GROUP 11

A STUDY ON FACTORS INFLUENCING MALAYSIAN UNIVERSITY STUDENTS' INTENTION TO UTILISE CHATGPT

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DECLARATION

We hereby declare that:

(1) This undergraduate FYP is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the FYP.

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DEDICATION

This dissertation is dedicated to

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For guiding us throughout the completion of this research project

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For providing us the opportunity to conduct this research project.

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List of Abbreviations

AI	Artificial Intelligence
AT	Attitude Towards Using
BI	Behavioral Intention to Use
DV	Dependent Variable
IV	Independent Variable
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
SPSS	Software Package for Social Sciences
TAM	Technology Acceptance Model

Preface

Every student pursuing a Bachelor of Business Administration (Hons) degree at Universiti Tunku Abdul Rahman (UTAR) is required to undertake and successfully fulfill this final year project as a prerequisite for graduation. The research project is titled "A Study on Factors Influencing Malaysian University Students' Intention to Utilize ChatGPT." The inspiration behind this study stems from the growing prevalence of artificial intelligence (AI) tools in academic settings, particularly AI-driven technologies like ChatGPT, which are transforming learning environments.

This research will investigate key factors, such as perceived ease of use, perceived usefulness, and attitude towards using, which could potentially impact university students' intention to adopt ChatGPT in Malaysia. As AI becomes increasingly embedded in educational systems, understanding how students perceive these tools is critical for the development of policies and practices that foster effective AI integration. The findings from this study are expected to contribute valuable insights for educators, policymakers, and students alike. By understanding the variables that influence the adoption of ChatGPT, we hope to shed light on the future of AI in education and offer recommendations for its optimal utilization.

ABSTRACT

The aim of this research is to explore the relationship between factors influencing ChatGPT adoption and the Technology Acceptance Model (TAM) involving key variables such as perceived ease of use, perceived usefulness, and attitude, toward the behavior intention to utilize ChatGPT among university students in Malaysia. This study was conducted around 384 university students from two types of institutions which involved public institutions and private higher education institutions in Malaysia. IBM Statistical Package for the Social Sciences tool (SPSS) was used to analyze and interpret the relevant data. The data was analyzed by using descriptive analysis, reliability test, Pearson Correlation Coefficient, and Multiple Linear Regression. The findings revealed that perceived usefulness and attitude towards using had significant positive effects on student's intention to adopt ChatGPT, while perceived ease of use played a not significant role. However, limitations and recommendations for future research are further discussed in this study as well.

Keywords: Artificial intelligence (AI), ChatGPT, Technology Acceptance Model (TAM), Perceived Ease of Use, Perceived Usefulness, Attitude, Behavior Intention

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

The primary focus of this study is to investigate the various factors that impact the inclination of Malaysian university students toward utilizing ChatGPT. In Chapter 1, a comprehensive overview of the research background is provided, accompanied by an in-depth elucidation of the problem statement. Additionally, this chapter encompasses the formulation of research questions, objectives, and hypotheses, and discusses the significance of the study within the context of the broader academic discourse. Moreover, the structure of subsequent chapters is outlined. Finally, Chapter 1 concludes with a detailed summary that encapsulates the key findings and contributions.

1.1 Research Background

Artificial intelligence (AI) technology has advanced significantly in terms of widespread adoption and utilisation in recent years (Trust et al., 2023). AI refers to the ability of computer-controlled devices or robots to perform almost or exactly the same activities as humans. In this context, AI is used to create a range of robots with human intellectual characteristics and behaviours, and it have the ability to learn from previous experiences and to have the ability to perceive and determine the meaning of certain situations (Shabbir & Anwer, 2018).

AI has a much longer history than is commonly understood. The origin of AI can be traced back to Alan Turing's code-breaking endeavors during the Second World War. The term AI was coined in 1950, but it wasn't until the 1980s that AI research began to take off, with the parsing of algebraic equations and the analysis of text in many languages. With the advancement of the Internet and the power of microprocessors, AI's ultimate takeoff occurred in the previous decade (Shabbir & Anwer, 2018).

The rapid breakthroughs in the field of AI and Natural Language Processing have led to the raise in the complexity and diversity of language models. ChatGPT, an AI model created by OpenAI, has become a powerful tool with a wide range of applications in several sectors.

OpenAI was established in 2015 by Elon Musk, Sam Altman, and others. It is an organization dedicated to the advancement of Artificial General Intelligence (AGI) for the betterment of humanity and has been at the forefront of AI research, producing multiple revolutionary models including GPT-2, GPT-3, and Chat GPT (Ray, 2023). ChatGPT pre-trains on enormous amounts language of textual material, such as books, journal articles, and websites, by modeling tasks. Through pre-training, ChatGPT learns patterns and relationships between words and phrases in natural language to effectively generate coherent, authentic responses in conversations (Ray, 2023). When utilising ChatGPT, the user can type in a prompt or inquiry, and the chatbot answers depending on its knowledge of the input language and context. ChatGPT then understands the context and initiates a substantive and relevant dialogue about the issue at hand (Gilson et al., 2023). However, on 14 March 2023, OpenAI, the company behind this AI chatbot, released a more powerful version of the chatbot, ChatGPT 4 (Lundberg, 2024). ChatGPT-4, an AI language model to demonstrate a variety of language processing skills. This

model is trained on a large corpus of textual data and can create human-like replies to given inquiries, understand natural language issues, and execute a variety of linguistic functions such as language translation, summarisation, and sentiment analysis (Peters et al., 2023).

Nowadays, students employ AI writing tools that provide real-time feedback and edit grammar, punctuation, and expression. Furthermore, it can assist students modify sentence structure, word tone, and options in order to enhance the overall quality of writing (Farhi et al., 2023). In addition, ChatGPT has become a powerful tool in higher education, with the potential to significantly improve student learning experiences. ChatGPT enhances the ability to personalise learning by offering a personalised educational experience that meets the student's specific requirements and encourages individual learning trajectories (Adiguzel et al., 2023). Students may receive personalised and immediate feedback from ChatGPT, which provide simple explanations, encourages students to investigate the relationships between structures, and provides educational materials and help on demand (Rasul et al., 2023). This is particularly effective for adjusting to varied learning rhythms and methods, allowing more students to have a more positive educational experience (Mohebi, 2024).

However, ChatGPT responses may be inaccurate or unreliable (Su & Yang, 2023). Assuming that ChatGPT would provide dependable, credible, trustworthy, and accurate results is a risk that might hamper, and in some circumstances undermine, teaching and learning. For instance, a student may come to ChatGPT to learn how to solve a complex arithmetic issue, but if ChatGPT creates its answer, the student may receive incorrect information (Trust et al., 2023).

Digitalization is transforming the educational landscape worldwide, and Malaysia is no exception. According to Ifenthaler and Schumacher (2023), learning and teaching may be assisted in life and in real time by the new opportunities presented by AI, which will lead to more effective and efficient solutions. Moreover, ChatGPT is becoming increasingly popular in Malaysian education, especially among university students. This is due to the Covid-19 pandemic expanded the popularity of e-learning tactics, which were later fueled by the development of AI-enabled chatbots (Jafar et al., 2022); (Pallivathukal et al., 2024).

Numerous studies have investigated the usage and application of ChatGPT in education. One example is Farhi et al (2023), who examined the use of ChatGPT among students in the United Arab Emirates (UAE), as well as their views, concerns, and perceived ethics. The authors discovered that the complexity and importance of using ChatGPT may be counterbalanced by teachers and policymakers.

On the other hand, through the investigation of the intention to use ChatGPT among Malaysian university students, this research will contribute to the educational institutions in Malaysia as well as contribute to the understanding of user experience and acceptance dynamics surrounding the utilization of ChatGPT among university students.

However, there is limited research on the specific focuses on the use of ChatGPT intentions among Malaysian university students. By addressing this research gap, this study seeks to contribute to the literature on the use of AI chatbots by providing a more nuanced understanding of the factors influencing Malaysian university students' intentions to utilise ChatGPT.

1.2 Problem Statement

Artificial intelligence (AI) language models have advanced significantly and have become inevitable research tools in human lives. It has been considered as one of the recent revolutions would go down in history of revolution. Many fields are now depend heavily on AI tools and the technology by integrating it into their respective fields. This AI also would create competitions among many companies, publishers and also academic institutions (Qasem, 2023).

One of the revolutionary chatbots of the AI language models is ChatGPT and it was unveiled on November 30, 2022 by Open AI based on InstructGPT according to Ouyang et al., 2022, as cited in (Qasem, 2023). According to Kuhail et al., 2023 as cited in (Qasem, 2023) that chatbots and language models like ChatGPT are some AI-powered tools that can enhance the educational experience.

Chatbots are computer systems that can mimic human conversations and offer students promote assistance and feedback (Pillai et al., 2023). ChatGPT is an astonishing type in chatbots which turn to be the most important AI-driven chatbots, according to Susnjak (2022) cited in Farhi et al. (2023). Researchers have expressed concerns regarding ChatGPT's use and ethics, despite the applicability and popularity of the technology in the field of education.

According to a poll by BestColleges, United States (Appleby, 2023) that was referenced in Farhi et al. (2023), the survey looked at the opinions and worries of students using ChatGPT. According to the study's findings, the majority of college students thought that using ChatGPT to complete assignments and tests amounted to cheating. On the other hand, 30% of the students agreed with this idea,

while 20% of the students disapproved. According to the poll, half of the students acknowledged that they relied too much on AI tools for their projects and tests, and 43% of them have used them in the past.

In another studies, it addresses that researchers and students become lazy and replicate other people's work when using ChatGPTs and without the academic constraints, ChatGPTs' blind dependency would prevent students from creating innovative academic papers. There will be a great chance of disseminating fraudulent and duplicate scholarly publications (Qasem, 2023).

Moreover, there are certain concerns of ChatGPT including the issues of accuracy and reliability concerns especially with hallucination problems, transparency issues, data security and protection issues and ethical implications. The most interesting part of the paper is it was partially generated by ChatGPT itself.

In addition, another concern arises using ChatGPT-biased responses of ChatGPT in certain settings especially politics. As per a study, ChatGPT's answers to politically charged queries, which some observers claimed showed a blatant inclination toward anti-conservative opinions. The prejudice accusations were sparked by ChatGPT screenshots that were released on Twitter in February 2023. In response to two comparable prompts, one asked the ChatGPT to compute favorable poem of the Donald Trump, and at the same time some other asked the chatbot to generate the poem in same kind for President Joe Biden, the screenshots showed ChatGPT's contradicting and inconsistent responses. ChatGPT stated that it could not produce "partisan, biased, or political content" in response to the Trump challenge, but when requested to compose a poem praising Biden, the platform created a patriotic poem right away (Greene et el., 2024). This discloses that the

usage of ChatGPT might be manipulative towards people using it and might mislead the people's thought or course of action.

In spite of these concerns that arises around the utilisation of ChatGPT, the number of consumption of the tool has been increasing widely. According to a Pew Research Center survey conducted in February 2024, shows that there is significant increase of ChatGPT usage among American adults which reached 23% compare to the precedent survey conducted in July 2023 (Pew Research Center, 2024). The number suggests that ChatGPT has vital role in the dailyhood of people which instigate them to utilise the tools. "The Pros and Cons of Using ChatGPT in Clinical Radiology: An Open Discussion" (2023) addresses concerns related to ChatGPT usage in clinical radiology, including accuracy, reliability, transparency, data security, and ethical implications.

However, in order to come up with solutions for the problems or to address the issues associated with the use of ChatGPT in education it is critical to know the factors that make people use this tool. Hence, the present study aims to identify the factors that affect the intention of Malaysian university students towards usage of ChatGPT. It is worth noting that there are few studies conducted concerning variables influencing utilization of ChatGPT by Malaysian learners. This research seeks to provide insights into these vital aspects thereby filling this gap.

The proposal effectively addresses a current research gap by focusing on the utilization of ChatGPT among Malaysian university students. While there have been studies on the usage and application of ChatGPT in education, particularly in other countries like the United Arab Emirates, whereas the research aimed primarily at Malaysian university students is lacking. By filling this knowledge void, the

study aims to advance the field by offering a more comprehensive understanding of the variables impacting Malaysian university students' intents to use ChatGPT.

The proposal highlights the importance of understanding these factors within the Malaysian context, particularly considering the rapid digitalization of the educational landscape in Malaysia. By exploring the usage of ChatGPT among Malaysian university students, the study aims to provide valuable insights into the user experience and acceptance dynamics surrounding the utilization of ChatGPT in this demographic.

Furthermore, the proposal emphasizes the significance of the study for educational institutions in Malaysia, policymakers, and future research endeavors in AI adoption in education. By filling this research gap, the study not only offers immediate insights but also lays a foundation for ongoing scholarly inquiry aimed at harnessing the transformative potential of AI technologies in education, particularly in developing countries like Malaysia. Overall, the proposal demonstrates a clear understanding of the current research gap and the potential implications of addressing it through the proposed study.

1.3 Research Objective

1.3.1 General Objective

1. To determine the factors influencing Malaysian university students' intentions to utilize ChatGPT.

1.3.2 Specific Objective

1. To determine the perceived ease of use significantly influences Malaysian university students' perceived usefulness of ChatGPT.

2. To determine the perceived ease of use significantly influences Malaysian university students' attitudes toward using ChatGPT.

3. To determine the perceived usefulness significantly influences Malaysian university students' attitudes toward using ChatGPT.

4. To determine the attitude significantly influences Malaysian university students' behavioral intention toward using ChatGPT.

1.4 Research Question

Based on the research objective above, the questions to be answered upon the completion of this research are shown below:

1.4.1 General Research Question

1. What are the factors influencing Malaysian university students' intentions to utilise ChatGPT?

1.4.2 Specific Research Question

1. Does perceived ease of use significantly influence Malaysian university students' perceived usefulness of ChatGPT?

2. Does perceived ease of use significantly influence Malaysian university students' attitudes toward using ChatGPT?

3. Does perceived usefulness significantly influence Malaysian university students' attitudes toward using ChatGPT?

4. Does attitude significantly influence Malaysian university students' behavioral intention toward using ChatGPT?

1.5 Hypothesis of the Study

H1: Perceived ease of use significantly influences Malaysian university students' perceived usefulness of ChatGPT.

H2: Perceived ease of use significantly influences Malaysian university students' attitudes toward using ChatGPT.

H3: Perceived usefulness significantly influences Malaysian university students' attitudes toward using ChatGPT.

H4: Attitude significantly influences Malaysian university students' behavioral intention toward using ChatGPT.

1.6 Significance of the Study

In recent years, integrating AI technologies into various aspects of daily life has become increasingly prevalent. ChatGPT represents a form of AI-driven conversational agent capable of engaging users in dialogue, offering assistance, and providing information across various domains (Ray, 2023). Understanding the factors that influence individuals' intentions to utilize ChatGPT, particularly among Malaysian university students, holds significant relevance and implications.

First and foremost, the findings of this study could have significant implications for educational institutions in Malaysia. In response to the COVID-19 pandemic, Malaysian universities have swiftly embraced digital tools and platforms to transform the learning experience. Within this transformative landscape, ChatGPT emerges as a promising resource for students facing academic challenges, offering a dynamic avenue for seeking assistance, clarification, and guidance (Alshammari & Alshammari, 2024). As highlighted by Xu et al. (2024), an exploration of the factors influencing students' intentions to use ChatGPT provides educators and policymakers with invaluable insights into the efficacy and acceptance of AI-driven educational tools within Malaysia's higher education sphere. This investigation not only illuminates the shifting pedagogical paradigms in the post-pandemic era but also underscores the potential of AI technologies to enhance traditional learning approaches.

Furthermore, this study holds the potential to offer valuable insights into the user experience and acceptance dynamics surrounding the utilization of ChatGPT among Malaysian university students. By scrutinizing the factors within the context of ChatGPT usage among Malaysian university students, this study can illuminate the nuanced interplay between user perceptions and technology acceptance within this demographic (Fu et al., 2024). Such insights are instrumental in informing the design, development, and deployment of AI-driven conversational agents that resonate with the preferences and requirements of Malaysian users. By aligning ChatGPT functionalities with the unique needs and expectations of Malaysian

university students, stakeholders can enhance user satisfaction, promote sustained engagement, and foster a positive user experience. Consequently, the findings of this study have far-reaching implications for the advancement of AI technologies in Malaysia, facilitating the creation of tailored solutions that catalyze innovation and facilitate seamless integration into the daily lives of university students.

Moreover, the findings of this study can play a pivotal role in informing policy-making endeavors, particularly in the realm of technology adoption within educational contexts. Policymakers can leverage the insights gleaned from this research to develop robust strategies aimed at promoting the widespread utilization of AI-based tools in educational settings across Malaysia. By understanding the factors influencing Malaysian university students' intentions to use ChatGPT, policymakers can craft targeted initiatives and interventions tailored to bolster technology integration within the educational landscape. By harnessing the findings of this study to inform policy formulation, policymakers can spearhead efforts to harness the transformative potential of AI technologies, foster innovation in education, and equip Malaysian students with the skills and competencies necessary for success in the digital age.

Last but not least, this study could serve as a foundation for future research in AI adoption in education, particularly in developing countries like Malaysia. By building upon the foundation established by this study, future research endeavors can contribute to the continuous evolution of AI adoption in education, catalyzing advancements that enhance teaching effectiveness, improve learning outcomes, and foster equitable access to quality education for all learners in Malaysia and beyond. Thus, the study not only offers immediate insights but also catalyzes ongoing scholarly inquiry aimed at harnessing the transformative potential of AI technologies in education.

1.7 Chapter Layout

Chapter 1

In this part, we will present an overview of the proposed study topic which is "A study on factors influencing Malaysian University students' intentions to utilise ChatGPT". We will discuss briefly about the research background, problem statement, research objective, questions, as well as the significance of the study and summarize the entire chapter.

Chapter 2

In Chapter 2, we will discuss the theory related to our study and explain the relationship between three factors and the behavior intention to use. Moreover, this part also serves as the theoretical underpinning for the hypotheses. This chapter also will discuss the literature gap that exists while doing the part and the chapter will be concluded with a summary.

Chapter 3

In this part, which is the research methodology chapter, we will mention the methods utilized to conduct the study and the appropriate steps used to collect and evaluate data. We will provide detailed descriptions of the research instrument, sampling design, data collection strategy, construct measurement, data processing method, and data analysis. As a result, this chapter will cover all the details of the research methodology.

1.8 Chapter Summary

In conclusion, Chapter 1 includes a thorough exploration of the research background, highlighting the significance of AI, particularly ChatGPT, in educational settings. The problem statement identifies the concerns and gaps in existing literature regarding ChatGPT usage among students. Research objectives and questions are outlined to guide the study, followed by the formulation of hypotheses to determine whether there is a meaningful association between the variables. The significance of the study is discussed, emphasizing its implications for educational institutions, user experience, policy-making, and future research. Further information about the variables will be covered in the following chapter.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In academic research, the literature review is an important aspect as it provides a foundation for comprehending and building up knowledge on a certain topic. It demonstrates the depth and breadth of knowledge that result from the construction of hypotheses and conceptual frameworks. This chapter outlines the key conceptual and theoretical framework of the selected topic of this study, namely the factors influencing Malaysian university students' intention to use ChatGPT. It begins with the underlying theory, TAM which highlights the relationship between the factors and the behavioral intention of use. The chapter then discusses the dependent variable, and also the variables. In addition, the conceptual framework will be constructed. At last, the research hypothesis development will then be formulated.

2.1 Underlying Theories

2.1.1 Technology Acceptance Model (TAM)

Over a decade ago, the interest towards the adoption and application of information technology (IT) has seen a rise. Many theoretical frameworks have been proposed to explain end users' acceptance behavior. Nonetheless, the most often utilized and

well-liked of them is the TAM developed by Davis in 1989 and empirically tested (Ma & Liu, 2017). The Technology Acceptance

Model was formed from another theory known as the Theory of Reasoned Action (TRA), according to Davis et al., 1989, referenced in Yang et al. (2024). Since then, it has grown into an essential tool for forecasting people's behavior when they accept new technologies. Furthermore, Davis created the TAM framework, which emphasizes factors like AT, BI, PU, and PEOU that influence usage motivation. It has demonstrated applicability across multiple user groups and technological platforms (Yang et al., 2024).

TAM is a dominant framework that has been extensively used for investigating the various factors that influence users' acceptance of technology (Panagoulias et al., 2024). As an evidence, we found that Technology Acceptance Model has been integrated in abundant studies related to technology acceptance in many countries. For instance, acceptance of mobile-money by poor citizens in India (Chauhan, 2015), Adoption of Smart Card-Based E-Payment System for Retailing in Hong Kong, (Lok, 2015), Online banking adoption in Vietnam, (Chong et al., 2010), Adapted technology acceptance model for mobile policing in UK (Lindsay et al., 2011), and Determinants that influence acceptance towards e-wallet apps in Malaysia (Shaikh & Amin, 2024). In another studies, It is mentioned that TAM is widely used in by numerous studies with the extended TAM model or appliying the original model. Moreover, the TAM's application of TAM has been examined in various technologies such as mobile learnings, personal learning environment, learning management, virtual reality (VR), and also AI. In addition, TAM's use in educational research emphasizes how important it is to understand the variables that affect students' and teachers' acceptance of technology as well as other correlations (Yang et al., 2024).

According to TAM, there is a complex link between exterior system attributes and potential system adoption and usage. Two important variables,perceived ease of use and perceived usefulness play a mediating role in this relationship (Panagoulias et al., 2024). The usage behavior has been suggested to be tested using the TAM model. For example, the TAM (Davis et al., 1989) was used and tested in order to understand consumers' behavior when it comes to using sustainability labels for apparel products. The model illustrates the relationships between perceived ease of use (PEOU), perceived usefulness (PU), and attitudes (AT) with behavioural intention (BI) (Jin et al., 2017). Perceived usefulness in TAM refers to how much a person thinks a technology can improve work performance, whereas perceived ease of use refers to how simple it is to utilize the technology. These factors combined have an impact on the user's attitude toward and intention to employ technology (Xu et al., 2024).

