Flourishing Minds, Thriving Students: A Study of Mental Well-Being in Accounting

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Abstract

This study examines the role of mental well-being in student academic success among accounting students in Malaysian universities. Despite the rigorous demands of accounting education, mental well-being remains an underexplored factor in academic achievement, particularly within non-Western contexts. While existing research has largely focused on mental well-being challenges such as stress and anxiety, the influence of positive mental well-being on academic success has received comparatively less attention.

To address this gap, this study employed Keyes' (2002) Dual Continua Model (DCM) to assess how emotional, psychological, and social well-being, alongside mental well-being challenges, influenced students' academic success. Student success has customarily been measured using traditional academic performance indicators such as Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA), along with student engagement and satisfaction. The findings revealed that psychological well-being was the strongest predictor of student success. It positively influenced all indicators of academic success. While emotional and social well-being positively affected engagement and satisfaction, they did not directly translate into higher academic performance. Among the mental well-being challenges, depression had the most detrimental impact, negatively affecting both performance and engagement, whereas stress showed a dual effect, increasing engagement while lowering satisfaction.

Additionally, academic success was examined across student mental well-being groups using the DCM (*flourishing without challenges*, *flourishing with challenges*, *moderately well without challenges*, *moderately well with challenges*, and *languishing with challenges*). The presence of a *flourishing with challenges* group suggests that students can face mental well-being challenges while still experiencing high levels of positive mental well-being. This reinforces the importance of recognising positive mental well-being and mental well-being challenges as distinct but interconnected continua rather than as a rigid binary concept. Most students fell into the moderately well with and without challenges groups. The most notable differences between groups were in engagement and satisfaction rather than GPA and CGPA. Overall, students classified as *flourishing without challenges* demonstrated the highest levels of success, whereas students in the *languishing with challenges* group exhibited the lowest.

This study contributes to the literature on mental well-being, particularly in accounting education by examining how both positive well-being and well-being challenges shape academic success. The findings underscore the value of promoting flourishing as a foundation for accounting student success and offer practical insights for universities, educators, and policymakers in developing supportive strategies that enhance well-being in higher education.

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List of Abbreviations

ACCA	Association of Chartered Certified Accountants
APEL	Accreditation of Prior Experiential Learning
BSI	Brief Symptom Inventory
CGPA	Cumulative Grade Point Average
CPA	Certified Public Accountant
DASS-21	Depression, Anxiety, and Stress Scale – 21 Items
DASS-42	Depression, Anxiety, and Stress Scale – 42 Items
DCM	Dual Continua Model
DOSM	Department of Statistics Malaysia
EWB	Emotional Well-Being
EWBS	Emotional Well-Being Scale
GPA	Grade Point Average
HoD	Head of Department
LPA	Latent Profile Analysis
MANOVA	Multivariate Analysis of Variance
MDD	Major Depressive Disorder
MHC	Mental Health Continuum
MoHE	Ministry of Higher Education
MOH	Ministry of Health (Malaysia)
MQA	Malaysian Qualifications Agency
MQF	Malaysian Qualifications Framework
NHMS	National Health and Morbidity Survey
NVivo	NVivo Software for Qualitative Data Analysis
PANAS	Positive and Negative Affect Schedule
PTPTN	Perbadanan Tabung Pendidikan Tinggi Nasional (National Higher Education Fund)
PWB	Psychological Well-Being
PWBS	Psychological Well-Being Scale
QS	Quacquarelli Symonds; QS World University Rankings
SC	Student Code
SPM	Sijil Pelajaran Malaysia (Malaysian Certificate of Education)
SPSS	Statistical Package for the Social Sciences
SSQ	Study Satisfaction Questionnaire

List of Abbreviations

SU	Sunway University
SWB	Social Well-Being
SWBS	Social Well-Being Scale
SWLS	Satisfaction with Life Scale
UiTM	Universiti Teknologi MARA
UKM	Universiti Kebangsaan Malaysia
UM	Universiti Malaya
UTM	Universiti Teknologi Malaysia
USA	United States of America
USEI	University Student Engagement Inventory
UWES	Utrecht Work Engagement Scale
VIF	Variance Inflation Factors
WHO	World Health Organization

List of Symbols

α	Alpha level of significance
B	Regression coefficient
β	Standardised regression coefficient
CI	Confidence interval
df	Degrees of freedom
F	*F*-statistic
LL	Lower limit (as of a CI)
M	Mean
MD	Mean difference
MS	Mean square
N	Total number of cases
η^2	Eta squared
η_p^2	Partial eta squared
OR	Odds ratio
p	Probability
r	Estimate of the Pearson product-moment correlation coefficient
R	Multiple correlation
R^2	Multiple correlation squared; measure of strength of association
SD	Standard deviation
SE	Standard error
SS	Sum of squares
T	Standardised score used for comparison with a normative sample
t	*t*-statistic
UL	Upper limit (as of a CI)
χ^2	Chi-square statistic
z	Standardised score

Chapter 1: Introduction

1.1 Overview

This chapter provides a comprehensive overview of the study. Section 1.2 outlines the background, followed by Section 1.3, which presents the research rationale and justifies the need for investigation. Section 1.4 identifies the research gap, while Section 1.5 states the research aim and objectives, sets the study's direction, and briefly introduces the research methodology. Section 1.6 discusses the significance of the study, highlighting its relevance to various stakeholders. Section 1.7 defines key terminologies used throughout the thesis. Section 1.8 presents the thesis structure, and Section 1.9 concludes the chapter with a summary.

1.2 Background of the Study

Students' academic success is a major concern among educators, universities, employers, parents, and students themselves. It encompasses various dimensions, such as performance measured by grades or Grade Point Average (GPA) scores, engagement with studies, and satisfaction with learning experiences (Kuh et al., 2006). *Performance* is the most commonly used academic success indicator, often serving as a benchmark for academic progress and a gateway to future career opportunities. *Engagement* reflects the extent to which students are invested in their learning, influencing persistence, motivation, and educational outcomes (Fredricks et al., 2004). *Satisfaction* refers to students' perceptions of their educational experience and is considered an important aspect of student well-being, closely linked to their sense of commitment, and likelihood of completing their studies (Wach et al., 2016).

Student success also holds institutional and societal importance. For educators, it serves as a vital performance indicator, often tied to institutional key performance metrics (Breakwell & Tytherleigh, 2010; Kinash et al., 2015). For universities, it supports student retention and completion, reduces dropout rates, encourages positive recommendations, and increases enrolment (Mihanović et al., 2016; Nastasić et al., 2019; Tinto et al., 1994). High levels of academic success enhance a university's reputation and visibility, demonstrating its ability to produce high-quality graduates who have the potential to contribute to national economic and social development (Delgado-Márquez et al., 2013; Drydakis, 2016; Leoni, 2025). Employers also benefit by gaining skilled and knowledgeable employees capable of performing their roles effectively, leading to better productivity and outcomes (Cheng et al.,

2022). For students, it does not only improve employability but also enriches their educational experience and long-term prospects (Mamani-Benito et al., 2024; McGunagle & Zizka, 2020). Overall, academic success plays a pivotal role in individual growth, institutional prestige, and societal advancement.

The academic success of accounting students has been linked to a wide range of demographic characteristics, such as age (Almunais et al., 2014; Jansen & de Villiers, 2016), gender (Almunais et al., 2014), and ethnicity (Brook & Roberts, 2021; Hassan et al., 2020), as well as other factors like emotional intelligence (Khaledian et al., 2013), student motivation (Everaert et al., 2017; Hao & Maksy, 2019), learning style (Tan & Laswad, 2015), online engagement (Hu et al., 2024), and even marital status (Nasu, 2020). However, one vital area that remains underexplored is students' mental well-being. This study seeks to address this gap by examining its role in academic success and highlighting its overlooked significance in the literature.

Mental well-being has become a critical area of concern in recent years due to its significant role in shaping individuals' ability to manage stress, reach their full potential, and contribute meaningfully to their communities (World Health Organization [WHO], 2025a). It extends beyond personal well-being by supporting essential skills such as decision-making, relationship-building, and adaptability, which are vital for success in both academic and professional settings. The WHO (2022) emphasises that mental well-being is a fundamental aspect of overall health, enabling individuals to thrive in different areas of life and actively engage in society.

Traditionally, mental well-being has been associated with illness, often referred to as challenges, psychopathology, problems, or distress, including stress, anxiety, and depression. This perspective primarily focuses on identifying symptoms, treating challenges, and defining mental well-being as merely the absence of disease or disability (Keyes, 2002, 2005; Seligman, 2002; Seligman et al., 2004). However, in recent decades, this approach has been increasingly challenged, as the absence of mental well-being challenges does not necessarily indicate the presence of positive mental well-being (Greenspoon & Saklofske, 2001; Jahoda, 1958). Despite a growing focus on positive functioning indicators of mental well-being, it is still often conceptualised as a single continuum with mental well-being challenges. An alternative and more comprehensive perspective is the Dual Continua Model (DCM), which distinguishes positive mental well-being and mental well-being challenges as two distinct but interrelated constructs (Greenspoon & Saklofske, 2001; Keyes, 2002; Suldo & Shaffer, 2008). This model suggests that individuals can experience both flourishing and distress simultaneously, challenging the conventional view that mental health exists only in the absence of illness.

Keyes' framework (2002),[1] in particular, has received strong empirical support, highlighting its relevance in shaping policies, interventions, and research on mental well-being (Iasiello et al., 2020).

On one continuum, positive mental well-being is described as “an internal resource that helps us think, feel, connect, and function; it is an active process that helps us build resilience, grow, and flourish” (Global Wellness Institute, 2021). It represents a dynamic and renewable resource that requires consistent effort and conscious action to maintain. This state is characterised by several interconnected dimensions: emotional (how individuals regulate and express emotions), psychological (how they function effectively, make decisions, and perform tasks), and social (how they form and sustain relationships) (Keyes, 2002; Peter et al., 2011; Ryff, 1989). Together, these dimensions highlight the holistic and multifaceted nature of positive mental well-being.

On the other continuum, mental well-being challenges refer to persistent psychological distress and negative emotional states that can disrupt an individual's cognitive, emotional, and social functioning. These challenges include stress, anxiety, and depression, which may manifest as heightened tension, excessive worry, prolonged low mood, and difficulty in managing daily responsibilities (Lovibond & Lovibond, 1995; Piccinelli & Wilkinson, 2000). Unlike temporary emotional fluctuations, mental well-being challenges are ongoing experiences that can range from mild to severe, potentially influencing daily life and overall well-being.

This study explores the impact of both positive mental well-being and mental well-being challenges on accounting students’ academic success. In the context of students’ academic success, exploring these dimensions is relatively new, particularly regarding their influence on engagement and satisfaction. While all three positive mental well-being dimensions contribute to a flourishing life, emotional well-being uniquely differs from psychological and social well-being in its direct impact on students' emotional resilience and academic persistence (Antaramian, 2017; Diener, 1984; Keyes, 1998, 2002; Ryff, 1989; Seligman, 2002). In terms of mental well-being challenges, the contrasting nature of stress, anxiety, and depression suggests they may affect academic success differently, thus warranting further exploration (Al-Qaisy, 2011; Andrews & Wildings, 2004; Mihăilescu et al., 2016).

[1] Further discussion on Keyes’ (2002) Dual Continua Model can be found in Section 4.2.2.

1.3 Research Rationale

Mental well-being is a growing concern in higher education, especially for university students who are navigating a critical transition from adolescence to adulthood (Kessler et al., 2005; Thompson et al., 2021). This period is often regarded as one of the most stressful times in life (Quince et al., 2012), marked by increasing academic demands and the pressure to obtain a degree, which is widely seen as a key to success (Thurber & Walton, 2012). Students face significant obstacles during this developmental stage, including taking on greater responsibility for their behaviour, making life-changing decisions, and adjusting to new academic environments. They must also adapt to changes in social support systems, interact with diverse groups of new people, live apart from their families, and manage heavier workloads (Carr et al., 2013; Chung & Hudziak, 2017; Cleary et al., 2011; Gravett & Winstone, 2021). For many, this transition involves leaving home for the first time, resulting in emotional and physical distance from their usual support networks (Cleary et al., 2011). At the same time, they must cope with intense study schedules in competitive settings, alongside financial pressures and other issues (Hartley, 2011; Thurber & Walton, 2012). While this phase offers opportunities for personal growth, education, and career development, the associated stress can lead to an increased risk of mental well-being challenges such as anxiety and depression (Blanco et al., 2008; Denovan & Macaskill, 2017; Ooi et al., 2022). Reflecting on these growing concerns, researchers have referred to the rising mental health problems among students in higher education as an emerging "mental health crisis" (Evans et al., 2018; Kadison & DiGeronimo, 2004).

