation of leadership is very crucial, and it frequently depends on students' own initiative and personal characteristics.

A recent survey on students' attitudes toward group work found that only 0.9% of students favored entirely collaborative tasks, while 61.7% of students said they liked working

independently on course assignments. This implies that most students would feel more assured or productive when working alone, perhaps because of worries about uneven contributions or trouble coordinating. Just 3.5% of participants favoured larger groups of five or more, while the majority chose smaller groups of two or three. Furthermore, nearly half (48.7%) of the students said they liked to create groups with friends, which would suggest that they want to feel comfortable and trusted in group situations (Vogel & Wood, 2023). These findings show that even though group projects are frequently used in classrooms, many students still like solo work or small, self-selected groups, possibly to lower the possibility of personality conflicts or interpersonal disputes.

Group projects are a common teaching approach in universities, but recent research suggests that enthusiasm for leadership roles may be waning (Zeynep Aycan et al., 2024). This is especially true when the group atmosphere is informal, and responsibilities are unclear. This hesitation often stems from personal characteristics. This reluctance could be impacted by personality traits. Personality types of influence emotions, attitudes, and behavioural tendencies and are an important psychological context for the formation of leadership tendencies. According to Burger (2016), individuals with low conscientiousness are unreliable, diffident, and lack task orientation (as cited at Tok, Türkay., 2019). According to Raza and Shah (2017), further explain that people with low conscientiousness or high neuroticism (neuroticism) may be more likely to avoid tasks or feel pressured to become free riders (as cited at Ahmadpour et al., 2020), group members who contribute very little and rely on others to complete the work. According to Aggarwal and O'Brien (2008, p. 256) and Hall and Buzwell (2012, p. 38), freeriding (also known as "social loafing") can be described as "a behaviour structure in which a person working in a group establishing does not contribute his or her proper proportion to a collaborative effort as viewed by group members (as cited at van den Herik & Benning, 2021)."

Several research have been undertaken to investigate social loafing and its impact on groups. Mefoh and Nwanosike (2012) found that free riders have a negative impact on group or team performance, particularly in big groups. In teamwork, actions like "free-riding" frequently result in other members taking on greater workload, diminishing the overall efficiency and fairness of the team (Luo et al., 2025). However, free-rider behavior is an unavoidable problem

in teams. This behavior has an impact on team performance, the psychology and behavior of other employees, and ultimately leads to total team "inefficiency". Not only that, but this circumstance usually generates dissatisfaction among other members, resulting un members not wanting to be leader (Fu et al., 2022). Specifically, this study will explore how neuroticism, extraversion, openness to experience, agreeableness and conscientiousness will affect leadership tendencies that's why this study is so important.

Despite some research examining the relationship between personality traits and leadership, there has been limited research linking the Five Factor Model of personality to leader behaviour, there remains a notable gap in understanding how these factors specifically influence leadership tendencies among students in Malaysian private universities. Most of the prior research has focused on populations at public universities outside of Malaysia. Because of regional and educational inequalities, their conclusions have limited applicability (Muhammad et al., 2024). According to Othman et al. (2017); Lei et al. (2020); Yew et al., (2022), recent research from Malaysia has repeatedly demonstrated that among university students, the personality trait neuroticism is linked to several detrimental outcomes. For example, addictive behaviours and high stress levels are more common among neurotic people (as cited at Yong et al., 2022). The main points of this research are the cultural significance of personality traits and the necessity of context-specific research to comprehend how these traits affect group leadership tendencies in private institutions in Malaysia.

By participating in group projects and leading activities, the students develop leadership skills necessary for the 21st century, like ethical leadership, teamwork abilities, and problem-solving capabilities (Reyes et al., 2023). An understanding of how personality traits such as extroversion, conscientiousness, and neuroticism can shape leadership tendencies is essential for the design of an effective leadership development programs that can enhance the performance of individuals and groups in private universities in Malaysia. Previous studies have shown that the Big Five personality traits are strongly correlated with students' performance. A survey of 137 students in a basic program at a Malaysian private university found that conscientiousness, agreeableness, and openness are positively associated with academic performance, while extraversion and neuroticism are adversely correlated (Seman & Ismail, 2019). The results of these findings indicate that personality traits can play a major role

in melding student behaviours. Extending this idea to the field of leadership, it is fair to speculate that personality traits such as conscientiousness, extraversion, and neuroticism may also affect students' readiness and efficacy in taking on leadership roles in group projects.

Therefore, this research is important for bridging the research gap and offering insight into developing leadership skills in private university students. By addressing this gap, this research provides hands-on practical insights for leadership development projects at private universities, contributing to the enhancement of graduates' employability, teamwork skills, and the overall pool of talent in Malaysia. In today's ever-changing environment, both students and professionals must integrate work product effectively and in a seamless manner to meet common objectives. This highlights the need for a conceptual framework that is comprehensive, customizable, and pragmatic to direct the cultivation of future leaders (Kimpton & Maynard, 2023).

1.3 Research Objectives

1.3.1 General objective

The main purpose of this study was to examine the influence of personality traits on the leadership tendencies of private university students in group projects.

1.3.2 Specific objective

The individual objectives listed below are designed to help us achieve our overall goal.

1) To examine whether there is a significant relationship between openness to experience and leadership tendencies among private university students.

2) To examine whether there is a significant relationship between agreeableness and leadership tendencies among private university students.

3) To examine whether there is a significant relationship between neuroticism and leadership tendencies among private university students.

4) To examine whether there is a significant relationship between extraversion and leadership tendencies among private university students.

5) To examine whether there is a significant relationship between conscientiousness and leadership tendencies among private university students.

1.4 Research Questions

To provide a clear direction in our study, the subsequent research questions are constructed.

1) Is there a significant relationship between openness to experience and leadership tendencies among private university students?

2) Is there a significant relationship between agreeableness and leadership tendencies among private university students?

3) Is there a significant relationship between neuroticism and leadership tendencies among private university students?

4) Is there a significant relationship between extraversion and leadership tendencies among private university students?

5) Is there a significant relationship between conscientiousness and leadership tendencies among private university students?

1.5 Hypotheses of the Study

Based on the research aims and questions, the following hypotheses are presented.

H1: There is a significant relationship between openness to experience and leadership tendencies among private university students.

H2: There is a significant relationship between agreeableness and leadership tendencies among private university students.

H3: There is a significant relationship between neuroticism and leadership tendencies among private university students.

H4: There is a significant relationship between extraversion and leadership tendencies among private university students.

H5: There is a significant relationship between conscientiousness and leadership tendencies among private university students.

1.6 Definition of Key Terms

This section offers a concise exposition of key terms used in the study to make sure that the reader can understand the concepts to be explored.

1.6.1 Personality Traits

Personality is the dynamic organisation of the psychophysical systems inside an individual that defines behaviours and ideas, such as hard work and patience (Yunus et al., 2018). In this research, personality traits are measured based on the Big Five model, including openness, conscientiousness, extraversion, agreeableness, and neuroticism (Soto & Jackson, 2013).

1.6.1.1 Openness to Experience

The tendency to be open to a wide range of experiences and ideas, Openness is a wide-ranging and complicated personality trait which has been called by numerous titles throughout the years such as openness, intelligence, cultural awareness, imaginative capacity, and creative potential (Christensen et al., 2018).

1.6.1.2 Conscientiousness

The tendency to be organized, responsible, and goal-directed, Conscientiousness is recognized as a central attribute in personality classifications, and high levels of conscientiousness are linked to more positive results across many life areas, such as wellness, life expectancy, and educational and occupational achievements (Costantini et al., 2020).

1.6.1.3 Extraversion

The tendency to be cheerful, energetic, and sociable, The extraversion trait is characterized by being cheerful, energetic, and relatively easy to recognize, as it is particularly apparent in communication styles. In verbal communication, they typically have higher verbal production, talk faster with fewer stops, have less vocabulary

variability, use more formal speech, and appear more assertive and determined (Green et al., 2018).

1.6.1.4 Agreeableness

The tendency to be cooperative, compassionate, and considerate, Agreeableness is one of the five major personality traits and has been consistently identified in early research on personality and in the five-factor model. Cross-cultural research has confirmed its consistency, with collectivist society often having a slightly greater level of the trait (Thalmayer & Rossier, 2019).

1.6.1.5 Neuroticism

The tendency to experience negative emotions and emotional instability, Neuroticism is a personality trait measuring differences in an individual's tendency to either experience negative emotions, be susceptible to pressure, ability to resist urges, and self-awareness (Terracciano et al., 2021).

1.6.2 Leadership Tendency

Leadership tendencies are defined as a strong wish to affect and direct others, a readiness to take on responsibility, and a tendency to exert authority when needed. Individuals with a high leadership disposition usually demonstrate initiatives in directing their companions, giving orders, and using influence strategically to accomplish common goals (Gutterman, 2023). In this study, it referred to the possibility of students assuming leadership roles in academic group work either formally allocated or informally emerging.

1.7 Chapter Layout

This research report is organized into five chapters. **Chapter 1** presents the background, research problem, research objectives, research questions and hypotheses of this study. The chapter also highlights the significance of the study and summarizes the framework of the entire thesis. The goal of this chapter is to argue the relationship between studying the link between personality traits and leadership tendencies in the context of academic groups.

Chapter 2 provides a detailed discussion of pertinent theories and prior research on the Big Five personality traits and leadership tendencies. This chapter finishes with the creation of a conceptual framework to guide the investigation. This chapter covers the findings of other researchers in the research area in a logical sequence.

Chapter 3 is on the research approach. This chapter describes the research design and technique used in the study. It contains descriptions of the research methodology, sampling processes, instrumentation, data collection methods, and data analysis methodologies.

Chapter 4 will present the data analysis results and interprets the findings in relation to the research objectives and existing literature. It highlights any significant relationships between personality traits and leadership tendencies and discusses potential patterns of free-rider behavior among students with specific traits.

Chapter 5 is the concluding chapter, and it will review the main findings, analyze theoretical and practical consequences, and provide recommendations to educators, team facilitators and future studies. It also notes the study's weaknesses and provides potential areas for additional investigation.

1.8 Chapter Summary

Overall, this chapter presents the research background and the problem statement, shedding light on the research topic on how personality traits influence leadership tendencies among private university students in group projects. subsequently, it presents the objectives, research questions, and hypotheses to direct the study. Additionally, the chapter provides definitions for key terms, which include personality traits and leadership tendencies, to provide a clear theoretical framework for the research. The next chapter will examine the research methodology, which covers the research design, data collection, and analysis procedures.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of relevant literature that supports the development of this study. It begins with a discussion of the underpinning theories, particularly the Big Five Personality Traits theory, which serves as the foundation for examining personality dimensions. The subsequent sections review previous studies on the dependent variable, leadership tendencies, followed by the independent variables, which are the five dimensions of personality, Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Each subsection highlights definitions, empirical findings, and research gaps to provide a basis for the proposed conceptual framework and hypothesis development.

2.1 Review of Theories

2.1.1 Theory of Big Five Personality Traits

The Big Five Personality Traits theory was first developed by McCrae and Costa in the 1980s. Among all the trait-based models in psychology, this model has become one of the most popular and widely accepted frameworks to understand and predict human behaviour (Abood, 2019). It has been widely used by researchers to explain different types of human behaviour across many situations, including how people think, feel, and act. The Big Five model consists of five main personality traits: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience.

Each of these traits represents a different set of personal characteristics. According to Grover & Amit (2024), Extraversion refers to how outgoing, confident, and social a person is. Agreeableness relates to being kind, cooperative, and understanding toward others. Conscientiousness is about being responsible, organised, and hardworking.

Neuroticism refers to emotional instability, where people may easily feel stressed, anxious, or moody. Lastly, Openness to Experience describes how creative, curious, and open-minded someone is toward new ideas or experiences.

Naveen Sangwan (2023, as cited from Asmawati, 2015) explained that personality development is shaped by many factors. Psychologists believe that both genetic and environmental factors influence how a person's personality grows over time. Heredity factors include physical appearance, emotional response, and body structure. On the other hand, environmental influences come from early life experiences, family background, friendships, education, and the social or cultural surroundings. Kamalruzaman (2009, as cited in Naveen Sangwan, 2023) also supported this view by saying that both nature and nurture play important roles in shaping one's character.

Understanding these traits is not only important for general psychology but also for studying leadership. According to Grover & Amit (2024), the Big Five traits can influence leadership effectiveness. A person's personality affects how they solve problems, work with others, and lead a group. Therefore, having knowledge of these personality traits can help improve leadership skills and personal development, especially for those in leadership roles.

2.1.2 Trait Theory of Leadership

Trait theory suggests that certain individuals are born with innate qualities that predispose them to become leaders. Early research assumed that effective leaders possess stable personal traits such as high energy, intelligence, honesty, and self-confidence that set them apart from others. In this view, leaders are not made by training alone but emerge because they inherently "fit certain personality traits" that align with leadership roles (Dickson, 2023). These classic traits such as sociability, self-discipline, and persistence were once believed to guarantee leadership success if present.

Although trait theory was critiqued in the mid-20th century and later replaced by behavioural approaches, modern leadership research has revived interest in personality traits through comprehensive models like the Big Five. Contemporary scholars integrate trait theory with the five-factor model, arguing that the Big Five dimensions capture the core traits relevant to leadership (Nordin et al., 2025). Empirical studies confirm strong links across these traits, showing that extraversion is strongly and positively related to leadership, while neuroticism is strongly and negatively related. In other words, sociable and emotionally stable individuals are more likely to emerge as leaders, consistent with the core idea of trait theory that leadership is influenced by inborn dispositions (Nordin et al., 2025).

This perspective is also relevant to student populations. In university settings, students high in certain Big Five traits are more likely to take on leadership roles. For example, those scoring high on extraversion and conscientiousness often show greater leadership involvement, whereas high neuroticism tends to reduce leadership confidence (Halim et al., 2023). In Malaysia, research by Halim et al. (2023) found that in educational institutions, "strategic leaders" are characterized by Extraversion and Openness, which aligns with visionary and innovative campus leadership styles. Thus, among Malaysian private university students, trait theory would predict that naturally extroverted and organized individuals are more likely to emerge as leaders. Overall, the core idea of trait theory, that stable personality traits shape who becomes a leader, remains relevant and continues to inform Big Five–based research on student leadership tendencies (Halim et al., 2023; Nordin et al., 2025).

2.1.3 Leadership Tendencies

Leadership is an important concept in both academic and professional settings. It is no longer seen as something that only applies to politics or business, but as a necessary skill in many areas of life. According to Aliekperova & Aliekperov (2023, as cited from Drucker in Kouzes and Posner, 2013), leadership is not something that just happens naturally in organisations. Instead, it is something that must be developed and applied intentionally. Peter Drucker, a well-known management theorist, pointed out that "only

three things happen naturally in organizations: friction, confusion, and underperformance. Everything else requires leadership." This statement highlights how essential leadership is for maintaining structure, direction, and effectiveness in any group setting.

In the context of universities, leadership plays a major role in shaping the overall student experience. Student leaders are expected to handle responsibilities such as organising events, coordinating group work, and representing their peers. According to Mohd Nasir (2024, as cited from Judge et al., 2017; Ahmad et al., 2022), personality traits are among the most important factors that influence the effectiveness of these student leaders. Leadership is not only about giving instructions, but also about influencing others to work together toward shared goals (Northouse, 2018). This involves communication, teamwork, and emotional intelligence, all of which are connected to one's personality.