The TAM model states that a person's attitude toward a technology is a reflection of their subjective evaluation of it, which is based on how easy and helpful they believe it to be. Albayati (2024) cites Yang & Yoo (2004). In the meantime, "behavioral intention" (BI) is defined as "a cognitive process of individuals' readiness to perform specific behavior and is an immediate antecedent of usage behavior" by Abbasi et al. (2011), as quoted in Mailizar et al. (2021).

According to Lim et al. (2023) and Sweeney (2023), cited in Duong et al. (2023), there appears to have been research done to determine the roles and effects of generative AI, such as ChatGPT, on higher education. The study's findings addressed the lack of empirical evidence, to the researchers' knowledge, regarding the reasons and methods by which higher education students consciously use ChatGPT for their learning. According to Duong et al. (2023), the study suggests that students' intentions to utilize ChatGPT are influenced by their performance expectancy and effort expectancy, which are measured using the modified TAM (Davis, 1989). In this case, our study will incorporate TAM with our proposed key

variables like perceived ease of use, perceived usefulness, and attitude towards students' behaviour intention to utilise ChatGPT in education.

2.2 Review of the Literature

2.2.1 Perceived Ease of Use (PEOU)

Research indicates that generative AI models are being used by educators and students more frequently. One of the most well-liked tools for this is ChatGPT (Sallam et al., 2024). According to Sun, (2023) cited in De Castro, (2023), ChatGPT is one of the advanced machine learning model which has shown impact on various fields including education. The study discussed that ChatGPT uses deep learning techniques to specifically generate human-like responses to user input. The capabilities of ChatGPT has made it to be one of the valuable tool in educationwith a potential to increse student engagement and personalize their learning experience (Mollick, 2022).

A study was conducted on factors that affect students' decisions to use ChatGPT for their academic work in Vietnam. The results showed that students' tendency to adopt or utilise ChatGPT which is also known as adoption intention was influenced by perceived ease of use which also related perceived of its user friendliness (Maheshwari, 2023). Perceived ease of use reflects the belief that ChatGPT is user-friendly and easy to interact with, facilitating its adoption. The expression "intention to use" by students indicates that they are eager to use ChatGPT as a useful study tool and that they are motivated to integrate it into their coursework (Shaengchart et al., 2023). In another research, the findings of it depicts

that ChatGPT usage is commonplace among university students in the UAE due to certain determinants which includes perceived ease of use and adressed that understanding the driving forces behind the effective use of generative AI, such as ChatGPT in higher education, requires taking into account a number of aspects (Sallam et al., 2024). Many factors can affect how well-received and integrated cutting-edge tools like ChatGPT are in educational environments, both for instructors and for students. Perceived ease of use, therefore, is a key element influencing the adoption of this innovative educational tool (Abdaljaleel et al., 2024).

The Technology Acceptance Model (TAM), developed by Davis in 1986, makes the assertion that a technology's ease of use and usefulness have a big influence on people's intentions to use it. In this sense, behavioral intention describes a person's deliberate plans or propensity to participate in or abstain from particular behaviors. Based on consumers' views, researchers can predict users' readiness to adopt technology by utilizing the TAM model (Shaengchart et al., 2023). In this part, we will focus on ease of use on influecing the intentions to use ChatGPT.

In a study, it was identified that undergraduates are usually in their early years of study, when the emphasis is mainly on building broad skills and core knowledge. Their favorable opinion of ChatGPT is in line with their educational requirements, which include easily available material and interfaces that make learning easier (Bourges-Waldegg et al., 2005) cited in Xu et al., (2024). A positive and substantial route coefficient was found in the results, suggesting that student familiarization with ChatGPT is facilitated by features that are easy to use. Research indicates that students perceive ChatGPT to be a user-friendly platform for obtaining answers to inquiries, Arif et al., (2023); van Dis et al., (2023) cited in (Lai et al., 2023).

2.2.2 Perceived Usefulness (PU)

Fred Davis first introduced the notion of perceived usefulness (PU) as part of the (TAM) in 1989. As Davis (1989) explains, perceived usefulness refers to how much an individual believes that utilizing a specific system will improve their job performance. The concept of perceived usefulness naturally derives from the definition of "useful," which implies something advantageous or capable of being utilized to one's benefit. A system characterized by high perceived usefulness is one in which users believe there exists a positive relationship between its use and their performance. (Davis, 1989). Davis emphasized that perceived usefulness is a significant predictor of user acceptance and should be given considerable attention by designers and implementers striving for successful system development.

Expanding upon Davis's foundational work, subsequent researchers have provided nuanced definitions and perspectives on perceived usefulness. Jo & Bang (2023) conceptualized perceived usefulness as an individual's belief in a technology's positive impact on task performance. When university students consider using ChatGPT, their perception of its usefulness plays a key role in deciding whether or not to adopt it. When students view ChatGPT as conducive to enhancing their academic tasks, their inclination toward adoption increases. This evaluation of perceived usefulness includes an individual's estimate of how adopting a specific technology, such as ChatGPT, will improve their entire experience (Davis & Venkatesh, 1996). The depth of this judgement has a significant impact on adoption intentions; when people regard technology as beneficial, they are more likely to embrace it. Conversely, if they perceive limited usefulness, their adoption intentions diminish (Kao & Huang, 2023).

Ayanwale and Ndlovu (2024) further underscore the importance of perceived usefulness in the context of technology adoption, emphasizing its correlation with enhanced work efficiency. Almahri et al. (2020) found students' satisfaction with ChatGPT is closely related to perceived usefulness, significantly predicting their intention to use it. Perceived usefulness in TAM refers to belief in the technology's ability to improve work performance (Xu et al., 2024). Exploring ChatGPT's effectiveness in daily problem-solving and derived benefits, such as accuracy and reliability, collectively influences users' attitudes and intentions toward its use.

Davis (1986), as cited by Tahar et al. (2020), defines perceived usefulness as an individual's belief in the amount to which a system may improve their work performance. Davis also explains that it involves a person's positive attitude toward the system and their intention to use it, recognizing its helpfulness (Joo et al., 2011). According to Kamil Malinka et al. (2023), people are more likely to view ChatGPT usage favourably if they think it would improve their capacity to do tasks efficiently. The alignment between perceived usefulness and improved performance serves as a catalyst for adoption, reflecting the broader trend observed in technology acceptance research (Mahmud et al., 2024).

The perceived usefulness in the context of ChatGPT usage is the extent to which a user feels that the technology improves their productivity or performance at work (Albayati, 2024). This viewpoint is consistent with other studies showing that people are more likely to embrace and use new technology if they believe it would help them accomplish their objectives or complete their duties (Bhattacherjee, 2000). Yu et al. (2005) have shown a strong correlation between an individual's drive to use technology and its perceived usefulness. Higher perceived usefulness leads to increased motivation to engage with technology, while lower perceived

usefulness diminishes motivation. According to Karahanna and Straub (1999), people's attitudes and intentions about technology usage are greatly influenced by their perceived usefulness.

2.2.3 Attitude toward using (AT)

Attitude, as defined in the literature, refers to an individual's perception or evaluation of some person or object, and the tendency or predisposition to respond positively or negatively to an idea, object, person, or situation (Vargas-Sánchez et al., 2016). Attitude is an important area of research because it influences both our perceptions of the world and our behaviours as well (Haddock & Maio, 2008).

Attitude toward using is the degree of evaluative influence a person associated when utilizing the target system in his or her job (Davis, 1987). Davis argues that beliefs influence attitudes, and attitudes influence intentions, which result in behaviors. Thus, the relationship belief, attitude, intention, and behavior relationship can predict user acceptance of information technology. However, according to Ajzen and Fishbein (1972), attitudes toward the action can defined as the attitude of an individual who performs a specific behavior concerning a certain object in a given situation, rather than his or her attitudes toward the object or class 20 of objects itself. A person's attitude is based on how valuable the behavior is to that individual and how a person interprets the behavioral consequences (Lederer et al., 1998). Moreover, attitude towards use refers to the user's assessment of the usefulness of using a particular information system application. In addition, attitude toward using technology refers to an individual's overall emotional response to using the system (Venkatesh et al., 2003).

Users' attitudes toward technology depend on perceptions of its usefulness and ease of use. If a person perceives technology to be easy to use and useful, then their attitude toward technology is likely to be positive and will enhance their willingness to use it. On the other hand, if a person perceives technology to be difficult to use, then he is likely to have a negative attitude toward technology and be more reluctant to use it (Albayati, 2024).

In context of ChatGPT, attitude towards using ChatGPT to complete tasks refers to a person's positive or negative view, evaluation, or judgment of utilising ChatGPT for academic purposes (Saif et al., 2023). According to Jo's study (2023), students' positive attitudes towards using ChatGPT motivated them to use the technology because they perceived it as being useful and easy to to use. Advances in ease of use may improve the convenience, efficiency, and efficacy of ChatGPT as an academic tool. As a result, this improvement will assist students to build positive attitudes about utilising the application to accomplish their tasks (Gill & Kaur, 2023). Users are more likely to be satisfied with ChatGPT if it makes it easier for them to complete their assignments.

Besides, an attitude refers to a person's positive or negative feelings towards utilising ChatGPT. Attitudes are developed by assessing the benefits, utility, and advantages of ChatGPT. When students perceive ChatGPT as a device to help them boost their study experience and achieve their goals, they will establish a positive attitude that influences their willingness to utilise ChatGPT, encouraging them to embrace the technology while anticipating positive outcome (Haq et al., 2024). Moreover, students' attitudes toward using ChatGPT depend on their perceptions of the pros and cons of using the technology (Jo, 2023). This is due to the ability of ChatGPT to operate in natural language conversations, give instant feedback, and

provide personalised learning experience. Hence, a positive attitude towards utilising ChatGPT to accomplish tasks increases the motivation to utilise ChatGPT.

2.2.4 Behavioral Intention to use (BI)

Behavioral intention (BI) key concept in the research of technology acceptance and use behavior. According to Venkatesh et al. (2003), behavioral intention can be defined as a person's willingness and intention to utilise a particular technology for a particular task or purpose. However, they argue that behavior of an individual is determined by the factors that influence motivation as well as the amount of effort and determination an individual is willing to put out to complete a particular job. According to them, when a person's willingness is high, their behavior is more likely to be intentional (Ayanwale & Ndlovu, 2024).

The user's behavioral intention to use ChatGPT and introduce it to others are shaped by the satisfaction derived from utilising it (Jo, 2023). However, when students observe peers and people around them using ChatGPT or getting recommendations from important people, they are more likely to form a behavioral intention to utilize the technology themselves (Jo, 2023). Moreover, the research "Student's Perception of Chat GPT: A Technology Acceptance Model Study" found that behavioral intention to use ChatGPT was 65.3% (Yilmaz et al., 2023). This suggests that students were moderately interested in utilising the ChatGPT in the future as behavioral intention shows a person's willingness and motivation to accept and utilise technology, and thus are a good predictor of actual technology use.

Nevertheless, according to Worthington & Burgess (2021), as cited in Rahman et al. (2023), perceived usefulness and perceived ease of use have different influences on user behavioral intentions in TAM. They noted that students' intention to utilise online treatment may be impacted by its usefulness, even if they may not perceive it as easy to use. Likewise, students may perceive new technologies as easy to use yet not useful.

Hence, in this research context, behavioral intention is examined to determine Malaysian university students' willingness to utilise ChatGPT throughout their academics.

2.3 Proposed Conceptual Framework
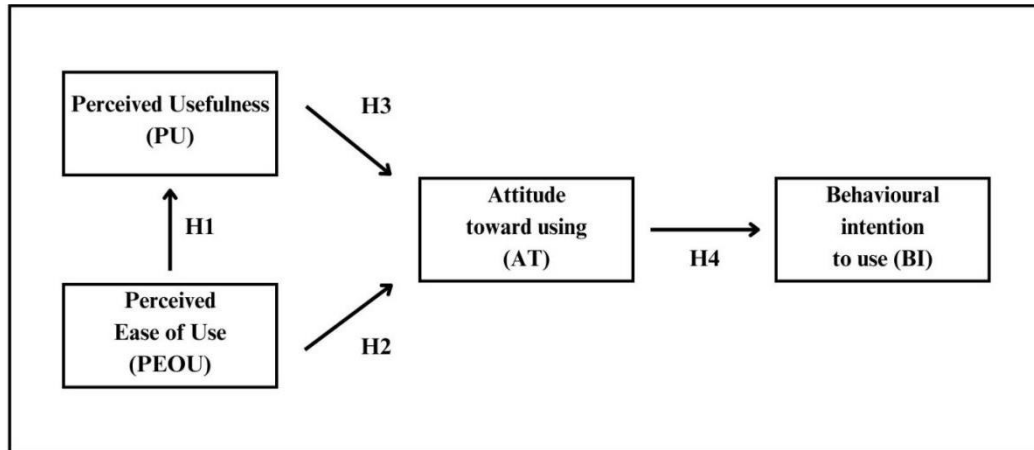
Figure 2.3: Proposed Conceptual Framework

Based on earlier research, several factors have been identified that can influence Malaysian university students' intentions to utilize ChatGPT. However, for this research, the correlations between the variables (perceived ease of use, perceived usefulness, attitude to use, and behavioral intention) among Malaysian

university students will be explored. Based on past researchers' works and integrating elements from the Technology Acceptance Model (TAM) Theory, we have developed a conceptual framework for this study, which is shown in Figure 2.3. By examining the interplay between these variables, this study seeks to provide insights into the factors influencing Malaysian university students' intentions to utilize ChatGPT and contribute to the understanding of technology adoption in educational contexts.

2.4 Hypotheses Development

2.4.1 The relationship between perceived ease of use and perceived usefulness of ChatGPT

Users assess a service's usefulness based on the benefits they receive and the cost. For example, in healthcare services the patient aspires to receive proper care on time and with minimal financial strain. Moreover, for perceived ease of use, patients would probably accept technology if given the choice to receive their own care wherever without having to carry about their medical records would make the acceptance towards the technology.

It discusses that perceived ease of use and perceived usefulness has direct influence towards behaviour of using the technology. However, it didn't mention that perceived ease of use has significant influence towards perceived usefulness yet addressed that perceived ease of use influenced indirectly through perceived usefulness (Dhagarra et al., 2020).

In contrary, in Technology Acceptance Model (TAM) model Davis (1989) asserted that perceived usefulness is directly impacted by perceived ease of use. According to this paradigm, people are more likely to think highly of a system when they find it easy to use. Stated differently, users are more likely to recognize the usefulness of a system in accomplishing their objectives or finding solutions to their issues if it is simple to use and traverse. This clear correlation indicates that improving a technology's usability can raise people's opinions about how beneficial

it is, which in turn affects how users embrace and use it (Zhang et al., 2020). For instance, An IT system's perceived usefulness is influenced by its perceived ease of use (Chong, 2013).

Additionally, according to Barry and Jan (2018) perceived ease of use has a favourable and considerable impact on perceived usefulness to use particular system. To add more support to the relationship between perceived ease of use and perceived usefulness another study shows positive impact on the both variables in the study of "Computers in Human Behavior" which aims to integrate of technology using the TAM through the utilization of ChatGPT via ubiquitous learning (UL) procedure among students. The study has proclaimed that the perceived ease of use is indeed influences perceived usefulness in adopting the ubiquitous learning (Saif et al., 2024).

Hence, this research recognizes the mixed results when it comes to the TAM variables, specifically the importance of perceived ease of use in affecting perceived usefulness. Given the conflicting findings seen in previous studies, our research seeks to delve deeper into the connection between these key variables. Through investigating this correlation, our goal is to shed light on how the user's ease of

interaction with technology influences their perception of its usefulness, potentially unveiling new understandings about the TAM's relevance and predictive ability in various technological settings.

Based on the above discussion, below hypothesis, have been developed:-

H1: Perceived ease of use significantly influences Malaysian university students' perceived usefulness of ChatGPT.

2.4.2 The relationship between perceived ease of use and attitudes of ChatGPT

The fast growth and incorporation of AI across different industries have sparked considerable interest in studying the factors that affect user adoption and attitudes towards these technologies. ChatGPT, a specific AI technology, has been the focus of several studies investigating the connection between its perceived ease of use and users' willingness to use it. This article will summarize the results of recent research to provide a thorough understanding of how the perceived ease of use influences attitudes towards ChatGPT.

Several studies have found a positive correlation between the PEOU of ChatGPT and favorable user AT. Aleksić-Maslać, Borović, and Biočina (2024) explored this relationship among high school and college students and concluded that ease of use is a critical determinant in the educational adoption of ChatGPT.

Similarly, Liu, Darvin, and Ma (2024) investigated the effects of PEOU on Chinese EFL learners using ChatGPT for language learning. Their findings indicate that well-crafted prompts, which improve the PEOU, significantly enhance learners' attitudes towards using ChatGPT. This underscores the importance of user-friendly interfaces and functionalities in facilitating positive educational experiences with AI technologies.

Furthermore, Saif et al. (2024) validated the TAM in the educational sector by demonstrating that PEOU directly influences students' attitudes towards using ChatGPT for completing assignments. This validation not only reinforces the model's applicability but also highlights ease of use as a pivotal factor that can drive higher educational adoption rates of AI tools.

Contrastingly, not all studies affirm a positive link between PEOU and user AT. Slavov, García-Vidal, and Yotovska (2023) found that some pre-service biology teachers viewed the use of ChatGPT as deceitful, which negatively impacted their attitudes despite acknowledging its ease of use. This suggests that ethical perceptions and the context of use can critically modulate how ease of use influences attitudes. Moreover, Elbaz et al. (2024) reported that in cultural contexts like Oman, ease of use did not have a strong influence on attitudes towards ChatGPT. In these settings, moral and ethical considerations were more dominant, indicating that factors beyond mere usability can override the potential positive effects of ease of use.

The reviewed studies collectively suggest that while PEOU generally has a positive impact on attitudes towards using ChatGPT, yet this relationship can be complex and proven to have no relationship or no significance based on the studies presented above. Hence, to identify whether the TAM we implied is truy showing

the signifance relationship with the PEOU towards attitude of using it, the below hypothesis has been developed.

Based on the above discussion, below hypothesis, have been developed:-

H2: Perceived ease of use significantly influences Malaysian university students' attitudes toward using ChatGPT.

2.4.3 The relationship between perceived usefulness and attitudes of ChatGPT

Perceived usefulness can have a significant influence on Malaysian university students' attitudes towards ChatGPT. Masa'deh et al. (2024) found that perceived usefulness can positively impact students' attitudes toward using ChatGPT, a finding reinforced by the works of Malik et al. (2021) and Pillai et al. (2023), who emphasized the beneficial effects of AI-based learning tools on both learning outcomes and attitudes. This underscores the pivotal role of ChatGPT in being perceived as effective and supportive in students' academic pursuits.

Furthermore, according to Md. Shahinur Rahman et al. (2023), perceived usefulness significantly influences students' attitudes towards ChatGPT. The study highlights perceived usefulness as a key determinant driving positive attitudes and adoption of new technology. Additionally, when ChatGPT serves to assist in knowledge application or reinforcement, it garners recognition as a valuable asset, thereby fostering a positive attitude toward its utilization (Jo, 2023). This further underscores the positive relationship between perceived usefulness and students' acceptance of ChatGPT (Hayder Albayati, 2024).

In contrast to the prevailing trend of positive correlations between PU and attitudes toward ChatGPT, the study by Saif et al. (2023) presents intriguing findings. They found an unexpectedly negative link between the attitude towards ChatGPT's use and its PU, within the framework of the TAM. This relationship suggests that despite perceiving ChatGPT as useful, participants in the study exhibited negative attitudes toward using it. Moreover, the study conducted by Debasa et al. (2023) provides further insights. Their research findings indicate a negative relationship between perceived usefulness and attitudes toward ChatGPT utilization. Such alignment between the studies underscores the need to explore the underlying factors contributing to this unexpected phenomenon.

Based on the above discussion, below hypothesis, have been developed:-

H3: Perceived usefulness significantly influences Malaysian university students' attitudes toward using ChatGPT.

2.4.4 The relationship between attitude and students' behavioral intention of ChatGPT

According to Ajzen, I., & Fishbein, M. (1972), a person's attitude has influenced the behavioral intention to utilise technology. In terms of ChatGPT, positive attitudes toward utilising ChatGPT are likely to result in more behavioral intentions to utilise the system.

There are numerous empirical studies demonstrating a significant positive relationship between students' attitudes and their behavioral intention toward using ChatGPT. Moreover, the study of students' adoption of the ChatGPT chatbot in

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higher education has shown that AT and BI are significant positive predictors of student behavior to utilise ChatGPT (Polyportis & Pahos, 2024). This implies that students who have more positive attitudes and stronger behavioral intentions to utilise ChatGPT for educational purposes are more likely to use it. In addition, according to Shaengchart (2023), the study showed that there is a significant relationship between attitude and the student's behavioral intention of ChatGPT. The study found that students with positive attitudes toward the PU of ChatGPT were more likely to have higher behavioral intentions. This behavioral intention was directly related to their practical utilise of ChatGPT in English language learning, which had an influence well beyond the classroom (Shaengchart, 2023).

Based on the above discussion, below hypothesis, have been developed:-

H4: Attitude significantly influences Malaysian university students' behavioral intention toward using ChatGPT.

2.5 Chapter Summary

To sum up, Chapter 2 includes a detailed overview of underlying theories, literature reviews, conceptual framework, and hypotheses development. First, this chapter presents a comprehensive explanation of the theoretical framework, the TAM. Next, the literature review has addressed the numerous older publications and journals regarding the dependent variable (BI), and variables (PEOU, PU, and AT). By understanding the key constructs of the TAM Model, researchers can gain valuable insights into the factors influencing Malaysian university students to utilise ChatGPT. Finally, we conclude this chapter with the development of hypotheses, which requires us to demonstrate the relationship between these factors and behavioral intention to utilise ChatGPT.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

Research methodology refers to the method or process to carry out research, which entails of data collection, processing, and analysis. The use of appropriate research methodology plays a vital role in illustrating the validity of the data that been collectecd. This chapter will outline all methods practised in to collect relevant data and information to demonstrate the relationship between the variables and support hypotheses. Specifically, this chapter will mainly focus on the research design, data collection, sampling design, research instrument, construction measurements, data processing, and data analysis. Lastly, the chapter will be summarized in detail.