Studies across various countries consistently highlight a sharp increase in the prevalence of depression and anxiety among university students, with estimates suggesting that around one-third experience moderate to severe depression at any given time – a rate higher than that of the general population (Grineski et al., 2024; Ibrahim et al., 2013; Sarokhani et al., 2013). Szulecka et al. (1987) and Tinto (2012) found that the major causes of attrition among university students are emotional rather than academic factors. Additionally, the severity of these issues has led to increased help-seeking behaviours, particularly for anxiety and depression, which were ranked first and third, respectively, among the most common reasons for students accessing counselling services, with academic and work-related concerns ranking second (Edwards & Holden, 2001). The growing severity and frequency of mental health issues among university students, combined with their heightened vulnerability during this developmental phase, emphasise the need for targeted interventions to address these challenges and support students effectively (Hunt & Eisenberg, 2010; Verger et al., 2009; Wong et al., 2023).

The effects of mental well-being challenges on university students extend beyond their emotional state and can significantly impact their academic success and overall quality of life. Mental health issues such as stress, anxiety, and depression often lead to difficulties in adjusting to university life, contributing to lower grade point averages and, in some cases, causing students to leave their studies before completing their degrees (Dwyer & Cummings, 2001; Renshaw & Cohen, 2014; Wintre & Yaffe, 2000). The burden of these challenges is evident in both short- and long-term consequences. In the short term, students may experience poor attendance, reduced academic performance, low engagement, and difficulty in completing their programmes (Antaramian, 2015; Eisenberg et al., 2009). Over time, untreated mental health problems can result in recurrent mental illness, dysfunctional relationships, higher dropout rates, lower employment prospects, and reduced personal income (Fergusson et al., 2007; Kerr & Capaldi, 2011). Addressing these challenges is critical to reducing the burden of mental health issues among university students and ensuring that they thrive academically and personally.

Other than addressing mental well-being challenges, fostering positive mental well-being is equally crucial for university students' success. Positive mental well-being emphasises recognising and building students' strengths, encourages students to identify and utilise their unique abilities, enhancing their motivation, and leading to better academic outcomes. It also supports flourishing by fostering emotional, psychological, and social well-being while encouraging students to find meaning, purpose, and satisfaction in their lives (Schreiner, 2015; Seligman, 2011). This is particularly important as university students navigate a transitional life stage, balancing academic demands, personal growth, and social changes. Cultivating positive mental well-being enables students to stay engaged in their learning, develop resilience, and thrive in both academic and personal aspects of their lives.

1.4 Research Gap

Prior research consistently shows that mental well-being challenges, including stress, anxiety, and depression, are linked to poor academic performance in disciplines such as medicine (Alharbi et al., 2018; Al-Khani et al., 2019; Sinval et al., 2025), dentistry (Gilavand & Shooriabi, 2016), hospitality (Thuraiselvam & Thang, 2015), and engineering (Vitasari et al., 2010). However, the effect of mental well-being on academic success among accounting students remains overlooked, particularly regarding positive mental well-being, including emotional and psychological well-being. This area has received limited attention even in broader university student populations, with only a handful of research examining its impact on success. The lack of studies on mental well-being, especially positive mental well-being,

among accounting students underscores an urgent need to address this critical gap, given the unique pressures and challenges faced by students in this field (Vanderstraeten et al., 2024).

Research suggests that accounting students possess distinct personality traits compared to other students, often being more introverted, detail-oriented, practical, and honest (Booth & Winzar, 1993; Lakhal et al., 2012; Shackleton, 1980). They also tend to score lower in extraversion, open-mindedness, and self-esteem than students from other business majors, which may have implications for their mental well-being (Diener et al., 1992; Harris et al., 2017; Kochunny et al., 1992; Pringle et al., 2010). Low self-esteem is particularly concerning, as it is closely linked to mental well-being (Brown & Marshall, 2001; Farag & Elias, 2016). Additionally, accounting students prefer working with ideas rather than people and exhibit lower levels of narcissism than other business students (Bailey, 2017; Booth & Winzar, 1993; Brown et al., 2013). While this may be beneficial in some contexts, it can be harder for them to balance personal needs with those of others – an essential aspect of autonomy and psychological well-being (Brown & Marshall, 2001; Morrison & Stolorow, 1997; Ryff, 1989). These combined traits may uniquely shape their mental well-being (Lounsbury et al., 2009; Vansteenkiste et al., 2006), highlighting the need for targeted research on this population.

The accounting curriculum is widely regarded as complex and rigorous due to its demanding structure, which integrates technical knowledge with emerging technologies such as Big Data, Blockchain, and data visualisation (Dewu & Barghathi, 2019; Qasim et al., 2020; Secinaro et al., 2021). These academic demands contribute to high failure rates globally, including 42% in cost accounting in Brazil (Borges et al., 2014) and 74.2% in Kuwait (Alanzi, 2015), with comparable patterns observed in South Africa, Puerto Rico, and Malaysia (Fakoya, 2014; Muda et al., 2013; Príncipe, 2005). The pressure to master complex material and meet high academic expectations takes a toll on students' mental well-being, with studies indicating that over one-third experience anxiety and more than half show signs of depression (Janse van Vuuren et al., 2021). Stress, fear of failure, and overwhelming workload appear to be the main contributors (Ghaderi & Salehi, 2011; Ison et al., 2020). This ongoing cycle of psychological distress can interfere with learning, highlighting the urgent need to address student well-being in accounting education.

Despite being particularly vulnerable to mental health challenges, accounting students are less likely to seek help compared to students in other disciplines (Dahlin et al., 2011; Erekson et al., 2023; Ison et al., 2020; Lipson et al., 2016; Vansteenkiste et al., 2006). Many lack confidence in basic academic tasks like notetaking and studying, leading to increased stress and anxiety (Cassidy, 2015). In contrast, students with strong mental well-being and self-efficacy tend to cope better with academic pressures, perform well, and successfully complete their degrees. However, this vulnerability to poor mental health often persists beyond graduation, as students carry emotional exhaustion and stress from semester to semester into

their professional careers (Janse van Vuuren et al., 2021; Law, 2010). Since high mental well-being is crucial for managing workplace stress in accounting, universities share a responsibility to address these issues proactively. This is especially relevant in countries like Malaysia, where accounting remains a popular major (Ghani et al., 2008; Said et al., 2004). However, research on undergraduate mental well-being outside medical fields remains limited and existing studies often neglect the positive aspects of mental well-being and their role in academic success.

Overall, mental well-being is essential for accounting students' academic success. Poor mental well-being, whether due to low positive mental well-being, high mental well-being challenges, or both, can hinder their ability to meet academic demands, stay motivated, and remain engaged. Despite its significance, the DCM, which examines both positive and negative dimensions of well-being, remains underexplored in understanding accounting students' performance, engagement, and satisfaction, which are key factors in academic success. Existing interventions primarily address mental well-being challenges while overlooking the role of positive mental well-being in fostering academic excellence. This narrow focus may limit the effectiveness of support strategies, leaving critical aspects of student success unaddressed (Iasiello et al., 2020; Keyes, 2024; Suldo & Shaffer, 2008). Without a comprehensive approach, efforts to enhance student well-being may fall short, underscoring the need for further research to develop more holistic and effective interventions.

1.5 Research Aim and Objectives

The primary aim of this study is to investigate the association between mental well-being and academic success among university students, with a focus on Malaysian accounting undergraduates. Malaysia was chosen as the study setting due to the significant rise in mental well-being challenges.[2] Between 1996 and 2015, incidence rates tripled (Ministry of Health Malaysia [MOH], 2015), and by 2023, approximately 4.6% of Malaysians aged 16 and above were reported to suffer from depression, with those aged 16 to 29 being particularly vulnerable (MOH, 2023). Among university students, anxiety and depression rates range from 35% to 67% (Amir Hamzah et al., 2019; Dasor et al., 2023; Wong et al., 2023). These figures underscore the urgent need to address mental well-being in Malaysian universities, where cultural stigma and societal norms further exacerbate students' struggles (Chong et al., 2013; Phang et al., 2011).

Using Keyes' DCM of Mental Well-Being (2002), the research examines both positive dimensions (emotional, psychological, and social well-being) and mental well-being

[2] Further details on mental well-being in the Malaysian context can be found in Section 2.4.

challenges (stress, anxiety, and depression) experienced by accounting students. This framework aims to provide a comprehensive understanding of how mental well-being influences academic success, specifically in terms of performance, engagement, and satisfaction.

The objectives of this study are as follows: [3]

1. To investigate the impact of positive mental well-being (emotional, psychological, and social) on students' academic success (performance, engagement, and satisfaction).
2. To investigate the impact of mental well-being challenges (stress, anxiety, and depression) on students' academic success (performance, engagement, and satisfaction).
3. To explore the differences in students' academic success across groups defined by the Dual Continua Model (e.g., flourishing without challenges, flourishing with challenges, moderately well without challenges, moderately well with challenges, languishing without challenges, and languishing with challenges).

To achieve these research objectives, this study adopts a quantitative approach using a cross-sectional survey design to examine the association between mental well-being and academic success among Malaysian accounting students. An online questionnaire is distributed to undergraduate accounting students across multiple universities, incorporating validated measurement scales to assess positive mental well-being, mental well-being challenges, and academic success. Statistical analyses, including regression and group comparisons, are conducted to identify significant patterns and relationships. Further methodological details are provided in Chapter 5.

1.6 Significance of the Study

This study addresses critical gaps in the literature concerning mental well-being and academic success among university accounting students. While many existing studies focus on the prevalence and contributing factors of mental well-being challenges, relatively few explore the broader impacts of mental well-being, particularly beyond academic performance. Even when aspects like stress and anxiety have been studied, findings often yield mixed results, leaving uncertainties about their exact influence on student outcomes such as engagement and satisfaction. Furthermore, the distinct experiences of Malaysian students,

[3] While this section outlines the study's primary objectives, the corresponding research questions are elaborated in Section 4.6, after the literature review and theoretical frameworks to ensure they are grounded in a strong conceptual framework.

shaped by cultural stigmas, societal norms, and systemic barriers, remain underexplored. By examining both the positive and negative dimensions of mental well-being, this research contributes to a more comprehensive understanding of how different aspects of mental well-being interact to influence success in university settings, particularly for Malaysian students.

A key significance of this study is its application of the DCM, which recognises that mental well-being is not merely the absence of distress but also the presence of positive mental functioning. While many studies focus solely on negative aspects such as stress, anxiety, and depression, this research extends the conversation by highlighting the role of positive mental well-being, encompassing emotional, psychological, and social dimensions. Positive mental well-being plays a vital role in fostering resilience, motivation, and a sense of purpose, all of which are essential for academic performance, engagement, and satisfaction. By addressing both dimensions simultaneously, this study provides a more nuanced perspective on student well-being, acknowledging that students may experience both challenges and strengths at the same time. This dual-lens approach allows for a thorough exploration of how mental well-being affects student success and the development of interventions that promote holistic well-being.

This study also holds particular relevance for the field of accounting education. Accounting students are often subjected to unique academic pressures, including high workloads, low self-esteem, and limited help-seeking behaviours, yet their mental well-being remains underexplored. By focusing on this distinct group, the study not only highlights their specific needs but also contributes to the global conversation on improving educational outcomes and student well-being in professional disciplines. Understanding how mental well-being affects not just grades but also broader measures of success, such as engagement and satisfaction, is crucial for fostering a more supportive academic environment. This research seeks to bridge these gaps and provide constructive recommendations for creating holistic mental well-being interventions tailored to accounting students, particularly within the Malaysian context.