Toker (2022, as cited from Bryman, 2007) explained that leadership characteristics are mostly similar across different sectors, whether in government, business, or education. A strong leader is expected to give direction, set up a good working structure, and create an environment where team members feel supported. A good leader should also be trustworthy, responsible, and consistent. They should encourage team participation, be open to different opinions, and respect the diversity of the team. In university group work, these qualities are especially important as students come from various backgrounds and need to work together harmoniously.

Therefore, understanding leadership tendencies in students, especially how these tendencies are shaped by personality traits, is very important. It can help universities and educators improve leadership development programmes for students. As leadership is not only about skills but also personal characteristics, this research aims to explore how different personality traits can influence students' leadership behaviours in private university group settings.

2.1.4 Extraversion

Extraversion is one of the Big Five traits that describes people who are outgoing, active, and social (Mohd Nasir et al., 2024; Zadok et al., 2025). Extraverted people like to talk, enjoy being around others, and show confidence. They are usually full of energy and positive emotions. In daily life, this means they easily make friends, feel comfortable in groups, and often take the lead when working with others.

Many studies have shown that extraversion is strongly linked to leadership. For example, reviews have pointed out that extraversion is one of the strongest and most consistent predictors of leadership success (Zhang et al., 2022; Mohd Nasir et al., 2024). Extraverted leaders are normally assertive and full of energy, which helps them motivate their teammates and create a positive team environment (Mohd Nasir et al., 2024). Grover (2024) also explained that extraverted leaders do well in directive roles, since they are bold and not afraid to take charge. In Malaysia, research has found that student leaders who scored higher in extraversion also showed stronger people-oriented and task-oriented leadership (Mohd Nasir et al., 2024). This means extraverted students are more likely to encourage their peers and push the group to complete tasks successfully.

However, extraversion is not always beneficial in every situation. Recent research shows that in highly competitive or high-pressure environments, the positive effect of extraversion may be reduced (Schaubroeck et al., 2019). Extraversion also seems to improve group outcomes only when other members are equally engaged and proactive, suggesting that team context matters (Naveen & Sangwan, 2023). At the same time, too much extraversion can create problems. For instance, overly dominant or attention-seeking leaders may reduce team harmony and distract from task focus (Karlsen & Langvik, 2021). Karlsen &Langvik (2021) further explained that excessive assertiveness could make leaders lose concentration on goals. While many studies confirm that extraversion has a positive link with leadership, newer findings highlight that assertiveness and energy are more valuable than just being sociable. In summary,

extraversion usually helps leaders, but its effect depends on the context and which part of the trait is expressed.

Most past research on extraversion and leadership comes from Western countries or work organizations. In Malaysia, some studies have looked at public university student leaders (Mohd Nasir et al., 2024), but not at private universities or coursework project teams. This leaves a clear gap. We do not yet know how extraversion shapes leadership and teamwork in Malaysian private-university group projects. Studying this could provide useful insights for leadership development in higher education.

2.1.5 Agreeableness

Agreeableness is another Big Five trait that reflects how much a person cares about harmony and the well-being of others. People who are high in agreeableness are usually kind, trusting, and cooperative. They like to work together rather than fight, and they often put others' needs first. In daily life, highly agreeable people are seen as empathetic and helpful, preferring teamwork and avoiding conflict (Gordon, 2023).

Because they value teamwork and trust, agreeable individuals often do well in leadership roles that focus on people. For example, a Malaysian study showed that agreeableness was strongly related to both people-oriented and task-oriented leadership (Mohd Nasir et al., 2024). This means cooperative and empathetic leaders were able to balance both relationships and tasks. Other research also supports this. Asgari et al. (2020) found that leaders high in agreeableness tend to use transformational leadership, which inspires and motivates followers. Reizer et al. (2023) also showed that an agreeable personality together with supportive leadership can improve team cohesion and employee well-being. Overall, these studies suggest that agreeableness helps leaders to build trust, motivate their teams, and maintain a positive working environment.

Still, agreeableness is not always a strong predictor of leadership. Large reviews have found that the overall correlation between agreeableness and leadership is quite small ($r \approx .08$) (Judge et al., 2002). Very agreeable leaders may also face problems when they need to make tough decisions. Jalajas & Pullaro（2018) explained that highly agreeable leaders can sometimes be “too soft” and find it hard to discipline subordinates. In some settings, like the military, too much agreeableness can even reduce leadership effectiveness (Gordon, 2023). This means the usefulness of agreeableness depends on the situation: what works in a teamwork setting may not work in a strict, high-pressure environment.

In Malaysia, the effect of agreeableness on student leadership is still not well understood. Research such as Mohd Nasir et al. (2024) has looked at student leaders in public universities, but not in private universities or project groups. We still do not know if agreeable students are more likely to become group leaders or if their cooperative nature improves group performance in coursework projects. This gap shows that more research is needed on agreeableness and leadership in Malaysian private university settings (Halim et al., 2023; Mohd Nasir et al., 2024).

2.1.6 Conscientiousness

Conscientiousness

Conscientiousness is the Big Five trait that reflects self-discipline, responsibility, and being well-organised. People who are high in conscientiousness usually follow rules, pay attention to detail, and like to plan their work instead of acting randomly. They are reliable, hard-working, and focus on completing goals (Mohd Nasir et al., 2024; Naveen Sangwan, 2023). In general, conscientious individuals are achievement-oriented and can be trusted to finish tasks properly.

Research shows that conscientiousness is one of the strongest predictors of leadership success. Conscientious leaders are organised, set clear goals, and are serious about completing tasks. In the Malaysian student-leader study, conscientiousness was found to be highly correlated with both people-oriented and task-oriented leadership ($r \approx .49$ for each) (Mohd Nasir et al., 2024). This means conscientious leaders were good at both handling relationships and managing work. Meta-analyses also report that conscientiousness is among the best personality predictors of leadership and job performance (Judge et al., 2002). Other studies, such as Ling Tan et al. (2023), also show that conscientious leaders are dependable, set high standards, and make sure progress is carefully monitored.

However, being too conscientious can also create problems. Very high levels of conscientiousness may lead to perfectionism or being overly rigid. For example, Dupré et al. (2022) found that people often see extremely conscientious individuals as "too much," which means being very conscientious is not always better. In leadership, this can make leaders overly focused on procedures and slow in making quick decisions. Saleh et al. (2022) also found that while conscientious leaders promote ethical leadership and reduce turnover intention, the effect can be influenced by ethical climate and emotional exhaustion. This shows that conscientiousness must be balanced, otherwise it can lead to stress or inflexibility.

In Malaysia, there is still limited research on how conscientiousness affects student leadership in project teams. Mohd Nasir et al. (2024) found that conscientiousness was linked to task-oriented leadership among public-university student leaders, but no studies have focused on private universities or coursework group projects. For example, it is unclear whether conscientious students naturally take the lead in assignments or how their organisation skills affect group performance. This gap shows that more research is needed on conscientiousness and student leadership in Malaysian private universities.

2.1.7 Neuroticism

Neuroticism, also called emotional instability, is the Big Five trait that measures how often a person feels negative emotions like anxiety, anger, or sadness. People high in neuroticism are more likely to worry, get stressed, and react emotionally to situations. In contrast, people low in neuroticism (emotionally stable) are usually calm, confident, and resilient when facing challenges (Northouse, 2021; Mohd Nasir et al., 2024).

Most research agrees that high neuroticism is harmful for leadership. Leaders who are emotionally stable can make better decisions under pressure and are more trusted by their teams. Judge et al. (2002), in their meta-analysis, found a moderate negative correlation ($r \approx -.24$) between neuroticism and leadership outcomes. Similarly, the Malaysian student-leader study reported a negative relationship between neuroticism and both people-oriented and task-oriented leadership ($r \approx -.30$) (Mohd Nasir et al., 2024). This means students with high neuroticism were less likely to take leadership roles or manage group tasks effectively. In practice, anxious or moody leaders may struggle to inspire confidence or resolve conflicts.

Although the general view is that neuroticism is a weakness, there are some exceptions. A small amount of anxiety can sometimes help leaders pay more attention to detail or stay cautious in risky situations. However, most evidence shows that too much neuroticism weakens leadership because it reduces self-confidence and decision-making ability. Leaders who are insecure or overly self-conscious may find it hard to manage teams effectively or maintain trust with followers. Overall, neuroticism is usually seen as a liability rather than a strength in leadership contexts.

In Malaysia, very little is known about how neuroticism affects student leadership in private universities. Existing studies, such as Mohd Nasir et al. (2024), have shown that neuroticism reduces leadership style in public-university student leaders, but there has been no focus on private-university coursework groups. For example, it is not clear

whether emotionally stable students are more likely to emerge as project leaders or whether team support can reduce the negative effects of neuroticism. This is an important research gap in the Malaysian private-university context.

2.1.8 Openness to Experience

Openness to Experience means being open-minded, curious, and creative. Students who score high in openness like to explore new ideas, enjoy art, and welcome innovation. They prefer variety instead of routine and can think in abstract or unconventional ways. In terms of leadership, an open person may be more visionary, flexible, and ready to accept new strategies or suggestions from the team (Mohd Nasir et al., 2024).

For leadership, openness can be useful when creativity or change is needed. Leaders who are open often see the bigger picture and encourage their team to try new approaches. Studies also show a positive link between openness and leadership. For example, Judge et al. (2002) reported a small but positive correlation ($r \approx .24$) between openness and leadership. In the Malaysian student study, openness was also found to be positively related to both people-oriented leadership ($r \approx .38$) and task-oriented leadership ($r \approx .33$) (Mohd Nasir et al., 2024). This shows that students who are more open to new ideas are also more likely to take on leadership actions. Openness is also connected with transformational leadership, where leaders promote vision and creativity. Such leaders often ask for input from followers and stay flexible in problem-solving, which helps improve teamwork and adaptability.

However, the benefit of openness in leadership depends on the situation. Past research shows openness is positively related to leadership, but the effect is usually weaker compared to traits like extraversion or conscientiousness (Judge et al., 2002). In innovative and fast-changing environments like tech companies or start-ups, open leaders usually perform better because their creativity matches the needs of the organisation (Jia et al., 2018). On the other hand, in structured and rule-based

organisations such as manufacturing or the military, too much openness may not be suitable because leaders can look less focused or not committed to routines. Besides that, openness alone is not enough; leaders also need good communication and decision-making skills. The cultural setting also plays a role. For example, in Malaysian group projects, teamwork usually values harmony and practical results, so the effect of openness may not be very clear without more research.

In Malaysia, the effect of openness on student leadership in private universities is still not well studied. Very few studies have looked at this trait in student group projects. Mohd Nasir et al. (2024) found that openness was positively linked to leadership style in public university students, but they did not focus on group projects or private colleges. So, we do not know much about how open-minded student leaders behave in Malaysian private university group work. For example, does being more open help students come up with more creative solutions in group projects? Answering these questions can help fill the research gap about personality and leadership in Malaysian universities.

2.2 CONCEPTUAL FRAMEWORK

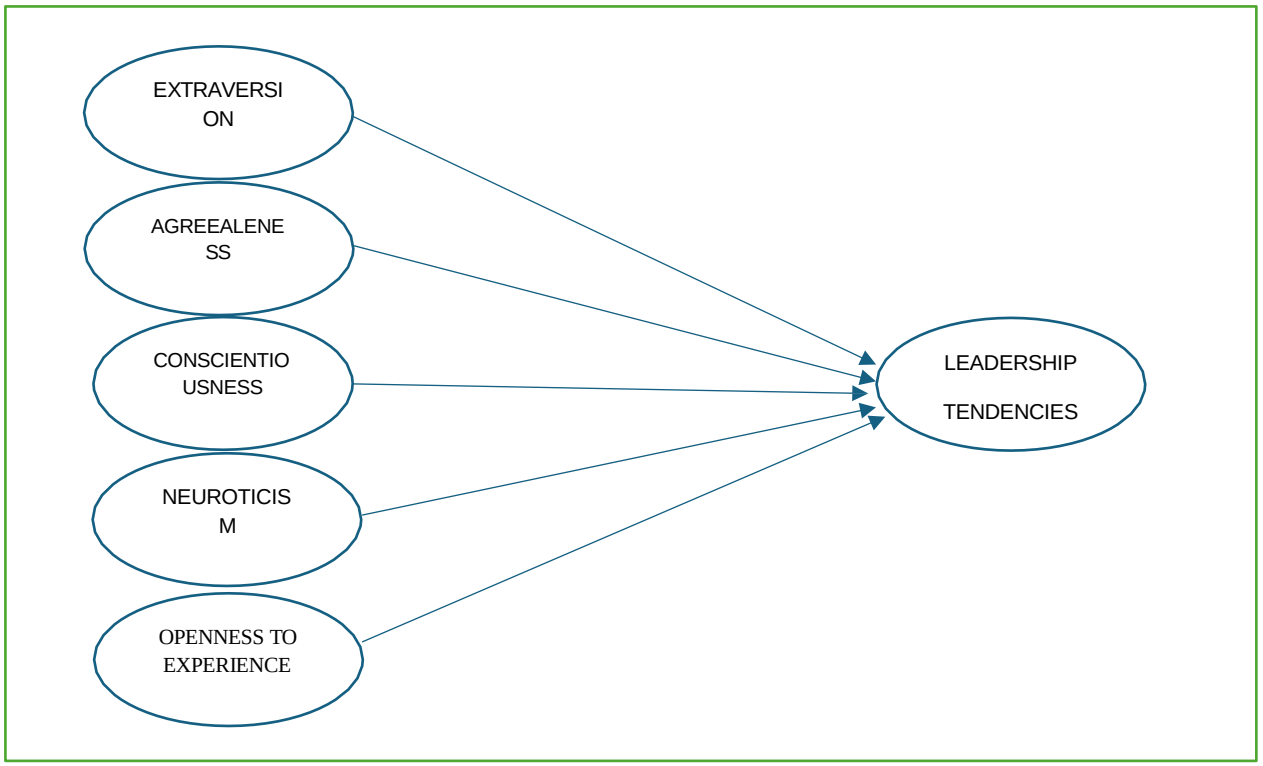


Figure 2.1 Conceptual Framework

Figure 2.1 illustrates the conceptual framework of this study. The research identifies five (5) variables based on the Big Five Personality Traits model: Extraversion (EXT), Agreeableness (AGR), Conscientiousness (CON), Neuroticism (NEU), and Openness to Experience (OPE), which are hypothesized to influence university students' leadership tendencies (LT) in group project settings. This framework is designed in alignment with the research objective to examine how personality traits affect leadership behaviours among private university students.

2.3 Hypothesis Development

This section develops the hypotheses for this study by linking the Big Five Personality Traits (IVs) to leadership tendencies (DV) among private university students in Malaysia. Previous literature has shown that personality plays an important role in shaping leadership behaviours. Each of the Big Five traits contributes differently to how individuals lead and interact in group settings. However, most past studies were conducted in workplace or organisational contexts. Research focusing on academic group leadership in Malaysian private universities remains limited. Therefore, this study aims to fill this gap by testing five specific hypotheses based on relevant personality traits.

2.3.1 Extraversion and Leadership Tendencies

Extraversion has consistently been identified as a strong predictor of leadership emergence and effectiveness. Extraverted students are assertive, sociable, and energetic, which increases their likelihood of becoming group leaders in academic settings (Zhang et al., 2022; Landis et al., 2022). These students tend to take charge in group discussions, express their views clearly, and actively engage with team members, making them more visible as potential leaders.