3.1 Research Design

Research design is the plan and processes, which include everything from broad hypotheses to specific data collection and analysis methods (Creswell, 2009). This is a methodical approach that the researcher used before beginning the data collection and analysis process to efficiently accomplish the research's objective (Asenahabi, 2019). Research designs are categorized into two broad categories: quantitative and qualitative (Adebiyi & Abayomi, 2016). Qualitative research is used to investigate real-world challenges and deliver deeper insights. It collects

respondents' experiences, attitudes, and behaviors as well as answers the "how" and "why" questions instead of the "how much" or "how many" (Tenny et al., 2022). On the other hand, quantitative methods emphasize objective measurements, as well as statistical, mathematical or numerical analysis of data obtained through polls, questionnaires and surveys, or the application of computational tools to existing statistics (Babbie, Earl R., 2010). In this research, a quantitative approach was used to examine the factors affecting Malaysian university students' intention to use ChatGPT.

In addition, there are also three types of research which are causal, descriptive, and exploratory (Sreejesh et al., 2013). In this research, we utilize causal research to focus on the causal relationship between variables. Causal research is studies that aim to examine cause and effect relationships. This research approach always includes one or more dependent variables and their relationship with one or more independent variables (Oppewal, 2010). Hence, this research aims to determine the influence of independent variables including PEOU, PU, AT, and BI (dependent variable) ChatGPT among university students in Malaysia.

3.2 Data Collection Methods

Data collection is the process of obtaining and measuring information on relevant variables according to established systematic guidelines to answer specific research questions, test hypotheses, and analyse findings (Kabir, 2016). In research, information is collected in a variety of ways, which can be categorised into primary data and secondary data. In this research, we have used both primary and secondary methods to collect data.

3.2.1 Primary data

Primary data is data collected in response to the specific research question at hand, using procedures best suited to the research question (Hox & Boeije, 2005). Primary data is data obtained for the first time and is original and fresh (Mazhar et al., 2021). In this research, the questionnaire method was used. The questionnaire is the primary method of collecting quantitative primary data. A questionnaire is a set of questions asked to someone in order to obtain statical relevant information on a particular topic. It standardised the collection of quantitative data, which leads to data with internal consistency and coherence that is easier to analyse (Roopa & Rani, 2017). The purpose of this research aims to examine the factors that influence the intention of Malaysian university students to use ChatGPT. Thus, the questionnaire was created with Google Forms and distributed to selected public and private university students via online platforms such as WhatsApp, Instagram, and Microsoft Team.

3.2.2 Secondary data

On the other hand, secondary data refers to data that has already been obtained by others and statistically processed (Mazhar et al., 2021). Secondary data can be classified into several types such as existing literature, census data, government information, financial data, organisational reports, and records (Ellram & Tate, 2016). In this research, secondary data will be used as supporting evidence to develop Chapter 2, which will present numerous facts, particularly those from the literature review.

3.3 Sampling Design

3.3.1 Target Population

The particular group of people or components that a study or researcher seeks to examine or make conclusions about is referred to as the target population (Capili, 2021). In this study, the target population will be tertiary education students in private and public universities in Malaysia. Based on the Times Higher Education (2023) global ranking of private and public universities in Malaysia, the target population will consist of the top three private and public universities that best represent the overall population. Among public universities, the top three public universities are University of Malaya (UM), Universiti Kebangsaan Malaysia (UKM), and Universiti Sains Malaysia (USM). Similarly, the top three private universities included are Universiti Teknologi Petronas (UTP), Universiti Tenaga Nasional (UNITEN), and Universiti Tunku Abdul Rahman (UTAR). This targeted demographic is intended to provide a comprehensive picture of the state of higher education in Malaysia so that more accurate insights and conclusions can be drawn within the context of the study.

3.3.2 Sampling Frame and Sampling Location

Essentially, the sampling frame is the list or source from which a researcher selects the sample for a study, while location refers to the physical or geographical area where the study takes place or where the sampling frame is situated. Both are crucial for ensuring the validity and generalizability of study findings (Mooney & Garber, 2019). Malaysian university students enrolled in the top three public and private

universities in the nation make up the sampling frame for this study. The top three public and private institutions in Malaysia's states of Penang, Perak, and Selangor made up the chosen sampling location as a result.

3.3.3 Sampling Elements

Sampling elements are the individual units or entities selected from the sampling frame to form the sample for a study. For this study, the sampling elements consist of Malaysian university students enrolled in the top three private and public universities who possess experience or familiarity with ChatGPT. Surveys are distributed to individuals across various genders, ethnicities, educational backgrounds, and institutions to gather a wide range of perspectives and ensure the reliability of the findings.

3.3.4 Sampling Technique

Stratified sampling, a type of probability sampling, is used in this study to ensure a representative selection of participants from Malaysian private and public universities. Participants are then randomly selected from each stratum, ensuring proportional representation. This approach enhances the study's ability to capture diverse student experiences, leading to more generalizable and reliable results. By using stratified sampling, the study accounts for potential differences in student behavior and attitudes, providing a more comprehensive understanding of the factors influencing the use of ChatGPT across Malaysia's higher education landscape.

3.3.5 Sampling Size

The number of responders from the target population is determined by the sampling size, which also acts as a representative subset. Conducting a study on the entire population would be excessively large and costly, making it impractical. Therefore, establishing a sampling size is a practical and efficient approach to executing the study.

According to the Ministry of Higher Education Malaysia (2022), the public university population consists of 40,841 students at UM, 33,192 students at UKM, and 34,840 students at USM. Additionally, information gathered from the websites of private universities indicates that there are 24,000 students at UTP, 38,703 students at UNITEN, and 21,000 students at UTAR. Consequently, the combined population of students enrolled in both public and private universities amounts to 192,576 individuals.

Referring to Krejcie and Morgan (1970), the study employs a simplified sample size decision based on population size, as indicated in Table 3.3.5. Given that the study population is within the class of 75,000 and 1,000,000 individuals, the sample size is at least 384 respondents.

Table 3.3.5: Table for Determining Sample Size for a Finite Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.   *S* is sample size.

Source: Krejcie & Morgan, 1970

Note: Adopted from Krejcie & Morgan. (1970). Developed for the research.

3.4 Research Instrument

3.4.1 Questionnaire Design

The research utilized the questionnaire approach as its primary data collection instrument. This method efficiently gathered data from a large number of respondents simultaneously, ensuring a broad sample size and timely results (Roopa & Rani, 2012). The questionnaire was meticulously crafted by adopting and adapting questions from previous studies' questionnaires. The questionnaire is designed with fixed-alternative questions aimed to maintain consistency, thus enhancing the reliability and comparability of responses. Moreover, the

questionnaires were disseminated online through the use of Google Form. Respondents received the questionnaire link via email and social media channels. This online distribution method not only made the process cost-effective but also offered flexibility in questionnaire design (Evans & Mathur, 2005).

This questionnaire comprises five sections (Sections A, B, C, D, and E) and a total of 35 questions. Section A is dedicated to gathering background information from respondents using nominal and ordinal scales. It covers demographic information such as gender, age, ethnic group, name of university, level of study, and type of university. In contrast, Sections B to E utilize a 5-point Likert scale ranging from strongly disagree to strongly agree. Section B comprises 6 questions focusing on PEOU, Section C includes 8 questions targeting PU, Section D involves 8 questions centered around AT, and Section E contains 7 questions assessing BI.

3.4.2 Pre-test

Before distributing the questionnaires, a pre-test was conducted to identify and rectify any potential issues. This included addressing unclear or ambiguous questions, ensuring response options were easy to understand, and resolving any technical glitches with the survey platform. Dr. Ramesh, the supervisor of the study, conducted a review of the questionnaires. Minor adjustments were implemented based on the feedback received, as outlined in Table 3.4.2. Following these revisions, the finalized questionnaire was utilized for the main data collection phase of the study.

Table 3.4.2 Measurement Items

Original Scale Items	Modified Scale Items
Using ChatGPT would improve my work quality.	Using ChatGPT would improve my studies quality.
Using ChatGPT would increase my productivity.	Using ChatGPT would increase my learning process.
Using ChatGPT would enhance my work effectiveness.	Using ChatGPT would enhance my studies effectiveness.
I recommend ChatGPT to my colleagues to facilitate their academic duties.	I recommend ChatGPT to my colleagues to facilitate their academic studies.
I feel my work overall will be better with ChatGPT.	I feel my studies overall will be better with ChatGPT.

Note: Developed for the research.

3.4.3 Pilot Study

A pilot study plays a crucial role in the development of new scales or questionnaires. It consists of a preliminary trial conducted before the main study to evaluate feasibility and detect any problems with the research tools. By gathering data from a sample of respondents, researchers assess the clarity and efficacy of these tools, thereby enhancing their quality and the reliability of collected data (Van Teijlingen & Hundley, 2002).

In this study, 30 sets of questionnaires were gathered and processed using SPSS 26.0 software to assess the reliability of the questions. Table 3.4.3 presents the reliability results from the pilot study. The coefficients alpha values for PEOU, PU, AT, and BI were found to be 0.892, 0.890, 0.751, and 0.916 respectively. With all results surpassing 0.7, the questionnaire demonstrates sufficient reliability for conducting a full study, as confirmed by the pilot study's reliability test.

Table 3.4.3 Reliability Test for Pilot Study

Variables	Number of Items	Cronbach's Alpha	Reliability
Perceived ease of use (PEOU)	6	0.892	Good
Perceived usefulness (PU)	8	0.890	Good
Attitude towards using (A)	8	0.751	Acceptable
Behavior Intention to Use (BI)	7	0.916	Excellent

Note: Developed for the research.

3.5 Constructs Measurement
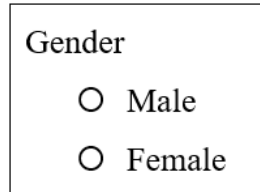
3.5.1 Scale of Measurement

The scale of measurement serves as a method for attributing numbers or symbols to depict the features of objects or phenomena under examination, aiding in their

classification and quantitative assessment (Shukla, 2023). The four primary types of scales include nominal, ordinal, interval, and ratio. In the present study, the nominal, ordinal, and interval scales are utilized, with the exception of the ratio scale.

3.5.1.1 Nominal Scale

According to Mishra et al. (2018), a nominal scale is a tool that uses labels or numbers to indicate different categories without providing a quantitative significance. It divides data into discrete groups or categories without any intrinsic order or ranking. Thus, in order to create a nominal scale, Section A of this study uses four questions: Gender, Ethnic Group, Name of University, and Type of University. A sample of the nominal scale utilised in this investigation is presented in Figure 3.5.1.1.

Figure 3.5.1.1: Nominal Scale

3.5.1.2 Ordinal Scale

An ordinal scale is a type of measurement scale that arranges or ranks data based on a criterion, using numbers or labels to depict the order of categories without detailing the precise differences between them (Dalati, 2018). In Section A of this study, two questions (Age and Level of Study) were used to create an ordinal scale. Figure 3.5.1.2 of this study provides an example of this type of scale.

```
Age
    ○  18 years old and below
    ○  19-21 years old
    ○  22-24 years old
    ○  25-27 years old
    ○  28 years old and above
```

Figure 3.5.1.2 Ordinal Scale

3.5.1.3 Interval Scale

An interval scale is a measurement tool where the intervals between values are equal and meaningful, but there is no true zero point. This implies that while differences between values can be measured, ratios between them are not meaningful (Aini et al., 2018). The Likert scale, widely employed in questionnaires, gauges respondents' agreement levels with statements (Joshi et al., 2015). Furthermore, using a 5-point Likert scale, interval scales were used in Sections B, C, D, and E of the questionnaire to gauge respondents' degree of agreement or disagreement with specific items. The 5-point Likert scale used in this study is shown in Figure 3.5.1.3.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I intend to use ChatGPT in the future.	1	2	3	4	5

Figure 3.5.1.3 Interval Scale

3.5.2 Origin of Construct

The constructs in this study were adopted and adapted from previous research. The sources of these constructs are listed in Table 3.5.2.

Table 3.5.2 Origin of Construct

Variables	Code	Items	Source
Perceived ease of use (PEOU)	PEOU1	Learning to operate ChatGPT would be easy for me.	Adopted from Hayder Albayati, (2024)
	PEOU2	I believe ChatGPT is easy to use.	
	PEOU3	It is easy for me to become skillful at using ChatGPT.	
	PEOU4	I find ChatGPT easy to address academic inquiries.	Adopted from Lai et al., (2023)
	PEOU5	My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	
	PEOU6	I find Chat GPT to be a user-friendly tool.	Adopted from Yilmaz et al., (2023)

Variables	Code	Items	Source
Perceived Usefulness (PU)	PU1	Using ChatGPT would improve my studies quality.	Adapted from Hayder Albayati, (2024)
	PU2	Using ChatGPT would increase my learning process.	
	PU3	Using ChatGPT would enhance my studies effectiveness.	
	PU4	For me, ChatGPT is a reliable source of accurate information.	Adopted and adapted from Sallam et al., (2023)
	PU5	I recommend ChatGPT to my colleagues to facilitate their academic studies.	
	PU6	ChatGPT is more useful than other sources of information that I have used previously.	
	PU7	I appreciate the accuracy and reliability of the information provided by ChatGPT.	
	PU8	I believe that using ChatGPT can save time and effort in my university assignments and duties.	

Variables	Code	Items	Source
Attitude towards using (A)	A1	I enjoy using ChatGPT.	Adopted from Yilmaz et al., (2023)
	A2	Using ChatGPT is fun.	
	A3	I find it interesting to interact with ChatGPT.	
	A4	I am interested in using ChatGPT.	Adopted and adapted from Albayati, (2024)
	A5	I am likely to use ChatGPT because of its attractiveness.	
	A6	I feel my studies overall will be better with ChatGPT.	
	A7	ChatGPT is valuable.	Adopted from Jo, (2023)
	A8	ChatGPT is beneficial.	

Variables	Code	Items	Source
Behavior Intention to use (BI)	BI1	I intend to use ChatGPT in the future.	Adopted from Yilmaz et al., (2023)
	BI2	I plan to use ChatGPT frequently in the future.	
	BI3	I expect to use ChatGPT more often in the future than I do now.	
	BI4	I have used tools or techniques similar to ChatGPT to in the past.	Adopted from Sallam et al., (2023)
	BI5	I spontaneously find myself using ChatGPT when I need information for my university assignments and duties.	
	BI6	I often use ChatGPT as a source of information in my university assignments and duties.	
	BI7	It is worth recommending ChatGPT to other students.	Adopted from Duong et al., (2023)

Note: Developed for the research.

3.6 Data Processing

3.6.1 Data Checking

Data checking is an essential procedure in the field of big data analytics where the accuracy and dependability of data are vital for making well-informed choices. This procedure involves various essential activities: Validation is the process of confirming the accuracy of data obtained from trustworthy sources, which is crucial due to the substantial influence of these decisions on patient outcomes. Completeness checks ensure that all necessary data fields are filled without any gaps. Error detection involves identifying and rectifying any errors or inconsistencies in the data, including the examination of outliers or abnormal values. Consistency checks verify that data from different sources and datasets conform to established norms or standards. Collectively, these measures greatly enhance the capacity of healthcare institutions to efficiently utilize large datasets, hence reducing the potential hazards linked to judgments made using low-quality or inaccurate data. The thorough validation procedure is essential for optimizing in expanding operational efficiencies and improving patient care outcomes (Wang et al., 2018).

3.6.2 Data Editing

Data editing is an essential stage in the data processing sequence that improves the thoroughness and precision of studies by correcting any inaccuracies that may have arisen during data collecting. This procedure encompasses various fundamental methodologies. Error Localization involves finding the precise position of mistakes within the dataset, which may consist of specific entries that differ from the anticipated data structure or value ranges. The process of error correction involves rectifying recognized errors by substituting incorrect values, estimating missing data by computation, or eliminating uncorrectable outliers. Rule-Based Cleaning employs pre-established criteria to automatically rectify typical data errors, such as

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correcting implausible age inputs. Data Standardization is the process of ensuring that all data conforms to a consistent format and scale. This helps to streamline analysis and enables the integration of data from different sources. Moreover, Duplicate Elimination aims to identify and resolve duplicate entries that have the potential to skew analytical results. Together, these methods enhance the dependability and user-friendliness of data, while also guaranteeing the validity of subsequent analysis and the production of trustworthy insights. Through proficient data editing, researchers can guarantee the accuracy and consistency of their data inputs, hence facilitating robust data analytics (Batini & Scannapieco, 2016).

3.6.3 Data Coding

Coding is the procedure of assigning numerical values to replies that are first presented in various formats. The primary goal is to streamline the automated processing of data for analytical purposes (Data Coding, 2023). Type of University, for instance can be coded as 1= Public university and 2= Private university. This helps to find the data faster and easier, moreover enhances its accurateness.

3.6.4 Data Transcribing

Data transcribing is the final process in data processing part. In this step the collected responses from survey form would be converted in SPSS software to generate the research data. Data analysis transcription is mostly employed in qualitative research. Qualitative data, according to Macalester College's definition, refers to the attributes or properties of a subject being investigated. Researchers collect this kind of data using techniques such as observation, participant interviews, and questionnaire administration. Recording these exchanges and observations enables a comprehensive examination of the gathered qualitative data. In contrast to quantitative data, it is necessary to employ a method of analysis in order to derive

significance from your findings and transform your subject matter into a relevant context for your research pursuit (Davey, 2023).

3.7 Data Analysis

3.7.1 Descriptive Analysis

A subfield of statistics known as descriptive statistics is concerned with condensing, arranging, and presenting data. It seeks to give a concise overview of a dataset's key characteristics so that researchers may recognize distributions, trends, and patterns. These methods help to visualize and analyze the data, which makes it easier to comprehend the data and lays the groundwork for additional statistical analysis or decision-making procedures (Simplilearn, 2023).

Kaur, Stolzfus, and Yellapu (2018) emphasized the significance of descriptive statistics in establishing the relationship between variables. Researchers can determine the strength and direction of correlations between two variables by utilizing measurements such as correlation coefficients. This statistical methodology is crucial in diverse domains as it facilitates the identification of patterns and enables evidence-based decision making.

3.7.2 Reliability Analysis

According to Chan (2006) cited in Nawi et al., (2020) the reliability approach is employed to ascertain the correlation coefficient between scores for each individual

item. Through the implementation of this technique, the items that exhibit strong correlation with the test index score are considered to have high reliability, while the items that display weak connection are deemed to have low reliability and will be eliminated from the test. The internal consistency approach refers to this technique.

The University of Virginia article "Using and Interpreting Cronbach's Alpha" states that the coefficient of reliability, which ranges from 0 to 1, offers an evaluation of a measure's dependability. The covariance value is 0 if every scale item is totally independent of every other item (that is, if there is no correlation or covariance shared by them). Conversely, a high covariance number indicates that all of the components have strong covariances. As the number of items in the scale approaches towards infinity, the value will converge to 1. To put it simply, a higher coefficient means that there is more shared covariance between the items, indicating that they probably measure the same concept. Nonetheless, a minimum value of 0.65 to 0.8 is recommended by many experts (or higher in specific instances). In general, coefficients less than 0.5 are regarded as inappropriate, especially for scales that make this claim (for additional information on dimensionality, refer Section III).

Next is according to Arof et al. (2018), the value of reliability analysis can interpreted by the table 3.7.2 provided.

No	Coefficient of Cronbach's Alpha	Reliability Level
1	More than 0.90	Excellent
2	0.80-0.89	Good
3	0.70-0.79	Acceptable
4	0.60-0.69	Questionable
5	0.50-0.59	Poor
6	Less than 0.59	Unacceptable

Table 3.7.2: The range of Cronbach's alpha
Source: Adopted from (Arof, Ismail & Saleh, 2018)

3.7.3 Inferential Analysis

3.7.3.1 Pearson Correlation Coefficient

The Pearson correlation test quantifies the relationship between two variables that are measured on a continuous scale. Spearman's correlation is a nonparametric substitute. Correlation is a specialised term that distinguishes it from association. This chapter explores the utilisation of several forms of correlation. In addition, we explore the distinction between correlation and concordance. A strong correlation does not necessarily indicate a good agreement. Concordance is a numerical evaluation of the level of agreement or interconnection between different elements (Mujtaba et al., 2019).

In a study by Roberts et al. (2023), which explores the undergraduate students' intention to use chatbot the pearson correlation coefficient is used to test linearity among the variables. Hence, in this instance, the Pearson correlation coefficient will be the most suitable correlation method to apply in our research. Each scale range's correlation values are provided in table 3.7.3.1:

Scale of correlation coeffiecient	Value/Strength
r, 0–0.19	Very weak
r, 0.2–0.39	Weak
r, 0.40–0.59	Moderate
r, 0.6–0.79	Strong
r, 0.8–1	Very strong

Table 3.7.3.1: Scale of correlation coefficient
Source: Adopted from (Roberts et al., 2023)

3.7.3.2 Multiple Regression Analysis

Multiple regression analysis is a statistical tool used for evaluating data. It is a continuation of linear regression, a method used to forecast the value of a variable that is influenced by another variable. This renders the predictive variable as a dependent variable, as it relies on another variable to exert an influence on it. Multiple regression involves the influence of two or more independent variables on the value of the dependent variable. Multiple regression analysis is a technique used

to assess the data obtained from regression measurements (Indeed Editorial Team, 2022).