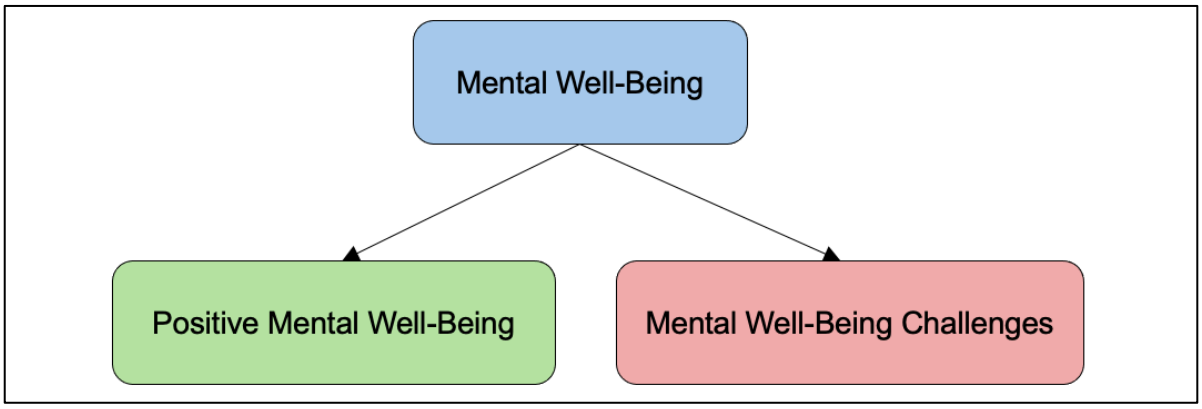
The findings of this study are expected to provide practical value for various stakeholders in higher education. For university educators and administrators, the research offers evidence-based insights to design interventions that go beyond addressing mental well-being challenges and instead focus on fostering positive mental well-being. Such initiatives may help students thrive academically by improving their engagement, satisfaction, and academic performance. For students themselves, this research sheds light on the importance of balancing academic pressures with strategies to enhance emotional, psychological, and social well-being, which are critical for navigating university life successfully. In particular, the study offers valuable insights for Malaysian universities, enabling them to develop tailored

support systems that address both the challenges and strengths of their students in a culturally and contextually relevant manner.

1.7 Defining Key Terminologies

The terms outlined in this section are used throughout the study to provide conceptual clarity and ensure consistency in discussions. Figure 1.1 presents "Mental Well-Being" as comprising two dimensions: Positive Mental Well-Being (encompassing emotional, psychological, and social dimensions) and Mental Well-Being Challenges (including stress, anxiety, and depression). This reflects the DCM, which recognises mental well-being as both the presence of flourishing and the experience of challenges.

Figure 1.1 *Conceptualisation of Mental Well-Being Terminology*



In this study, the term "mental well-being" is used instead of "mental health" to reflect a broader and more inclusive perspective. "Mental well-being" encompasses both its positive and negative aspects. This approach highlights the dual continua of well-being, acknowledging both flourishing and challenges rather than focusing solely on illness. The term "mental health" is often primarily associated with illness (Manwell et al., 2015), such as anxiety and depression, as noted by Byrd and McKinney (2012), Bostani et al. (2014), Chu et al. (2023), Duffy et al. (2020), and Bantjes et al. (2023). This narrow perspective is particularly evident in Malaysia, where mental health is commonly understood in terms of illness. Cultural stigma associates mental health discussions with personal weakness or family dishonour, discouraging open conversations and shifting the focus solely to illness (Phang et al., 2011). This perception is further exacerbated by limited awareness and education, as public discourse and media coverage often focus on severe mental illnesses (Murugaiah et al., 2024). As a result, positive aspects such as resilience and personal growth are often overlooked. Additionally, the healthcare system's medicalised approach prioritises treatment over prevention, frequently linking mental health services to psychiatric care (Haque, 2005; MOH, 2020) rather than promoting a broader understanding of mental well-being.

Accordingly, this study adopts the term "mental well-being" to reflect a more modern and less stigmatising perspective that captures the full spectrum of well-being to promote a more inclusive and balanced perspective – challenging stigma, fostering open dialogue, and highlighting the importance of flourishing alongside managing challenges as key components of overall well-being. Specifically, the study uses the term "positive mental well-being" to represent the thriving aspects of well-being, such as striving, flourishing, and self-actualising, clearly distinguishing these positive dimensions from the broader umbrella term "mental well-being" and its negative aspects, referred to as mental well-being challenges.

The term "challenges" is adopted in this study to describe mental well-being difficulties, as it carries a less negative connotation compared to "illnesses" or "disorders." The term fosters inclusivity by encompassing a wide range of experiences, from mild stress to severe struggles, without restricting the discussion to clinical diagnoses. Additionally, "challenges" emphasise solutions, suggesting that these issues can be addressed, managed, or overcome, thereby encouraging a proactive and positive approach. Although "challenges" promote inclusivity and reduce stigma, it does not diminish the seriousness of clinical mental illnesses. Instead, it acknowledges the broader spectrum of experiences, from diagnosable conditions to subclinical distress, all of which deserve attention and support.

In addition, the term "mental illness" is often considered less useful due to the lack of consensus on a definitive organic cause of distress (Kousoulis, 2019). This ambiguity has led to the adoption of various terms in research, such as "mental disorders" (Bantjes et al., 2023; King et al., 2021), "mental health problems" (Bremberg, 2015; Gulliver et al., 2022), "mental health issues" (Cleary et al., 2011), "psychological distress" (Franzen et al., 2021; Stallman, 2010), and "emotional distress" (Mihăilescu et al., 2016). Similarly, some organisations and media have started to use more accessible and less stigmatising language. For example, HelpingMinds (2024) and The Lowdown (2022) use "challenges" to describe conditions like stress and depression, while Mind.Set.Engage. (2025) refers to them as "well-being challenges." By adopting such language, this research aims to frame its discussion in a manner that is more relatable and acceptable to the general public.

1.8 Structure of the Thesis

Following Chapter One, *Introduction,* the structure of this thesis is as follows:

Chapter Two: The Malaysian Context

This chapter provides an overview of Malaysia, covering demographic and historical perspectives, the education system, and distinctions between public and private universities.

It also discusses mental well-being in Malaysia, focusing on its evolution, legislation, challenges, unique issues, and support services in universities.

Chapter Three: Literature Review

This chapter reviews the literature on students' academic success and mental well-being, addressing both positive aspects and challenges through the DCM. It highlights a research gap in studies on accounting students and Malaysian university students, providing a basis for investigating how mental well-being influences the academic success of accounting students in Malaysia.

Chapter Four: Theories and Conceptual Framework

This chapter explores key theories of mental well-being and outlines the study's conceptual framework, which is grounded in Keyes' (2002) DCM. It also presents the research questions developed from the framework. This chapter is crucial in establishing the theoretical and conceptual basis for achieving the study's aim and objectives.

Chapter Five: Methodology

This chapter outlines the methodological approach, shaped by the study's philosophical stance. It also discusses the sample size, survey design, data collection procedures, and statistical methods employed to address the research questions.

Chapter Six: Findings and Discussion: Descriptive Results

This chapter presents the descriptive findings, including an analysis of mean scores across all variables and categorisation of well-being, challenges, engagement, and satisfaction. It also incorporates a thematic analysis of open-ended responses. These findings provide essential context and insights that set the stage for addressing the research questions in subsequent chapters.

Chapter Seven: Findings and Discussion: Addressing the Research Questions

This chapter addresses the study's research questions by examining how mental well-being affects academic success. It also analyses group differences based on the DCM to better understand the connection between well-being and academic outcomes.

Chapter Eight: Conclusion

This chapter integrates the findings from Chapters Six and Seven to draw a final conclusion and highlight the study's contributions and implications. It also discusses the limitations and offers recommendations for future research.

1.9 Summary

Mental well-being is crucial given the persistent and rising prevalence of mental well-being challenges. University students are a key population for this research due to their vulnerability at this transitional life stage. Accounting students, in particular, experience distinct obstacles, such as low self-esteem and reluctance to seek support, further compounding their barrier to maintaining mental well-being. In Malaysia, students face unique barriers, such as stigma, poor help-seeking behaviours, and cultural misconceptions surrounding mental well-being. Current interventions often focus solely on addressing mental well-being challenges while neglecting a more holistic perspective that includes fostering positive mental well-being. This gap highlights the need to explore how mental well-being, both positive and negative, influences not only academic performance but also broader dimensions of success, such as engagement and satisfaction. By examining these outcomes and the differences among groups defined by the DCM, this study aims to provide valuable insights for developing tailored, comprehensive interventions that better support students' academic and personal growth.

The next chapter provides an overview of the Malaysian context, including its history, education system, and mental well-being environment.

Chapter 2: The Malaysian Context

2.1 Overview

Understanding the Malaysian context is essential for this study, as the country's unique demographic composition and policy frameworks shape its approaches to both education and mental well-being. Section 2.2 introduces Malaysia by providing demographic and historical insights including the emergence of ethnic polarisation and its implications for national ideology in Malaysian society. Section 2.3 provides information regarding the Malaysian education system. Section 2.4 discusses mental well-being in Malaysia, tracing its evolution, legislative developments, the burden of mental well-being challenges, available care services, and the mental well-being landscape within Malaysian universities. Finally, section 2.5 summarises the chapter.

2.2 Background of Malaysia

Before the formation of Malaysia, Peninsular Malaysia was known as "The Federation of Malaya," or locally referred to as "Tanah Melayu." Under the British colonial rule in the 19th century, the economy relied heavily on tin and natural rubber. To meet labour demands, the British implemented an open immigration policy, resulting in a significant influx of foreign workers until a migration ban was implemented in 1929 (Aziz et al., 2010). This policy fostered a multicultural society with Chinese immigrants working in tin mining, Sikhs as police officers, Indians in clerical roles, and labourers from Southern India aiding in railway and road construction (Faaland et al., 2005). The British "divide and rule" policy assigned different societal roles, residential areas, occupations, and education to the Malays, Chinese, and Indians. This segregation created a fragmented society with minimal interaction across ethnic lines.

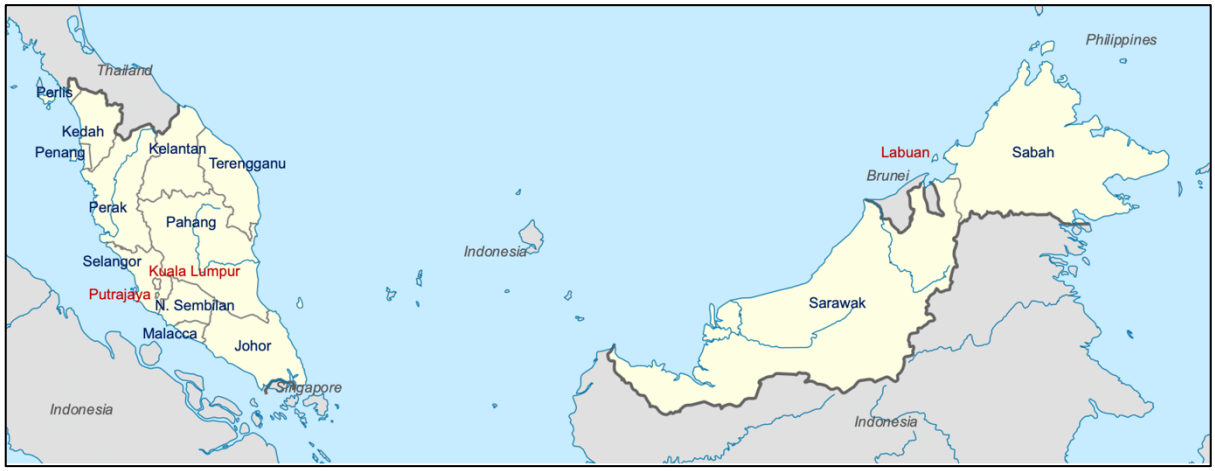
Malaya gained independence on 31 August 1957, but colonial policies left lasting economic and social disparities among ethnic groups. The Malays largely remained in rural areas, engaging in traditional activities such as rice farming and fishing, while the Chinese concentrated on urban businesses, and the Indians worked in plantations. This lack of integration hindered balanced national development and fuelled long-term economic and political competition (Faaland et al., 2005). Tensions peaked during the May 1969 racial riots between Malays and Chinese, prompting affirmative action policies aimed at addressing Malay economic disadvantage and promoting unity. Despite being the majority, Malays lagged behind the Chinese in economic participation, leading to special privileges enshrined in the

Constitution, such as land reservations, education and job quotas in public sector employment and higher education, scholarships, and business advantages (Federal Constitution, 2009, pp. 123-124). Although intended to ease ethnic tensions, these measures also reinforced long-term economic stratification that shaped Malaysia's socio-economic landscape.