Moreover, Landis et al. (2022) emphasised that extraverted individuals are more comfortable in social situations, which boosts their confidence in leading others. Similarly, Zhang et al. (2022) found that student leaders with high extraversion were

more likely to initiate tasks and encourage team participation, especially during group-based university projects. Therefore, this study proposes the following hypothesis:

H1: There is a positive relationship between Extraversion and leadership tendencies among university students.

2.3.2 Agreeableness and Leadership Tendencies

Agreeableness refers to the tendency to be kind, cooperative, and understanding towards others. In academic group work, these traits can support the development of relational leadership, where communication and harmony are prioritised. Students high in agreeableness often help to resolve conflicts, promote teamwork, and ensure that all group members feel included (Reizer et al., 2023; Mohd Nasir et al., 2024).

Reizer et al. (2023) highlighted that agreeable individuals are more likely to use empathy and emotional intelligence in leadership roles. This allows them to build trust with peers and lead through influence rather than authority. In the Malaysian context, where collectivism and group harmony are culturally significant, Mohd Nasir et al. (2024) noted that agreeable student leaders tend to be more successful at maintaining team cohesion. Based on these findings, the following hypothesis is proposed:

H2: There is a positive relationship between Agreeableness and leadership tendencies among university students.

2.3.3 Conscientiousness and Leadership Tendencies

Conscientiousness is characterised by self-discipline, careful planning, and strong attention to detail. In academic group projects, conscientious students are likely to be task-oriented, organised, and responsible for ensuring that goals are met on time. According to Sangwan (2023), these individuals tend to take initiative in managing group deadlines and coordinating efforts among members.

Furthermore, Ling Tan et al. (2023) found that conscientious student leaders often act as role models by demonstrating a strong work ethic and commitment to excellence. Their leadership style is typically structured and focused on efficiency, which can

enhance team performance. In group environments where results are important, such traits make conscientious individuals' natural leaders. Therefore, this study proposes the following hypothesis:

H3: There is a positive relationship between Conscientiousness and leadership tendencies among university students.

2.3.4 Neuroticism and Leadership Tendencies

Neuroticism reflects emotional instability and the tendency to experience negative emotions such as stress, anxiety, and mood swings. Brooker (2020) explained that individuals with high neuroticism are more likely to feel overwhelmed under pressure, which may affect their ability to function effectively as leaders. This can lead to difficulties in decision-making, managing interpersonal relationships, and maintaining group morale.

Northouse (2021) also pointed out that emotionally unstable individuals often struggle with maintaining consistency in leadership roles, which may cause confusion or frustration among group members. In student groups, leadership requires emotional resilience and confidence, qualities that neurotic individuals may lack. As a result, the relationship between neuroticism and leadership is generally seen as negative. Thus, the following hypothesis is proposed:

H4: There is a negative relationship between Neuroticism and leadership tendencies among university students.

2.3.5 Openness to Experience and Leadership Tendencies

Openness to experience is associated with creativity, curiosity, and openness to new ideas. Zhao et al. (2018) reported that students high in openness are more likely to introduce innovative ideas and explore non-traditional solutions during group projects.

This creative approach can position them as visionary leaders who inspire others to think outside the box.

Zhang et al. (2019) also highlighted that openness allows leaders to adapt better in dynamic environments, such as shifting group dynamics or unexpected academic challenges. In Malaysian university settings, where students often work with diverse teammates, openness may help leaders navigate differences and encourage inclusivity. Therefore, the following hypothesis is proposed:

H5: There is a positive relationship between Openness to Experience and leadership tendencies among university students.

2.4 Summary

Chapter 2 has discussed the theories and notions to give readers a fundamental understanding before going deep into each part of this research. Moreover, the literature review consists of the endogenous variable (DV) and exogenous variables (IV) to comprehend the relationship of each exogenous variable (IV) towards the endogenous variable (DV), the leadership tendencies among university students. Besides that, the shape of the conceptual framework and hypothesis development lead to an apparent sight in this research. Based on the previous study, all the exogenous variables (IV), such as Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience, showed a significant relationship towards the leadership tendencies among university students.

2.5 Summary of reviewed studies

Theme: Theoretical framework Trait Theory of Leadership

Author(s) & Year	Methodology	Findings	Common Trend
Dickson (2023)	Conceptual discussion on classic leadership traits	Leaders possess inborn traits such as energy, honesty, intelligence, and confidence that distinguish them from others.	Leadership is influenced by innate and stable personality characteristics.
Nordin et al. (2025)	Review of modern leadership theories integrating Big Five model	Modern trait theory aligns with the Big Five dimensions (Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness) as predictors of leadership effectiveness.	Personality traits continue to play a central role in leadership research, with Big Five traits providing a structured framework.
Halim et al. (2023)	Empirical study on Malaysian educational institutions	Strategic leaders in universities show high levels of Extraversion and Openness, demonstrating visionary and adaptive leadership styles.	Malaysian context supports trait theory, where naturally extroverted and open individuals are more likely to emerge as leaders.

Theme: Theoretical Framework – Big Five Personality Traits

Author(s) & Year	Methodology	Findings	Common Trend
Abood (2019)	Review of psychological models	Big Five is widely accepted to predict human behaviour	Big Five is the most used model for personality in leadership studies
Grover & Amit (2024)	Conceptual discussion	Extraversion = outgoing, Agreeableness = cooperative, Conscientiousness = organised, Neuroticism =	The five traits are consistently defined across studies

		unstable, Openness = creative	
Naveen Sangwan (2023)	Secondary source (review, citing Asmawati, 2015)	Personality shaped by both genetics and environment	Nature and nurture jointly influence personality
Kamalruzaman (2009, as cited)	Review	Environment + heredity affect personality	Reinforces personality as multi-factorial

Theme 2: Leadership Tendencies

Author(s) & Year	Methodology	Findings	Common Trend
Northouse (2018)	Theoretical framework	Leadership = influencing others towards goals	Leadership requires skills + personal traits
Aliekperova & Aliekperov (2023)	Review (citing Drucker)	Leadership must be intentionally developed	Leadership is not automatic, but structured
Mohd Nasir et al. (2024)	Empirical (student leaders)	Personality traits strongly influence student leadership effectiveness	Leadership tendencies in students shaped by Big Five
Toker (2022, citing Bryman, 2007)	Conceptual	Leadership qualities similar across sectors; trust, responsibility, consistency	Leadership traits are universal across contexts

Theme 3: Extraversion

Author(s) & Year	Methodology	Findings	Common Trend

Zhang et al. (2022)	Review/meta-analysis	Extraversion = strongest predictor of leadership	Consistent positive relationship
Mohd Nasir et al. (2024)	Malaysian student leaders	Extraversion linked to people- and task-oriented leadership	Context: Extraverts thrive in student groups
Grover (2024)	Conceptual	Extraverts do well in directive roles	Extraversion = assertive, motivating
Schaubroeck et al. (2019)	Empirical	Effect reduced in high-pressure settings	Context moderates extraversion effect
Karlsen & Langvik (2021)	Empirical	Too much extraversion = dominance, reduced harmony	Excess extraversion has risks

Theme 4: Agreeableness

Author(s) & Year	Methodology	Findings	Common Trend
Mohd Nasir et al. (2024)	Malaysian study	Agreeableness linked to people- and task-oriented leadership	Cooperative nature helps teamwork
Asgari et al. (2020)	Empirical	Agreeableness supports transformational leadership	Inspires and motivates

Reizer et al. (2023)	Empirical	Agreeableness + supportive leadership = higher cohesion	Trust and empathy drive success
Judge et al. (2002)	Meta-analysis	Weak correlation overall ($r \approx .08$)	Not always a strong predictor
Jalajas & Pullaro (2018)	Empirical	Very agreeable leaders = indecisive	Over-cooperation can be weakness
Gordon (2023)	Review	High agreeableness not effective in strict settings (e.g., military)	Effectiveness depends on environment

Theme 5: Conscientiousness

Author(s) & Year	Methodology	Findings	Common Trend
Mohd Nasir et al. (2024)	Malaysian students	High conscientiousness linked to leadership success	Strongest predictor among Big Five
Judge et al. (2002)	Meta-analysis	Conscientiousness best predictor of job/leadership performance	Consistent across contexts
Ling Tan et al. (2023)	Empirical	Conscientious leaders = dependable, high standards	Task-focused leadership

Dupré et al. (2022)	Empirical	Extreme conscientiousness = rigidity, perfectionism	Too much can harm
Saleh et al. (2022)	Empirical	Ethical climate influences conscientiousness' effect	Context moderates outcomes

Theme 6: Neuroticism

Author(s) & Year	Methodology	Findings	Common Trend
Judge et al. (2002)	Meta-analysis	Negative correlation (r ≈ –.24)	Weakens leadership
Mohd Nasir et al. (2024)	Malaysian students	Negative link with student leadership (r ≈ –.30)	Emotionally unstable students avoid leadership
Northouse (2021)	Theoretical	Low neuroticism = calm, resilient leaders	Stability = leadership strength

Theme 7: Openness to Experience

Author(s) & Year	Methodology	Findings	Common Trend

Judge et al. (2002)	Meta-analysis	Small positive correlation ($r \approx .24$)	Weak but positive predictor
Mohd Nasir et al. (2024)	Malaysian students	Openness linked to leadership styles ($r \approx .38$ / .33)	Cultural relevance
Jia et al. (2018)	Empirical	Openness supports transformational leadership	Promotes creativity, adaptability

gaps in the literature:

Trait	What Past Studies Covered	What is Missing	Research Gap
General Big Five & Leadership	Strong evidence from Western contexts (Judge et al., 2002; Grover & Amit, 2024)	Limited focus on Asian or Malaysian higher education	Lack of localised studies to confirm if Western findings apply to Malaysian private universities
Leadership Tendencies in Students	Studies on public university students in Malaysia (Mohd Nasir et al., 2024)	Few studies on private universities; little focus on coursework group projects	Need to understand leadership in private university group settings

Extraversion	Consistently positive predictor of leadership (Zhang et al., 2022; Mohd Nasir et al., 2024)	Contextual limits: high-pressure or competitive environments reduce effect	Research needed on whether extraversion helps/hurts in Malaysian student project groups
Agreeableness	Mixed findings: supports teamwork (Reizer et al., 2023), but weak correlation overall (Judge et al., 2002)	Limited research on agreeableness in Malaysian student leaders	Unclear if cooperative students actually emerge as leaders in private university groups

Trait	What Past Studies Covered	What is Missing	Research Gap
Conscientiousness	Strongest predictor of leadership performance globally (Judge et al., 2002; Ling Tan et al., 2023)	No focused study on private university coursework projects	Need to examine whether conscientious students naturally take lead roles in Malaysian group assignments
Neuroticism	Negative link with leadership (Judge et al., 2002; Mohd Nasir et al., 2024)	Unknown if team support reduces neuroticism's negative effects	Gap: does peer environment in group projects buffer neuroticism among Malaysian students?
Openness to Experience	Linked to transformational leadership (Jia et al., 2018); positive in Malaysian public universities (Mohd Nasir et al., 2024)	Few studies in student project contexts; weak effect size compared to other traits	Gap: unclear role of openness in Malaysian private university teamwork and creativity

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

This chapter provides a comprehensive overview of the research methodology used in this study. It outlines the research design, data collection method, sampling strategy, target population, sampling frame and location, sampling technique and sample size. In addition, it describes the research instruments used, the structure and design of the questionnaires, the measurement of the variables and the procedures adopted to ensure the reliability and validity of the instruments. This methodological framework was designed to ensure rigor in the study, leading to reliable and valid findings.

3.1 Research Design

According to Creswell (2014), research design is a master plan for articulating a conceptual research question with a relevant and viable piece of empirical research. It is a type of inquiry that gives concrete directions to a research process (Asenahabi, 2019). This research aimed to examine the influence of personality traits on leadership tendencies among private university students in group projects. Employing a Quantitative, Cross-Sectional, and Descriptive Research Design, it aimed to describe the patterns of personality traits and leadership tendencies in a systematic way, as well as quantify the relationship between the Big Five personality dimensions and leadership behaviors.

Thus, this research utilized quantitative methods, using structured questionnaires to gather numerical data for both objective measurement and statistical analysis. A cross-sectional design was chosen for its ability to gather data at a particular point in time, as opposed to tracing long-term variation. Descriptive research helps to outline the general patterns of personality traits and leadership tendencies in the sample, while correlational analysis reveals the relationship between personality dimensions and leadership tendencies. In addition, this research design fits the core objective: to explore if and how personality traits as measured by the Big Five model

influence students' potential to take on leadership roles in group projects. Through this methodology, the study provides a clear and systematic explanation of the ways in which personality differences can shape patterns of leadership behaviour in academic group contexts.

3.2 Data Collection Approach

For this study, the project applied a primary data collection approach to investigate the relationship between Big Five personality traits and leadership tendencies among university students. This approach was chosen because it allows the researchers to gather first-hand and specific data from the target population regarding their personality profiles and leadership behaviours. Since the objective of this study is to examine the influence of five exogenous variables, Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience, on the endogenous variable Leadership Tendencies, the primary data method is considered most suitable.

Questionnaires will be the main instrument used in this project. An online questionnaire survey will be created and distributed using Google Forms, which allows for efficient data collection and accessibility. The survey link will be shared through social media platforms such as WhatsApp, Instagram, and Telegram, and QR codes will also be generated to make access more convenient. The survey is targeted at students from private universities in Malaysia, and any responses from individuals outside of this demographic will be excluded from the data analysis.

The questionnaire will be divided into several sections that measure the Big Five personality traits and leadership tendencies. Respondents will be required to answer honestly and based on their own awareness, understanding, and experiences. No restrictions or leading answers will be given, and full confidentiality will be maintained throughout the process.

To ensure the reliability of the instrument, a pilot test will be conducted involving at least 35 respondents. This test will be carried out after the FYP 1 presentation (Week 14) and before the start of the following semester, in accordance with recommendations by Serdar et al (2021).The

pilot test results will help evaluate the validity and clarity of the questionnaire items before the full-scale data collection begins.

3.3 Sampling Design

Sampling Design describes the planning and methodology for the selection of samples from the population, and the estimating formulae used to compute the sample statistics. These are used as estimates to make deductions about population parameters (Sajjad Kabir, 2016).

3.3.1 Target Population

According to Alvi (2016), the target population is a particular sub-set of this larger group, classified according to predefined criteria aligned with the research objectives (Willie, 2024). The target population of this research was students at private university in Malaysia who had participated in a group project in their academic coursework. These were selected as they were most likely to have encountered contexts that involved group collaboration, leadership behaviors, and group dynamics—which are the central objectives of this research. It is important to comprehend the leadership tendencies of this group to reveal how personality traits influence students' readiness and ability to take on leadership roles in both informal and formal group environments. Focusing on this research population will ensure the data collected is pertinent and an accurate representation of the subjects' behavior patterns and practices.

3.3.2 Sampling Frame and Sampling Location

A sampling frame is a list or presentation of the target population from which the sample is drawn. Its “frames” the selection of the sample by taking a survey or a partial survey of the population to provide a population of individuals eligible for the selection process in the study (Mooney & Garber, 2019). The sampling framework in this research covers students in Malaysian private universities who have been engaged in group projects or cooperative scholarship activities. These students were chosen because they were most

likely to have undergone contexts that involved group dynamics, leading behaviors, and teamwork, aligning with the goals of this research.