Multiple regression analysis is a statistical technique that looks at the correlation between two or more variables and uses this information to predict the value of the dependent variable. This meaning was also expressed in another article by BYJU's. The goal of multiple regression is to build a model that uses multiple independent variables to explain a dependent variable, y. The process of multiple regression analysis makes it possible to explicitly control a wide range of variables that simultaneously affect the dependent variable. Let k be the number of variables, denoted by x1, x2, x3,..., xk. This formula is useful for making predictions.

Researchers can assess the strength of the correlation and the relative importance of each predictor in a relationship between an outcome (the dependent variable) and multiple predictor variables using multiple regression analysis, frequently while accounting for the impact of other predictors (Bray, 2017)

3.8 Chapter Summary

This chapter provides a comprehensive explanation of our study methodology. The sampling strategy, data gathering methodologies, and data analysis are all included within this. The data will be collected from a diverse sample of individuals who meet the specific criteria utilizing a questionnaire. To obtain a dependable measurement, we will utilize the Cronbach's Alpha test. The Pearson correlation analysis and multiple regression analysis will be employed to ascertain the relationship between our dependent variable(s) and independent variable(s).

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

Thirty sets (30) of questionnaires were utilized for the testing, and a total of 384 sets of surveys were sent to the top 6 universities in Malaysia, of which three are public and the other three private. We will look closely at the questionnaire's reliability test in this chapter, using SPSS software to analyze and interpret the data in great detail. We have used the SPSS software to conduct two different kinds of analyses: inferential and descriptive. On the other hand, multiple regression analysis and Pearson correlation analysis were incorporated in inferential analysis. To put it briefly, this chapter compiles the information gathered and uses statistical techniques to analyze it.

4.1 Descriptive Analysis

The six questions in the respondent's demographic profile will be examined in this section. These inquiries cover gender, age, ethnicity, university name, study level, and university type.

4.1.1 Respondents Demographic Profile

4.1.1.1 Gender

Gender	Frequency	Percentage	Cumulative Frequency	Cumulative Percent
Male	192	50	192	50
Female	192	50	384	100

Table 4.1.1.1 Respondents' Gender

Source: Developed for the research
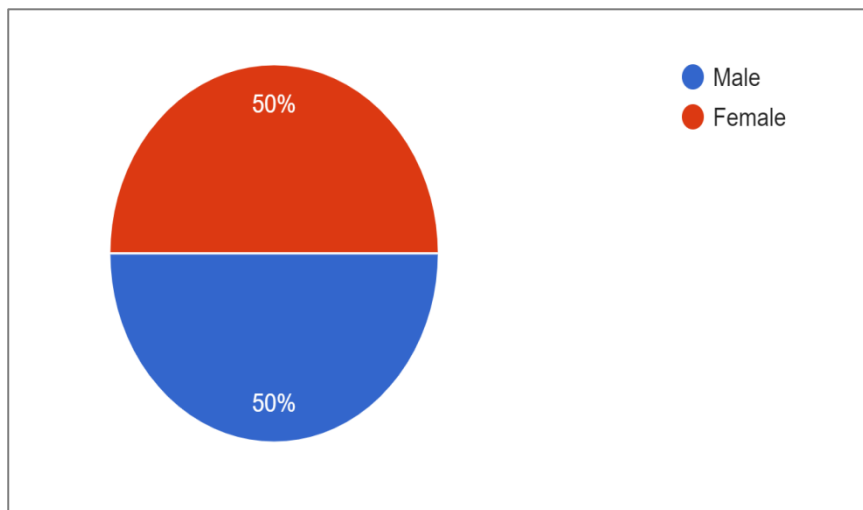
Figure 4.1.1.1: Respondents' Gender

Source: Response from Google Form

Table 4.1.1.1 and Figure 4.1.1.1 show the frequency and percentage of the number of male and female respondents to this questionnaire. There are a total number of 192 female respondents with a percentage of 50% and 192 male respondents with a

percentage of 50%. In this survey, male respondents and female respondents equally participated in this study.

4.1.1.2 Age

Age	Frequency	Percentage	Cumulative Frequency	Cumulative Percent
18 and below	21	5.5	21	5.5
19 - 21	110	28.8	131	34.3
22 - 24	154	39.7	285	74.0
25 - 27	79	20.8	364	94.8
28 and above	20	5.2	384	100

Table 4.1.1.2 Respondents' Age

Source: Developed for the research
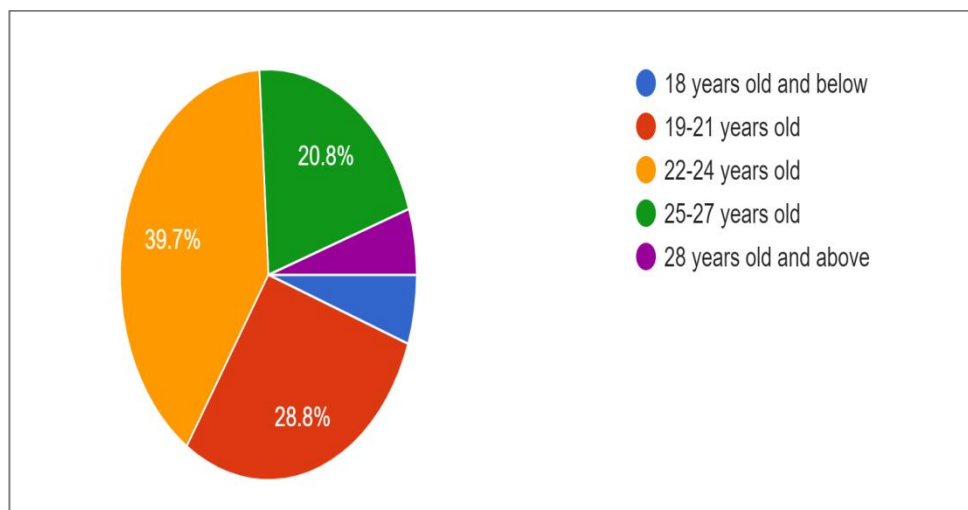
Figure 4.1.1.2 Respondents' Age

Source: Response from Google Form

The age distribution of the respondents who filled out the questionnaire is shown in the pie chart above. The pie chart shows that 21 respondents (5.5%) who were 18 years of age or younger, 110 respondents (28.8%) who were 19–21 years old, 154 respondents (39.7%) who were 22–24 years old, 79 respondents (20.8%) who were 25–27 years old, and 20 respondents (5.2%) who were 28 years of age and older completed the questionnaire. Most of the respondents who filled out this questionnaire were, on average, between the ages of 22 and 24.

4.1.1.3 Ethnic Group

Ethnic Group	Frequency	Percentage	Cumulative Frequency	Cumulative Percent
Chinese	180	46.9	180	46.9
Indian	96	25	276	71.9
Malay	108	28.1	384	100

Table 4.1.1.3 Respondents' Ethnic Group

Source: Developed for the research
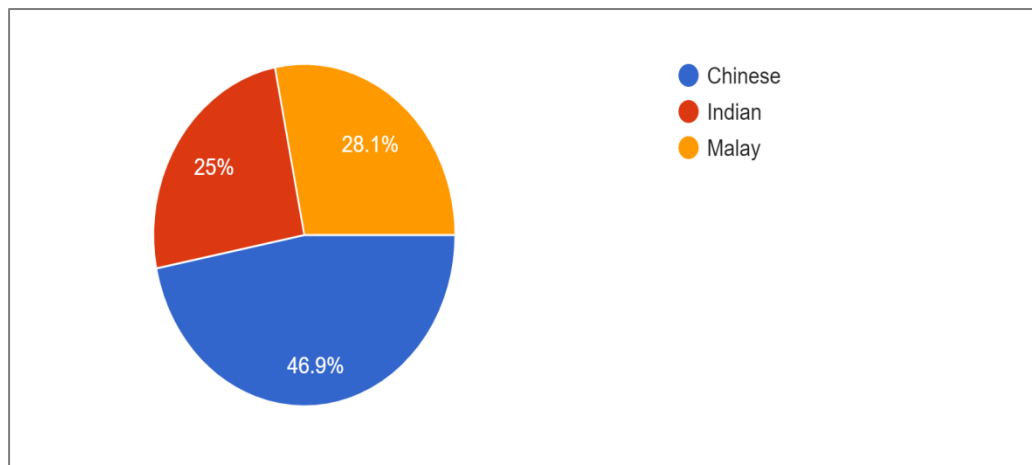
Figure 4.1.1.3 Respondents' Ethnic Group

Source: Response from Google Form

The pie chart presented above depicts the types of ethnic groups who completed the questionnaire. There are total number of 180 respondents from Chinese ethnic group with 46.9% making them the highest ethnic group who participated in this survey. Next is Malay and Indian ethnic group with 108 (28.8%) and 96 (25%) number respondents respectively. In sum, this study was took part from all three major ethnic groups of Malaysia.

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4.1.1.4 Name of University

University	Frequency	Percentage	Cumulative Frequency	Cumulative Percent
UM	54	14.1	54	14.1
UKM	58	15.1	112	29.2
USM	54	14.1	166	43.3
UTP	48	12.5	214	55.8
UNITEN	46	12	260	67.8
UTAR	124	32.3	384	100

Table 4.1.1.4 Respondents' Name of University

Source: Developed for the research
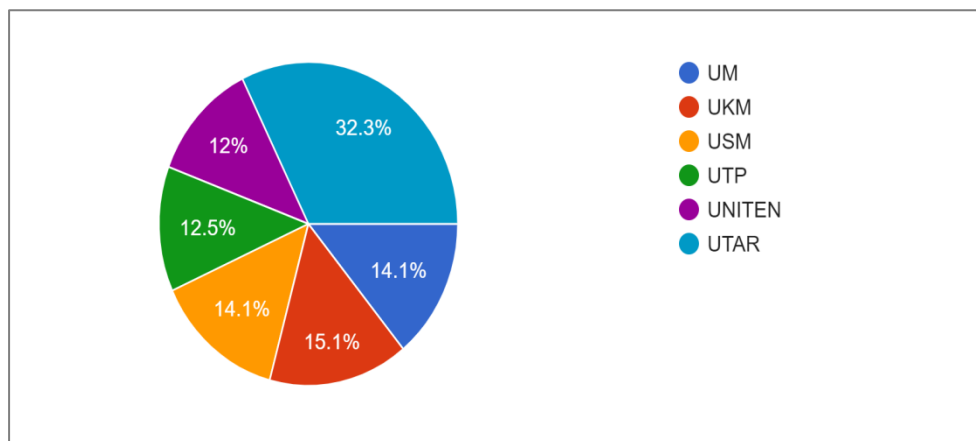
Figure 4.1.1.4 Respondents' Name of University

Source: Response from Google Form

The figure 4.1.1.4 shows the universities from which the respondents originated from. From the results shown, 6 universities' responses have been collected which

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are from UM, UKM, USM, UTP, UNITEN & UTAR. UM and USM are having same number of respondents which is 54 (14.1%). There are total number of 58 (15.1%) respondents from UKM; 48(12.5%) from UTP; 46(12%) from UNITEN and 124(32.3%) from UTAR. This shows that UTAR has contributed majorly to the survey conducted.

4.1.1.5 Level of Study

Level of Study	Frequency	Percentage	Cumulative Frequency	Cumulative Percent
Foundation	74	19.3	74	19.3
Diploma	52	13.5	126	32.8
Bachelor Degree	205	53.4	331	86.2
Master	53	13.8	384	100

Table 4.1.1.5 Respondents' Level of Study
Source: Developed for the research
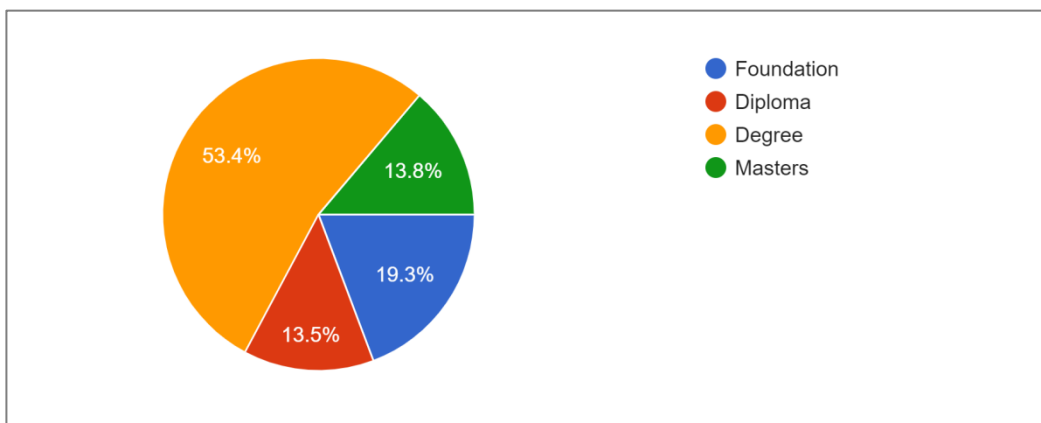
Figure 4.1.1.5 Respondents' Level of Study

Source: Response from Google Form

This pie chart presented above depicting the ranges of level of study among the respondents. Respondents who are pursuing Degree is the highest contributor among the 4 categories for the survey with 53.4% (205 respondents). The following contributors are respondents who are pursuing Foundation with 19.3% (74 respondents); Master with 13.8% (53 respondents) and Diploma 13.5% (52 respondents). The is only slight difference between number of respondent of Masters and Diploma respondents which is one.

4.1.1.6 Type of University

Type of University	Frequency	Percentage	Cumulative Frequency	Cumulative Percent
Public	172	44.8	172	44.8
Private	212	55.2	384	100

Table 4.1.1.6 Respondents' Type of University

Source: Developed for the research
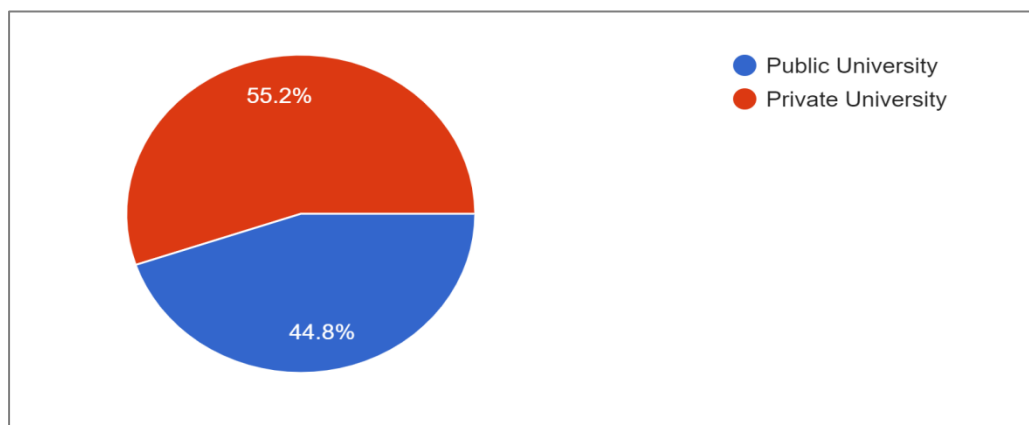
Figure 4.1.1.6 Respondents' Type of University

Source: Response from Google Form

Based on the result that shown in Table 4.1.1.6 and Figure 4.1.1.6, there are a total of 384 respondents who have taken part in this study. The respondent percentage from private universities shows slight upper hand in the contribution for the study with 55.2% (212 respondents) whereas public universities have contributed to 44.8% (172 respondents) of the overall study.

4.1.2 Central Tendencies Measurement of Constructs

The computation of the mean and standard deviation values for the three independent variables and one dependent variable will be demonstrated in this section. The mean and standard deviation scores for the 29 questions in Sections B and C of the questionnaire—which are rated as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree—were calculated using the SPSS software.

Central Tendencies Measurement: Perceived Ease of Use

Table 4.1.2 Central Tendencies Measurement: Perceived Ease of Use

Questionnaires	Mean	Mean Ranking	Standard Deviation	SD Ranking
Learning to operate ChatGPT would be easy for me.	4.24	4	0.7288	3
I believe ChatGPT is easy to use.	4.42	1	0.6997	6
It is easy for me to become skillful at using ChatGPT.	4.30	3	0.7068	5
I find ChatGPT easy to address academic inquiries.	4.10	5	1.0166	1
My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	4.05	6	0.9950	2
I find ChatGPT to be a user-friendly tool.	4.38	2	0.7235	4

Central Tendencies Measurement: Perceived Usefulness

Table 4.1.2 Central Tendencies Measurement: Perceived Usefulness

Questionnaires	Mean	Mean Ranking	Standard Deviation	SD Ranking
Using ChatGPT would improve my studies quality.	4.31	3	0.6774	6
Using ChatGPT would increase my learning process.	4.23	4	0.6709	7
Using ChatGPT would enhance my studies effectiveness.	4.37	1	0.6657	8
For me, ChatGPT is a reliable source of accurate information.	4.08	7	1.0883	1
I recommend ChatGPT to my colleagues to facilitate their academic studies.	4.17	6	0.9073	3
ChatGPT is more useful than other sources of information that I have used previously.	4.19	5	0.8445	4
I appreciate the accuracy and reliability of the information provided by ChatGPT.	4.05	8	1.0308	2
I believe that using ChatGPT can save time and effort in my university assignments and duties.	4.34	2	0.7486	5

Central Tendencies Measurement: Attitude Toward Using

Table 4.1.2 Central Tendencies Measurement: Attitude Toward Using

Questionnaires	Mean	Mean Ranking	Standard Deviation	SD Ranking
I enjoy using ChatGPT.	4.30	1	0.8929	2
Using ChatGPT is fun.	4.26	3	0.7587	6
I find it interesting to interact with ChatGPT.	4.14	6	0.9718	1
I'm interested in using ChatGPT.	4.17	5	0.8302	4
I am likely to use ChatGPT because of its attractiveness.	4.20	4	0.8844	3
I feel my studies overall will be better with ChatGPT.	4.30	1	0.7031	8
ChatGPT is valuable.	4.30	1	0.7971	5
ChatGPT is beneficial.	4.28	2	0.7292	7

Central Tendencies Measurement: Behavioral Intention to Use

Table 4.1.2 Central Tendencies Measurement: Behavioral Intention to Use

Questionnaires	Mean	Mean Ranking	Standard Deviation	SD Ranking
I intend to use ChatGPT in the future.	4.28	2	0.7709	5
I plan to use ChatGPT frequently in the future.	4.04	7	1.0248	1
I expect to use ChatGPT more often in the future than I do now.	4.26	3	0.7989	4
I have used tools or techniques similar to ChatGPT in the past.	4.07	6	0.9604	2
I spontaneously find myself using ChatGPT when I need information for my university assignments and duties.	4.15	5	0.8750	3
I often use ChatGPT as a source of information in my university assignments and duties.	4.26	4	0.7665	7
It is worth recommending ChatGPT to other students	4.32	1	0.7697	6

4.2 Scale Measurement

Scale measurement is used to evaluate the reliability of each construct identified in this study. In this section, we will run the reliability test on a total sample of 384 respondents. This test uses Cronbach's Alpha to analyze the consistency of the gathered items and their interrelationships. The table below demonstrates the reliability test results for independent variables (PEOU, PU, and AT) as well as the dependent variable (BI).

4.2.1 Reliability Analysis

Table 4.2.1 displays the Cronbach's alpha values of the variables calculated from the results of the reliability test. According to the table, Cronbach's alpha values for the independent variables for PU, and AT are 0.809, and 0.823, respectively. This indicates that these two independent variables have very good reliability due to their high Cronbach's alpha of greater than 0.80. Meanwhile, Cronbach's alpha for PEOU is 0.703, which indicated that it has good reliability as it alpha value is between 0.70 and 0.80. However, the Cronbach's alpha value of 0.725 for the dependent variable BI is between 0.70 and 0.8 indicating good reliability.

Type of the Variable	Name of the Variable	Number of Items	Cronbach's Alpha	Reliability Test
Independent Variable	Perceived Ease of Use	6	0.703	Good reliability
Independent Variable	Perceived Usefulness	8	0.809	Very good reliability
Independent Variable	Attitude Toward Using	8	0.823	Very good reliability
Dependent Variable	Behavioral Intention to Use	7	0.725	Good reliability

Table 4.2.1 Cronbach's Alpha Reliability

Cronbach's Alpha Range	Reliability
Below 0.60	Poor reliability
0.60 to 0.70	Fair reliability
0.70 to 0.80	Good reliability
0.80 to 0.95	Very good reliability

Table 4.2.2 Cronbach's Alpha Range

4.3 Inferential Analysis

4.3.1 Pearson Correlation Analysis

The Pearson Correlation Analysis uses a correlation coefficient (r) that ranges from -1 to 1 to determine the direction and strength of a linear relationship between two continuous variables. Using this approach, one can look into the relationship between changes in one variable and changes in another. In order to investigate AT, BI, PU, and PEOU, Pearson's Correlation Analysis is utilized in this study.

4.3.1.1 Perceived ease of use with perceived usefulness

H0: Perceived ease of use does not significantly influences Malaysian university students' perceived usefulness of ChatGPT.

H1: Perceived ease of use significantly influences Malaysian university students' perceived usefulness of ChatGPT.

Table 4.3.1.1

Correlation between PEOU and PU

		PEOU average	PU average
PEOU average	Pearson Correlation	1	.475**
	Sig. (2-tailed)		.000
	N	384	384
PU average	Pearson Correlation	.475**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.3.1.1 Correlation between PEOU and PU

The association between PU and PEOU is mild, as Table 4.3.1.1 shows a correlation of 0.475 between the two variables. The range of the 0.475 correlation coefficient is between 0.40 and 0.59. The moderate correlation is statistically significant and strong, as indicated by the p-value of less than 0.001, which is significantly lower than the alpha criterion of 0.05.

4.3.1.2 Perceived ease of use with attitudes

H0: Perceived ease of use does not significantly influences Malaysian university students' attitudes toward using ChatGPT.

H2: Perceived ease of use significantly influences Malaysian university students' attitudes toward using ChatGPT.