Today, Malaysia is an upper-middle-income country located in Southeast Asia, covering 330,803 square kilometres and is divided into West Malaysia (Peninsular Malaysia) and East Malaysia (Sabah and Sarawak). Peninsular Malaysia lies between Thailand and Singapore, while Sarawak and Sabah share borders with Indonesia and Brunei. Among the 13 states, Selangor is the most populous, with 7 million people in 2023, and Kuala Lumpur, the capital, is home to 2.1 million people and serves as the country's economic and educational hub housing many universities. As of the 2023 census, Malaysia's population is 33.4 million, with 90% citizens and 10% non-citizens (Department of Statistics Malaysia [DOSM], 2024).

The population is categorised into "Bumiputera" (indigenous people) and "non-Bumiputera". The Bumiputera, meaning "sons of the soil," includes Malays and various Indigenous groups such as Orang Asli, Iban, Kadazan, and Bidayuh (Ali, 2016; Frankie Fan, 2024; Nicholas, 2023). Malays, who are constitutionally defined as Muslims, make up 57.9% of the population. Other Indigenous groups, primarily based in Sabah and Sarawak, account for 12.2%. Ethnic Chinese, comprising 22.6%, mainly practise Buddhism, while Indian Malaysians, who make up 6.6%, are predominantly Hindu. Although Islam is the official religion, the Constitution protects the freedom of worship for other faiths (Haque & Masuan, 2002). With its diverse ethnic and religious composition, Malaysia is widely recognised as a multiracial and multicultural nation. Figure 2.1 presents a map highlighting the locations of its states (labelled in blue) and federal territories (labelled in red).

Figure 2.1 *Illustrated Map of Malaysia*



2.3 Malaysian Education System

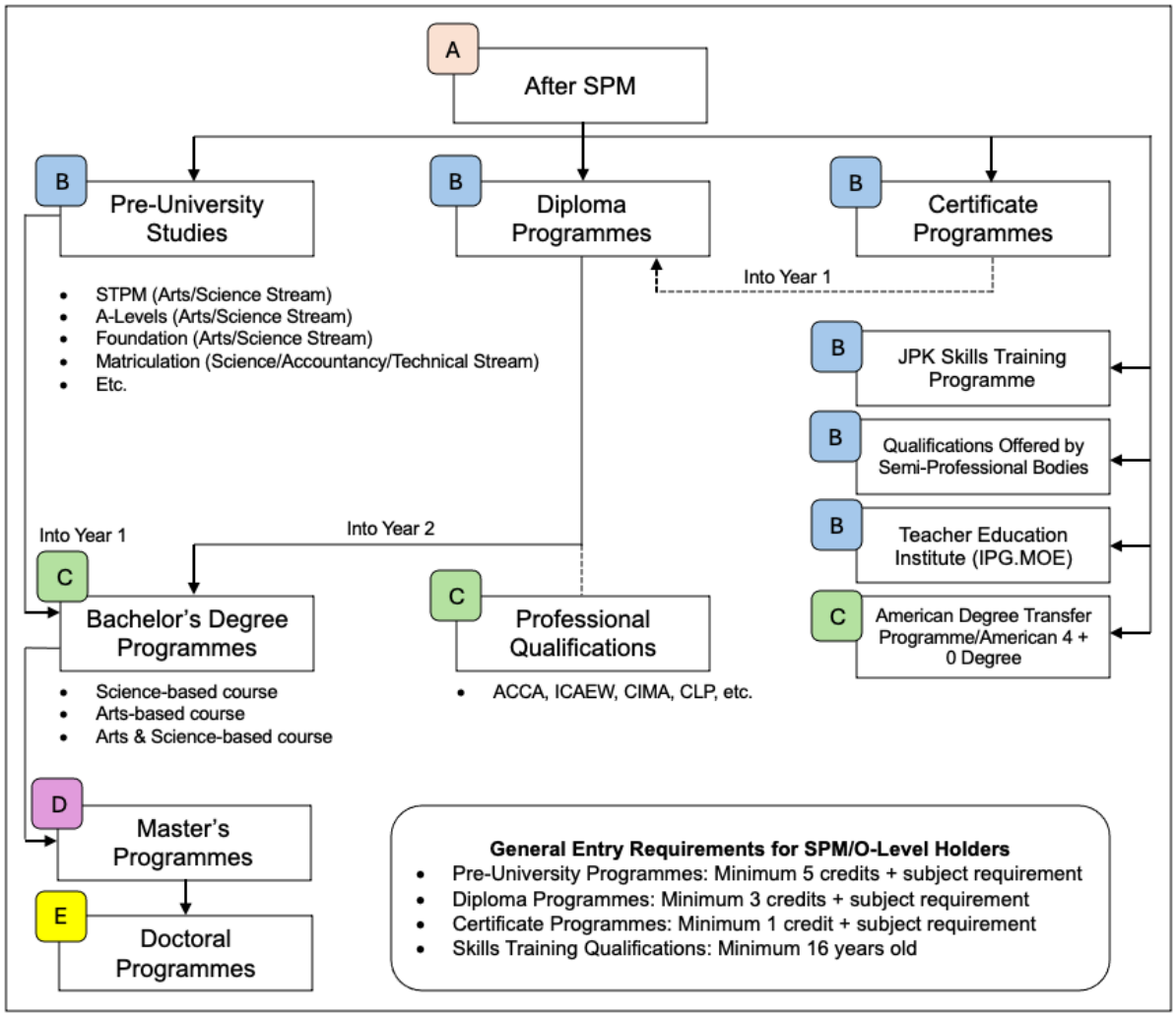
2.3.1 Overview of the Malaysian Education System

The Ministry of Education Malaysia oversees the formal education system in Malaysia. The education system is organised into five stages: preschool education, primary education, secondary education, post-secondary education, and tertiary education (MyGovernment, 2024). Preschool education begins at age four but is not mandatory. Primary school starts at age seven and lasts for six years. Secondary education, from ages 13 to 17, spans five years (Form 1 to Form 5). In the final year of Form 5, students must take the Sijil Pelajaran Malaysia (SPM) or Malaysian Certificate of Education examination. This examination is the national main examination, administered centrally, and considered equivalent to the General Certificate of Secondary Education in England, Wales, and Northern Ireland, the Nationals 4/5 in Scotland, and the General Certificate of Education Ordinary Level (O Level) in the Commonwealth of Nations. The SPM results determine eligibility for higher education, access to scholarships, and are often considered in job applications (MyGovernment, 2024).

Once students complete secondary education, they may choose from several pathways for further studies (Sani, 2020). The first choice is to enrol in pre-university programmes, such as Form 6 through Sijil Tinggi Pelajaran Malaysia, foundational studies, or matriculation, which prepare them for a university degree. The second option allows students to enter universities directly through specialised diploma programmes offered by public and private universities. The third pathway is through Technical and Vocational Education and Training, where students can earn certificates or diplomas at skill training institutes, polytechnics, and community colleges (Ministry of Higher Education [MoHE], 2021).

Figure 2.2 illustrates the three main study pathways available after completing the SPM. Malaysia’s education system is structured into five levels: A to E. Level A represents secondary school completion upon passing the SPM. Level B depicts undergraduate diplomas offered by universities and pre-university qualifications, which serve as a foundation for Level C, where students pursue bachelor's degrees or professional qualifications. Unlike pre-university programmes such as foundation or matriculation, an undergraduate diploma is a structured university-level programme that allows graduates to enter the workforce or continue to a bachelor's degree with credit exemptions, typically starting in Year 2.

Figure 2.2 *Study Pathways After Sijil Pelajaran Malaysia (SPM)*



Note. Adapted from StudyMalaysia.com (2022).

A diploma in accounting typically consists of five semesters. Students who fail one or more subjects may continue their studies beyond this period, with Semester 6 and onwards classified as extended semesters to accommodate the retaking of failed subjects. Similarly, a bachelor's degree in accounting usually spans eight semesters, though some universities designate Semester 9 and above as extended semesters (Malaysian Qualification Agency [MQA], 2024a). Graduates of accounting diploma and degree programmes may also qualify for exemptions from certain professional certification exams, such as the Association of Chartered Certified Accountants (ACCA), thereby reducing the number of papers required.

Level D represents postgraduate study through master's degrees, enabling further specialisation, while Level E encompasses doctoral programmes, marking the highest level of academic and professional expertise. Each level in Malaysian educational structure signifies a critical step in academic and professional development, preparing individuals with competencies needed for future careers.

The special privileges afforded to Malay and other Bumiputera groups are reflected in the higher education system. In the 1970s, the Malaysian government implemented a public university enrolment quota under the New Economic Policy to increase educational opportunities for Bumiputera students (Ali, 2016; Selvaratnam, 2016). Although this quota system was discontinued in 2002, its legacy remains. As of December 2023, Bumiputera students comprised 81.9% of the student population in public universities, more than four times the number of non-Bumiputera students (Tan, 2024).

A key contributor to this demographic is Universiti Teknologi MARA (UiTM), the largest public university in Malaysia, which exclusively admits Bumiputera students for its undergraduate programmes, including diplomas and bachelor's degrees. Established under Article 153 of the Federal Constitution (Bernama, 2024; Shaari, 2011), UiTM aims to develop skilled Bumiputera professionals through innovative curricula and research (Ali, 2016). With 34 campuses, 14 faculties, and nine academic centres nationwide, UiTM admitted over 30,000 students in 2022, at least four times more than Universiti Malaya (UM), the country's second-largest university by enrolment (MoHE, 2023). Among its programmes, the Faculty of Accountancy is particularly well-known in Malaysia.

2.3.2 Malaysian Universities

In Malaysia, there are two main types of universities: public universities, referred to locally as Universiti Awam, and private universities, also known as Institusi Pendidikan Tinggi Swasta. One significant difference between public and private universities is their tuition fees. Public universities benefit from government subsidies, resulting in lower fees than their private counterparts (Afterschool, 2020; FlyingChalks, 2024; Wan, 2007). Consequently, many students opt for public universities due to their affordability, while private universities cater to those who cannot secure spots in public institutions. Public universities typically have larger campuses and more extensive facilities, including amenities like pools, gyms, and comprehensive libraries, to accommodate a larger student body and offer a wide range of courses. In contrast, private universities often specialise in specific fields but may have fewer course options overall (Afterschool, 2020; Wan, 2007). Another distinction lies in faculty composition, as public universities generally employ a higher proportion of professors and lecturers with PhDs compared to private institutions (MoHE, 2023; Wan, 2007; Wilkinson & Yussof, 2005). Public universities also provide a more localised cultural and educational experience, as they primarily cater to local students, whereas private universities tend to attract a more diverse international student population (Afterschool, 2020). In terms of global rankings, all five Malaysian universities listed in the top 200 of the Quacquarelli Symonds (QS) World University Rankings 2024 are public institutions, with UM ranking the highest at 65th

place, followed by Universiti Sains Malaysia, Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia, and Universiti Teknologi Malaysia (UTM) (QS, 2023).

Both public and private universities fall under the jurisdiction of the MoHE, established in 2004. The Ministry aims to enhance the nation's educational development by developing human capital in national and global socio-economic contexts. Its primary roles include setting policies and guiding the higher education sector to cultivate a nation known for its knowledge, culture, and civilisation. This proactive approach ensures that Malaysia can continually improve and maintain a top-tier education system, which is crucial for the country's future competitiveness and growth in a globalised world.