The sampling locations for this study focus on private universities in in Malaysia. Universities are chosen based on several criteria such as their geographic location, academic reputation according to QS rankings, wide range of study programmes, and large student population. All institutions are situated within Malaysia, renowned for their academic standards, offering diverse programmes and boasting substantial student populations. Furthermore, Malaysia's private higher education institutions welcomed over 100,000 new students in 2024. This meticulously designed sampling scheme effectively represents the student body of Malaysian private universities while ensuring the feasibility and accessibility of the data collection process.

The data is collected online using Google Forms, and the questionnaires are shared through student networks, social media, and university-related platforms to reach undergraduate students in the selected universities.

3.3.3 Sampling Technique

Elfil and Negida (2017) as well as Shorten and Moorley (2014) highlighted that the two main sampling techniques are probability sampling and non-probability sampling, where each has its own strengths and limitations depending on the research objectives. Curtin (2005) and Fowler (2009) explained that when every individual in the population has an equal chance of being selected, it is called probability sampling. This method is often seen as the best way to make sure the sample represents the whole population fairly (Rahman et al., 2022). On the other hand, when there is no fixed probability for individuals to be selected, the method is considered non-probability sampling (Shukla, 2023).

For this study, the data was collected using a questionnaire designed for students pursuing their academic degrees. A non-probability method, specifically convenience

sampling, was applied to select respondents from private universitie in Malaysia. Convenience sampling was chosen because it is cost-effective, less time-consuming compared to other strategies, and simple to implement. According to Stratton (2021), this method is also useful for developing preliminary hypotheses or research objectives.

3.3.4 Sampling Size

Table 3.1 **:** *Krejcie and Morgan table*

Required Sample Size†

Population Size	Confidence = 95%				Confidence = 99%			
	Margin of Error				Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

Note: From Taherdoost, H. (2016). Sampling methods in research methodology; how to choose a sampling technique for research.

Krejcie and Morgan (1970) prepared a well-known sample size table that many social science researchers use to decide how many respondents are needed based on the population size. According to the Ministry of Higher Education Malaysia, the total enrollment in private higher educational institutions is approximately 322,000. The Krejcie and Morgan table shows that for a population exceeding 100,000, the recommended sample size stabilizes at 384. In this study, our sample size of 387 exceeds this threshold, ensuring the sample is reliable and large enough to give accurate results (Memon et al., 2020).

In this study, the sample size is determined by using the Krejcie and Morgan (1970) table. By following this guideline, the sample is considered reliable and big enough to give accurate results. If the sample size is too small, the findings may not be valid and cannot represent the different personality traits of students. A bigger sample is always better because it gives a clearer reflection of the whole student population and reduces the chance of bias (Andrade, 2020).

Therefore, this research follows the Krejcie and Morgan table to make sure the number of respondents is suitable. This helps the study to identify how the Big Five personality traits influence leadership tendencies among private university students in group projects with more confidence and accuracy.

3.4 Research Instrument

3.4.1 Questionnaire Design

A questionnaire is a significant tool in a research study as it allows the investigator to obtain data relevant to the research topic. It is essential to ensure that the questionnaire is efficient to reduce errors (Taherdoost, 2022). In the design of the questionnaires, the study used standardized items for measuring the Big Five personality traits (independent variables) and leadership tendencies in team projects (dependent variables). The questionnaire utilised in this study was precisely prepared to correspond with the research aims, and the questions were consistent among all intended respondents. It uses linear scale questions to precisely assess responses. Furthermore, the questionnaire is separated into sections, each with clear instructions or brief explanations to help respondents comprehend the purpose and meaning of the questions asked.

The questionnaire's first page was used as a “cover page,” stating the objectives and topics of this study and informing the respondents of the “Personal Data Protection Statement.” This ensured the participants that all information gathered would only be used for scholarly reasons, while ensuring privacy and confidentiality. The respondents'

consent was recorded before the survey was conducted, thus offering ethical protection for both the participants and the researchers.

Section A gathered information on demographics, including age range, gender, race, academic stage, professional field, and team project experience. This section focused on closed-ended questions using fixed options, which provided limited choices for respondents. This method decreased the initial operational difficulty of the survey, both in terms of ease of participation and in terms of ensuring that standardized answers were used for subsequent analysis.

Section B contains the central variables of the study, using a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). This part measures both the independent variables (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness) and the dependent variable (leadership tendencies in team projects). Each concept is evaluated by multiple metrics to assure the results' validity and reliability.

Example of Fixed-Alternative Question:

Gender	Age
o Male	o 18-20 years
o Female	o 21-25 years
	o 26-30 years
	o 31-40 years

3.4.2 Pilot Test

In sequence, to test the practicability of this study, a pilot test will be utilized before handing out the questionnaire link or QR code to the chosen populations. Next, the pilot test was conducted before handing out the questionnaire link or QR code to evaluate the validity of the questions for each independent variable (IV). A paradigm questionnaire will require feedback from the pilot test as the project may need to understand the arrangement or structure of the questions and time constraints for

respondents to fill out. It is momentous for the project to conduct pilot tests to construct an ideal questionnaire for the study.

Conducting a pilot test for the study will not ensure that the questionnaire survey succeeds; however, a pilot test increases the possibility of success (Creswell & Guetterman , 2018). In a similar study using Big Five personality traits, Tah & Jaradat (2018) conducted a pilot test with 35 participants to validate the clarity and reliability of their questionnaire before distributing it widely, demonstrating the importance of pre-testing instruments to ensure internal consistency.

Table 3.2*: *Reliability Analysis of Big Five Personality Traits

No.	*Dimensions*	*Test Re-test*	*Cronbach's Alpha*
1	Neuroticism	0.76***	0.80
2	Extraversion	0.79***	0.61
3	Openness	0.64***	0.69
4	Agreeableness	0.62***	0.73
5	Conscientiousness	0.62***	0.60

*** Statistically significant at the level of ($\alpha < 0{,}001$)

3.2.2 The Intensity of using Facebook scale:

In the initial phase of the survey, the project obtained a total of 35 of sample size for pilot test. According to the outcome, that refers to Cronbach's Alpha, the project decided to ensure all questions for five (5) exogenous variables (IV), such as Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C), since the value is generally within or close to the acceptable threshold.

Furthermore, this project has considered reviewing or removing certain questions in the Extraversion (E), Openness (O), and Conscientiousness (C) dimensions and the endogenous variable (DV), Leadership Tendency, to ensure the value is more than 0.6 with the goal of providing an adequate and logical interpretation. As such, this project could provide a rational explanation across the final data evaluation. Thus, according to the result, the decent measure for the value will be 0.7.

3.4.3 Reliability of Questionnaire

The reliability of a measurement instrument refers to the consistency of the scores obtained from it. A reliable instrument is expected to provide accurate results that are as close as possible to the "true score," with minimal measurement error (Kimberlin & Winterstein, 2008). To ensure consistent outcomes, two key aspects of reliability should be considered: stability and internal consistency. Stability relates to the ability of the instrument to produce similar results when administered at different times, while internal consistency examines whether the items within the same instrument yield similar responses. Internal consistency is often calculated with Cronbach's Alpha values mean determining the reliability of the questionnaire along with the pilot test's performance. The ideal and trustworthy Cronbach's Alpha value should be between 0.7 to 0.8 (Taber, 2018). In the meantime, certain projects will aim for a greater Cronbach's Alpha value. however, it could be unrealistic to achieve in the actual study.

3.4.4 Validity

In this study, validity refers to whether the questionnaire accurately measures the influence of students' personality traits on their leadership tendencies. A valid instrument ensures that the results truly reflect the intended variables, such as extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience, as well as task-oriented and people-oriented leadership (Kimberlin & Winterstein, 2008). Before assessing validity, the questionnaire must first be reliable.

Content validity ensures the questionnaire fully covers the research topic and is suitable for the target respondents. Experts with knowledge in educational psychology or organizational behaviour review the items to confirm they measure the intended constructs and are appropriate for Malaysian private university students in group projects. Construct validity examines whether the items reflect the theoretical relationship between personality traits and leadership tendencies, which can be verified using statistical analyses like factor analysis.

Criterion validity measures how well the questionnaire results correlate with other validated instruments. For example, leadership tendency scores can be compared with previously used leadership scales to ensure consistency. Overall, careful design, expert review, and statistical verification aim to make the questionnaire both valid and suitable for investigating how personality traits influence leadership among private university students in Malaysia.

3.5 Data Processing

Data processing refers to the procedures used to transform raw data collected from surveys into meaningful information that can be analysed to answer research objectives (Bhattacherjee, 2019). This process generally includes data checking, data editing, and data coding to ensure the accuracy, consistency, and usability of the dataset.

3.5.1 Data Checking

After collecting survey responses, data checking is conducted to identify and correct any errors, inconsistencies, or missing entries (Saunders et al., 2019). This step ensures the data are complete and reflect the actual responses of the target population. Proper data checking is essential to maintain research quality and reduce the risk of inaccurate results.

3.5.2 Data Editing

Data editing is the process of reviewing and rectifying identified errors or incomplete responses to improve data quality and reliability (Creswell & Creswell, 2018). This step may involve correcting obvious mistakes, removing duplicates, or replacing missing information when appropriate. Editing ensures the dataset is uniform, accurate, and suitable for further analysis.

3.5.3 Data Coding

Data coding involves assigning numerical or categorical values to survey responses, making them easier to analyse using statistical software (Field, 2018). For example, Likert scale items can be coded from 1 (strongly disagree) to 5 (strongly agree) to facilitate quantitative analysis. Coding transforms raw survey responses into structured data, allowing systematic evaluation of patterns, trends, and relationships.

3.5.4 Variable Measurements

According to this research, the purpose of the project was to investigate the relationship between the dependent variable (DV) "leadership tendencies" and the independent variables (IV): extraversion, desirability, conscientiousness, neuroticism, and openness to experience. Each of these variables was assessed utilizing several items to assure a higher level of dependability and reliability. The table that follows outlines the particulars of each variable and the sources from which they were measured.

3.6 Proposed Data Analysis Tool

The proposed data analysis tool for this study is IBM's SPSS software, which will be used to analyse the relationship between Big Five Personality Traits and Leadership Tendencies among university students in Malaysia. After collecting the data, the research will proceed with data analysis using SPSS to examine descriptive statistics, assumption testing, and inferential statistics.

For the analytical method, this study will utilize multiple linear regression analysis to investigate how the five personality traits, Extraversion (EXT), Agreeableness (AGR), Conscientiousness (CON), Neuroticism (NEU), and Openness to Experience (OPE), influence Leadership Tendencies, which is the dependent variable (DV). IBM's SPSS software will be employed to run the multiple regression analysis using the collected dataset to determine the statistical significance of each independent variable (IV).

Furthermore, assumption tests such as multicollinearity, autocorrelation, and heteroscedasticity will be conducted for all five independent variables (IV) to avoid biased coefficient estimations, inaccurate standard errors, misleading statistical inferences, and invalid testing outcomes. By applying these tests, the study ensures the validity and robustness of the regression model while providing more accurate and reliable findings regarding the relationship between personality traits and leadership tendencies.

Table 3.3 **: Summary of data analysis techniques**

Techniques	Explanation
Descriptive statistics	
i) Mean	To represent the central tendency of the sample by summarizing the responses using a single value.
ii) Percent	To evaluate the distribution of responses and provide a basic overview of the dataset.
Reliability Test (Pilot Test using Cronbach's Alpha)	To assess the internal consistency and reliability of the questionnaire items. A Cronbach's Alpha value above 0.7 is considered acceptable. This step ensures that the variables measured are stable and reliable before full-scale data collection.
Diagnostic Checking	
i) Multicollinearity	To ensure that independent variables are not highly correlated with each other, which can distort the regression results.
ii) Autocorrelation	To check for correlation between residuals. This test ensures the assumption of independence in regression is not violated.
iii) Heteroscedasticity	To verify that the residuals have constant variance. If violated, it may affect the validity of the regression estimates.

Multiple Regression Analysis	
i) ANOVA (Analysis of Variance)	To examine whether the overall regression model is statistically significant.
ii) R^2 (Coefficient of Determination)	To assess how much of the variance in the dependent variable (Leadership Tendencies) can be explained by the independent variables (Big Five Personality Traits).
iii) Coefficients	To test the significance of each hypothesis and determine the impact of each independent variable on the dependent variable.

In the data analysis process, a reliability test will first be conducted during the pilot test phase to ensure the consistency and dependability of the research instrument. After the collection of approximately enough valid responses, descriptive statistics will be employed to analyze the mean and percentage of the respondents' demographic information, as well as the dependent variable (DV) and independent variables (IV).

Following that, several diagnostic tests will be conducted to verify the assumptions of the Ordinary Least Squares (OLS) regression model. The Durbin-Watson test will be used to detect autocorrelation, while the Variance Inflation Factor (VIF) will be applied to examine multicollinearity among the independent variables. Additionally, the Heteroscedasticity Test will be conducted to assess whether the variance of residuals is constant across observations. The Jarque-Bera test will also be used to evaluate the normality of the data distribution.

Finally, multiple regression analysis will be performed using IBM SPSS software. This analysis will assist in assessing the overall significance of the model and determining the effect and statistical significance of each independent variable (IV) on the dependent variable (DV), which in this study refers to leadership tendencies among Malaysian private university students.

3.6.1 Research Model

The following is the proposed research model based on the hypotheses developed in this study. This model is designed to examine the significance of each independent variable (IV) in influencing the leadership tendencies of Malaysian private university students.

Leadership Tendencies of Malaysian Private University Students

$$\text{Leadership Tendencies} = \beta_0 + \beta_1 BF_1 + \beta_2 BF_2 + \beta_3 BF_3 + \beta_4 BF_4 + \beta_5 BF_5 + \mu$$

Where:

BF_1 = Openness to Experience

BF_2 = Conscientiousness

BF_3 = Extraversion

BF_4 = Agreeableness

BF_5 = Neuroticism

Since the questionnaire includes several questions under each independent variable (IV) and the dependent variable (DV), the project will apply a mean value approach. Each question is rated on a 5-point Likert scale. The responses under the same variable will be averaged to obtain a single mean value representing that variable for each respondent. These calculated mean values will then be used in the multiple regression analysis to determine the actual relationship between the Big Five personality traits and leadership tendencies.

3.7 Summary

For this chapter, the project has outlined the methodologies applied in this study. This chapter consists of the research design, data collection approach, sampling design, target population, sampling frame and location, sampling technique, sample size, research instruments, ethical considerations, pilot test, proposed data analysis tool, and research model. Autocorrelation, multicollinearity, heteroscedasticity, reliability, and normality analysis testing will be conducted in accordance with the research model. Last but not least, the project has elaborated on several analysis methods that will be utilized to examine the relationship between the Big Five personality traits and the leadership tendencies of Malaysian private university students.

CHAPTER 4: RESEARCH RESULTS

4.0 Introduction

This chapter will conduct data analysis for examining the influence of Big Five personality traits on leadership tendencies among university students. First, a descriptive analysis will be performed. Second, a reliability test will be undertaken to ascertain the consistency of the measurement scales used for personality traits and leadership tendencies. Third, as an initial data screening process, multicollinearity and non-normality issues will be examined. Finally, a multiple linear regression analysis will be conducted to analyse the relationship between the independent variables (Big Five personality traits) and the dependent variable (leadership tendencies). All these analyses will be performed using SPSS software.