Table 4.3.1.2

Correlation between PEOU and AT

		PEOU average	AT average
PEOU average	Pearson Correlation	1	.578**
	Sig. (2-tailed)		.000
	N	384	384
AT average	Pearson Correlation	.578**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.3.1.2 Correlation between PEOU and AT

The correlation between AT and PEOU is 0.578, as shown in Table 4.3.1.2, suggesting a moderate link between these factors. The correlation between the two is supported by the correlation coefficient of 0.578, which falls between 0.40 to 0.59. The p-value for this moderate association is less than 0.001, which is below the alpha value threshold of 0.05, making it statistically significant.

4.3.1.3 Perceived usefulness with attitudes

H0: Perceived usefulness does not significantly influences Malaysian university students' attitudes toward using ChatGPT.

H3: Perceived usefulness significantly influences Malaysian university students' attitudes toward using ChatGPT.

Table 4.3.1.3

Correlation between PU and AT

		PU average	AT average
PU average	Pearson Correlation	1	.576**
	Sig. (2-tailed)		.000
	N	384	384
AT average	Pearson Correlation	.576**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.3.1.3 Correlation between PU and AT

The correlation between PU and AT in Table 4.3.1.3 is 0.576, indicating a moderate association between the two variables. The strength of the link is further supported by the correlation value of 0.576, which is within the range of 0.40 to 0.59. Given that the p-value for this moderate association is less than 0.001, well below the alpha criterion of 0.05, it is statistically significant.

4.3.1.4 Attitude with behavioral intention

H0: Attitude does not significantly influences Malaysian university students' behavioral intention toward using ChatGPT.

H4: Attitude significantly influences Malaysian university students' behavioral intention toward using ChatGPT.

Table 4.3.1.4

Correlation between AT and BI

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		AT average	BI average
AT average	Pearson Correlation	1	.725**
	Sig. (2-tailed)		.000
	N	384	384
BI average	Pearson Correlation	.725**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Table 4.3.1.4 Correlation between AT and BI

Attitude and behavioral intention have a substantial positive correlation (0.725) according to Table 4.3.1.4, indicating a strong association between the two variables. With a correlation value of 0.725, the range is between 0.60 and 0.79. There is a strong and significant correlation between AT and BI because the p-value (<0.001) is smaller than the alpha value.

4.3.2 Multiple Regression Model

As mentioned in Chapter 3, three independent variables and the dependent variable are compared using multiple regression. It aids in comprehending how, when one or more independent variables are changed while the other independent variables remain the same, the dependent variable changes as well.

4.3.2.1 Model Summary

Table 4.3.2.1

Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770[a]	.593	.590	.33764

a. Predictors: (Constant), AT average, PU average, PEOU average

b. Dependent Variable: BI average

Table 4.3.2.1 Model Summary

R-Value

The correlation coefficient between the dependent variable and the three independent variables is displayed by the R-value. The correlation coefficient (R) between the dependent variable (BI) and three independent factors (PEOU, PU, and AT) is 0.770, as shown in Table 4.3.2.1. As a result, we may say that the three independent variables and the dependent variable have a strong and positive connection.

R Square

The R square value gives information about the percentage or amount of the dependent variable's variance that can be ascribed to the independent variables. Table 4.3.2.1 indicates that the computed R square value is 0.593. This shows that 59.3% of the differences for the dependent variable (BI) can be explained by the independent variables (PEOU, PU, AT). But it's important to remember that the factors taken into account in this study only account for 40.7% (100%-59.3%) of the variance in behavioral intention. Put more simply, there are additional variables that significantly affect the explanation of behavioral intention but are not examined in this study.

4.3.2.2 ANOVA

Table 4.3.2.2

ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.046	3	21.015	184.340	.000^b
	Residual	43.321	380	.114		
	Total	106.367	383			

a. Dependent Variable: BI average

b. Predictors: (Constant), AT average, PU average, PEOU average

Table 4.3.2.2 ANOVA

Table 4.3.2.2 displays a p-value of 0.000 at a confidence level of 0.05, which is less than the 0.05 alpha criterion. Therefore, the 184.340 F-statistic is statistically significant. This suggests that the link between the independent factors (PU, AT, and PEOU) and the dependent variable (BI) is effectively described by the model. Thus, the alternate hypothesis is supported by the independent factors' strong ability to explain the variance in the dependent variable.

4.3.2.3 Coefficients

Table 4.3.2.3

Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.618	.164		3.782	.000
	PEOU average	.074	.041	.073	1.781	.076
	PU average	.281	.039	.294	7.183	.000
	AT average	.490	.042	.513	11.603	.000

a. Dependent Variable: BI average

Table 4.3.2.3 Coefficients

Interpretation

According to Table 4.3.2.3, PEOU is not a significant predictor of the dependent variable (BI) in this study. This conclusion is based on the p-value for PEOU use being 0.076, which is greater than the alpha value of 0.05, indicating a lack of statistical significance.

In contrast, PU is a significant predictor of BI. The p-value for PU is 0.000, which is significantly less than the alpha value of 0.05. This low p-value suggests that there is a strong statistical significance, indicating that PU has a meaningful impact on predicting behavioral intention in this study.

Similarly, AT is also a significant predictor of BI. The p-value for AT is 0.000, well below the alpha value of 0.05, confirming that AT significantly influences BI. Therefore, both PU and AT play crucial roles in predicting BI, while PEOU does not demonstrate a significant predictive capability in this context.

Multiple Regression Equation

$$y = a + b_1(x_1) + b_2(x_2) + b_3(x_3)$$

y = Behavioral intention (BI)

a = Constant value

b = Unstandardized coefficient B

x_1 = Perceived ease of use (PEOU)

x_2 = Perceived usefulness (PU)

x_3 = Attitude towards using (AT)

Based on Table 4.3.2.3, the regression equation for behavioral intention is:

$$BI = 0.618 + 0.074(PEOU) + 0.281(PU) + 0.490(AT)$$

Highest Contribution

In terms of its influence on the variance in the dependent variable (BI), AT stands out as the main predictor variable. The standardized coefficients clearly show this, with attitude having the greatest beta value (0.513) compared to the two predictor variables (PU and PEOU). This suggests that AT is the predictor that most significantly and uniquely contributes to explaining the variation in BI in the model after adjusting for all other factors. Therefore, out of all the variables examined, AT has the greatest influence on predicting BI.

Second-Highest Contribution

When it comes to predicting the variation in the dependent variable (BI), PU comes in second place. Its beta value, which is the second greatest among the predictor variables (PEOU and AT), in the standardized coefficients, is 0.294. This suggests that, after accounting for the variance described by all other predictor variables in the model, PU contributes the second-strongest unique explanation to the variation in behavioral intention.

Lowest Contribution

PEOU is the predictor variable that contributes least to the variation in the dependent variable (behavioral intention). PEOU has the lowest beta value (0.073) among the predictor variables (PU and AT), as can be seen from the standardized coefficients. This shows that PEOU contributes the least to explaining the variation in the dependent variable after controlling for all other model factors.

4.4 Conclusion

This study utilized Pearson Correlation and Multiple Regression analyses to explore the relationships and effects between the independent and dependent variables. Throughout the data analysis process, additional insights were uncovered. The Pearson correlation analysis revealed that, except for one variable which is PEOU and all other independent variables showed a significant correlation with the dependent variable. The primary aim of this analysis was to evaluate how each variable correlates with the dependent variable when considered independently. The findings largely supported the initial hypothesis, with the exception of the PEOU variable. Notably, this analysis highlighted that PEOU had the least impact on variations in the dependent variable (BI), as indicated by its lowest beta value when

compared to PU and AT. These results and interpretations from Chapter 4 will be further discussed in Chapter 5, where conclusions, implications, and recommendations will be provided.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATION

5.0 Introduction

Based on the analysis in the previous chapter, this chapter will summarize the descriptive and inferential statistics. Additionally, this chapter will further discuss the reasons why the results of the independent variables showed significance or non-significance. Apart from that, this chapter will also discuss the study's implications, limitations of this study, and recommendations for future research.

5.1 Summary of Statistical Analysis

5.1.1 Summary of Descriptive Analysis

Table 5.1.1

Summary of Descriptive Analysis

Variables	Frequency	Percentage (%)	Cumulative Percentage (%)
Gender			
Male	195	50.8	50.8
Female	189	49.2	100.0
Age			
18 and below	21	5.5	5.5
19-21	110	28.8	34.3
22-24	154	39.7	74.0
25-27	79	20.8	94.8
28 and above	20	5.2	100
Ethnic Group			
Chinese	180	46.9	46.9
Indian	96	25	71.9
Malay	108	28.1	100
University			
UM	54	14.1	14.1
UKM	58	15.1	29.2
USM	54	14.1	43.3
UTP	48	12.5	55.8
UNITEN	46	12	67.8
UTAR	124	32.3	100
Level of Study			
Foundation	74	19.3	19.3
Diploma	52	13.5	32.8
Bachelor's degree	205	53.4	86.2
Master	53	13.8	100
Type of University			
Public	172	44.8	44.8
Private	212	55.2	100

Table 5.1.1 Summary of Descriptive Analysis

Based on Table 5.1.1, the survey data shows a balanced gender distribution with 50.8% male and 49.2% female respondents. Most participants are aged 22-24 (39.7%), followed by 19-21 (28.8%), 25-27 (20.8%), 18 and below (5.5%), and 28 and above (5.2%). In terms of ethnicity, 46.9% of respondents are Chinese, 28.1% are Malay, and 25% are Indian. University affiliation reveals that the highest number of respondents are from UTAR (32.3%), followed by UKM (15.1%), UM and USM (each 14.1%), UTP (12.5%), and UNITEN (12%). Regarding the level of study, 53.4% are pursuing a Bachelor's degree, 19.3% are in Foundation, 13.8% are Master's students, and 13.5% are Diploma students. Additionally, 55.2% of respondents are from private universities, while 44.8% are from public universities.

5.1.2 Summary of Central Tendency Measurement

Table 5.1.2

Summary of Central Tendency Measurement

Variable	Mean	Standard Deviation
Perceived Ease of Use (PEOU)	4.2487	0.52221
Perceived Usefulness (PU)	4.2188	0.55226
Attitude Toward Using (AT)	4.2458	0.55184
Behavioral Intention (BI)	4.1964	0.52699

Table 5.1.2 Summary of Central Tendency Measurement

Based on Table 5.1.2, PEOU has the highest mean score at 4.2487 and a standard deviation of 0.52221. This is closely followed by AT with a mean of 4.2458 and a standard deviation of 0.55184. PU has the third-highest mean of 4.2188 and a standard deviation of 0.55226. Lastly, BI has the lowest mean score of 4.1964 and a standard deviation of 0.52699.

5.1.3 Summary of Reliability Test

Table 5.1.3

Summary of Reliability Test

Variable	Cronbach's Alpha	Reliability Test
Perceived Ease of Use (PEOU)	0.703	Good reliability
Perceived Usefulness (PU)	0.809	Very good reliability
Attitude Toward Using (AT)	0.823	Very good reliability
Behavioral Intention (BI)	0.725	Good reliability

Table 5.1.3 Summary of Reliability Test

All independent and dependent variables have demonstrated a high degree of dependability, with Cronbach's Alpha values ranging from 0.7 to 0.8, according to the results displayed in Table 5.1.3. Of the three independent variables, AT had the highest Cronbach's Alpha value (0.823), followed by PU (0.809) and PEOU (0.703). BI, the DV in the reliability test, has a Cronbach's Alpha value of 0.725.

5.1.4 Summary of Multiple Regression Analysis

Table 5.1.4

Summary of Multiple Regression Analysis

Independent Variable	P-Value	Results
Perceived Ease of Use (PEOU)	0.076	Not Significant
Perceived Usefulness (PU)	0.000	Significant
Attitude Toward Using (AT)	0.000	Significant

Table 5.1.4 Summary of Multiple Regression Analysis

Table 5.1.4 shows that BI is not significantly predicted by PEOU, with a p-value of 0.076 which is higher than the alpha value of 0.05. On the other hand, major predictors such as AT and PU have p-values of 0.000, which is significantly lower than the alpha value of 0.05. According to this, BI can be predicted with great accuracy by PU and AT, but not by PEOU.

5.2 Discussion of Major Findings

Two of the research's hypotheses were found to be valid, while the other two were found to be invalid. PU and AT are the two independent variables influencing Malaysian university students' behavioral intention toward using ChatGPT, while PEOU is not. Table 5.2 shows the summary results obtained from the hypothesis testing.

Table 5.2

Summary of the results from Hypothesis Testing

Hypothesis	Results
H1: Perceived ease of use significantly influences Malaysian university students' perceived usefulness of ChatGPT.	Not Supported
H2: Perceived ease of use significantly influences Malaysian university students' attitudes toward using ChatGPT.	Not Supported
H3: Perceived usefulness significantly influences Malaysian university students' attitudes toward using ChatGPT.	Supported
H4: Attitude significantly influences Malaysian university students' behavioral intention toward using ChatGPT.	Supported

Table 5.2 Summary of the results from Hypothesis Testing

5.2.1 The relationship between perceived ease of use and perceived usefulness of ChatGPT

The study's findings, as presented in Table 5.2, indicate that PEOU does not significantly influence Malaysian university students' perceived usefulness of ChatGPT. This result stands in contrast to several prior studies. Research conducted by Almogren et al. (2024), Albayati (2024), Saif et al. (2023), and Zhang & Huang (2023) all concluded that PEOU significantly impacts Malaysian university students' perceived usefulness of ChatGPT. These studies collectively reinforced the notion that ease of use plays a crucial role in determining how useful users perceive a technological application to be.

However, the current study's results align with the findings of Kenyta (2022), who reported that PEOU does not have a significant effect on PU in the context of technological applications. Kenyta's research suggested that if a technological application is deemed useful by its users, the complexity or difficulty of using the application becomes less relevant. This implies that the intrinsic usefulness of an

application can outweigh concerns regarding its ease of use, thereby challenging the more commonly accepted view that ease of use is a primary determinant of PU.

PEOU5 and item PEOU4, as evidenced by the respective mean scores of 4.0469 and 4.1042. These scores represent the lowest and second lowest means among the six items in the questionnaire. Consequently, the statements "My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries" and "I find ChatGPT easy to use for addressing academic inquiries" are not strongly supported by the respondents' feedback.

Moreover, the p-value for PEOU was determined to be 0.076, which exceeds the conventional alpha value of 0.05. This statistical outcome further corroborates the conclusion that PEOU does not significantly influence Malaysian university students' perceived usefulness of ChatGPT. suggesting that ease of use may not be a critical determinant of how useful Malaysian university students find ChatGPT for their academic inquiries. This finding challenges the assumption that ease of use is a primary driver of PU, highlighting the importance of other factors in influencing students' perceptions of the tool's value.

5.2.2 The relationship between perceived ease of use and attitudes of ChatGPT.

As the hypothesis has created "PEOU significantly influences Malaysian university students' attitudes toward using ChatGPT," and the literature review that was conducted earlier, the findings of this study provide a complex and nuanced perspective on the relationship between PEOU and attitudes toward using ChatGPT.

The Pearson correlation analysis conducted in this study revealed a moderate positive relationship between PEOU and attitudes toward using ChatGPT, with a correlation coefficient of 0.578. This indicates that, generally, as students find ChatGPT easier to use, their attitudes towards the tool tend to be more positive. This finding aligns with several studies highlighted in the literature review. For instance, Aleksić-Maslać, Borović, and Biočina (2024) found that ease of use was a critical determinant in the educational adoption of ChatGPT among students, while Liu, Darvin, and Ma (2024) similarly noted that PEOU significantly enhanced attitudes among Chinese EFL learners. These parallels reinforce the notion that ease of use is an important factor influencing students' attitudes towards ChatGPT, supporting the initial hypothesis.

However, when examining the predictive power of PEOU on behavioral intention through multiple regression analysis, the results tell a different story. a p-value of 0.076, which is above the alpha threshold of 0.05. This lack of statistical significance suggests that while PEOU may influence AT, it does not necessarily translate into a strong behavioral intention to use ChatGPT among Malaysian university students. This finding contrasts with earlier studies like that of Saif et al. (2024), who validated the TAM by demonstrating that PEOU directly influences students' attitudes and intentions to use AI tools like ChatGPT.

The contrasting results between the correlation and regression analyses point to a more complex relationship than initially hypothesized. While ease of use positively influences attitudes, as demonstrated by the moderate correlation, it is not sufficient on its own to predict whether students will actually intend to use ChatGPT. This complexity is echoed in other research findings. For example, studies by Slavov, García-Vidal, and Yotovska (2023), as well as Elbaz et al. (2024), highlight that factors such as ethical concerns and cultural context can override the

influence of ease of use on attitudes, further complicating the relationship between these variables.

In summary, the results of this study partially support the hypothesis, showing that PEOU does influence AT, but they also reveal that this influence does not extend to behavioral intention in a significant way. This suggests that while the TAM may have some applicability in this context, other factors beyond ease of use must be considered when predicting behavioral intentions to use ChatGPT among Malaysian university students. Future research should explore these additional factors, such as PU, ethical considerations, and cultural influences, to gain a more comprehensive understanding of what drives user adoption and attitudes towards ChatGPT.

5.2.3 The relationship between perceived usefulness and attitudes of ChatGPT

Based on the findings presented in Table 5.2, it is evident that PU exerts a significant influence on Malaysian university students' attitudes toward using ChatGPT. For instance, earlier studies that examined the integration of AI- based learning tools have provided substantial empirical evidence supporting this relationship (Pillai et al., 2023; Shen et al., 2022). Masa'deh et al. (2024) conducted research that corroborated these findings, revealing that PU positively impacts students' attitudes toward utilizing ChatGPT. This suggests that when students recognize the tool's value in enhancing their educational experience, they are more inclined to use it. The perceived benefits include improvements in learning quality and the facilitation of swift and effective completion of academic tasks.

Moreover, as demonstrated in the research by Zhang & Huang (2023), students' attitudes toward using ChatGPT are significantly shaped by their perceptions of its usefulness. The intricate and reciprocal relationship among these variables underscores the imperative for technology developers to focus on enhancing the PU of ChatGPT, thereby making it more functional and appealing to users. This study demonstrated that when users believe that a technology, such as a virtual assistant, is useful, they are more likely to embrace it.

This conclusion is further supported by the results of the survey questionnaires. The items about PU contribute to a mean score greater than 4, per the results. Notably, PU8 had the second-highest mean of 4.3438 and PU3 produced the highest mean of 4.3724. A majority of respondents agreed with the PU3 item, "Using ChatGPT would enhance my studies' effectiveness," and the PU8 item, "I believe that using ChatGPT can save time and effort in my university assignments and duties." These responses support the positive influence of PU on Malaysian university students' attitudes toward using ChatGPT. Furthermore, the p-value for PEOU was determined to be 0.000, which is statistically significant at the alpha value of 0.05. This statistical outcome further reinforces the conclusion that PU significantly influences Malaysian university students' perceived usefulness of ChatGPT.

5.2.4 The relationship between attitude toward using and behavioral intention to use ChatGPT

Based on our current result, we found that AT has a significant influence on BI ChatGPT among Malaysian university students. Based on past research, many studies have shown that AT has a significant influence on BI. According to Haq et al. (2024), the study's findings revealed a positive correlation between attitude and intention to utilise ChatGPT. Besides that, the results in Albayati (2024) show that

the relationship between AT and BI shows a significant and robust connection. Not only that, according to Li et al. (2024), demonstrated a significantly positive relationship between attitude toward using and students' behavioral intention to use ChatGPT. This demonstrates that students' attitudes toward using ChatGPT greatly influence their behavioral intention to use ChatGPT. This finding not only illustrates the important role of attitudes in forecasting users' behavioral intentions, but it also further supports to the TAM theoretical framework for understanding the relationship between AT and BI.

5.3 Implications of the Study

5.3.1 Managerial Implications

This study provides important practical implications for the use of ChatGPT. The findings of this study have implications for various stakeholders, including educational institution executives, senior departmental managers, and psychologists. This can be used to establish policies that strategically adapt and integrate technology to efficiently influence the use of ChatGPT among Malaysian university students.

5.3.1.1 Perceived ease of use (Independent Variable)

PEOU supports ChatGPT's philosophy of being user-friendly and easy to engage with, thereby encouraging utilization (Shaengchart et al., 2023). According to Tiwari et al. (2023), students considered ChatGPT is difficult to use, and they were

skeptical if ChatGPT would help them become proficient. Moreover, students sometimes found ChatGPT complex and time-consuming. All of this might be related to the issues that students have recently encountered, such as excessive website traffic and trouble querying.

Since ChatGPT is the most recent technical accomplishment in field of information science, majority of students are eager to utilise it, resulting in an increase in traffic on the Open AI server. Furthermore, students often find ChatGPT's responses to be incoherent and unclear. This may discourage the utilization of students who are seeking a quick answer to their problems from using ChatGPT. Hence, OpenAI developers should implement a robust feedback mechanism where students can report unclear or irrelevant responses to help developers continuously improve the system. Other than that, policy makers should work with service providers to ensure that the OpenAI servers have sufficient capacity to solve high-traffic problems and reduce issues related to excessive website traffic.

5.3.1.2 Perceived usefulness (Independent Variable)

In the case of ChatGPT, individuals may be more motivated to use it if they perceive that it improves their ability to complete a task (Malinka et al., 2023). This study shows that students' use of ChatGPT was significantly influenced by PU. According to Rahman et al. (2023), PU is an important motivator that promotes to positive attitudes and influence adoption of new technology. This shows the strengths of ChatGPT in terms of general responsiveness, simplicity, and efficiency of information delivered, all of which have a significant influence on students' attitude toward to use ChatGPT. Therefore, educational institutes should establish clear guidelines for students to properly utilise ChatGPT for assignments, essays, and projects, ensuring that they understand the potential of ChatGPT as a valuable supplemental tool rather than a replacement for critical thinking. For instance,

university's policymaker should encourage lecturer to discuss ChatGPT in the class while emphasising the importance of academic integrity. This can help students develop a balanced awareness of the benefits and ethical issues of utilising ChatGPT. Besides, policymakers should provide resources such as Turnitin AI to education institutions to help lecturers supervise students appropriately using ChatGPT in academic contexts, ensuring that it is perceived as a learning tool rather than a shortcut to plagiarism. If students are found to unduly reliant on ChatGPT as a primary tool to complete their assignment instead of developing their critical thinking and comprehension abilities, university is required to use policy intervention.