Additionally, MoHE collaborates closely with the MQA, established in 2007 as a statutory body overseeing universities. The MQA's primary function is to implement the Malaysian Qualifications Framework (MQF), which serves as a quality assurance mechanism and establishes national standards for qualifications across both public and private universities (MQA, 2024a). The agency plays a crucial role in controlling university accreditation and setting operational standards, ensuring that educational quality meets both global and national benchmarks. Accreditation by MQA is mandatory for all academic programmes to receive formal recognition (MyGovernment, 2024). It signifies that certificate, diploma, or degree programmes meet MQA's rigorous standards and align with the MQF, ensuring graduates earn nationally recognised qualifications (Lai & Zainal, 2023; The Star, 2023). Beyond its role in ensuring quality education, MQA accreditation also impacts students' eligibility for Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN)[4] loans and future employment in the government sector (MyGovernment, 2024).

In 2023, Malaysia has 20 public and around 50 private universities (MQA, 2023a). As of 2023, enrolment in public universities reached approximately 590,000 students, with females making up about 61% of the total student population. In comparison, private university enrolment stood at approximately 385,000 students, with females making up 52% (MoHE, 2023). Across various fields, female students outnumbered males in education, humanities, health and welfare, services, science, mathematics, and computing. The widest gender gap was in social sciences, business, and law, where 70% of students were female. Engineering, manufacturing, and construction were the only fields where male students (57%) outnumbered females (MoHE, 2023). In 2023, 149,000 students graduated from public universities, with 37% being male and 63% female. Meanwhile, 73,000 students graduated from private

[4] PTPTN is a government institution that provides financial loans to university students to help cover tuition fees and living expenses. The loan may be converted into a scholarship through an exemption to repay the loan based on academic performance, such as achieving first-class honours (MyGovernment, 2024).

universities, of which 52% were female (MoHE, 2023). In 2021, around 3% of public university undergraduates dropped out before completing their studies (New Straits Times, 2022).

Malaysian universities actively welcome mature students through various pathways that accommodate individuals with significant work experience or non-traditional academic backgrounds. One key initiative is the Accreditation of Prior Experiential Learning (APEL), overseen by the MQA, which allows individuals to access higher education by recognising their prior learning and work experience. APEL is categorised based on its intended purpose: APEL.A facilitates entry into undergraduate and postgraduate programmes, while APEL.C grants credit exemptions based on experiential learning (MQA, 2024b). In addition to APEL, many public and private universities offer Open and Distance Learning programmes, enabling students to pursue diplomas, bachelor's, and postgraduate degrees remotely. Institutions such as Open University Malaysia, UiTM, UTM, and Sunway University (SU) offer these programmes featuring online coursework, recorded lectures, and virtual assessments. Some universities also implement hybrid learning, combining occasional in-person sessions with primarily online engagement, making education more accessible to working professionals and students in remote areas (MQA, n.d.; Open University Malaysia, 2025; SU, 2025a; UiTM, 2025; UTM, 2025). These flexible learning opportunities reflect Malaysia's commitment to lifelong learning and inclusivity in higher education.

The primary language of instruction in Malaysian universities is English, especially in science, technology, engineering, accounting, and business programmes (Darmi & Albion, 2013; MQA, n.d.). However, certain courses may use Bahasa Malaysia (the national language) or other languages such as Mandarin and Tamil, depending on the field of study. Exceptions include Malay Studies, Chinese Studies, Foreign Language Studies, and Islamic Studies, which may be conducted in Malay, Mandarin, Arabic, and other languages. While all major examinations and assessments must be in English prescribed by the MQA, lecturers may use other languages as long as students can understand essential reference materials in English (Ali, 2013). This is because English is widely adopted for Communicative Language Teaching (CLT), reinforcing its role in academic research, employment, and global competitiveness (Darmi & Albion, 2013; Ganeson, 2024; Lo & Othman, 2023).

An academic grading system is used in both public and private universities to assess students' understanding and proficiency in their chosen academic fields. This system entails allocating grades or marks to students based on their performance in academic assessments such as examinations, assignments, projects, and relevant coursework. One commonly used method is the Grade Point Average (GPA), typically ranging from 0 to 4, with 4 representing

the highest attainable grade.[5] The GPA offers a standardised approach to gauge a student's overall academic achievement across multiple subjects in the current semester. It considers the student's grades in each subject and calculates an average score, reflecting their overall performance. Each academic year consists of two semesters, so students in their eighth semester are typically in their fourth and final year of undergraduate study. Additionally, there is the Cumulative Grade Point Average (CGPA), which presents the average of the student's grades across all subjects taken, offering a comprehensive overview of their academic performance throughout their studies (MQA, n.d.).

The GPA and CGPA serve as essential tools for evaluating students' performance and providing constructive feedback based on their grades. This feedback helps students identify their strengths and areas for improvement, promoting continuous growth. Additionally, these scores indicate students' commitment, intellectual development, and ability to succeed in rigorous academic environments. Strong academic performance enhances their records and increases their chances of pursuing postgraduate programmes. For instance, a minimum CGPA of 3.00 is often required for admission to a master's degree programme in UiTM (UiTM, 2022). Moreover, GPA and CGPA play a critical role in securing scholarships and improving employability and career advancement opportunities (MQA, n.d.; Public Services Commission of Malaysia, 2024). By implementing this grading system, the Malaysian academic framework ensures a thorough evaluation of students' abilities, fostering adaptability to the diverse requirements of various fields of study.

2.4 Mental Well-Being in Malaysia

2.4.1 Evolution and Legislation

Mental health services in Malaysia began in the early 19th century when the British established three asylums for therapy and training. The first was a small "lunatic asylum" at Penang Hospital in the late 1890s for colonial navy sailors with mental illness. This was followed by a psychiatric hospital at Taiping Hospital in 1910 and the Federal Lunatic Asylum (later renamed Central Mental Hospital) in Perak in 1911. Tampoi Hospital (now Permai Hospital) was built in Johor in 1935, with similar institutions established in Sabah and Sarawak in the 1920s. At the time, mental health care in Malaysia focused on institutionalisation, carrying significant stigma, leading to poor care, low recovery rates, and high mortality (Haque,

[5] Foundation studies, diploma, and bachelor's degrees use the GPA and CGPA system. However, postgraduate programmes such as master's and PhD do not always use this system. For example, master's by coursework typically has GPA and CGPA, while master's by research does not (UiTM, 2022; UM, 2023).

2005). Treatment primarily managed chronic conditions through custodial care rather than rehabilitative or curative approaches (Haque, 2005; Ministry of Health Malaysia [MOH], 2020), and individuals with mental illness were often seen as dangerous and confined to institutions.

A significant change began in 1958 with the establishment of the first psychiatry ward at Penang General Hospital, where individuals with mental illness were housed alongside other patients for the first time. Dr. M. Subramaniam became Malaysia's first psychiatrist in 1961, followed by Tan Eng Seong in 1963 at Tampoi Mental Hospital. In 1962, Dr. Eric Dax was appointed by the World Health Organization (WHO) to review Malaysia's mental health policy and treatment practices. Under his guidance, revisions were made to the Mental Disorders Ordinance 1952 and the quality of mental health services in the country was improved. Additionally, the Malaysian Psychiatric Association, established in November 1976, played a crucial role in fostering the field of psychiatry during its early stages.

Mental health legislation in Malaysia was initially governed by three regional Acts: The Lunatic Ordinance of Sabah (1953), the Mental Health Disorders Ordinance (1956), and the Mental Health Ordinance of Sarawak (1961), all of which focused on custodial care. The introduction of the Mental Health Act 2001 by the MOH marked a significant shift, centralising regulation and promoting more humane, community-based approaches. This was further reinforced by the Mental Health Regulation 2010, which provided a framework for planning, implementing, and assessing services. The regulation outlines care tailored to different populations, including children, adolescents, older adults, and individuals with special needs, across various settings such as schools, workplaces, and primary healthcare. These legislative actions played a vital role in establishing comprehensive policy guidelines for mental health service delivery and standardising laws related to mental disorders while outlining clear procedures for the care, treatment, and protection of individuals with mental health conditions.

Recent efforts by the MOH (2020) led to the introduction of the National Mental Health Strategic Plan 2020 to 2025, marking a significant step in strengthening Malaysia's mental healthcare system. The plan aims to build a resilient, stigma-free community with equitable access to timely, comprehensive, and affordable support. Its key priorities include improving governance and regulatory frameworks, enhancing mental health surveillance, improving service delivery, expanding training resources, promoting positive mental well-being, and addressing suicide and suicidal behaviour through various measures.

2.4.2 Burden of Mental Well-Being Challenges

The challenges related to mental well-being in Malaysia remain pressing and are steadily rising. The National Health and Morbidity Survey in 2015 reported that approximately 29.2% of Malaysians aged 16 and above experienced some form of mental well-being

challenges (MOH, 2015). More recently, around one million Malaysians, or 4.6% of individuals aged 16 and above, suffer from depression, marking a twofold increase in cases between 2019 and 2023 (MOH, 2023). Younger individuals, particularly those aged 16 to 29, are disproportionately affected, with nearly half reporting thoughts of self-harm or suicide. Among Malaysians aged 15 to 40, six in 10 experience mild to severe depressive symptoms, three in 10 report moderate to severe anxiety, and one in 10 face high levels of stress. Additionally, one in 10 youths aged 15 to 30 have had thoughts, plans, or attempts at suicide.

Socioeconomic conditions further intensify these mental well-being challenges. In 2022, Malaysia's poverty rate was 6.2%, with 68% of those affected being Bumiputeras and 32% non-Bumiputeras. Alarmingly, 80% of individuals living in poverty are more likely to suffer from depression (DOSM, 2022; Nasib et al., 2023; Shahar et al., 2019). This illustrates how financial hardship and limited access to resources contribute to psychological distress. The economic burden of these challenges is also substantial. In 2018, Malaysia lost approximately USD3.42 billion in workplace productivity due to mental well-being challenges, equivalent to 1% of the country's gross domestic product. By 2030, this economic burden is projected to reach USD25.3 billion (MOH, 2020).

Beyond these structural and economic concerns, societal attitudes toward mental well-being continue to present significant barriers. Despite growing awareness, negative stigma remains prevalent in Malaysia (Rajagopal et al., 2023). This stigma is often rooted in beliefs that individuals with mental health issues are weak, incompetent, and incapable of self-care, leading to internalised feelings of shame (Kotera et al., 2021). These perceptions result in social exclusion, rejection from employment or personal relationships, housing discrimination, inadequate insurance coverage, and reduced access to quality healthcare. Over time, these experiences may lead to self-stigma, causing individuals to withdraw from opportunities, avoid social interactions, or refrain from seeking help (Kotera et al., 2021; Seal, 2023).

Cultural prejudice further reinforces this stigma by linking mental illness to personal failure (Rajagopal et al., 2023; Segal et al., 2005; Singh et al., 2022). As a result, families may feel compelled to hide a loved one's condition, even from close relatives and friends to protect the family's reputation and avoid shame, a concept commonly referred to as "losing face." This silence often reflects broader societal pressures and a lack of close-knit support. According to Hanafiah and Van Bortel (2015), discrimination frequently comes from employers, friends, and family members. When support systems become sources of stigma, individuals face heightened emotional distress and greater difficulty in coping with their condition.

Another significant factor contributing to this issue is the widespread reliance on traditional and spiritual healing practices. Many Malaysians prefer seeking help from spiritual or traditional healers rather than mental health professionals. Research indicates that 54% of psychiatric patients in Malaysia consulted traditional healers before turning to psychiatric

services (Phang et al., 2011). The term "psychiatric illness" is often perceived negatively as "gila" (crazy or madness). Cultural beliefs play a key role in this preference. Among the Malay and Indian communities, mental health issues are frequently attributed to spirit possession or divine punishment, while in the Chinese community, they are associated with spiritual imbalance or failures in personal achievements such as education, occupation, or financial success. Each ethnic group has its own traditional healers: "vaidya" for Indians, "ustaz" and "bomoh" for Malays, and "sinseh" for Chinese (Phang et al., 2011; Shah, 2022). In East Malaysia, superstitions and the use of spiritual diagnosis are particularly common, with many attributing mental disorders to evil spirits or emotional disharmony, which can further delay access to appropriate treatment (Shoesmith et al., 2018).