4.1 Descriptive Analysis

First, a descriptive analysis will be undertaken to facilitate a more intuitive understanding of the data. To that end, a descriptive analysis will initially be conducted on the demographic data gathered from Section A of the questionnaire. Next, a descriptive analysis would also be carried out on the data from Sections B and C, which are used to assess the independent variables (the Big Five personality traits) and the dependent variable (leadership tendencies). In subsequent analyses, the data would be summarised using tables and pie charts.

4.1.1 Respondents' Demographic Profile

This study encompasses five types of demographic data: gender, age group, educational attained level, field of study and academic year. The ensuing sections will successively analyse each of these data categories.

4.1.1.1 Gender

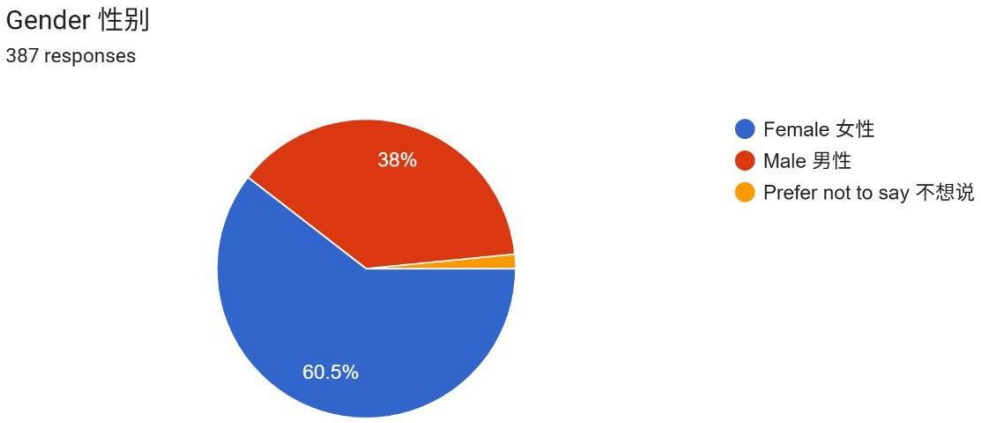
Table 4.1

Descriptive Analysis for Gender

Gender	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Female	234	60.5	234	60.5
Male	147	38	381	98.5
Prefer not to say	6	1.6	387	100

Figure 4.1

Descriptive Analysis for Gender



The respondents were first divided into groups according to their gender. A total of 387 undergraduate students participated in the survey, as shown in Table 4.1. Table 4.1 and Figure 4.1 show that 60.5% (234 individuals) of the participants were female, 38% (147 individuals) were male, and 1.6% (6 persons) did not choose to reveal their gender. As a result, there were more female respondents than male respondents.

4.1.1.2 Age Group

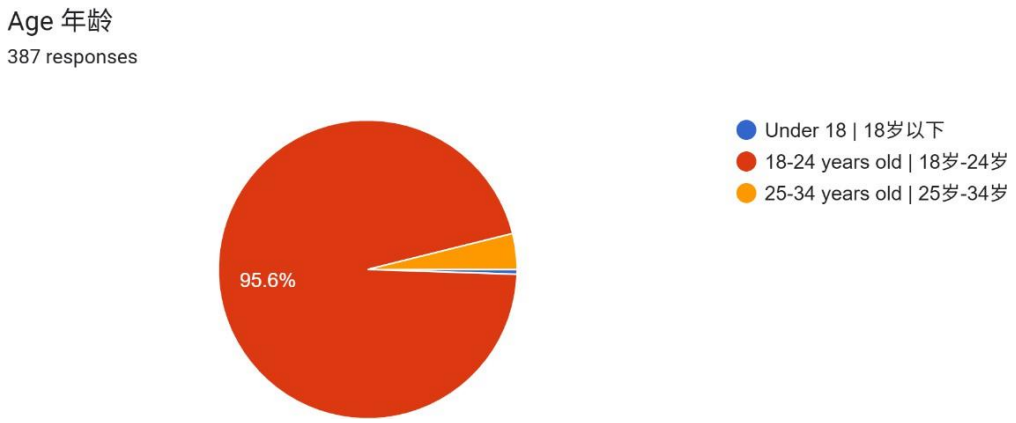
Table 4.2

Descriptive Analysis for Age Group

Age Group	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Under 18	2	3.9	2	3.9
18-24 years old	370	95.6	372	99.5
25-34 years old	15	0.5	387	100

Figure 4.2

Descriptive Analysis for Age Group



The participants were divided into age groups in addition to gender. Table 4.2 and Figure 4.2 show that 95.6% of responders, or 370 people, were between the ages of 18 and 24. Two participants, or 3.9% of the total, were younger than 18 years old. With

just 0.5% (15 responders), those between the ages of 25 and 34 made up the smallest group.

4.1.1.3 Education Level

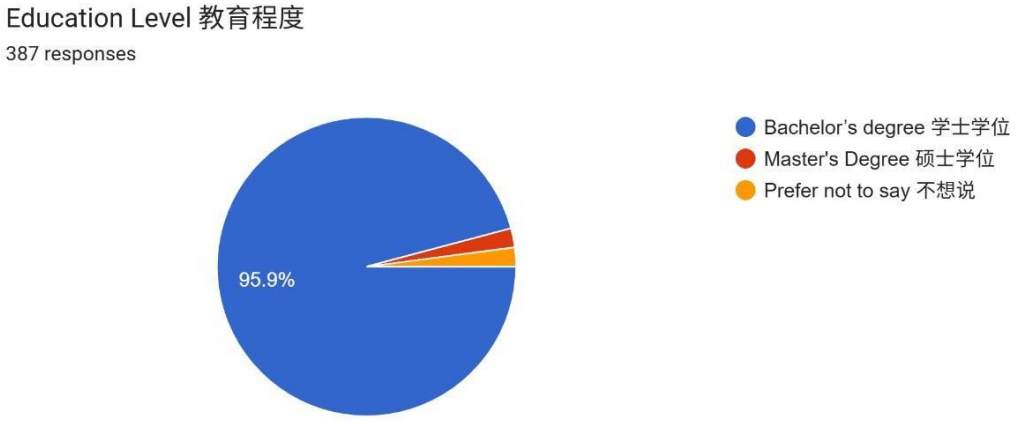
Table 4.3

Descriptive Analysis for Education Level

Education Level	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Bachelor's degree	371	95.9	371	95.9
Master's Degree	8	2.1	379	98
Prefer not to say	8	2	387	100

Figure 4.3

Descriptive Analysis for Education Level



The respondents were divided into groups according to their educational background in addition to their age. As shown in Table 4.3, 371 respondents, or 95.9% of the participants, have a bachelor's degree. The 8 respondents, or 2.1% of the total, have a

master's degree. The other 8 participants, or 2.0% of the sample, opted not to reveal their educational background.

4.1.1.4 Field of Study

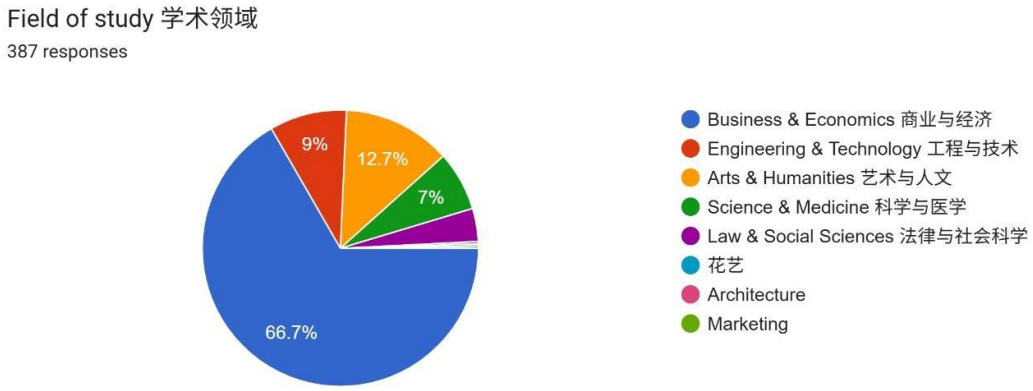
Table 4.4

Descriptive Analysis for Field of Study

Field of Study	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Business & Economics	258	66.7	258	66.7
Engineering & Technology	35	9	293	75.7
Arts & Humanities	49	12.7	342	88.4
Science & Medicine	27	7	369	95.4
Law & Social Sciences	15	3.9	384	99.3
Others	3	0.7	387	100

Figure 4.4

Descriptive Analysis for Field of Study



Fourth, the respondents are also divided into groups according to the year they are now enrolled in school. The bulk of participants, or 66.7% (258 respondents), are from Business & Economics, according to Table 4.5 and Figure 4.5. Those from the Arts and Humanities, who make up 12.7% (49 responses), come next. Next, 35 respondents, or 9% of the sample, are from the Engineering & Technology category. Respondents from the Law & Social Sciences make up 3.9% (15 respondents), while those from Science & Medicine make up 7% (27 responses). The Others category had the fewest responders, accounting for just 0.7% (3 replies) of all participants.

4.1.1.5 Academic Year

Table 4.5

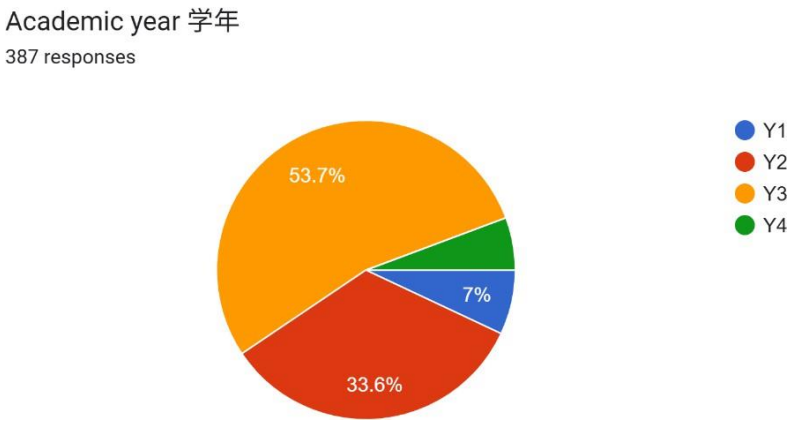
Descriptive Analysis for Academic Year

Academic Year	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Y1	27	7	27	7
Y2	130	33.6	157	40.6
Y3	208	53.7	365	94.3
Y4	22	5.7	387	100

Finally, the replies are categorised according to the year they are currently enrolled in school. Most participants, 53.7% (208 responses), are from Year 3, as shown in Table 4.5 and Figure 4.5. Then, 130 responders, or 33.6% of them, are from Year 2. Next, 27 responders, or 7% of the total, are from Year 1. With only 5.7% (22 responders) from this school year, Year 4 had the fewest respondents.

Figure 4.5

Descriptive Analysis for Academic Year



4.1.2 Central Tendency and Dispersion Measurements of Constructs

The remainder of this chapter will examine the questions raised regarding the independent and dependent variables, the answers to which were gathered in Sections B and C. The analysis includes measures of variability—specifically, the standard deviation—and measures of central tendency—specifically, the mean. Each variable will be analysed in turn.

4.1.2.1 Leadership Tendencies

Table 4.6

Central Tendencies Measurement of Leadership Tendencies

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
LT1	I go beyond self-interest for the good of the group.	387	3.7209	1.02540	12	7
LT2	The best decision will be the one with the largest consensus.	387	4.2920	0.83636	4	13
LT3	I make decisions without consulting others due to time pressures upon the task at hand.	387	3.3721	1.46675	18	1
LT4	I make clear what one can expect to receive when performance goals are achieved	387	4.2791	0.85149	6	11
LT5	I avoid making decisions.	387	3.5168	1.34919	16	3
LT6	I tend to overcome barriers to reach goals.	387	4.3333	0.78192	3	16
LT7	I consider the moral and ethical consequences of my decisions.	387	4.3437	0.68532	2	18

LT8	I welcome others to constantly challenge my ideas and strategies.	387	4.2817	0.79555	5	15
LT9	I rarely back down when I am truly passionate about something.	387	4.2791	0.83923	6	12
LT10	I provide recognition/rewards when others reach their goals.	387	3.3928	1.39234	17	2
LT11	Whatever others want to do is ok with me.	387	4.2067	0.86297	8	10
LT12	I'm good at finding practical solutions to problems.	387	3.7209	1.19570	12	6
LT13	I help others to develop their strengths.	387	3.5995	1.32231	15	4
LT14	I try to delegate as many tasks as possible in their complete entirety.	387	4.1318	0.92781	10	9
LT15	I need to push half of the people into completing work to a higher standard.	387	3.6382	1.27079	14	5
LT16	I keep track of all mistakes.	387	3.9871	1.02423	11	8

LT17	I ask no more of others than what is absolutely essential.	387	4.2016	0.80523	9	14
LT18	I have a clear focus on what we need to do as a group.	387	4.3902	0.69058	1	17

Leadership inclinations are the first variable examined. Table 4.6 shows that LT18 ("I have a clear focus on what we need to do as a group") has the highest mean (4.3902). It ranks 17th in terms of consistency, the standard deviation (0.69058). Next, LT7 ("I consider the moral and ethical consequences of my decisions") had the second-largest mean of 4.3437, ranking 18th, with a standard deviation of 0.68532. Then, LT6 ("I tend to overcome barriers to reach goals") has the third-largest mean of 4.3333, ranking 16th, with a standard deviation of 0.78192. Then, LT2 ("The best decision will be the one with the largest consensus") has the fourth-largest mean of 4.2920 and ranks 13th with a standard deviation of 0.83636. Finally, LT3 ("I make decisions without consulting others due to time pressures upon the task at hand") had the biggest standard deviation (1.46675), placing first in consistency, although having the smallest mean (3.3721).

4.1.2.2 Openness to experience

Table 4.7

Central Tendencies Measurement of Openness to experience

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
OPN1	I am curious about many things.	387	3.6951	1.21094	7	2

OPN2	I always come up with new ideas.	387	3.6305	1.14738	9	5
OPN3	I am creative and a deep thinker.	387	3.6977	1.18456	6	3
OPN4	I have an active imagination.	387	3.8915	1.05723	3	7
OPN5	I am inventive.	387	3.6357	1.15802	8	4
OPN6	I value artistic experiences.	387	3.8837	1.04530	4	8
OPN7	prefer work that is routine.	387	4.0904	0.95743	1	10
OPN8	I like to reflect and play with ideas.	387	3.9897	0.98691	2	9
OPN9	I have few artistic interests.	387	3.7545	1.09837	5	6
OPN10	I am advanced in art, music or literature.	387	3.2584	1.25727	10	1

Next, we analysed projects associated with openness to experience. According to Table 4.7, OPN7 ('prefer work that is routine') exhibited the highest mean score of 4.0904. However, it demonstrated the lowest standard deviation (0.95743) within the top-ranked projects, ranking tenth in terms of consistency. The second highest mean (4.9897) was achieved by OPN8 ("I like to reflect and play with ideas"), with a standard deviation of 0.98691. Next, OPN4 ("I have an active imagination") came third in terms of mean (3.8915), exhibiting a standard deviation of 1.05723. Subsequently, OPN6 holds fourth place in terms of mean (3.8837), with a standard deviation of 1.04530. Finally, OPN10 ("I am advanced in art, music or literature"), which exhibits the lowest mean (3.2584), has the lowest standard deviation (1.25727) and ranks first in consistency.