5.3.1.3 Attitude toward using (Independent Variable)

The relationship between students' attitudes and behavioral intentions to use the ChatGPT indicates that positively influencing attitudes raises the adoption rate. When students have a positive attitude towards ChatGPT, they are more inclined to utilise it. This is because positive attitudes influence the student's perception of the advantages of using ChatGPT, boosting the likelihood to utilise ChatGPT (Jo, 2023). Thus, policymakers should conduct campaigns and training to illustrate the application of ChatGPT in academic research, solving problems, and writing to educate students about the ability and limitations of ChatGPT.

5.4 Limitations of the Study

The first limitation we faced was involving respondent engagement. Distributing surveys was challenging due to the geographical spread of universities across Malaysia from north to south. This made us to necessitate online platforms like WhatsApp and Instagram to send our surveys. In these times, some students failed to complete the survey which requires us to do frequent reminders. Additionally,

some students were preparing for final exams and mid semester exams during the survey period, which may have compromised their focus and honesty, thus affecting the accuracy of their responses. The reliance on online platforms may also have excluded students who do not actively use these channels, introducing a selection bias. Furthermore, the lack of in-person interaction also have led to a lower sense of importance and urgency among respondents, potentially resulting in less thoughtful or hurried answers. Moreover, some just ignore the QR code shared to anwer the survey which led us to find other respondents. This may atributed from the busy schedules of the respondents. The non-simultaneous nature of online surveys means that the context in which responses were given could vary widely, influencing the consistency of the data collected.

Second limitation is lack of resources. Although, there are many jornals and articles related to ChatGPT is available on online, there is less researches done in Malaysia related to ChatGPT. Hence, the usage behaviour related to students and or people in Malaysia was hard to find. Apart from that, the resources relevant to our study are readily available online yet many high-quality sources are inaccessible due to subscription or purchase requirements. Consequently, the research was conducted without fully utilizing the existing body of literature.

The third limitation of study is the reliability of the resources available. Since ChatGPT came to operation in end of 2022, the field lacks extensive research and peer-reviewed literature, leading to a scarcity of reliable data and empirical studies. Furthermore, the rapid advancement of AI technologies such as ChatGPT may result in frequent upgrades and revisions which makes present research less relevant or no longer useful. The scarcity of long-term studies and historical data makes it difficult to draw firm conclusions or discern trends over time.

Besides, the another limitation faced was the sample size. This research is particularly focused on Malaysian university students. We chose stratified sampling with the chosen 6 Malaysian universities which comprises of more than 50,000 students population. However, we choose to narrow down to 384 respondents to conduct our survey. Hence, with a sample size of 384 reflects a portion of minority students' perspective which challenges the soundness of the research we conducted.

5.5 Recommendations for Future Projects

Based on the study, recommendations are made to advise future researchers who show interest in the relevant topic to make some improvements to it.

First and foremost, future researchers are recommended to use longitudinal methodologies to collect data. Longitudinal studies are crucial for understanding how Malaysian university students' intentions to use ChatGPT evolve over time, offering a dynamic perspective that cross-sectional studies cannot provide. By tracking the same students over an extended period, these studies can capture shifts in attitudes, PU, and actual usage behaviors as students become more familiar with the tool. They allow researchers to observe how initial excitement or skepticism about ChatGPT may change, revealing patterns of sustained use or decline. Additionally, longitudinal studies can assess the long-term impact of ChatGPT on academic performance, skill development, and students' future attitudes toward AI in their careers. This methodology is essential for identifying both the drivers and barriers to continuous use, the integration of AI technologies in learning environments.

Apart from that, future researchers may also combine quantitative and qualitative data collection techniques. Qualitative research is invaluable for future studies as it provides deep, context-rich insights into the complexities of students' experiences, beliefs, and emotions that quantitative methods may overlook. qualitative research can uncover the diverse personal stories, social dynamics, and cultural influences that shape students' attitudes toward ChatGPT, as well as the emotional responses, such as excitement, anxiety, or ambivalence, that impact their willingness to engage with AI. By capturing these nuanced perspectives, qualitative research complements quantitative findings, leading to a more comprehensive understanding that can inform the design of AI tools and educational interventions that resonate with students' needs and values.

Moreover, future studies could expand their scope of the study by including more relevant variables. Incorporating variables like perceived credibility, perceived enjoyment, and trust into future studies on Malaysian university students' intention to use ChatGPT can greatly. Perceived credibility is key because students are more likely to use ChatGPT if they trust the accuracy and reliability of its information. Perceived enjoyment addresses the experiential aspect—students who find ChatGPT engaging are more likely to integrate it into their academic routine. Trust is also critical, as confidence in ChatGPT's data security and ethical practices can significantly impact usage. By including these variables, studies can provide a more comprehensive analysis of the psychological, emotional, and ethical dimensions of ChatGPT use, leading to more nuanced insights and strategies for encouraging its adoption in education. This holistic approach ensures that AI tools like ChatGPT meet students' needs and concerns, promoting their responsible and widespread integration in academia.

Last but not least, future researchers are recommended to broaden their target respondents to include other private and public universities in Malaysia. Broadening the target respondents can greatly enhance future studies by providing

a more diverse and representative sample. Different universities have distinct academic cultures, resources, and technological integration, which can influence students' attitudes and behaviors toward AI tools like ChatGPT. By expanding the scope, researchers can uncover how factors such as university size, funding, and regional differences affect students' intentions to use ChatGPT, leading to findings that are more applicable across the Malaysian higher education landscape. This inclusive approach ensures that recommendations and interventions are relevant and effective for a wider range of students, promoting the responsible and widespread adoption of AI tools in diverse educational contexts.

5.6 Conclusion

To sum up, Chapter 5 highlights the summarizing of statistical analysis. In addition, this chapter also summarizes the hypothesis testing outcomes and discusses the significance of these findings in order to gain a better understanding. Besides, this chapter also discuss the implication of the study to better understand the meaning of the results. Next, this chapter also listed the study's limitation, namely respondent engagement, lack resources, the reliability of the resource available, and also the sample size. Apart from that, this chapter has also made several recommendations to address these limitations in future studies which include the use of longitudinal methods for data collection; expanding the scope of the study to include more relevant variables; and expanding the population of the study to include other private and public universities in Malaysia to improve the accuracy of the findings.

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Appendices 1

Appendix: Reliability Test for Pilot Study

a. Perceived ease of use (PEOU)

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	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
.892	.894	6

b. Perceived usefulness (PU)

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	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
.890	.895	8

c. Attitude towards using (A)

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	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	.797	8

117

d. Behavior Intention to use (BI)

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	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
.916	.925	7

Appendices 2

Appendix: Questionnaire

Section 2 of 7

PERSONAL DATA PROTECTION STATEMENT

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:
a) Name
b) Identity card
c) Place of Birth
d) Address
e) Education History
f) Employment History
g) Medical History
h) Blood type
i) Race
j) Religion
k) Photo
l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:
a) For assessment of any application to UTAR
b) For processing any benefits and services
c) For communication purposes
d) For advertorial and news
e) For general administration and record purposes
f) For enhancing the value of education
g) For educational and related purposes consequential to UTAR
h) For replying any responds to complaints and enquiries
i) For the purpose of our corporate governance
j) For the purposes of conducting research/ collaboration

3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:
6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.

7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

8. You may access and update your personal data by writing to us at ithivashini@1utar.my.

Acknowledgment of Notice *

○ I have been notified and that I hereby understood, consented and agreed per UTAR above notice.

○ I disagree, my personal data will not be processed.

Section 3 of 7

Section A: Demographic Profile

Please select the appropriate information about yourself. There should only be ONE answer to each question. All responses are kept strictly private.

Gender *

○ Male

○ Female

Age *

○ 18 years old and below

○ 19-21 years old

○ 22-24 years old

○ 25-27 years old

○ 28 years old and above

Ethnic Group *

○ Chinese

○ Indian

○ Malay

Name of University *

○ UM

○ UKM

○ USM

○ UTP

○ UNITEN

○ UTAR

Level of Study *

○ Foundation

○ Diploma

○ Degree

○ Masters

○ Other...

Type of University *

○ Public University

○ Private University

Section 4 of 7

Section B: Perceived ease of use

Based on your experience using ChatGPT as a student, please choose the most appropriate option that best indicate your agreement level about the following statements.

Level of agreement:
1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

Learning to operate ChatGPT would be easy for me. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I believe ChatGPT is easy to use. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

It is easy for me to become skillful at using ChatGPT. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I find ChatGPT easy to address academic inquiries. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I find ChatGPT to be a user-friendly tool. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Section 5 of 7

Section C: Perceived Usefulness

Based on your experience using ChatGPT as a student, please choose the most appropriate option that best indicate your agreement level about the following statements.

Level of agreement:
1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

Using ChatGPT would improve my studies quality. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Using ChatGPT would increase my learning process. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Using ChatGPT would enhance my studies effectiveness. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

For me, ChatGPT is a reliable source of accurate information. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I recommend ChatGPT to my colleagues to facilitate their academic studies. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

ChatGPT is more useful than other sources of information that I have used previously. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I appreciate the accuracy and reliability of the information provided by ChatGPT. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I believe that using ChatGPT can save time and effort in my university assignments and duties. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Section 6 of 7

Section D: Attitude towards using

Based on your experience using ChatGPT as a student, please choose the most appropriate option that best indicate your agreement level about the following statements.

Level of agreement:
1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

I enjoy using ChatGPT. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Using ChatGPT is fun. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I find it interesting to interact with ChatGPT. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I am interested in using ChatGPT. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I am likely to use ChatGPT because of its attractiveness. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I feel my studies overall will be better with ChatGPT. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

ChatGPT is valuable. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

ChatGPT is beneficial. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Section 7 of 7

Section E: Behavior Intention to use

Based on your experience using ChatGPT as a student, please choose the most appropriate option that best indicate your agreement level about the following statements.

Level of agreement:
1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

I intend to use ChatGPT in the future. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I plan to use ChatGPT frequently in the future. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I expect to use ChatGPT more often in the future than I do now. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I have used tools or techniques similar to ChatGPT to in the past. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I spontaneously find myself using ChatGPT when I need information for my university assignments and duties. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I often use ChatGPT as a source of information in my university assignments and duties. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

It is worth recommending ChatGPT to other students. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Appendices 3

Appendix: SPSS Results 1

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Level_of_Study Type_of_University
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  MEAN MEDIAN MODE
  /PIECHART FREQ
  /ORDER=ANALYSIS.

Frequencies

Notes

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	Cases Used	Statistics are based on all cases with valid data.

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N	Valid	384	384	384	384	384
	Missing	0	0	0	0	0
Mean		1.4922	2.9141	1.8255	3.8828	2.5859
Median		1.0000	3.0000	2.0000	4.0000	3.0000
Mode		1.00	3.00	1.00	6.00	3.00
Std. Deviation		.50059	.95617	.85091	1.84499	.98443
Variance		.251	.914	.724	3.404	.969
Range		1.00	4.00	2.00	5.00	3.00
Minimum						
Maximum						
Percentiles	25					

Statistics

		Type_of_University
N	Valid	384
	Missing	0
Mean		1.5625
Median		2.0000
Mode		2.00
Std. Deviation		.49673
Variance		.247
Range		1.00
Minimum		1.00
Maximum		2.00
Percentiles	25	1.0000
	50	2.0000
	75	2.0000

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	195	50.8	50.8	50.8
	Female	189	49.2	49.2	100.0
	Total	384	100.0	100.0	

Age

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	18 years old and below	21	5.5	5.5	5.5
	19-21 years old	110	28.6	28.6	34.1
	22-24 years old	154	40.1	40.1	74.2
	25-27 years old	79	20.6	20.6	94.8
	28 years old and above	20	5.2	5.2	100.0
	Total	384	100.0	100.0	

Ethnic_Group

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	Chinese	178	46.4	46.4	46.4
	Indian	95	24.7	24.7	71.1
	Malay	111	28.9	28.9	100.0
	Total	384	100.0	100.0	

Name_of_University

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UM	53	13.8	13.8	13.8
	UKM	61	15.9	15.9	29.7
	USM	54	14.1	14.1	43.8
	UTP	48	12.5	12.5	56.3
	UNITEN	46	12.0	12.0	68.2
	UTAR	122	31.8	31.8	100.0
	Total	384	100.0	100.0	

Level_of_Study

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	Foundation	86	22.4	22.4	22.4
	Diploma	40	10.4	10.4	32.8
	Degree	205	53.4	53.4	86.2
	Masters	53	13.8	13.8	100.0
	Total	384	100.0	100.0	

Type_of_University

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	Public University	168	43.8	43.8	43.8
	Private University	216	56.3	56.3	100.0
	Total	384	100.0	100.0	
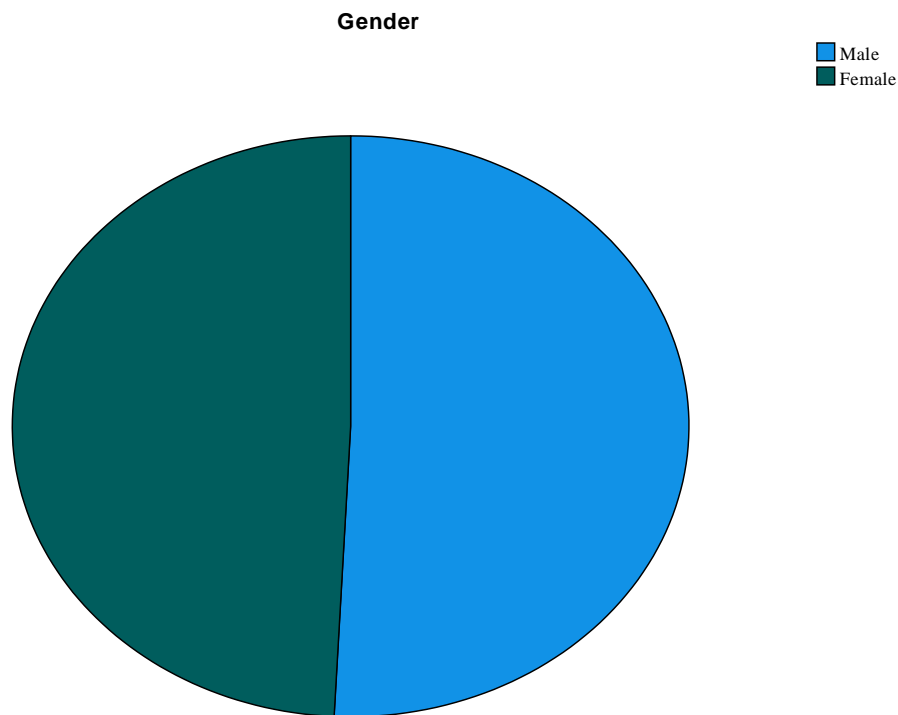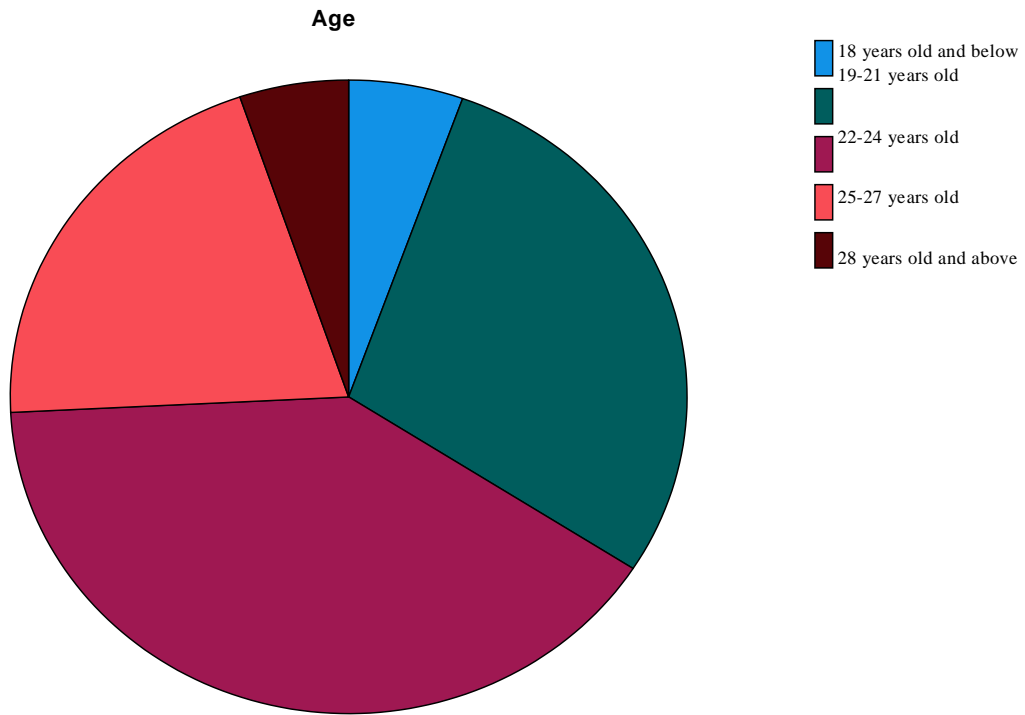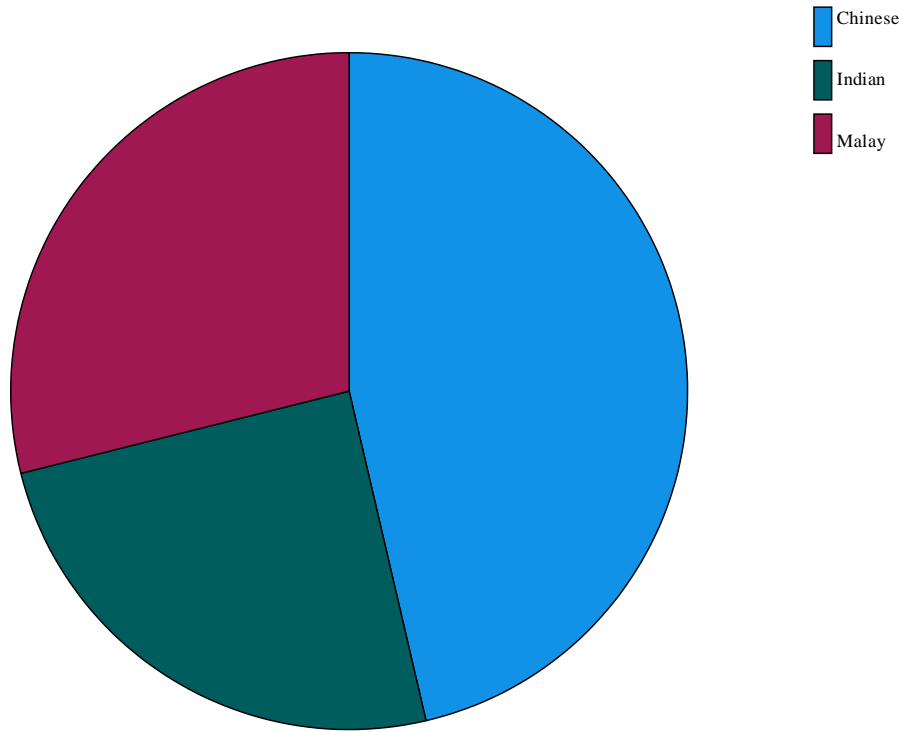
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Gender

Age

- 18 years old and below
- 19-21 years old
- 22-24 years old
- 25-27 years old
- 28 years old and above