Compounding this issue is the low level of mental well-being literacy in Malaysia. Many individuals, including family members of those with mental health difficulties, lack accurate knowledge and understanding of these conditions (Rajagopal et al., 2023). This lack of awareness, combined with persistent stigma and strong cultural leanings towards alternative healing, often discourages individuals from seeking professional care. It is estimated that only 20% of those experiencing mental well-being challenges access such services (Azman et al., 2023; Chua, 2020; Phang et al., 2011). In many cases, individuals turn to self-help and motivational speakers over clinical psychologists, drawn by promises of quick solutions and effective marketing, despite these methods often lacking in scientific support and promoting toxic positivity (Seal, 2023).

2.4.3 Mental Well-Being Care in Malaysia

Despite overwhelming advocacy and activism on social media, mental healthcare remains unattainable for many people (Shah, 2022). One key reason is accessibility. Unlike treatment for common ailments such as the flu, finding mental health services is not straightforward. Many individuals are unaware of which hospitals or clinics that provide these services. Additionally, mental health services in Malaysia remain significantly underfunded, which affects service delivery and quality of care. Due to limited resources, talking therapies which are commonly recommended in many countries as a first-line treatment for mental health disorders, are rarely offered in government facilities. Instead, medication is often prioritised despite its limited effectiveness for some individuals and potential side effects (Seal, 2023). This approach is largely attributed to time constraints and a shortage of trained professionals, particularly in the public sector. According to the WHO Mental Health Atlas 2017, only 1.3% of Malaysia’s total health budget was allocated to mental health, hindering the implementation of comprehensive evidence-based care (Raaj et al., 2021; Seal, 2023).

This lack of investment also contributes to a shortage of mental healthcare professionals, a critical issue that is frequently disregarded. Currently, the country has

approximately 500 clinical psychiatrists serving a population of 34 million, well below the WHO's recommended ratio of one psychiatrist per 10,000 people (Murugesan, 2024; The Star, 2024). This disparity contrasts starkly with countries like the United States of America (USA), where in 2023, 45,000 psychiatrists were serving a population of 340 million (American Psychiatric Association, 2023). According to Guan et al. (2018), there is a geographical imbalance, with the lowest concentration of psychiatrists in rural states such as Pahang, Terengganu, and Kelantan. Challenges in the profession, including comparatively lower compensation, demanding workloads, and societal stigma, contribute to the scarcity. As a result, Malaysian psychiatrists often prioritise treatment over comprehensive recovery, rehabilitation, and mental health advocacy efforts (Lin, 2018).

Affordability is another significant barrier to accessing mental health services (Lin, 2018). While government employees and low-income individuals benefit from reduced charges, others must pay for general and mental hospital services, including medication and rehabilitation. Despite more affordable services in the government sector, long queues, and wait times often result in appointments being available only after two to three weeks (Shah, 2022). Moreover, ward costs can impose financial burdens on those with limited incomes (Chong et al., 2013; Hassan et al., 2018). In the private sector, services are expensive and frequently not covered by insurance, prompting some individuals to seek out traditional healers who may charge lower or no fees (Phang et al., 2010).

Taken together, the awareness, access, affordability, and the availability of professionals shape the current situation of mental well-being care in Malaysia. This offers essential context for understanding how Malaysians perceive and access mental health support.

2.4.4 Mental Well-Being in Malaysian Universities

Mental well-being challenges are common among Malaysian university students. Shahira et al. (2018) found that 35% experienced stress, 74% had anxiety, and 42% suffered from depression, with Amir Hamzah et al. (2019) finding similar rates. More recently, Dasor et al. (2023) observed even higher figures, with 42.6% experiencing stress, 66.8% anxiety, and 60.6% depression. Among accounting students, Nor et al. (2019) found that 92% experienced stress, with 30% at severe levels. These elevated levels are often linked to various academic stressors such as heavy workloads, exams, inadequate facilities, and performance expectations, alongside non-academic stressors including family issues, fear of the future, relationship difficulties, economic conditions, and financial struggles (Al-Dubai et al., 2011; Bakar et al., 2017; Muhsain et al., 2024; Paneerselvam et al., 2023; Yusoff et al., 2009).

To support student mental well-being, Malaysia had 9,562 registered counsellors working across hospitals and universities as of 2023 (CodeBlue, 2023). Counselling services

are available across both public and private universities, including institutions such as UiTM, UM, UKM, Taylor's University, and SU (SU, 2025b; Taylor's University, n.d.; UiTM, 2023). These universities provide counselling services alongside mental health awareness programmes, screenings, and treatment options. Additionally, while some universities offer information beyond mental well-being challenges, focusing on promoting positive mental well-being aspects such as self-esteem, compassion, and social connection, many others do not appear to highlight these resources on their websites. This highlights uncertainty about whether such initiatives are limited or simply not well-publicised online. Despite the availability of counselling services, many Malaysian students hesitate to seek help due to stigma, trust issues, limited understanding of the counselling process, and doubts about its effectiveness and the role of professional mental health support (Arifin et al., 2022; Kumaran et al., 2023; Pheng et al., 2019).

Overall, while mental well-being challenges are widespread among Malaysian university students, much of the discussion continues to focus on these difficulties. However, limited attention has been given to the promotion of positive mental well-being, despite its critical role in fostering resilience, engagement, and overall success. Given the heightened concerns among this population, further research is essential to better understand and support student mental well-being within the academic setting.

2.5 Summary

This chapter explores the evolution of Malaysia's socio-cultural context and institutional frameworks. It begins with the British colonial era, which historically segregated ethnic communities but has since moved towards greater cohesion. The discussion then shifts to the Malaysian education system, examining statutory governance, post-SPM pathways, and the differences between public and private universities. The chapter also traces the evolution of mental well-being legislation and treatment approaches, from custodial care to a focus on rehabilitation and general well-being. Additionally, it highlights the growing burden of mental health challenges in Malaysia and the key issues shaping its mental well-being environment, including stigma, traditional beliefs, workforce shortages, low literacy, and reluctance to seek professional help. The chapter concludes by highlighting the vulnerability of Malaysian university students who are increasingly affected by stress, anxiety, and depression within an already strained mental well-being landscape.

In the next chapter, the relevant literature is reviewed.

Chapter 3: Literature Review

3.1 Overview

This study reviews the relevant literature to develop a comprehensive understanding of mental well-being among university students, particularly accounting students, and its relationship with academic success. Section 3.2 explores students' academic success literature. Section 3.3 explores positive mental well-being, beginning with studies on non-accounting students outside and within Malaysia, followed by research on accounting students in similar contexts. It concludes with reflections on these findings and their relevance to this study. Section 3.4 focuses on mental well-being challenges, following a similar structure to identify gaps and their implications for this study. Section 3.5 discusses the dual continua model (DCM) of mental well-being, highlighting its novelty and various research approaches. It begins with DCM studies in various contexts before addressing studies on students' academic success. Reflections are incorporated to position this study within the broader research framework. Finally, Section 3.6 summarises key findings from the literature, explaining how they inform the research objectives and guide the direction of this study.

3.2 Students' Academic Success

Students' academic success is a fundamental aspect of universities and a key criterion for evaluating the quality of educational institutions.[6] Traditionally, academic performance has been the primary measure of success, assessed through exam marks and Grade Point Average (GPA). While these metrics provide a benchmark for achievement, researchers argue that they do not fully capture the complexities of student learning, intellectual development, or the ability to apply knowledge in real-world settings (Arum & Roksa, 2011; Biggs & Tang, 2011). This has led to increasing discussions on the need for a broader evaluation of student success that considers additional dimensions beyond grades.

This broader perspective aligns with ongoing discussions in the literature advocating for a more comprehensive understanding of student success. It encompasses not only performance but also student engagement and satisfaction, offering a more comprehensive perspective on students' university experiences (Kuh et al., 2006; York et al., 2015). Engagement reflects students' commitment to learning and participation in academic

[6] For clarity, the term "students" in this chapter refers to university students in general, unless otherwise specified. When referring to specific groups such as school students or students in particular fields (e.g., medical, nursing, or accounting), the field or level of study is explicitly stated.

activities, while satisfaction captures their perceptions of the quality of their educational experiences. Recognising these dimensions is particularly important in accounting education, where students face rigorous academic demands alongside mental well-being challenges.

Given the aforementioned expanded perspective, this study examines three key dimensions of students' academic success: academic performance, engagement, and satisfaction. By incorporating these elements, the study provides a more nuanced understanding of success, moving beyond traditional performance metrics to consider how students interact with their learning environments and perceive their university experiences.

3.2.1 Performance

Academic performance serves as a primary metric for assessing student success in higher education, reflecting students' mastery of course content, ability to meet academic requirements, and overall cognitive development (Adediwura & Tayo, 2007; Kuh et al., 2006; Richardson et al., 2012). Traditionally, it has been evaluated through numerical indicators such as individual grades and GPA, which provide a standardised means of evaluating students' competencies across disciplines (Kuh et al., 2006).

There is a broad consensus that GPA and Cumulative Grade Point Average (CGPA) are key metrics for assessing student performance in both Malaysian and international contexts (Eisenberg et al., 2009; Gabre & Kumar, 2012; Kamarulzaman et al., 2023; Khalid & Abdul Rauf, 2023). While GPA reflects performance over a single academic semester, CGPA captures cumulative academic achievement across multiple semesters. Given their complementary scope, this study incorporates both measures to provide a more comprehensive evaluation of students' academic success.

3.2.2 Engagement

Students' engagement is widely recognised as a crucial determinant of academic success, shaping students' learning experiences and overall educational outcomes. It reflects the extent to which students actively participate in their studies, with higher engagement levels linked to improved academic performance, cognitive development, and retention rates (Martínez et al., 2019). Research suggests that engaged students demonstrate greater academic self-efficacy, a stronger sense of belonging, and higher persistence throughout their educational experience (Kahu & Nelson, 2018; Zhoc et al., 2020). Engagement has also been associated with key academic success factors, including retention, lifelong learning, curricular relevance, and work-readiness (Kuh et al., 2006; Trowler, 2010; Zepke, 2018). Given its significance, engagement is increasingly regarded as a core element of student success rather than a supplementary aspect of higher education.

Engagement is a multidimensional construct encompassing behavioural, cognitive, and emotional components, with each playing a distinct role in shaping students' academic experiences (Fredricks et al., 2004). Behavioural engagement involves students' active participation in learning activities, including attending classes, completing assignments, and adhering to institutional expectations (Finn, 1993; Kuh et al., 2008). This includes three key aspects: positive conduct, investment in learning tasks, and involvement in extracurricular activities. Positive conduct entails following rules, maintaining discipline, and avoiding disruptive behaviours such as skipping classes (Finn, 1993). Beyond compliance, behavioural engagement also reflects students' effort, persistence, and attentiveness, demonstrated through participation in discussions, asking questions, and maintaining focus (Birch & Ladd, 1997; Skinner & Belmont, 1993). Additionally, engagement extends beyond the classroom, as students involved in extracurricular activities, such as student organisations or athletics, to demonstrate a broader commitment to their educational environment (Fredricks et al., 2004).

Emotional engagement refers to students' affective connection to learning, encompassing their interest, enthusiasm, and sense of belonging within the academic environment (Fredricks et al., 2004; Skinner & Belmont, 1993). It is often assessed through students' emotional responses to their school, coursework, and instructors (Lee & Smith, 1995; Wang et al., 2016). Some scholars conceptualise emotional engagement as identification with the learning institution, where students develop a sense of connection and appreciation for their academic journey (Finn, 1993; Voelkl, 1997). A high level of emotional engagement is associated with positive emotions such as excitement and motivation, whereas low emotional engagement may manifest as boredom, frustration, or disengagement.

Cognitive engagement focuses on students' psychological investment in learning, extending beyond basic participation to include deep learning strategies, problem-solving, and self-regulation (Fredricks et al., 2004; Kuh et al., 2011). It reflects students' willingness to engage in complex tasks that exceed minimal academic requirements, and persist through challenges (Wehlage et al., 1989). Highly cognitively engaged students actively apply critical thinking, seek independent learning opportunities, and use metacognitive strategies to regulate their academic progress, which enhances long-term academic success.