4.1.2.3 Conscientiousness

Table 4.8

Central Tendencies Measurement of Conscientiousness

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
C1	I can be somewhat careless.	387	2.2868	1.14399	9	4
C2	I carry out my job thoroughly.	387	4.2351	0.71186	3	8
C3	I am a reliable worker.	387	4.2636	0.78045	1	7
C4	I tend to be disorganized.	387	3.3592	1.30471	6	3
C5	I tend to be lazy.	387	3.2610	1.37204	7	1
C6	I persevere until the task is finished.	387	3.9380	1.01352	5	5
C7	I do things efficiently.	387	4.2429	0.68130	2	9
C8	I make plans and follow through with them.	387	4.1266	0.88569	4	6
C9	I am easily distracted.	387	3.1085	1.31102	8	2

Conscientiousness is the third variable under examination. Table 4.7 shows that C3 ('I am a reliable worker') has the high mean score of 4.2636. Additionally, it ranked seventh in terms of consistency, with a standard deviation of 0.78045. Subsequently, C7 ("I do things efficiently") ranked second with a mean of 4.2429, and had the smallest standard deviation of 0.6813. After that, C2 ("I carry out my job thoroughly.") came third with a mean of 4.2351; its standard deviation of 0.71186 ranked eighth. C8 has a mean of 4.1266 with a standard deviation of 0.88569, placing it fourth in terms of mean.

Finally, C1 has a lowest mean of 2.2868 with a standard deviation of 1.14399, occupying fourth place in the consistency ranking.

4.1.2.4 Extraversion

Table 4.9

Central Tendencies Measurement of Extraversion

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
E1	I see myself as someone who is reserved.	387	2.1525	1.00775	8	7
E2	I am talkative.	387	3.2868	1.20358	5	3
E3	I am full of energy.	387	3.5013	1.14578	3	5
E4	I am passionate and	387	3.9638	0.95426	1	8
E5	I tend to be quiet.	387	2.6873	1.30082	6	1
E6	I have an assertive	387	3.7726	1.07731	2	6
E7	I am sometimes shy	387	2.5039	1.25581	7	2
E8	I am outgoing and sociable	387	3.3618	1.15098	4	4

Fourth, the extraversion-related questions are examined. Table 4.7 shows that E4 ("I am passionate and spirited") gets the highest mean of 3.9638. It ranks eighth with regard to consistency nevertheless, with the smallest standard deviation of 0.95426. Next, E6 ("I have an assertive personality") is capable of the second-greatest mean (3.7726), with a standard deviation of 1.07731, ranking sixth in consistency. Additionally, E3 ("I am full of energy") has the third-biggest mean of 3.5013 with a standard deviation of 1.14578, ranking fifth in consistency. Next, E8 ("I am outgoing and sociable") receives the fourth-highest mean of 3.3618 and a standard deviation of 1.15098, ranking fourth in consistency. Finally, E5 ("I tend to be quiet") ranks first in consistency while possessing the mean of 2.6873 and the largest standard deviation of 1.30082.

4.1.2.5 Agreeableness

Table 4.10

Central Tendencies Measurement of Agreeableness

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
A1	I am helpful and unselfish with others.	387	4.0465	0.85649	5	6
A2	I tend to find fault with others.	387	3.6382	1.22723	7	3
A3	I tend to start quarrel with others.	387	3.8682	1.18746	6	4
A4	I have a forgiving nature.	387	4.0698	0.86844	4	5

A5	I am generally trusting.	387	4.1757	0.70169	1	9
A6	I can be cold and isolated.	387	2.9483	1.31449	9	1
A7	I am considerate and kind to almost everyone.	387	4.1757	0.73062	1	8
A8	I am sometimes rude to others.	387	3.5943	1.26256	8	2
A9	I like to cooperate with others.	387	4.1421	0.77054	3	7

Agreeableness is the fifth variable examined. Table 4.7 shows that A5 ("I am generally trusting") as well as A7 ("I am considerate and kind to almost everyone") had the highest mean of 4.1757. About reliability, nevertheless, A5 has the lowest standard deviation (0.70169), placing it ninth, while A7 has the highest standard deviation (0.73062), placing it eighth. Following that, A9 ("I like to cooperate with others") possesses the third-largest mean (4.1421) and ranks seventh with a standard deviation of 0.77054. After that, A4 ("I have a forgiving nature") carries the fourth-highest mean of 4.0698 and ranks fifth having a standard deviation of 0.86844. Thus, A1 ("I am helpful and unselfish with others") is capable of fifth-largest mean of 4.0465 and ranks sixth with a standard deviation of 0.85649. In last place, A6 ("I can be cold and isolated") has the highest standard deviation of 1.31449, ranking first in reliability but having the lowest mean of 2.9483.

4.1.2.6 Neuroticism

Table 4.11

Central Tendencies Measurement of Neuroticism

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
N1	I am relaxed and can handle stress well.	387	3.6176	1.15776	3	6
N2	I am depressed and blue.	387	2.8605	1.24099	5	4
N3	I can be tense.	387	2.5995	1.27238	8	3
N4	I worry a lot.	387	2.8656	1.37804	4	1
N5	I am emotionally stable and not easily upset.	387	3.7545	1.03273	2	7
N6	I can be moody.	387	2.8140	1.37389	6	2
N7	I remain calm in tense situation.	387	4.0749	0.84379	1	8
N8	I get nervous easily.	387	2.6460	1.21998	7	5

Neuroticism is the final variable examined. Table 4.7 shows that N7 ("I remain calm in tense situation") has the highest mean (4.0749). It ranks eighth in consistency, nonetheless, and has the lowest standard deviation (0.84379). Next, N5 ("I am emotionally stable and not easily upset") has the second-largest mean of 3.7545 and ranks seventh with a standard deviation of 1.03273. Next, N1 ("I am relaxed and can handle stress well") has the third-largest mean of 3.6176 and ranks sixth with a standard deviation of 1.15776. N4 ("I worry a lot") is the question with the fourth-greatest mean of 2.8656, and it ranks first in consistency with a standard deviation of 1.37804. Finally, N3 ("I can be tense") ranks third in consistency with a standard deviation of 1.27238, while possessing the lowest mean of 2.5995.

4.2 Scale Measurement

4.2.1 Reliability Test

Table 4.12

Cronbach's Alpha Reliability Analysis

No.	Type of the Variable	Name of the Variable	Number of Items	Cronbach's Alpha	Reliability Test
1	Dependent Variable	Leadership Tendencies	18	0.705	Good
2	Independent Variable	Openness to experience	10	0.751	Good
3	Independent Variable	Conscientiousness	9	0.649	Fair
4	Independent Variable	Extraversion	8	0.704	Good
5	Independent Variable	Agreeableness	9	0.633	Fair
6	Independent Variable	Neuroticism	8	0.775	Good

Table 4.12 presents the Cronbach's alpha coefficients for all variables. The table indicates the dependent variable 'leadership tendencies' (0.705) demonstrates good reliability, with its Cronbach's alpha coefficient above 0.70. As the Cronbach's alpha coefficients of all variables are above 0.70, the independent variables neuroticism (0.775), extraversion (0.704) and openness (0.751) also exhibited good reliability. On the other hand, the values for Conscientiousness (0.649) and Agreeableness (0.633) range between 0.60 and 0.70, suggesting acceptable reliability. In short, over most variables, Cronbach's alpha coefficients exceeded 0.60, with several surpassing 0.70, signifying reliability at an acceptable to good level. Consequently, all variables are deemed to be reliable and are retained for the research.

4.3 Preliminary Data Screening

Before undertaking inferential analysis, preliminary data screening is required to ascertain the accuracy and credibility of research findings. This stage facilitates the detection of potential problems in the data that may impact further analysis. In this research, two types of preliminary data screening were performed, namely multicollinearity tests and normality tests.

4.3.1 Multicollinearity Test

When conducting the use of multiple linear regression analysis, multicollinearity—which happens whenever several independent variables have a strong correlation with one another—is an issue. This problem could skew the regression model's findings. Multicollinearity may cause the standard errors for the coefficients to be inflated or deflated, which might result in erroneous judgements about their significance. In certain instances, it might also result in a shift in the connection's direction, making a positive coefficient negative and vice versa. For the analysis to be accurate and reliable, multicollinearity must be identified and addressed (Tsagris and Pandis, 2021).

Table 4.13

Tolerance Value and Variance Inflation Factor (VIF)

	Collinearity statistics	
Independent variables	VIF	Tolerance
Openness to experience	1.270	0.787
Conscientiousness	1.313	0.761
Extraversion	1.486	0.673
Agreeableness	1.438	0.696
Neuroticism	1.311	0.763

Table 4.13 demonstrates that all independent variables have VIF values less than 10 and tolerance values greater than 0.1. These findings show that the independent variables do not exhibit multicollinearity.

4.3.2 Normality Test

To determine that the data have a normal distribution, a normality test is performed after the multicollinearity test. Three techniques are used in this study to assess the data's normality, namely skewness and kurtosis values, a histogram, and a normal Q-Q plot. These techniques aid in ensuring that the data satisfies the presumptions needed for additional statistical analysis.

Table 4.14

Normality Test Result

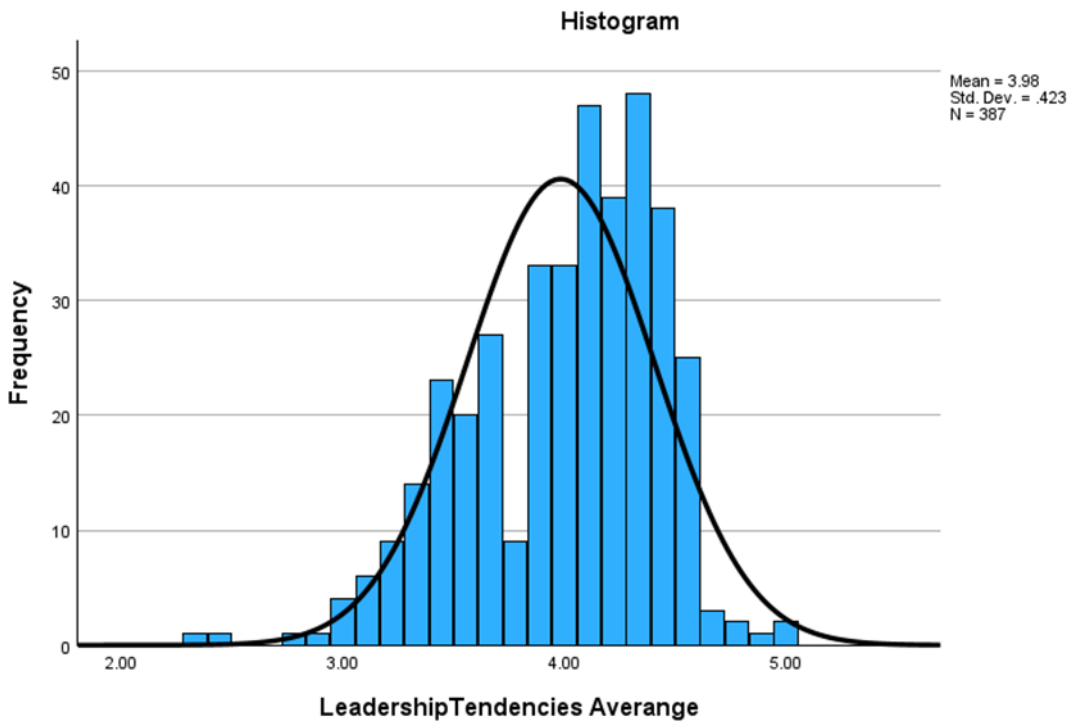
Variables	Skewness	Kurtosis
Dependent Variable: Leadership Tendencies	(0.675)	0.426
Independent Variable 1: Openness to experience	(1.016)	1.119
Independent Variable 2: Conscientiousness	(0.579)	0.971
Independent Variable 3: Extraversion	(0.785)	0.019
Independent Variable 4: Agreeableness	(0.114)	(0.720)
Independent Variable 5: Neuroticism	(0.044)	(0.710)

Normality may be further examined through two additional graphical indicators—skewness and kurtosis. According to the study by Demir et al. (2016), alternative approaches are also utilised when assessing the normality of datasets. Within these,

graphical techniques remain feasible: histograms, box plots, or probability-probability (P-P) plots (Hatem et al., 2022). Table 4.14 shows that all kurtosis coefficients range from −0.720 to 1.119 and all skewness coefficients range from −1.016 to −0.044; these values are all within the permitted ranges of −7 to +7 for kurtosis and −2 to +2 for skewness. As a result, all of the variables' data are thought to have a normal distribution.

Figure 4.6

Histogram

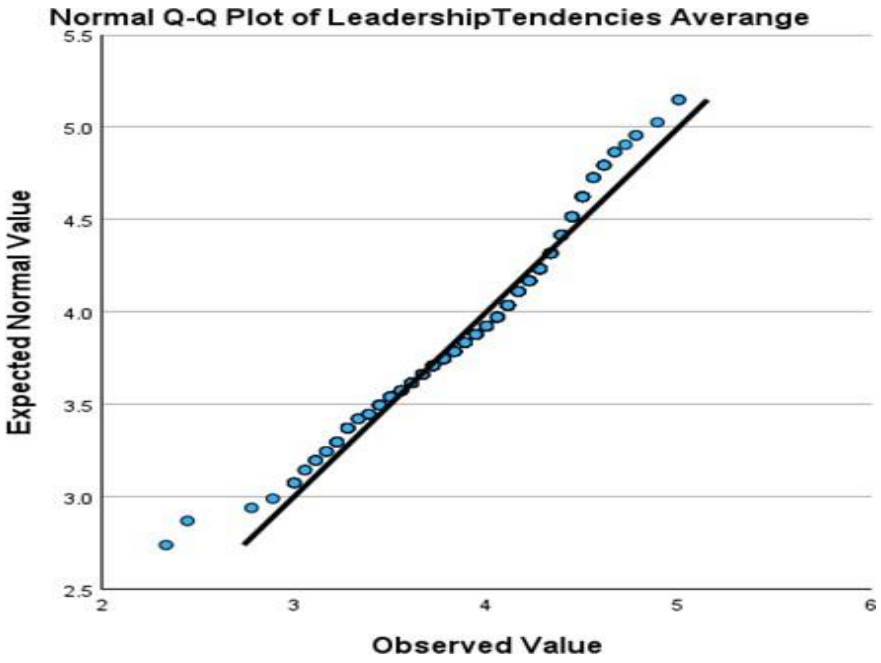


Based on the Bluman (2018), a histogram is the primary graphical tool used to visualise frequency patterns and determine if the shape of a continuous data set approximates a bell-shaped normal curve If the graph exhibits a distribution that closely resembles a normal distribution, it is distributed normally (Mohamad, 2024). A histogram produced from information regarding the dependent variable (i.e., leadership tendencies) appears in Figure 4.6. A curve with a normal distribution is superimposed on the histogram, which displays the information's distribution. It is evident that the distribution typically

resembles the normal curve. The middle section range has a higher number of data points, which progressively declines to either end. This shows that the information forms a bell-shaped curve and is widely equally distributed. As a result, the data is thought to have a typical distribution.