Chinese
Indian
Malay

Name_of_University

- UM
- UKM
- USM
- UTP
- UNITEN
- UTAR

Level_of_Study

- Foundation
- Diploma
- Degree
- Masters
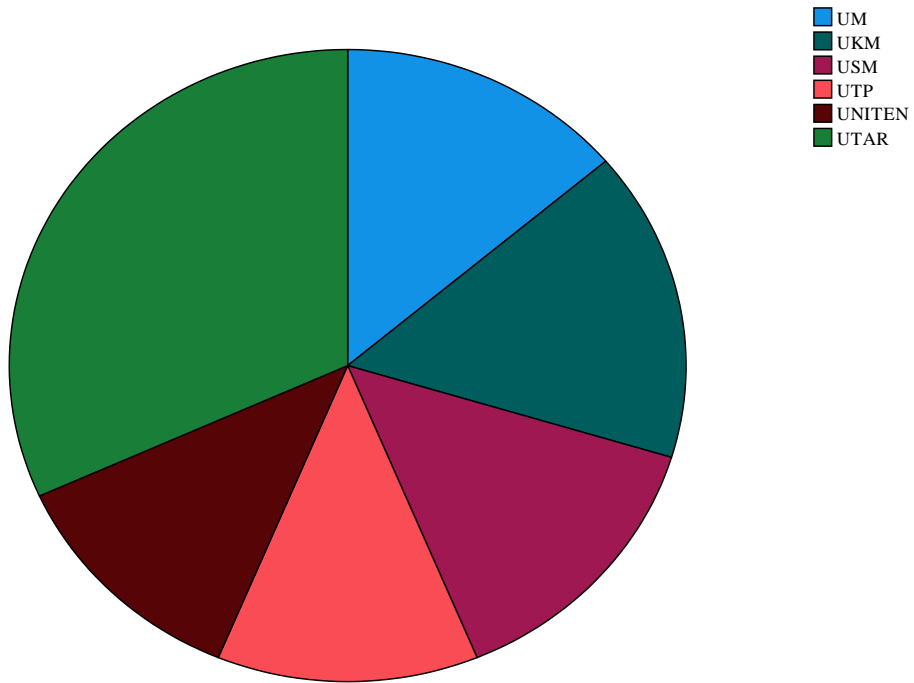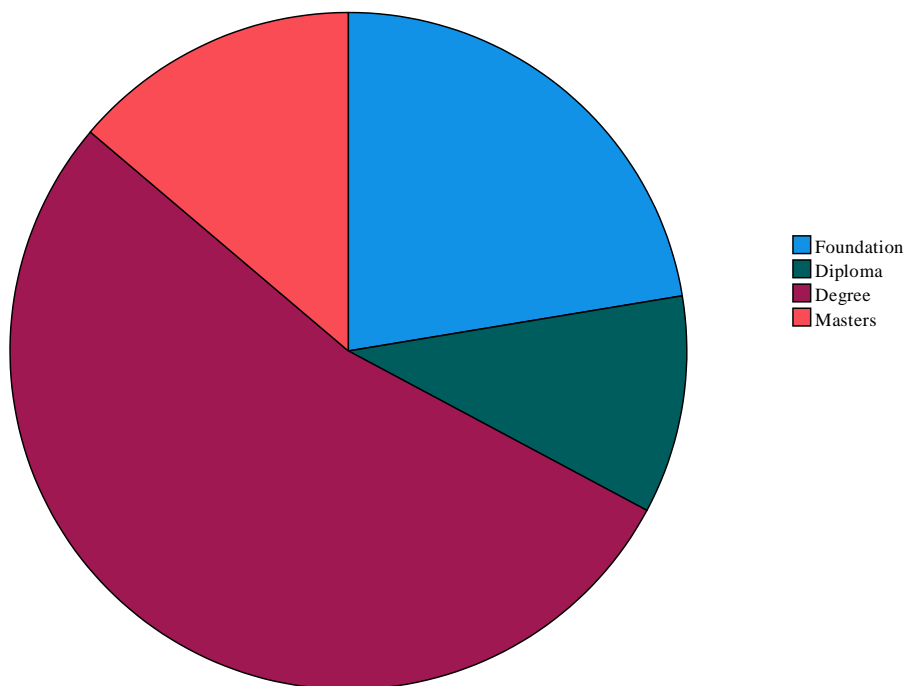
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- Private University
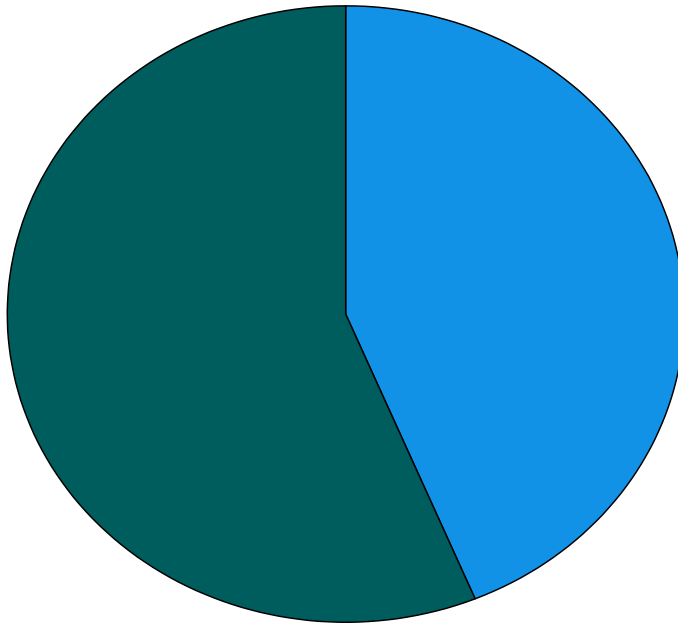
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Frequencies

Notes

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Statistics

		PEOU average	PU average	AT average	BI average
N	Valid	384	384	384	384
	Missing	0	0	0	0
Mean		4.2487	4.2188	4.2458	4.1964
Std. Deviation		.52221	.55226	.55184	.52699
Percentiles	25	4.0000	4.0000	4.0000	4.0000
	50	4.3333	4.3750	4.3750	4.2857
	75	4.5000	4.5000	4.5000	4.4286

Frequency Table

PEOU average

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.33	2	.5	.5	.5
	2.50	5	1.3	1.3	1.8
	2.67	4	1.0	1.0	2.9
	3.00	2	.5	.5	3.4
	3.17	2	.5	.5	3.9
	3.33	17	4.4	4.4	8.3
	3.50	3	.8	.8	9.1
	3.67	10	2.6	2.6	11.7
	3.83	30	7.8	7.8	19.5
	4.00	54	14.1	14.1	33.6
	4.17	41	10.7	10.7	44.3
	4.33	48	12.5	12.5	56.8
	4.50	71	18.5	18.5	75.3
	4.67	41	10.7	10.7	85.9
	4.83	19	4.9	4.9	90.9
	5.00	35	9.1	9.1	100.0
	Total	384	100.0	100.0	

PU average

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.38	2	.5	.5	.5
	2.50	1	.3	.3	.8
	2.63	4	1.0	1.0	1.8
	2.75	2	.5	.5	2.3
	2.88	6	1.6	1.6	3.9
	3.00	10	2.6	2.6	6.5
	3.13	3	.8	.8	7.3
	3.25	5	1.3	1.3	8.6
	3.38	9	2.3	2.3	10.9
	3.50	5	1.3	1.3	12.2
	3.63	10	2.6	2.6	14.8
	3.75	16	4.2	4.2	19.0
	3.88	9	2.3	2.3	21.4
	4.00	32	8.3	8.3	29.7
	4.13	18	4.7	4.7	34.4
	4.25	54	14.1	14.1	48.4
	4.38	49	12.8	12.8	61.2
	4.50	54	14.1	14.1	75.3
	4.63	39	10.2	10.2	85.4
	4.75	11	2.9	2.9	88.3
	4.88	15	3.9	3.9	92.2
	5.00	30	7.8	7.8	100.0
	Total	384	100.0	100.0	

AT average

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.50	6	1.6	1.6	1.6
	2.25	1	.3	.3	1.8
	2.50	2	.5	.5	2.3
	2.75	1	.3	.3	2.6
	2.88	2	.5	.5	3.1
	3.00	3	.8	.8	3.9
	3.25	2	.5	.5	4.4
	3.38	5	1.3	1.3	5.7
	3.50	4	1.0	1.0	6.8
	3.63	3	.8	.8	7.6
	3.75	21	5.5	5.5	13.0
	3.88	11	2.9	2.9	15.9
	4.00	37	9.6	9.6	25.5
	4.13	36	9.4	9.4	34.9
	4.25	46	12.0	12.0	46.9
	4.38	63	16.4	16.4	63.3
	4.50	54	14.1	14.1	77.3
	4.63	33	8.6	8.6	85.9
	4.75	23	6.0	6.0	91.9
	4.88	4	1.0	1.0	93.0
	5.00	27	7.0	7.0	100.0
	Total	384	100.0	100.0	

BI average

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	1	.3	.3	.3
	2.29	3	.8	.8	1.0
	2.43	5	1.3	1.3	2.3
	2.57	6	1.6	1.6	3.9
	2.86	1	.3	.3	4.2
	3.00	1	.3	.3	4.4
	3.14	2	.5	.5	4.9
	3.29	9	2.3	2.3	7.3
	3.43	11	2.9	2.9	10.2
	3.57	8	2.1	2.1	12.2
	3.71	9	2.3	2.3	14.6
	3.86	13	3.4	3.4	18.0
	4.00	41	10.7	10.7	28.6
	4.14	33	8.6	8.6	37.2
	4.29	69	18.0	18.0	55.2
	4.43	91	23.7	23.7	78.9
	4.57	25	6.5	6.5	85.4
	4.71	31	8.1	8.1	93.5
	4.86	10	2.6	2.6	96.1
	5.00	15	3.9	3.9	100.0
	Total	384	100.0	100.0	

Pie Chart

PEOU average

PU average

	2.38
	2.50
	2.63
	2.75
	2.88
	3.00
	3.13
	3.25
	3.38
	3.50
	3.63
	3.75
	3.88
	4.00
	4.13
	4.25
	4.38
	4.50
	4.63
	4.75
	4.88
	5.00

AT average

■	1.50
■	2.25
■	2.50
■	2.75
■	2.88
■	3.00
■	3.25
■	3.38
■	3.50
■	3.63
■	3.75
■	3.88
■	4.00
■	4.13
■	4.25
■	4.38
■	4.50
■	4.63
■	4.75
■	4.88
■	5.00

BI average

■	2.00
■	2.29
■	2.43
■	2.57
■	2.86
■	3.00
■	3.14
■	3.29
■	3.43
■	3.57
■	3.71
■	3.86
■	4.00
■	4.14
■	4.29
■	4.43
■	4.57
■	4.71
■	4.86
■	5.00
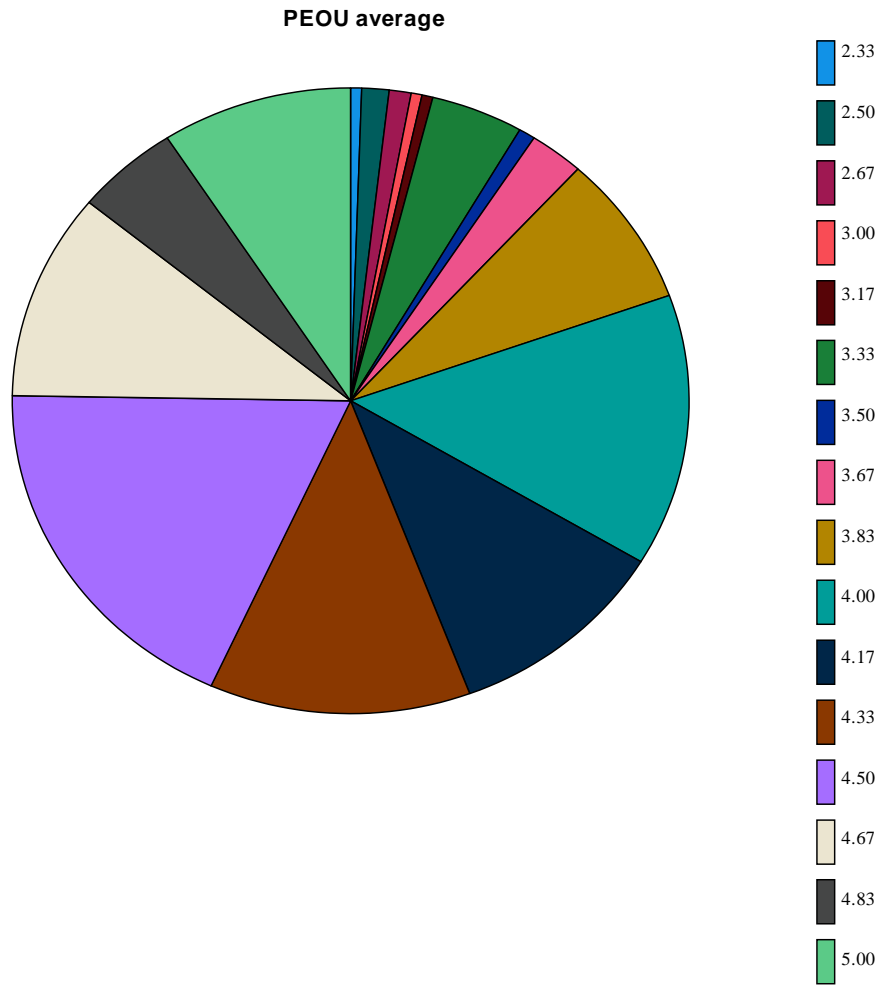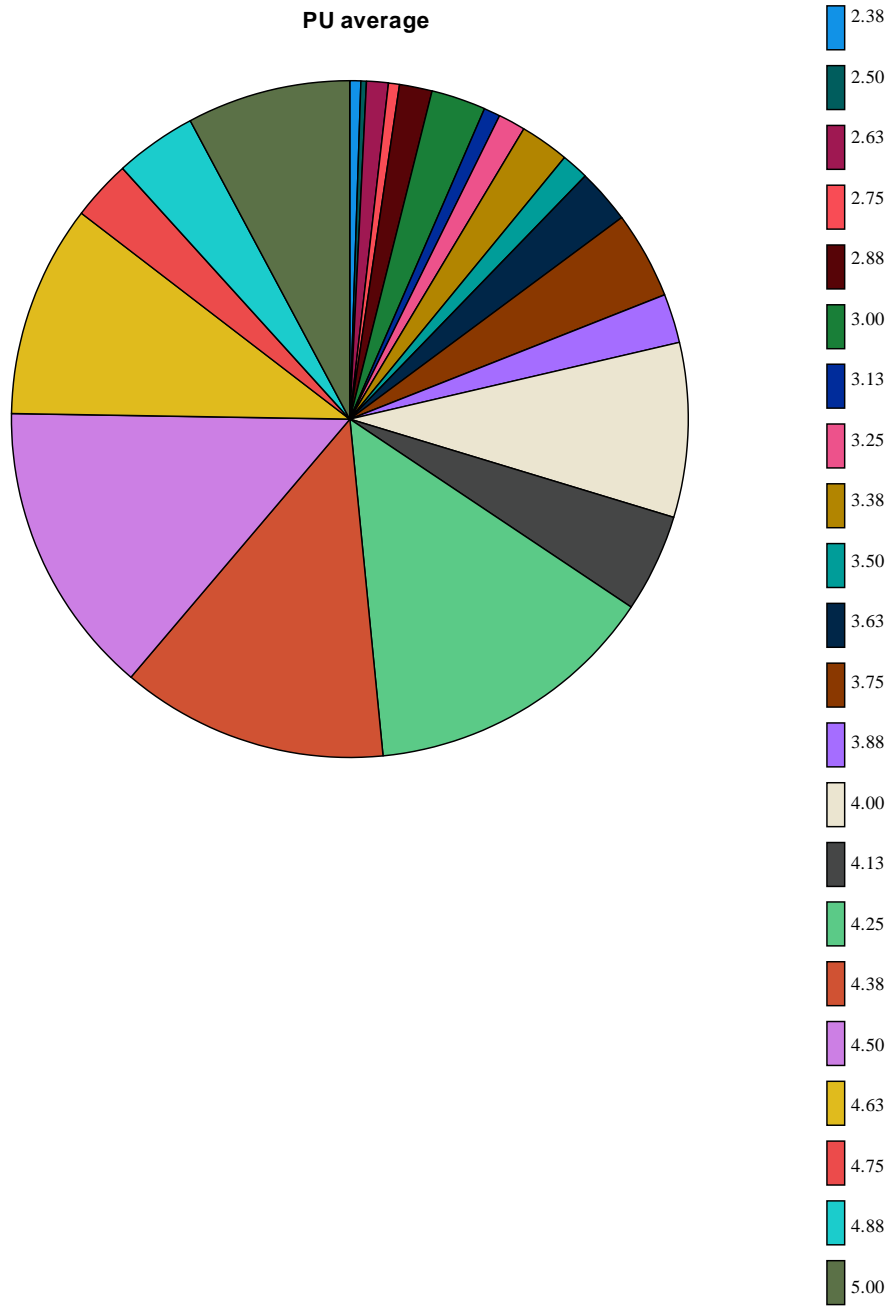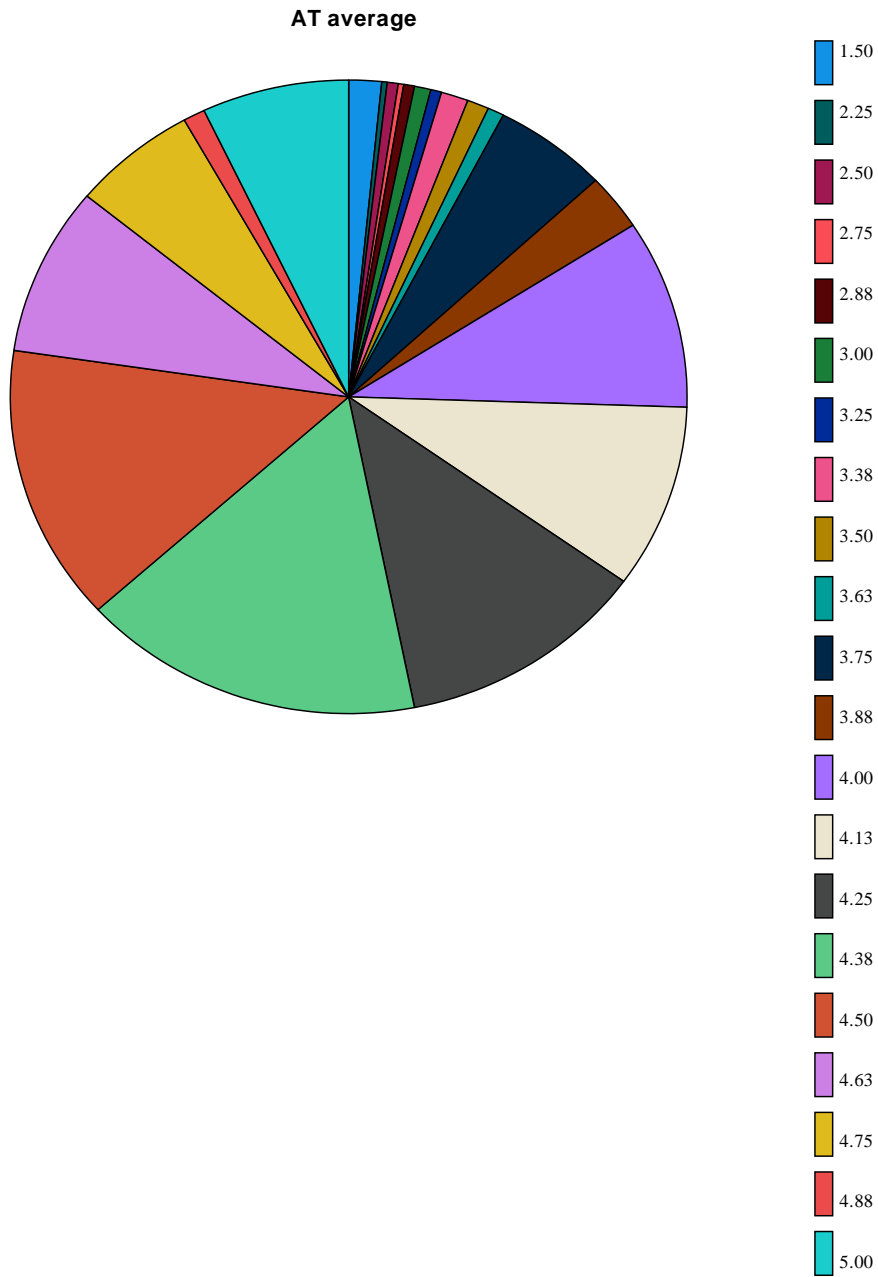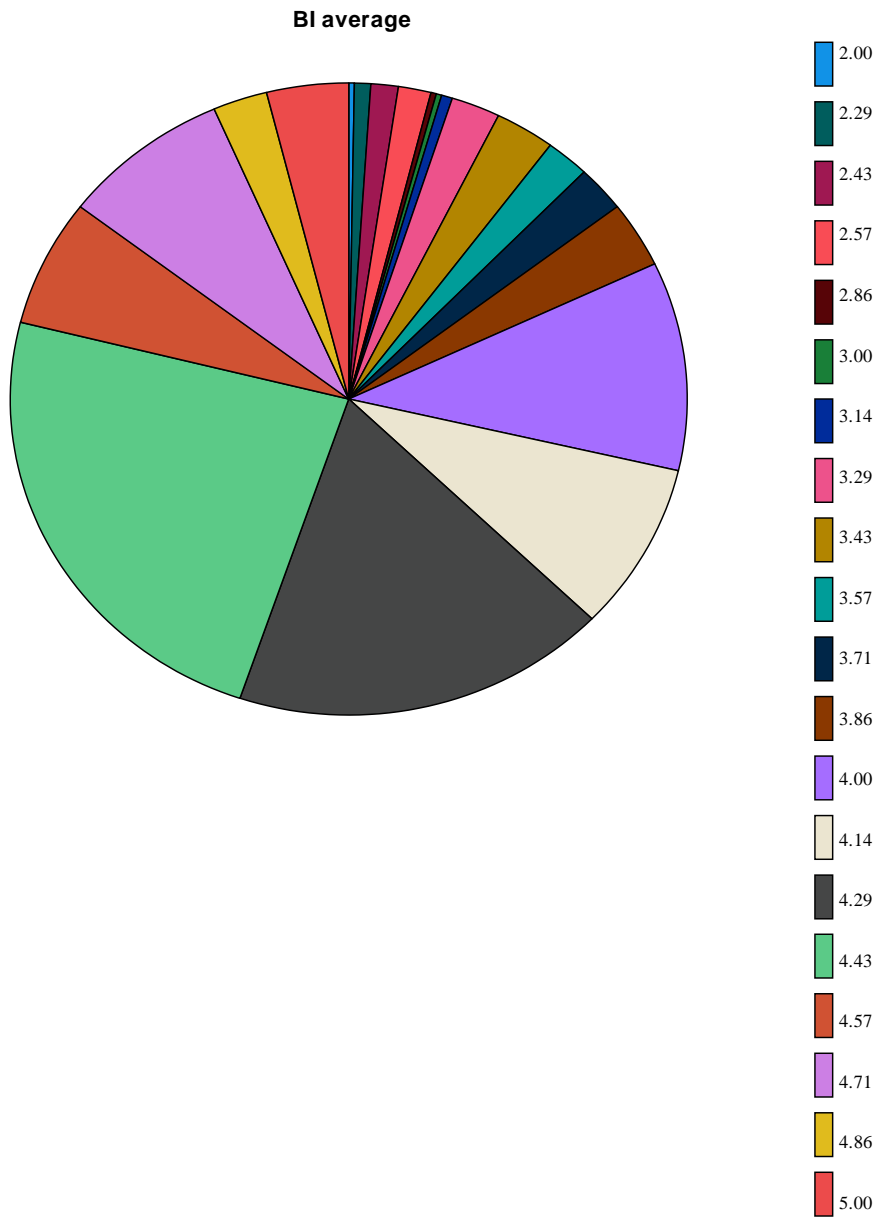
CORRELATIONS
 /VARIABLES=PEOUave PUave

Correlations

Notes

Output Created		01-AUG-2024 17:28:12
Comments		
Input	Data	C: \Users\admin\Desktop\FYP\FYP SPSS.sav
	Active Dataset	DataSet1
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	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on allthe cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=PEOUave PUave /PRINT=TWOTAIL NOSIG FULL /MISSING=PAIRWISE.

Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02

Correlations

PEOU average			PU average
PEOU average	Pearson Correlation	1	.475[**]
	Sig. (2-tailed)		.000
	N	384	384
PU average	Pearson Correlation	.475[**]	1
	Sig. (2-tailed)	.000	
	N	384	384

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

```
CORRELATIONS
 /VARIABLES=PEOUave ATave
 /PRINT=TWOTAIL NOSIG FULL
 /MISSING=PAIRWISE.
```

Correlations

Notes

Output Created		01-AUG-2024 17:32:01
Comments		
Input	Data	C:\Users\admin\Desktop\FYP\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.

	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.

Syntax		CORRELATIONS
		  /VARIABLES=PEOUave ATave
		  /PRINT=TWOTAIL NOSIG FULL
		  /MISSING=PAIRWISE.

Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Correlations

			AT average
PEOU average			
PEOU average	Pearson Correlation	1	.578**
	Sig. (2-tailed)		.000
	N	384	384
AT average	Pearson Correlation	.578**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

CORRELATIONS
  /VARIABLES=PUave ATave
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.

Correlations

Notes

Output Created		01-AUG-2024 17:34:15
Comments		
Input	Data	C:\Users\admin\Desktop\FYP\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384

Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on allthe cases with valid data for that pair.

Notes

Syntax		CORRELATIONS /VARIABLES=PUave ATave /PRINT=TWOTAIL NOSIG FULL /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

Correlations

PU average				AT average
PU average	Pearson Correlation	1		.576**
	Sig. (2-tailed)			.000
	N	384		384
AT average	Pearson Correlation	.576**		1
	Sig. (2-tailed)	.000		
	N	384		384

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

CORRELATIONS
 /VARIABLES=ATave BIave
 /PRINT=TWOTAIL NOSIG FULL
 /MISSING=PAIRWISE.

Correlations

Notes

Output Created		01-AUG-2024 17:34:57
Comments		
Input	Data	C: \Users\admin\Desktop\FY P\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on allthe cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=ATave BIave /PRINT=TWOTAIL NOSIG FULL /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

Correlations

AT average			BI average
AT average	Pearson Correlation	1	$.725^{**}$
	Sig. (2-tailed)		.000
	N	384	384
BI average	Pearson Correlation	$.725^{**}$	1
	Sig. (2-tailed)	.000	
	N	384	384

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

```
REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT BIave
 /METHOD=ENTER PEOUave PUave ATave
 /CASEWISE PLOT(ZRESID) OUTLIERS(3).
```

Regression

Notes

Output Created		01-AUG-2024 17:38:25
Comments		
Input	Data	C:\Users\admin\Desktop\FYP\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.

Syntax		REGRESSION
		  /MISSING LISTWISE
		  /STATISTICS COEFF
		OUTS R ANOVA
		  /CRITERIA=PIN(.05)
		POUT(.10)
		  /NOORIGIN
		  /DEPENDENT BIave
		  /METHOD=ENTER
		PEOUave PUave ATave
		  /CASEWISE PLOT
		(ZRESID) OUTLIERS(3).

Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02
	Memory Required	4880 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	AT average, PU average, PEOU average[b]	.	Enter

a. Dependent Variable: BI average
b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.770[a]	.593	.590	.33764

a. Predictors: (Constant), AT average, PU average, PEOU average
b. Dependent Variable: BI average

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.046	3	21.015	184.340	.000[b]
	Residual	43.321	380	.114		
	Total	106.367	383			

a. Dependent Variable: BI average
b. Predictors: (Constant), AT average, PU average, PEOU average

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.618	.164		3.782	.000
	PEOU average	.074	.041	.073	1.781	.076
	PU average	.281	.039	.294	7.183	.000
	AT average	.490	.042	.513	11.603	.000

a. Dependent Variable: BI average

Casewise Diagnostics[a]

Case Number	Std. Residual	BI average	Predicted Value	Residual
263	-4.622	2.29	3.8462	-1.56051
295	3.844	4.86	3.5593	1.29788
378	-3.237	2.43	3.5215	-1.09295
379	-3.237	2.43	3.5215	-1.09295
380	-3.237	2.43	3.5215	-1.09295

a. Dependent Variable: BI average

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.4418	4.8407	4.1964	.40572	384
Residual	-1.56051	1.29788	.00000	.33632	384
Std. Predicted Value	-4.325	1.588	.000	1.000	384
Std. Residual	-4.622	3.844	.000	.996	384

a. Dependent Variable: BI average

RELIABILITY
 /VARIABLES=PEOU1 PEOU2 PEOU3 PEOU4 PEOU5 PEOU6
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=SCALE CORR
 /SUMMARY=TOTAL.

Reliability

Notes

Output Created		01-AUG-2024 17:42:41
Comments		
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=PEOU1 PEOU2 PEOU3 PEOU4 PEOU5 PEOU6 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=SCALE CORR /SUMMARY=TOTAL.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Scale: ALL VARIABLES

Case Processing Summary

N			%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	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
.703	.703	6

Inter-Item Correlation Matrix

	Learning to operate ChatGPT wouldbe easy for me	I believe ChatGPT is easy to use	It is easy for me to become skillful at using ChatGPT	I find ChatGPT easy to address academic inquiries
Learning to operate ChatGPT would be easy forme	1.000	.291	.275	.189
I believe ChatGPT is easyto use	.291	1.000	.126	.276
It is easy for me to become skillful at using ChatGPT	.275	.126	1.000	.341
I find ChatGPT easy to address academic inquiries	.189	.276	.341	1.000

My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	.197	.193	.373	.540
I find ChatGPT to be a user friendly tool	.354	.381	.197	.312

Inter-Item Correlation Matrix

	My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	I find ChatGPT to be a user friendly tool
Learning to operate ChatGPT would be easy forme	.197	.354
I believe ChatGPT is easyto use	.193	.381
It is easy for me to become skillful at using ChatGPT	.373	.197
I find ChatGPT easy to address academic inquiries	.540	.312
My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	1.000	.204
I find ChatGPT to be a user friendly tool	.204	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Varianceif Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Learning to operate ChatGPT would be easy forme	21.2552	7.768	.374	.196
I believe ChatGPT is easyto use	21.0729	7.859	.374	.198
It is easy for me to become skillful at using ChatGPT	21.1875	7.693	.414	.205
I find ChatGPT easy to address academic inquiries	21.3880	6.071	.541	.361
My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	21.4453	6.363	.491	.335
I find ChatGPT to be a user friendly tool	21.1120	7.583	.429	.245

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Learning to operate ChatGPT would be easy forme	.681
I believe ChatGPT is easyto use	.681
It is easy for me to become skillful at using ChatGPT	.670
I find ChatGPT easy to address academic inquiries	.625
My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	.645
I find ChatGPT to be a user friendly tool	.666

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.4922	9.817	3.13324	6

RELIABILITY
 /VARIABLES=PU1 PU2 PU3 PU4 PU5 PU6 PU7 PU8
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=SCALE CORR
 /SUMMARY=TOTAL.

Reliability

Notes

Output Created		01-AUG-2024 17:44:50
Comments		
Input	Data	C: \Users\admin\Desktop\FYP\FYP SPSS.sav
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.

Syntax		RELIABILITY /VARIABLES=PU1 PU2 PU3 PU4 PU5 PU6 PU7 PU8 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=SCALE CORR /SUMMARY=TOTAL.

Notes

Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	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
.809	.810	8

Inter-Item Correlation Matrix

	Using ChatGPT would improve my studies quality	Using ChatGPT would increase my learning process	Using ChatGPT would enhance my studies effectiveness	For me, ChatGPT is a reliable source of accurate information
Using ChatGPT would improve my studies quality	1.000	.320	.406	.392
Using ChatGPT would increase my learning process	.320	1.000	.332	.097
Using ChatGPT would enhance my studies effectiveness	.406	.332	1.000	.212
For me, ChatGPT is a reliable source of accurate information	.392	.097	.212	1.000
I recommend ChatGPT to my colleagues to facilitate their academic studies	.422	.345	.346	.449
ChatGPT is more useful than other sources of information that I have used previously	.372	.189	.199	.561
I appreciate the accuracy and reliability of the information provided by ChatGPT	.284	.266	.242	.432
I believe that using ChatGPT can save time and effort in my university assignments and duties	.342	.376	.219	.156

Inter-Item Correlation Matrix

	I recommend ChatGPT to my colleagues to facilitate their academic studies	ChatGPT is more useful than other sources of information thatI have used previously	I appreciate the accuracy and reliability of the information provided by ChatGPT	I believe that using ChatGPT can save time and effort in my university assignments and duties
Using ChatGPT would improve my studies quality	.422	.372	.284	.342
Using ChatGPT would increase my learning process	.345	.189	.266	.376
Using ChatGPT would enhance my studies effectiveness	.346	.199	.242	.219
For me, ChatGPT is a reliable source of accurate information	.449	.561	.432	.156
I recommend ChatGPT to my colleagues to facilitate their academic studies	1.000	.396	.657	.538
ChatGPT is more useful than other sources of information that I have usedpreviously	.396	1.000	.505	.202
I appreciate the accuracy and reliability of the information provided by ChatGPT	.657	.505	1.000	.481
I believe that using ChatGPT can save time and effort in my university assignments and duties	.538	.202	.481	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Varianceif Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Using ChatGPT would improve my studies quality	29.4427	16.138	.537	.357
Using ChatGPT would increase my learning process	29.5182	16.961	.382	.239
Using ChatGPT would enhance my studies effectiveness	29.3776	16.914	.395	.234
For me, ChatGPT is a reliable source of accurate information	29.6719	14.169	.508	.419
I recommend ChatGPT tomy colleagues to facilitate their academic studies	29.5755	13.885	.712	.568
ChatGPT is more useful than other sources of information that I have usedpreviously	29.5599	15.171	.553	.422
I appreciate the accuracy and reliability of the information provided by ChatGPT	29.6979	13.543	.648	.539
I believe that using ChatGPT can save time and effort in my university assignments and duties	29.4063	16.033	.488	.390

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Using ChatGPT would improve my studies quality	.788
Using ChatGPT would increase my learning process	.806
Using ChatGPT would enhance my studies effectiveness	.804
For me, ChatGPT is a reliable source of accurate information	.795
I recommend ChatGPT to my colleagues to facilitate their academic studies	.757
ChatGPT is more useful than other sources of information that I have usedpreviously	.783
I appreciate the accuracy and reliability of the information provided by ChatGPT	.768
I believe that using ChatGPT can save time and effort in my university assignments and duties	.793

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
33.7500	19.520	4.41810	8

```
RELIABILITY
 /VARIABLES=A1 A2 A3 A4 A5 A6 A7 A8
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=SCALE CORR
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/SUMMARY=TOTAL.

Reliability

Notes

Output Created		01-AUG-2024 17:46:08
Comments		
Input	Data	C:\Users\admin\Desktop\FYP\FYP SPSS.sav
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	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=A1 A2 A3 A4 A5 A6 A7 A8 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=SCALE CORR /SUMMARY=TOTAL.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Scale: ALL VARIABLES

Case Processing Summary

N			%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	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
.823	.827	8

Inter-Item Correlation Matrix

	I enjoy using ChatGPT	Using ChatGPT is fun	I find it interesting to interact with ChatGPT	I am interested in using ChatGPT
I enjoy using ChatGPT	1.000	.305	.279	.282
Using ChatGPT is fun	.305	1.000	.475	.456
I find it interesting to interact with ChatGPT	.279	.475	1.000	.427
I am interested in using ChatGPT	.282	.456	.427	1.000
I am likely to use ChatGPT because of its attractiveness	.111	.443	.457	.505
I feel my studies overall will be better with ChatGPT	.293	.324	.420	.381
ChatGPT is valuable	.339	.238	.367	.383
ChatGPT is beneficial	.257	.328	.424	.490

Inter-Item Correlation Matrix

	I am likely to use ChatGPT because of its attractiveness	I feel my studies overall will be better with ChatGPT	ChatGPT is valuable	ChatGPT is beneficial
I enjoy using ChatGPT	.111	.293	.339	.257
Using ChatGPT is fun	.443	.324	.238	.328
I find it interesting to interact with ChatGPT	.457	.420	.367	.424
I am interested in using ChatGPT	.505	.381	.383	.490
I am likely to use ChatGPT because of its attractiveness	1.000	.359	.409	.378
I feel my studies overall will be better with ChatGPT	.359	1.000	.533	.337
ChatGPT is valuable	.409	.533	1.000	.463
ChatGPT is beneficial	.378	.337	.463	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Varianceif Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
I enjoy using ChatGPT	29.6615	16.016	.375	.214
Using ChatGPT is fun	29.7031	15.635	.547	.361
I find it interesting to interact with ChatGPT	29.8281	14.143	.602	.388
I am interested in using ChatGPT	29.7969	14.831	.621	.422
I am likely to use ChatGPT because of its attractiveness	29.7656	14.901	.558	.406
I feel my studies overall will be better with ChatGPT	29.6615	15.875	.557	.366
ChatGPT is valuable	29.6615	15.295	.571	.429
ChatGPT is beneficial	29.6849	15.694	.565	.361

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
I enjoy using ChatGPT	.828
Using ChatGPT is fun	.803
I find it interesting to interact with ChatGPT	.795
I am interested in using ChatGPT	.792
I am likely to use ChatGPT because of its attractiveness	.801
I feel my studies overall will be better with ChatGPT	.802
ChatGPT is valuable	.799
ChatGPT is beneficial	.801

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
33.9661	19.490	4.41472	8

RELIABILITY
  /VARIABLES=BI1 BI2 BI3 BI4 BI5 BI6 BI7
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=SCALE CORR
  /SUMMARY=TOTAL.

Reliability

Notes

Output Created		01-AUG-2024 17:47:21
Comments		
Input	Data	C: \Users\admin\Desktop\FY P\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=BI1 BI2 BI3 BI4 BI5 BI6 BI7 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=SCALE CORR /SUMMARY=TOTAL.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Scale: ALL VARIABLES

Case Processing Summary

N			%
Cases	Valid	384	100.0
	Excluded[a]	0	.0
	Total	384	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
.725	.731	7

Inter-Item Correlation Matrix

	I intend to use ChatGPT in the future	I plan to use ChatGPT frequently in the future	I expect to use ChatGPT more often in the future than I do now	I have used tools or techniques similar to ChatGPT to in the past
I intend to use ChatGPT in the future	1.000	.407	.168	.155
I plan to use ChatGPT frequently in the future	.407	1.000	.321	.095
I expect to use ChatGPT more often in the future than I do now	.168	.321	1.000	.396
I have used tools or techniques similar to ChatGPT to in the past	.155	.095	.396	1.000
I spontaneously find myself using ChatGPT when I need information for my university assignments andduties	.436	.391	.320	.302
I often use ChatGPT as a source of information in my university assignments and duties	.382	.225	.287	.304
It is worth recommending ChatGPT to other students	.321	.277	.043	-.007

Inter-Item Correlation Matrix

	I spontaneously find myself using ChatGPTwhen I need information for my university assignments and duties	I often use ChatGPT as a source of information in my university assignments and duties	It is worth recommending ChatGPT to other students
I intend to use ChatGPT in the future	.436	.382	.321
I plan to use ChatGPT frequently in the future	.391	.225	.277
I expect to use ChatGPT more often in the future than I do now	.320	.287	.043
I have used tools or techniques similar to ChatGPT to in the past	.302	.304	-.007
I spontaneously find myself using ChatGPT when I need information for my university assignments andduties	1.000	.304	.359
I often use ChatGPT as a source of information in my university assignments and duties	.304	1.000	.386
It is worth recommending ChatGPT to other students	.359	.386	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Varianceif Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
I intend to use ChatGPT in the future	25.0938	10.513	.500	.319
I plan to use ChatGPT frequently in the future	25.3307	9.710	.446	.283
I expect to use ChatGPT more often in the future than I do now	25.1120	10.779	.418	.277
I have used tools or techniques similar to ChatGPT to in the past	25.3099	10.716	.313	.250
I spontaneously find myself using ChatGPT when I need information for my university assignments andduties	25.2240	9.704	.576	.357
I often use ChatGPT as a source of information in my university assignments and duties	25.1198	10.555	.495	.313
It is worth recommending ChatGPT to other students	25.0599	11.216	.349	.278

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
I intend to use ChatGPT in the future	.680
I plan to use ChatGPT frequently in the future	.693
I expect to use ChatGPT more often in the future than I do now	.698
I have used tools or techniques similar to ChatGPT to in the past	.727
I spontaneously find myself using ChatGPT when I need information for my university assignments andduties	.658
I often use ChatGPT as a source of information in my university assignments and duties	.681
It is worth recommending ChatGPT to other students	.712

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
29.3750	13.608	3.68895	7

DESCRIPTIVES VARIABLES=PEOU1 PEOU2 PEOU3 PEOU4 PEOU5 PEOU6
/STATISTICS=MEAN STDDEV MIN MAX.

Descriptives

Notes

Output Created		01-AUG-2024 17:50:07
Comments		
Input	Data	C: \Users\admin\Desktop\FY P\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=PEOU1 PEOU2 PEOU3 PEOU4 PEOU5 PEOU6 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Descriptive Statistics

N		Minimum	Maximum	Mean	Std. Deviation
Learning to operate ChatGPT would be easy forme	384	1.00	5.00	4.2370	.72881
I believe ChatGPT is easyto use	384	2.00	5.00	4.4193	.69968
It is easy for me to become skillful at using ChatGPT	384	2.00	5.00	4.3047	.70683
I find ChatGPT easy to address academic inquiries	384	1.00	5.00	4.1042	1.01662
My interaction with ChatGPT is clear and understandable when it addresses my academic inquiries.	384	1.00	5.00	4.0469	.99497
I find ChatGPT to be a user friendly tool	384	1.00	5.00	4.3802	.72351
Valid N (listwise)	384				

DESCRIPTIVES VARIABLES=PU1 PU2 PU3 PU4 PU5 PU6 PU7 PU8
/STATISTICS=MEAN STDDEV MIN MAX.

Descriptives

Notes

Output Created		01-AUG-2024 17:50:55
Comments		
Input	Data	C:\Users\admin\Desktop\FYP\FYP SPSS.sav
	Active Dataset	DataSet1
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	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=PU1 PU2 PU3 PU4 PU5 PU6 PU7 PU8 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.00

Descriptive Statistics

N		Minimum	Maximum	Mean	Std. Deviation
Using ChatGPT would improve my studies quality	384	2.00	5.00	4.3073	.67738
Using ChatGPT would increase my learning process	384	2.00	5.00	4.2318	.67086
Using ChatGPT would enhance my studies effectiveness	384	1.00	5.00	4.3724	.66574
For me, ChatGPT is a reliable source of accurate information	384	1.00	5.00	4.0781	1.08834
I recommend ChatGPT tomy colleagues to facilitate their academic studies	384	1.00	5.00	4.1745	.90734
ChatGPT is more useful than other sources of information that I have usedpreviously	384	1.00	5.00	4.1901	.84446
I appreciate the accuracy and reliability of the information provided by ChatGPT	384	1.00	5.00	4.0521	1.03080
I believe that using ChatGPT can save time and effort in my university assignments and duties	384	1.00	5.00	4.3438	.74858
Valid N (listwise)	384				

DESCRIPTIVES VARIABLES=A1 A2 A3 A4 A5 A6 A7 A8
/STATISTICS=MEAN STDDEV MIN MAX.

Descriptives

Notes

Output Created		01-AUG-2024 17:51:43
Comments		
Input	Data	C: \Users\admin\Desktop\FY P\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=A1 A2 A3 A4 A5 A6 A7 A8 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Descriptive Statistics

N		Minimum	Maximum	Mean	Std. Deviation
I enjoy using ChatGPT	384	1.00	5.00	4.3047	.89290
Using ChatGPT is fun	384	2.00	5.00	4.2630	.75865
I find it interesting to interact with ChatGPT	384	1.00	5.00	4.1380	.97178
I am interested in using ChatGPT	384	1.00	5.00	4.1693	.83023
I am likely to use ChatGPT because of its attractiveness	384	1.00	5.00	4.2005	.88439
I feel my studies overall will be better with ChatGPT	384	2.00	5.00	4.3047	.70313
ChatGPT is valuable	384	1.00	5.00	4.3047	.79711
ChatGPT is beneficial	384	1.00	5.00	4.2813	.72915

Valid N (listwise)	384				

DESCRIPTIVES VARIABLES=BI1 BI2 BI3 BI4 BI5 BI6 BI7
/STATISTICS=MEAN STDDEV MIN MAX.

Descriptives

Notes

Output Created		01-AUG-2024 17:52:54
Comments		
Input	Data	C:\Users\admin\Desktop\FYP\FYP SPSS.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	384
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=BI1 BI2 BI3 BI4 BI5 BI6 BI7 /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Descriptive Statistics

N		Minimum	Maximum	Mean	Std. Deviation
I intend to use ChatGPT in the future	384	1.00	5.00	4.2812	.77092
I plan to use ChatGPT frequently in the future	384	1.00	5.00	4.0443	1.02482
I expect to use ChatGPT more often in the future than I do now	384	1.00	5.00	4.2630	.79888
I have used tools or techniques similar to ChatGPT to in the past	384	1.00	5.00	4.0651	.96054
I spontaneously find myself using ChatGPT when I need information for my university assignments andduties	384	1.00	5.00	4.1510	.87501
I often use ChatGPT as a source of information in my university assignments and duties	384	1.00	5.00	4.2552	.76645
It is worth recommending ChatGPT to other students	384	1.00	5.00	4.3151	.76965
Valid N (listwise)	384				