Universities play a crucial role in fostering student engagement by creating inclusive learning environments, promoting active participation, and implementing supportive teaching practices (Kahu & Nelson, 2018; Tinto, 2012). Institutions that prioritise student engagement through experiential learning, faculty-student interactions, and co-curricular activities can enhance academic success and overall student satisfaction. Encouraging participation in discussions, providing hands-on learning experiences, and fostering meaningful connections within the academic community contribute to long-term academic and professional success. Given its influence on both academic and personal development, engagement is a central

focus in this study, offering insights into how it shapes students' experiences and educational outcomes.

3.2.3 Satisfaction

Students' satisfaction with their educational experiences is widely recognised as a key indicator of academic success, influencing learning outcomes, persistence, and overall well-being (Butt & Rehman, 2010; Elliott & Shin, 2002; Santini et al., 2017). Research highlights that academic satisfaction plays a crucial role in reducing dropout rates, minimising adjustment difficulties and disciplinary issues, and lowering the risk of psychological distress (DeWitz & Walsh, 2002; Doménech-Betoret et al., 2017). Higher satisfaction is also associated with increased motivation, stronger engagement, and a more positive perception of learning, all of which contribute to better academic success and long-term personal development. While student satisfaction benefits universities by enhancing institutional reputation and enrolment rates, its most significant impact lies in fostering a supportive learning environment that promotes student success and well-being (Alves & Raposo, 2009; Elliott & Shin, 2002).

Academic satisfaction is a multidimensional concept that reflects students' overall evaluation of their educational experiences (Elliott & Healy, 2001; Richardson et al., 2007). It includes various aspects of learning, such as the perceived relevance of coursework, the quality of academic resources, and the ability to manage academic challenges effectively. Academic satisfaction can be categorised into three key dimensions: satisfaction with content, satisfaction with conditions, and satisfaction with coping (Wach et al., 2016; Westermann et al., 1996).

Satisfaction with content reflects students' engagement with their coursework and its relevance to their future career aspirations. When students find their studies meaningful and engaging, they are more likely to develop intrinsic motivation and persist in their academic journey (Hanssen & Solvoll, 2015). Satisfaction with conditions is shaped by students' perceptions of the learning environment, including access to resources, teaching quality, and institutional support. A well-structured curriculum, effective instructional strategies, and adequate learning facilities play a crucial role in shaping overall satisfaction (Nastasić et al., 2019; Schiefele & Jacob-Ebbinghaus, 2006; Weerasinghe et al., 2017). Meanwhile, satisfaction with coping refers to students' ability to manage academic stress, deadlines, and workload (Wach et al., 2016; Westermann et al., 1996). This dimension is particularly relevant in high-pressure disciplines like accounting, where students often face demanding academic challenges. Managing these pressures effectively enhances overall satisfaction and reduces the likelihood of academic related challenges.

Student satisfaction plays a fundamental role in shaping academic success. When students feel supported and their expectations are met, they are more likely to persist in their

studies and achieve better outcomes. Conversely, dissatisfaction can emerge when students struggle with excessive workload and stress, potentially affecting their motivation and academic progress. Given these considerations, this study positions satisfaction as another central dimension of student success, recognising its significance in shaping learning experiences and academic well-being.

3.3 Positive Mental Well-Being and Students' Academic Success

Positive psychology, a term introduced by Abraham Maslow in the 1950s (Maslow, 1954) and later defined as the study of happiness and well-being (Seligman & Csikszentmihalyi, 2000), has significantly advanced the field of psychology. A central aspect of positive psychology is positive mental well-being, which emphasises cultivating individuals' strengths and values. Unlike traditional approaches that focus on identifying and addressing pathologies, positive mental well-being aims to nurture and enhance positive attributes (Seligman & Csikszentmihalyi, 2000; Seligman et al., 2004). Researchers such as Ryff (1989), Keyes (1998, 2002), Diener and Seligman (2002), and Ryan and Deci (2001) have expanded the understanding of positive mental well-being by developing comprehensive frameworks that assess and promote overall well-being through hedonic aspects (pleasure-based), including emotional or subjective well-being (Diener, 2000), and eudaimonic aspects (meaning-based), encompassing psychological and social well-being (Keyes, 1998, 2002; Ryff, 1989).[7] Such a framework is employed in this study to explore the impact of positive mental well-being on students' academic success. The following literature highlights the influence of positive mental well-being encompassing emotional, psychological, and social dimensions on students across both accounting and non-accounting disciplines.

3.3.1 Studies on Emotional Well-Being

Emotional well-being (EWB), rooted in the hedonic concept, focuses on emotional experiences such as positive affect (e.g., happiness, joy, and interest) and cognitive evaluations like overall life satisfaction (Diener & Seligman, 2002; Ryan & Deci, 2001; Seligman, 2011). It is commonly assessed using the Positive and Negative Affect Schedule (PANAS), which captures two affective dimensions: positive affect, reflecting states such as enthusiasm and alertness, and negative affect, encompassing emotions like distress and discomfort (Watson et al., 1988). Another widely used measure is the Satisfaction with Life

[7] Details on hedonic and eudaimonic well-being are discussed further in Section 4.3.1 Key Theoretical Perspectives.

Scale (SWLS), which evaluates cognitive judgments of life satisfaction based on contentment with different aspects of life (Diener et al., 1985).

(a) Non-Accounting Students: EWB and Academic Success

Studies on university students have demonstrated the link between positive emotions and academic success. Positive emotions play a causal role in achieving successful outcomes across multiple life domains, including education (Lyubomirski et al., 2005). Emotions significantly influence academic performance, with positive emotions predicting higher GPAs (Carmona-Halty et al., 2019; Pekrun et al., 2017). However, findings from Oishi et al. (2007) and Seligman et al. (2004) suggest that moderate levels of EWB could be equally or even more beneficial for academic performance compared to high levels of happiness. This may be because excessively high levels of happiness can lead to complacency or reduced motivation, whereas moderate levels may encourage a balance between positive emotions and the drive for improvement (Oishi et al., 2007).

Beyond performance, student engagement has been identified as a mediator in the relationship between positive emotions and academic achievement (Rodríguez-Muñoz et al., 2021). Emotions such as joy, hope, and pride are positively correlated with academic self-efficacy, interest, and effort, allowing students to find enjoyment in the learning process and achieve better outcomes (Fredrickson, 2001; Lyubomirsky et al., 2005; Pekrun & Linnenbrink-Garcia, 2014). Positive affect also helps buffer against disaffection, including lack of motivation, enthusiasm, and passivity, by fostering approach-oriented behaviours and broadening cognitive mindsets that support sustained engagement (Fredrickson, 2013). Similarly, King et al. (2015) found that students with higher levels of positive emotions demonstrated greater engagement and fewer negative emotions. Research on school students further highlights the role of EWB in fostering engagement, with positive emotions enhancing cognitive and psychological engagement (Reschly et al., 2008) as well as emotional and behavioural engagement (Eriksen & Bru, 2023). Students who experience enjoyment and interest in their learning environment tend to exert greater energy and effort, shaping their attitudes towards learning and encouraging active participation in academic tasks (Fredricks, 2011).

Life satisfaction, another key component of EWB, is also linked to positive educational outcomes. High life satisfaction and low psychological distress have been shown to enhance student engagement and academic performance (Antaramian, 2015; Howell, 2009; Renshaw & Cohen, 2014; Rode et al., 2005). Additionally, life satisfaction can improve time management, leading to better academic performance (Khabbache et al., 2023). Students with higher life satisfaction also report greater satisfaction with academic experiences (Duffy

et al., 2012; Ojeda et al., 2011). Further, life satisfaction has been associated with positive academic expectations, increased self-efficacy, greater perceived progress towards goals, and lower academic stress (Antaramian, 2017; O'Sullivan, 2011; Ojeda et al., 2011). These findings highlight the essential role of life satisfaction in fostering motivation, engagement, and overall academic success.

Research on EWB among Malaysian students has produced mixed findings regarding its impact on academic performance. Ibrahim et al. (2015) found that life satisfaction positively predicted CGPA, suggesting that higher EWB may contribute to better academic outcomes. However, Malik et al. (2013) reported no significant association between life satisfaction and academic achievement among undergraduates, with most students reporting moderate levels of life satisfaction. This suggests that while EWB plays a crucial role in students' overall experiences, its direct influence on academic performance may vary depending on other factors.

(b) Accounting Students: EWB and Academic Success

The relationship between EWB and academic success among accounting students remains an uncharted territory. One related study by Fong (2019) examined the hedonic perspective of mental well-being among accounting students at Macau University, highlighting a positive association between students' sense of inner peace, joy in life, and their academic achievement in accounting. Similar research within Malaysia, particularly studies examining EWB and its direct influence on academic outcomes among accounting students, is notably limited.

3.3.2 Studies on Psychological Well-Being

Psychological well-being (PWB) reflects the process of living well, functioning effectively, and realising one's potential, aligning with the concept of eudaimonia (Deci & Ryan, 2008). This construct is particularly relevant to university students, who navigate academic pressure, social adjustment, and personal development during their transition to adulthood. PWB is often assessed using Ryff's (1989) Psychological Well-being Scale (PWBS), which evaluates six dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. These dimensions extend beyond mere happiness to encompass positive functioning and fulfilment. Studies using this framework consistently highlight the multidimensional nature of PWB and its links to academic success, emphasising its role in fostering engagement, motivation, resilience, and achievement (Ryff & Singer, 2008). Other instruments, such as the Short Warwick-Edinburgh

Mental Well-being Scale, have also been used, emphasising aspects such as optimism, sense of usefulness, and problem-solving abilities (Stewart-Brown et al., 2009).

(a) Non-Accounting Students: PWB and Academic Success

The relationship between PWB and academic performance has been widely explored. PWB has been significantly linked to higher grades and GPA (Bordbar et al., 2011; Kryza-Lacombe et al., 2019). Xiang et al. (2024) found that self-acceptance, purpose in life, personal growth, positive relationships, and environmental mastery all positively influenced academic performance, while autonomy showed no significant effect. Similarly, a study on Hong Kong students revealed that changes in personal growth, self-acceptance, and purpose in life significantly predicted first-year CGPA, with purpose in life emerging as the most influential factor (Lo & Ip, 2022). However, some studies have reported contrasting findings. No statistically significant relationship was found between initial PWB and year-end academic performance among first-year students, suggesting that the effects of PWB may depend on timing or other contextual factors (Topham & Moller, 2011). Likewise, no association was observed between PWB and academic achievement among Chinese students, indicating potential cultural or methodological differences in how well-being relates to academic performance (Ling et al., 2022).

Beyond academic performance, the relationship between PWB and academic engagement has gained increasing attention. Pan et al. (2023) investigated this connection in Chinese university students, revealing a strong positive correlation between PWB and academic engagement, which includes behavioural, affective, cognitive, and agentic dimensions. The two constructs were found to predict 56% of each other's variances. These findings are consistent with Lizarte Simón et al. (2024), who highlighted that students with higher PWB exhibited significantly greater levels of academic engagement compared to those with lower PWB. This reinforces the broader significance of PWB as a foundation for both academic success and meaningful engagement.

In Malaysia, research has highlighted variations in students' PWB. Overall, students exhibited slightly higher levels of PWB, with significant differences observed across age groups and academic disciplines. Personal growth emerged as the highest scoring dimension of PWB, followed by purpose in life, positive relations with others, self-acceptance, environmental mastery, and autonomy (Roslan et al., 2017). Additionally, several dimensions of PWB, including environmental mastery, personal growth, and positive relationships with others, were positively correlated with GPA. However, autonomy did not show a significant relationship with academic performance (Mustafa et al., 2020). Differences in PWB were also noted across demographic factors, with female students reporting better PWB than their male

counterparts (Panahi et al., 2013). Similarly, Visvanathan et al. (2021) found that students exhibited moderate levels of PWB, with the highest mean scores reported for the dimension of positive relations with others, though their study was on school students. Kotera and Ting (2021) investigated the relationships between mental health, academic engagement, and PWB among university students in Malaysia. Their findings revealed that mental health challenges were associated with lower engagement, while well-being was positively correlated with engagement and varied by gender. This suggests that well-being plays a key role in fostering academic motivation and engagement.