Figure 4.7

Normal Q-Q plot



A popular graphical method for determining if data have a normal distribution represents the Q-Q (quantile-quantile) plot. The values of the sample data (or residuals) and the assumed quantiles of a typical distribution are contrasted in this graphic. The results are said to have a normal distribution if the points on the chart approximately match a straight reference line (Cioli et al., 2024). Curves or S-shaped patterns that deviate from the straight reference line suggest that the data may not be distributed normally. As illustrated in Figure 4.7, all the data points are situated near the principal diagonal, thus forming an almost straight line. It can be inferred, therefore, that these data are distributed normally.

4.4 Inferential Analysis

4.4.1 Multiple Regression Analysis

Table 4.15

Multiple Regression Analysis

	Unstandardized Coefficient Beta	Coefficient Std. Error	Standardized Coefficient Beta	t-statistics	P-value
(Constant)	2.305	0.187		12.344	< .001
OPN	0.244	0.033	0.357	7.467	< .001
C	0.116	0.041	0.149	2.856	.005
E	0.145	0.043	0.176	3.330	< .001
A	0.145	0.034	0.223	4.306	< .001
N	0.055	0.028	0.098	2.005	0.046
R-squared					0.315
Adjusted R-squared					0.306
F-test					35.098
P-value					< 0.001

This research looks on the connection among the dependent variable, leadership tendencies, with the five variables that are independent, openness to experience (OPN), conscientiousness (C), extraversion (E), agreeableness (A), and neuroticism (N). Openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism are all meaningful for t-statistics of 7.467, -2.856, 3.330, 4.306, and 2.005, accordingly, as shown in Table 4.15, because the significance levels of each of these t-statistics are less than 0.05.

Openness to experience (OPN), the first independent variable, has significance at a 99% confidence level. That's since the significance level of 0.01 is exceeded by its p-value,

which is less than 0.001. The finding supports the research's hypothesis that respondents' inclinations toward leadership are strongly correlated with their receptivity to experiences. Additionally, the unstandardised regression coefficient is positive at 0.244, meaning that, in principle, participants' leadership tendencies rise by 0.244 units for every unit raised in openness to experience.

Additionally, the independent variable conscientiousness (C) was found to be statistically significant at the 95% confidence level, as its p-value of 0.005 is below the threshold of 0.05. This indicates that conscientiousness has a significant relationship with leadership inclination among the respondents. The unstandardised regression coefficient for conscientiousness is positive ($\beta = 0.116$), suggesting that a one-unit increase in conscientiousness leads to an increase of 0.116 units in leadership inclination, ceteris paribus.

Moreover, extraversion (E), the third independent variable, is significant at the 99% confidence level. This is due to the fact that its p-value is less than 0.001, under the significance level of 0.01. This finding supports the study's hypothesis of extraversion and leadership traits are significantly correlated. The unstandardised regression coefficient is positive at 0.145. Thus, while the additional variables remain unchanged, the respondent's inclination for leadership likely to rise by 0.145 units with each unit rise in extraversion.

The fourth independent variable, agreeableness (A), has significance at a 99% confidence level. This happens since the significance level of 0.01 is exceeded by its p-value, which is less than 0.001. This demonstrates that respondents' inclinations toward leadership are significantly influenced by agreeableness. Additionally, at 0.145, the unstandardised regression coefficient displays a favourable outcome. This shows that, ceteris paribus, respondents' leadership tendencies rise by 0.145 units for every unit rise in agreeableness.

Furthermore, neuroticism (N), the final independent variable chosen for this investigation, has significance at a 95% confidence level. That's since the significance level of 0.05 is exceeded by its p-value of 0.046. They assert that across those surveyed, neuroticism considerably influences leadership tendencies. Additionally, at 0.055, the unstandardised regression coefficient is positive. This demonstrates that, when all other factors are held equal, a rise of a single unit in neuroticism results in a 0.055 unit rise in leadership tendencies among the respondents.

A statistic used to know as the coefficient of dependence (R2 value) shows how much of the variance in the dependent variable can be accounted for by the independent variable or variables. Models of regression frequently make use of it. The range of R2 is 0.00 (0%) to 1.00 (100%), where 1.00 denotes an excellent match and 0.00 implies that the model explains none of the result variance (Gupta et al., 2024). The total variance of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism contributes to 31.5% of the variation in leadership inclinations among those surveyed, according to the finding of 0.315 R2. Other pertinent characteristics account for the remainder 68.5% of the diversity in leadership tendencies among the respondents. After taking the degree of freedom considered, the adjusted R-squared is 0.306, indicating that the combined variation of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism accounts for 30.6% of the variation in leadership tendencies between the people who participated.

Lastly, on the 99% confidence level, the regression model was of statistical significance. That's due to the F-test's p-value being below 0.001, meaning it falls below the significance level of 0.01. The F statistic of 35.098 is therefore noteworthy. As a result, this model clearly shows how the five independent variables—conscientiousness, extraversion, agreeableness, neuroticism, and openness to experiences—are connected to the dependent variable, namely is the respondents' propensity for leadership.

4.5 Conclusion

The application SPSS was used to analyze the data, proving helpful for evaluating and condensing the information gathered from the respondents. The analysis confirmed that the questionnaire's scales are trustworthy and that there are no issues with multicollinearity or non-normality. According to the multiple regression analysis, all five independent variables (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) are substantially correlated with the respondents' propensity for leadership.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 Introduction

The findings from the research are discussed in this chapter, emphasizing how private university students' leadership inclinations in group projects are influenced by their personality features. This chapter, which builds on the investigation of the Big Five personality dimensions (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism), interprets the findings considering previous research, highlights beneficial implications for developing students' leadership abilities, and offers suggestions for additional study.

5.1 Summary of Statistical Analysis

Table 5.1

Summary of the Statistical Findings

Independent Variables	T-statistics	P-value	Results
Openness to experience	7.467	< .001	Significant
Conscientiousness	(2.856)	.005	Significant
Extraversion	3.330	< .001	Significant
Agreeableness	4.306	< .001	Significant
Neuroticism	2.005	0.046	Significant

Table 5.1 shows that among private university students working on group projects, openness to new experiences, conscientiousness, extraversion, agreeableness, and neuroticism are significantly correlated with leadership tendencies. As a result, when it comes to group projects, all the independent variables are highly predictive of leadership tendencies among students at private universities.

5.2 Discussion on Major Findings

The key findings outlined in Section 5.1 are covered in further detail in this section. The findings are evaluated by looking at how each personality trait—Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism—affects students at private universities' tendency for leadership in group projects.

5.2.1 Key Determinants of Leadership Tendencies in Group Projects

Based on the multiple regression analysis, all five independent variables showed a significant impact on the dependent variable. These results are thoroughly analyzed below, supported by existing academic literature:

5.2.1.1 Extraversion and Leadership Tendencies

The research results strongly confirmed a highly significant positive relationship between extraversion and leadership tendencies. This represents the most intuitive and widely corroborated finding among all the personality variables tested in this model. Extraverted students are fundamentally characterized by their talkativeness, high energy levels, sociability, and assertiveness. During the critical initial stages of a group project, such as "leaderless group discussions" or the primary role-allocation phase, extraverted individuals typically exhibit lower communication apprehension. They are usually the first to initiate conversation, actively volunteer for presentation tasks, and proactively establish communication channels with lecturers or tutors (Spark et al., 2018). This phenomenon closely aligns with the "babble hypothesis" of leadership, which suggests that the sheer volume and confidence of participation are often initially conflated with leadership competence (MacLaren et al., 2020). Therefore, their excellent interpersonal skills, visible enthusiasm, and decisive manner of expressing opinions serve as the primary catalysts for establishing their dominant, leading position within academic groups.

5.2.1.2 Agreeableness and Leadership Tendencies

The statistical data strongly indicates that agreeableness has a significant positive impact on leadership tendencies. Students who score high in agreeableness typically demonstrate high levels of empathy, interpersonal warmth, cooperativeness, and a strong tendency towards altruistic behavior. In contemporary educational environments that increasingly prioritize democratic teamwork and emotional intelligence, authoritarian or domineering leadership styles are frequently rejected by university peers. Instead, highly agreeable individuals excel at maintaining team harmony by cultivating a climate of "psychological safety" where all members feel comfortable sharing their ideas without fear of judgment (Edmondson, 2018). These students act as natural facilitators; they are adept at mediating internal group conflicts, actively listening to the perspectives of marginalized or quieter team members, and ensuring that academic workloads are distributed fairly (O'Neill & McLarnon, 2018). This collaborative approach, which is deeply rooted in the principles of servant leadership, makes it significantly easier for agreeable students to organically earn the trust, respect, and willing followership of their academic peers.

5.2.1.3 Conscientiousness and Leadership Tendencies

The research results revealed a significant positive relationship between conscientiousness and leadership tendencies. This finding aligns perfectly with traditional organizational behavior research, which consistently identifies conscientiousness as a robust and reliable predictor of effective leadership. Highly conscientious students are fundamentally characterized by their strong sense of duty, exceptional organizational skills, and unwavering goal-oriented focus. In the inherently unstructured environment of university group projects, where procrastination and missed deadlines are common challenges, these individuals naturally step into critical project management roles. They frequently take the initiative to establish clear timelines, create structured outlines, and monitor the group's overall academic progress (Aydogmus et al., 2018). Furthermore, their strict commitment to academic excellence and high-quality output serves as a powerful role model for their peers. Because they are highly dependable and consistently deliver on their promises, group members organically develop a deep sense of trust in their capabilities. Consequently, rather than

being viewed merely as solitary executors, highly conscientious students are readily recognized and accepted by their teammates as reliable, structured leaders who provide the necessary stability and strategic direction required for collective academic success (Hassan & Hashim, 2024; Zaccaro et al., 2018).

5.2.1.4 Neuroticism and Leadership Tendencies (Unexpected Positive Relationship)

Regarding Hypothesis H4, which originally proposed a negative relationship between neuroticism and leadership tendencies, the data analysis yielded a completely unexpected but theoretically profound result. The inferential statistics revealed a significant positive relationship between neuroticism and leadership tendencies, leading to the rejection of Hypothesis H4. While traditional leadership trait theories generally argue that high anxiety and emotional instability hinder leadership emergence, this study uncovered a unique, context-specific driving mechanism operating within the high-stakes environment of university academic projects. Primarily, this phenomenon can be explained through the lens of "Defensive Pessimism," a cognitive strategy thoroughly examined in modern academic settings by Kljajic and Gaudreau (2018) and pioneered by Norem and Cantor (1986). Highly anxious individuals frequently utilize their fear of negative outcomes, such as failing the assignment or receiving a poor GPA due to incompetent groupmates, as a powerful motivational force. To alleviate their intense internal anxiety and reduce academic uncertainty, highly neurotic students are often compelled to step out of their comfort zones and take executive control of the project. They enforce strict timelines, repeatedly check the group's progress, and demand high standards. Thus, the leadership behaviors they exhibit do not stem from an inherent desire for social dominance or power, but rather from a defensive necessity to prevent collective failure (Smillie et al., 2006). Furthermore, as the project deadline approaches, the relentless effort and meticulous attention to detail displayed by these anxious individuals often lead to a gradual enhancement of their status within the group. Their peers begin to heavily rely on their vigilance, ultimately perceiving and accepting them as indispensable, "crisis-management" style leaders who ensure the project's successful completion (Bendersky & Shah, 2013).

5.2.1.5 Openness to Experience and Leadership Tendencies

The analytical results indicate a significant positive relationship between openness to experience and leadership tendencies. This finding robustly supports the notion that in

group projects, students possessing high levels of openness are significantly more likely to exhibit emergent leadership behaviors. This outcome aligns seamlessly with the current literature presented by Aydogmus et al. (2018), which established openness as a critical driver of visionary and authentic leadership. Individuals characterized by high openness typically possess rich imaginations, a strong sense of intellectual curiosity, and a high tolerance for ambiguity and new ideas. In the context of complex university academic projects, student teams frequently face unstructured problems, vague grading rubrics, or a sudden need for innovative solutions. Under these circumstances, students with high openness are able to think outside conventional academic boundaries and propose creative, forward-thinking strategies. Consequently, their ability to navigate uncertainty and provide clear intellectual direction allows them to naturally stand out and be implicitly nominated as "emergent leaders" by their peers (Hassan & Hashim, 2024).

5.3 Implications of the Study

5.3.1 Implications for Educational Administrators and Lecturers

The empirical findings of this study offer crucial practical implications for higher education institutions, particularly regarding the optimization of collaborative learning frameworks and the strategic development of student leadership programs. Primarily, university lecturers and academic coordinators must recognize the profound, and sometimes counterintuitive, impact that inherent personality traits have on group dynamics, and subsequently redesign their team assessment mechanisms (Rana & Sharma, 2023). Given the finding that high conscientiousness positively predicts leadership emergence, lecturers should explicitly nurture these diligent students. However, highly conscientious leaders may be prone to overworking themselves and taking on too much workload instead of delegating. Therefore, lecturers should incorporate specific grading rubrics that explicitly evaluate "team coordination," "peer mentoring," and "equitable task delegation". This pedagogical shift would actively encourage task-obsessed students to develop holistic leadership and delegation capabilities rather than merely acting as solo executors (Adachi et al., 2018; Wanner & Palmer, 2018). This pedagogical shift would actively encourage highly conscientious,

task-obsessed students to step into managerial roles, thereby developing their holistic leadership capabilities rather than merely their executional skills.

In addition to academic restructuring, university student affairs departments and counseling centers can heavily utilize these findings to tailor extracurricular leadership training. For students demonstrating natural leadership potential driven by high extraversion and openness, universities should offer advanced workshops focusing on strategic vision, emotional intelligence, and inclusive communication to refine their raw talents (Hassan & Hashim, 2024). More importantly, the institution must address the unique needs of the "anxiety-driven" leaders identified in this study. For students who assume leadership roles out of a neurotic fear of academic failure, counseling centers should proactively offer specialized interventions focusing on academic stress management, healthy boundary setting, and emotional regulation (Fodor et al., 2021; Kljajic & Gaudreau, 2018). By teaching these highly anxious students how to transform their fear of failure into sustainable, forward-looking project management skills, universities can help them avoid burnout and cultivate a much healthier, long-term approach to professional leadership (Kaplan et al., 2021).

5.4 Limitations of the Study

While this research provides valuable theoretical and practical contributions to the understanding of student leadership, it is essential to acknowledge several methodological and conceptual limitations that may restrict the broad applicability of the findings. The primary limitation concerns the homogeneity of the research sample. The respondents in this study consisted exclusively of students enrolled at several specific private universities in Malaysia. Because institutional cultures, academic rigor, student demographics, and collaborative expectations can vary drastically between different educational establishments, particularly between public and private universities, the behavioral dynamics observed in this specific cohort may not be universally representative (Hassan & Hashim, 2024). Consequently, generalizing these findings to the entire population of Malaysian higher education students should be approached with caution, as regional and institutional differences can significantly influence personality-leadership interactions (Rana & Sharma, 2023).

A second significant limitation is the study's complete reliance on self-reported survey questionnaires, which introduces the inevitable risk of common method variance and specific psychological biases. When respondents are asked to evaluate their own personality traits and leadership tendencies, they are highly susceptible to "social desirability bias." This psychological phenomenon occurs when participants consciously or subconsciously alter their responses to project a favorable image, leading them to overstate their positive traits, such as agreeableness or extraversion, while downplaying less desirable traits like neuroticism (Spector, 2019). This inherent subjectivity can result in a degree of statistical inflation, potentially skewing the absolute accuracy of the self-assessed leadership behaviors.

Lastly, the study was conducted using a cross-sectional research design, meaning that all data was collected at a single point in time. While this approach is effective for identifying correlations between variables, it fundamentally limits the ability to establish definitive causal relationships (Spector, 2019). Furthermore, the conceptual framework focused solely on direct relationships, failing to account for potential moderating or mediating variables, such as the specific difficulty of the assigned project, the students' prior familiarity with their groupmates, or their academic disciplines, which could significantly alter the strength or direction of the observed relationships (Varela & Mead, 2018).

5.5 Recommendations for Future Research

To address the aforementioned limitations and continually advance the literature in the fields of educational psychology and organizational behavior, several strategic recommendations are proposed for future researchers. To mitigate the biases inherent in self-reported data, future studies should strongly consider adopting multi-source feedback mechanisms. Instead of relying solely on the students' self-perceptions, researchers could implement a 360-degree assessment model that incorporates peer-evaluations, where group members rate each other's leadership behaviors, and observational assessments from lecturers or tutors. This triangulated approach to data collection would significantly reduce social desirability bias, providing a much more objective, reliable, and comprehensive measurement of actual emergent leadership in academic settings (Adachi et al., 2018).

Furthermore, future research endeavors should aim to expand the demographic scope and implement longitudinal methodologies. Scholars are encouraged to recruit participants from a diverse array of both public and private universities across different geographic regions of Malaysia, which would vastly improve the generalizability of the results (Hassan & Hashim, 2024). Additionally, conducting a longitudinal study, tracking a specific cohort of students from their freshman year through their senior year, would allow researchers to observe how prolonged academic pressures and increasing maturity interact with foundational personality traits to shape leadership development over time. Such a design is critical for establishing causality and understanding the developmental trajectory of leadership (Spector, 2019).

Finally, researchers should strive to expand the current conceptual framework by introducing mediating and moderating variables. For instance, future models could investigate whether soft skills, such as emotional intelligence or interpersonal communication competence, serve as mediating bridges between raw personality traits and effective leadership (Rana & Sharma, 2023). Additionally, examining situational moderators, such as task urgency or grading weight, could provide fascinating insights into exactly when and why anxiety-driven leadership behaviors are most likely to emerge in academic environments (Kaplan et al., 2021).

5.6 Conclusion

In conclusion, this research successfully fulfilled its primary academic objective by systematically examining the multifaceted impact of the Big Five personality traits on the leadership tendencies of private university students engaged in academic group projects. Through rigorous quantitative data collection and subsequent multiple regression analysis utilizing SPSS, the study yielded highly significant findings. It empirically confirmed that all five traits, openness to experience, conscientiousness, extraversion, agreeableness, and, most unexpectedly, neuroticism act as significant positive predictors of leadership tendencies in this specific academic context. This indicates that diligence, strong organizational skills, and a high sense of responsibility (conscientiousness) are integral drivers of leadership emergence in student teams. These findings are particularly valuable as they challenge and expand upon traditional organizational leadership theories, proving that the psychological drivers of leadership in short-term, high-pressure, and grade-dependent university settings possess unique

dynamics compared to the corporate workplace. Ultimately, this study provides robust empirical evidence that equips higher education administrators, lecturers, and counsellors with the necessary insights to optimize collaborative course designs, refine peer assessment rubrics, and implement targeted psychological support programs, thereby fostering a more effective and empathetic generation of future leaders.

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APPENDIX 1: SURVEY QUESTION

Section A: Demographic Profile

1. **Gender**
   - Male
   - Female

2. **Age**
   - 18–20
   - 21–23
   - 24–26
   - Above 26

3. **Year of Study**
   - Year 1
   - Year 2
   - Year 3
   - Year 4
   - Others: _____

4. **Field of Study / Faculty**
   - Business / Management
   - Engineering / Technology
   - Arts / Humanities
   - Science / Health
   - Others: _____

5. **Have you ever held a leadership role in group projects or student activities?**
   - Yes
   - No

6. **Which university are you currently studying at?**

- Taylor's University
- Sunway University
- Asia Pacific University (APU)
- HELP University

- UCSI University

Following is several statements about how you feel about your immediate superior. Using the response scale below, indicate your level of agreement or disagreement for each statement by circling the appropriate number.

Sample:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	(5)

Section B: Leadership tendencies

No.	Questions	SD	D	N	A	SA
1.	I go beyond self-interest for the good of the group.	**1**	**2**	**3**	**4**	**5**
2.	The best decision will be the one with the largest consensus.	**1**	**2**	**3**	**4**	**5**
3.	I make decisions without consulting others due to time pressures upon the task at hand	**1**	**2**	**3**	**4**	**5**
4.	I make clear what one can expect to receive when performance goals are achieved	**1**	**2**	**3**	**4**	**5**
5.	I avoid making decisions	**1**	**2**	**3**	**4**	**5**
6.	I tend to overcome barriers to reach goals.	**1**	**2**	**3**	**4**	**5**
7.	I consider the moral and ethical consequences of my decisions	**1**	**2**	**3**	**4**	**5**
8.	I welcome others to constantly challenge my ideas and strategies.	**1**	**2**	**3**	**4**	**5**

9.	I rarely back down when I am truly passionate about something.	**1**	**2**	**3**	**4**	**5**
10.	I provide recognition/rewards when others reach their goals.	**1**	**2**	**3**	**4**	**5**
11.	Whatever others want to do is ok with me	**1**	**2**	**3**	**4**	**5**
12.	I'm good at finding practical solutions to problems.	**1**	**2**	**3**	**4**	**5**
13.	I help others to develop their strengths.	**1**	**2**	**3**	**4**	**5**
14.	I try to delegate as many tasks as possible in their complete entirety	**1**	**2**	**3**	**4**	**5**
15.	I need to push half of the people into completing work to a higher standard.	**1**	**2**	**3**	**4**	**5**
16.	I keep track of all mistakes.	**1**	**2**	**3**	**4**	**5**
17.	I ask no more of others than what is absolutely essential.	**1**	**2**	**3**	**4**	**5**
18.	I have a clear focus on what we need to do as a group	**1**	**2**	**3**	**4**	**5**

Section C :Personality trait (Independent variable)

Extraversion

No.	**Questions**	**SD**	**D**	**N**	**A**	**SA**
1.	I see myself as someone who is reserved.	**1**	**2**	**3**	**4**	**5**
2.	I am talkative.	**1**	**2**	**3**	**4**	**5**
3.	I am full of energy.	**1**	**2**	**3**	**4**	**5**
4.	I am passionate and spirited.	**1**	**2**	**3**	**4**	**5**

5.	I tend to be quiet.	**1**	**2**	**3**	**4**	**5**
6.	I have an assertive personality.	**1**	**2**	**3**	**4**	**5**
7.	I am sometimes shy and inhibited.	**1**	**2**	**3**	**4**	**5**
8.	I am outgoing and sociable.	**1**	**2**	**3**	**4**	**5**

Agreeableness

No.	Questions	SD	D	N	A	SA
1.	I am helpful and unselfish with others.	**1**	**2**	**3**	**4**	**5**
2.	I tend to find fault with others.	**1**	**2**	**3**	**4**	**5**
3.	I tend to start quarrel with others.	**1**	**2**	**3**	**4**	**5**
4.	I have a forgiving nature.	**1**	**2**	**3**	**4**	**5**
5.	I am generally trusting.	**1**	**2**	**3**	**4**	**5**
6.	I can be cold and isolated.	**1**	**2**	**3**	**4**	**5**
7.	I am considerate and kind to almost everyone.	**1**	**2**	**3**	**4**	**5**
8.	I am sometimes rude to others.	**1**	**2**	**3**	**4**	**5**
9.	I like to cooperate with others.	**1**	**2**	**3**	**4**	**5**

Conscientiousness

No.	Questions	SD	D	N	A	SA
1.	I can be somewhat careless.	**1**	**2**	**3**	**4**	**5**

2.	I carry out my job thoroughly.	**1**	**2**	**3**	**4**	**5**
3.	I am a reliable worker.	**1**	**2**	**3**	**4**	**5**
4.	I tend to be disorganized.	**1**	**2**	**3**	**4**	**5**
5.	I tend to be lazy.	**1**	**2**	**3**	**4**	**5**
6.	I persevere until the task is finished.	**1**	**2**	**3**	**4**	**5**
7.	I do things efficiently.	**1**	**2**	**3**	**4**	**5**
8.	I make plans and follow through with them.	**1**	**2**	**3**	**4**	**5**
9.	I am easily distracted.	**1**	**2**	**3**	**4**	**5**

Following are number of statements that best reflect about you. Using the response scale below, indicate your level of agreement or disagreement with each statement by selecting the appropriate number.

Neuroticism

No.	**Questions**	**SD**	**D**	**N**	**A**	**SA**
1.	I am relaxed and can handle stress well.	**1**	**2**	**3**	**4**	**5**
2.	I am depressed and blue.	**1**	**2**	**3**	**4**	**5**
3.	I can be tense.	**1**	**2**	**3**	**4**	**5**
4.	I worry a lot.	**1**	**2**	**3**	**4**	**5**
5.	I am emotionally stable and not easily upset.	**1**	**2**	**3**	**4**	**5**
6.	I can be moody.	**1**	**2**	**3**	**4**	**5**
7.	I remain calm in tense situation.	**1**	**2**	**3**	**4**	**5**

8.	I get nervous easily.	**1**	**2**	**3**	**4**	**5**

Openness to experience

No.	Questions	SD	D	N	A	SA
1.	I am curious about many things.	**1**	**2**	**3**	**4**	**5**
2.	I always come up with new ideas.	**1**	**2**	**3**	**4**	**5**
3.	I am creative and a deep thinker.	**1**	**2**	**3**	**4**	**5**
4.	I have an active imagination.	**1**	**2**	**3**	**4**	**5**
5.	I am inventive.	**1**	**2**	**3**	**4**	**5**
6.	I value artistic experiences.	**1**	**2**	**3**	**4**	**5**
7.	I prefer work that is routine.	**1**	**2**	**3**	**4**	**5**
8.	I like to reflect and play with ideas.	**1**	**2**	**3**	**4**	**5**
9.	I have few artistic interests.	**1**	**2**	**3**	**4**	**5**
1.	I am advanced in art, music or literature.	**1**	**2**	**3**	**4**	**5**

APPENDIX 2: Krejcie and Morgan table

Required Sample Size†

Population Size	Confidence = 95% Margin of Error				Confidence = 99% Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

APPENDIX 3: Statistic of Ministry of Higher Education

Bil. No	Negeri IPTS State of Private HEIs	Taraf IPTS Status of Private HEIs	Tahun Year	Kemasukan / Intake			Enrolmen / Enrolment			Keluaran / Output		
				L / M	P / F	J / T	L / M	P / F	J / T	L / M	P / F	J / T
12	Selangor	**IPTS Bertaraf Universiti** *Private HEIs With University Status*	**2024**	**27,750**	**35,034**	**62,784**	**99,652**	**128,473**	**228,125**	**11,830**	**13,974**	**25,804**
			2023	21,912	27,450	49,362	82,611	103,511	186,122	12,793	14,367	27,160
		IPTS Bertaraf Universiti (Cawangan Luar Negara) *Private HEIs With University Status (Branch Campus Of Foreign University)*	**2024**	**4,859**	**5,141**	**10,000**	**10,894**	**11,080**	**21,974**	**2,833**	**3,414**	**6,247**
			2023	3,738	4,216	7,954	9,362	9,707	19,069	3,048	3,485	6,533
		IPTS Bertaraf Kolej Universiti *Private HEIs With University College Status*	**2024**	**2,521**	**2,089**	**4,610**	**8,106**	**7,303**	**15,409**	**993**	**1,279**	**2,272**
			2023	2,112	1,821	3,933	5,634	5,384	11,018	840	1,043	1,883
		IPTS Bertaraf Kolej *Private HEIs With College Status*	**2024**	**13,515**	**13,530**	**27,045**	**29,198**	**28,930**	**58,128**	**8,111**	**7,608**	**15,719**
			2023	12,444	9,031	21,475	27,317	25,956	53,273	6,872	7,915	14,787
		Jumlah *Total*	**2024**	**48,645**	**55,794**	**104,439**	**147,850**	**175,786**	**323,636**	**23,767**	**26,275**	**50,042**
			2023	40,206	42,518	82,724	124,924	144,558	269,482	23,553	26,810	50,363

Appendix 4: Reliability Test Analysis Results

Leadership Tendencies

Reliability

Scale: leadership tendencies

Case Processing Summary

		N	%
Cases	Valid	387	99.5
	Excluded[a]	2	.5
	Total	389	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.705	.709	18

Openness to Experience

Reliability

Scale: Openess to experience

Case Processing Summary

		N	%
Cases	Valid	387	99.5
	Excluded[a]	2	.5
	Total	389	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.751	.750	10

Conscientiousness

Reliability

Scale: Conscientiousness

Case Processing Summary

		N	%
Cases	Valid	387	99.5
	Excluded[a]	2	.5
	Total	389	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.649	.655	9

Extraversion

Reliability

Scale: Extraversion

Case Processing Summary

		N	%
Cases	Valid	387	99.5
	Excluded[a]	2	.5
	Total	389	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.704	.690	8

Agreeableness

Reliability

Scale: Agreebleness

Case Processing Summary

		N	%
Cases	Valid	387	99.5
	Excluded[a]	2	.5
	Total	389	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.633	.651	9

Neuroticism

Reliability

Scale: Neuroticism

Case Processing Summary

		N	%
Cases	Valid	387	99.5
	Excluded[a]	2	.5
	Total	389	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.775	.749	8

Appendix 5: Multiple Linear Regression Analysis Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.550[a]	.302	.293	.35567	1.845

a. Predictors: (Constant), Neuroticism Averange, Conscientiousness average, Openess average, Agreeableness Averange, Extraversion Averange

b. Dependent Variable: LeadershipTendencies Averange

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.776	5	4.355	35.098	<.001[b]
	Residual	47.277	381	.124		
	Total	69.053	386			

a. Dependent Variable: LeadershipTendencies Averange

b. Predictors: (Constant), Neuroticism Averange, Openess average, Conscientiousness average, Extraversion Averange, Agreeableness Averange

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.305	.187		12.344	<.001
	Openess average	.244	.033	.357	7.467	<.001
	Conscientiousness average	.116	.041	.149	2.856	.005
	Agreeableness Averange	.145	.043	.176	3.330	<.001
	Extraversion Averange	.145	.034	.223	4.306	<.001
	Neuroticism Averange	.055	.028	.098	2.005	.046

a. Dependent Variable: LeadershipTendencies Averange

Collinearity Statistics	
Tolerance	VIF
.787	1.270
.761	1.313
.673	1.486
.696	1.438
.763	1.311

Appendix 6: Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
LeadershipTendencies Averange	387	2.33	5.00	3.9826	.42296	-.675	.124	.426	.247
Openess average	387	1.40	5.00	3.7527	.61918	-1.016	.124	1.119	.247
Conscientiousness average	387	1.00	5.00	3.5087	.65508	-.579	.124	.971	.247
Extraversion Averange	387	1.00	4.50	3.1537	.65165	-.785	.124	.019	.247
Agreeableness Averange	387	2.44	5.00	3.8510	.51383	-.114	.124	-.720	.247
Neuroticism Averange	387	1.13	5.00	3.1541	.74841	-.044	.124	-.710	.247
Valid N (listwise)	387								