(b) Accounting Students: PWB and Academic Success

The relationship between PWB and academic success among accounting students remains largely unexplored, leaving a significant gap in understanding how PWB influences their academic performance and motivation. A longitudinal study found that students who felt optimistic about the future, thought clearly, and perceived themselves as useful in the weeks leading up to exams performed better in their accounting courses, though self-efficacy had no significant effect (Vanderstraeten et al., 2024). In the Malaysian context, students with strong psychological health, particularly in areas such as positive relations with others, environmental mastery, and personal growth, along with critical thinking abilities, demonstrated more effective learning behaviours, posed more challenging questions, and actively engaged in the learning process (Salleh et al., 2024). These findings suggest that PWB may not only contribute to performance but also enhance motivation and deeper cognitive engagement in accounting education.

3.3.3 Studies on Social Well-Being

Social well-being (SWB) extends beyond social support, encompassing a sense of connection, belonging, and purpose within one’s community. Rather than focusing solely on external support, SWB reflects an individual's feeling of being valued and actively engaging in meaningful social interactions (Keyes, 1998; Shapiro & Keyes, 2008). While social support's impact on academic performance has been well documented (Li et al., 2018; Tayfur & Ulupinar, 2016), Keyes (1998) introduced a broader perspective through the Social Well-being Scale (SWBS), assessing societal functioning across multiple dimensions (Keyes, 1998, 2002). These dimensions highlight the integral role of SWB in academic success, where the social environment influences students’ engagement, motivation, and overall well-being.

(a) Non-Accounting Students: SWB and Academic Success

Studies comparing students from different cultural backgrounds have shown variations in SWB and its impact on academic success. American students reported higher levels of social participation, sense of community, and overall SWB, including integration, contribution, acceptance, actualisation, and coherence. While a sense of community was positively correlated with social participation across American and Iranian samples, only Italian students exhibited a significant predictive relationship between social participation and SWB, suggesting the influence of cultural factors (Cicognani et al., 2008). Additionally, Baby et al. (2022) demonstrated the positive impact of SWB on academic performance, identifying it as a significant predictor of success. Key aspects such as social integration and contribution were identified as contributors to students' self-worth and academic achievement through social inclusion and peer evaluations.

In contrast, SWB does not always contribute positively to academic performance. Among university students in criminal justice programmes, no significant relationship was found between social integration and subject grades, suggesting that other factors may play a more influential role. Instead, academic preparedness emerged as a stronger predictor of academic outcomes (Hepworth et al., 2018; Littlepage & Hepworth, 2016). Similarly, medical students often struggle to balance academic demands with SWB, as heavy workloads and limited free time hinder their ability to maintain social connections. While social interactions are an integral part of student life, academic pressures can undermine SWB, making it challenging to sustain meaningful relationships (Shemeir et al., 2024).

Further insights into the relationship between SWB and academic success come from studies on younger populations. Berger et al. (2011) found that socio-emotional well-being, self-esteem, and the classroom social environment were positively associated with academic achievement among school students. Girls consistently scored higher than boys in socio-emotional well-being, their perception of the classroom environment, and academic performance, suggesting gender differences in these dynamics. Meanwhile, Ling et al. (2022) found that a sense of belonging and friendships, while integral to SWB, did not correlate with subject-specific academic performance among school students. Additionally, SWB measured through students' enjoyment of their class, teachers, and social interactions during breaks, showed no significant connection to academic success of school students in Sweden (Klapp et al., 2024). These findings highlight the complexity of SWB and its varying influence across different age groups and educational contexts, pointing to the need for a nuanced understanding of its role in academic success.

Limited research in the Malaysian context has explored the impact of SWB on students' academic success. Social presence was found to have significantly contributed to students'

well-being, which in turn enhanced learning outcomes (Samad et al., 2019). This finding highlights the role of social interactions, community involvement, and strong networks in fostering a sense of belonging and academic success. Further, although not examining SWB directly, Awang et al. (2014) highlighted the importance of social support such as student communities in helping students adapt to the learning environment. They also noted that students must be able to position and manage themselves effectively within the university context, or they may feel lost and struggle to keep up.

(b) Accounting Students: SWB and Academic Success

Research on SWB among accounting students remains limited, particularly in the Malaysian context. One relevant study by Lux et al. (2023), conducted at a Canadian university, highlighted the role of social interactions in promoting student engagement and satisfaction with online accounting courses. Although the study did not focus specifically on SWB, it reinforces the significance of social engagement in the learning experience, particularly in remote settings.

3.3.4 Studies on Combined Positive Mental Well-Being

While earlier studies have often explored the emotional, psychological, and social dimensions of positive mental well-being separately, this section focuses on research that considers the combined effect of all three dimensions. Students with higher levels of overall positive mental well-being tend to demonstrate more effective academic behaviours. They are also less likely to procrastinate, more motivated to pursue mastery-approach goals, and exhibit stronger self-control, which contributes to better academic performance (Howell, 2009). In contrast, students with lower levels of combined positive mental well-being have been found to perform more poorly and engage less in online learning compared to their peers with higher well-being in these three areas (Kim et al., 2022).

3.3.5 Research Gaps on Positive Mental Well-Being and Academic Success

The literature reveals significant gaps in understanding the relationship between positive mental well-being and academic success. Research examining its multidimensional aspects, including emotional, psychological, and social well-being, among students, remains limited, particularly in the context of accounting students. Existing literature on accounting students often explores isolated constructs like self-efficacy (Beatson et al., 2020; Vanderstraeten et al., 2024), resilience (Ison et al., 2020; Smith & Emerson, 2021; Smith et al., 2019), and coping strategies (Smith et al., 2020). While these studies provide useful insights, they do not fully capture the integrated role of well-being in academic settings,

through both hedonic and eudaimonic perspectives. Examining all three dimensions of positive mental well-being may provide a more holistic understanding of how students thrive academically, as each contributes uniquely to motivation, focus, and the ability to manage academic demands. Additionally, research has shown that interventions promoting flourishing mental health, characterised by high levels of positive well-being, can be a cost-effective strategy for preventing mental well-being challenges such as depression (Forsman et al., 2015; Hone et al., 2014; Keyes, 2024).

Furthermore, the literature in this area has predominantly focused on developed countries, particularly the USA, which benefits from advanced research infrastructure and a long-standing commitment to mental health studies (Gopalkrishnan, 2018; Hernández-Torrano et al., 2020). However, applying these findings to emerging economies like Malaysia presents challenges due to contextual differences. As such, understanding the unique experiences of students in less developed countries remains crucial yet underexplored. This study addresses that gap by offering insights from the perspective of a less-developed country, specifically Malaysia, where the integration of positive mental well-being into higher education is still at an early stage (Kotera et al., 2021). The findings of this study may offer practical implications for both universities and policymakers in designing mental health support systems that promote student academic success.

3.4 Mental Well-Being Challenges and Students' Academic Success

University life presents numerous challenges that can significantly impact students' mental well-being, with stress, anxiety, and depression being particularly prevalent during this critical period. Many studies on university students have examined factors contributing to mental well-being challenges and the prevalence of these issues. Common stressors include academic performance, examinations, pressure to succeed, workload, post-graduation concerns, and financial difficulties (Adeoye-Agboola & Evans, 2015; Beiter et al., 2015). Additionally, demographic factors such as age, gender, and years of study further shape these experiences (Stallman, 2010; Wyatt et al., 2017). Studies consistently indicate that stress, anxiety, and depression are widespread among university students, with at least 30% experiencing these challenges (Duffy et al., 2020; Eisenberg et al., 2009; Hamaideh et al., 2021; Papazisis et al., 2014)

In Malaysia, student stressors are typically categorised into academic and non-academic factors. Academic stressors include exams, workload, inadequate facilities, and administrative issues (Dasor et al., 2023; Shahira et al., 2018; Yusoff et al., 2009), while non-academic stressors encompass family problems, financial difficulties, slow internet connection, sleep deprivation, lack of emotional support, and attending private universities,

which may be linked to higher tuition fees compared to public institutions (Al-Dubai et al., 2011; Mohd Azlan et al., 2024; Muhsain et al., 2024). Studies have reported varying prevalence rates of mental well-being challenges, with stress affecting 12% to 42.6% of students, anxiety ranging from 50% to 66.8%, and depression from 21% to 60.6%, Higher anxiety levels have been observed among females and extended-year students (i.e., those who continue beyond the normal programme duration due to academic or personal reasons) (Ahmad et al., 2022; Amir Hamzah et al., 2019; Dasor et al., 2023).

Numerous instruments have been employed in previous studies to measure mental well-being challenges. The Perceived Stress Scale assesses stress levels by evaluating an individual's perception of life stressors (Cohen et al., 1983). Anxiety is commonly measured using the Generalized Anxiety Disorder Scale, which assesses symptoms such as excessive worry, restlessness, and difficulty concentrating (Spitzer et al., 2006). Depression is often assessed using the Beck Depression Inventory, which evaluates symptoms such as persistent sadness, fatigue, and loss of interest (Beck et al., 1996). Among these, the Depression, Anxiety, and Stress Scale (DASS) is the most widely used, as it measures all three constructs collectively. The DASS-21, a shorter version of the DASS-42, evaluates negative emotional states, including low mood, tension, worry, and difficulty coping with pressure. It is favoured for its brevity, ease of administration, and suitability for large-scale studies and time-constrained settings (Lovibond & Lovibond, 1995).

The following section explores the impact of stress, anxiety, and depression on academic success, drawing on existing literature to establish a foundation for this study.

3.4.1 Studies on Stress

(a) Non-Accounting Students: Stress and Academic Success

Stress has been widely examined for its impact on university students' academic success, with research consistently highlighting its negative effects. High stress levels have been linked to poor academic performance and dissatisfaction with learning experiences (Oketch-Oboth & Okunya, 2018; Wong et al., 2023). In online learning environments, stress has been shown to lower students' satisfaction with their educational experiences, as observed in Indonesian universities (Kumalasari & Akmal, 2021). Additionally, emotional exhaustion has been found to significantly reduce study satisfaction, with declines in academic engagement, particularly in vigour, dedication, and absorption (Mamani-Benito et al., 2024).

However, stress does not always have a detrimental impact on academic performance, as its effects depend on the nature and context of the stressor. Academic-related stress has been negatively correlated with student scores. In contrast, stress stemming from social interactions or interpersonal dynamics has been linked to improved performance, potentially

serving as a source of motivation (Hanafi et al., 2024). Among dental students, stress did not significantly predict academic outcomes, possibly due to the competitive admissions process and their strong drive to succeed (Sanders & Lushington, 2022). Additionally, the intensity and duration of stress play a crucial role in determining its effects, with mild stress shown to enhance cognitive functioning and potentially improve academic performance (Sandi, 2013; Yaribeygi et al., 2017). These findings illustrate the nuanced role of stress, indicating that while excessive stress can be detrimental, manageable levels may enhance focus and productivity.

Research on Malaysian university students indicates a complex relationship between stress and academic performance. Stress has been strongly linked to depression (Faleel et al., 2012). Among medical students, high stress levels have been associated with lower GPAs and CGPAs, suggesting its potential to hinder academic success (Elias et al., 2011; Hamdan et al., 2021). Additionally, medical students experiencing moderate to high stress were 2.43 times more likely to fail exams than those with mild stress, highlighting the impact of unmanaged mental well-being challenges (Yusoff, 2013). However, the effect of stress on academic performance is not always consistent across student populations. While female students tend to report higher stress levels than males, its influence on academic outcomes varies depending on individual coping mechanisms and contextual factors (Kamarulzaman et al., 2023). These findings suggest that while stress is often detrimental, its impact is not uniform across student populations.

(b) Accounting students: Stress and Academic Success

Literature on accounting student stress have primarily focused on identifying causes and prevalence rates. Stress causes include workload and concerns about grades (Ison et al., 2020), teaching styles (Arianpoor & Khayoon, 2022), and course-related difficulties such as presentations, career planning, assessments, and assignments (Hou et al., 2014).

The relationship between stress and academic performance among accounting students appears to vary by gender. Studies have shown that while stress negatively affects GPA, this impact is more pronounced among female students, who tend to report higher stress levels than males (Gabre & Kumar, 2012; Nonis et al., 1998). Gabre and Kumar (2012) also suggested that the effect of stress on performance may follow a curvilinear pattern, where moderate stress can be motivating, but excessive stress becomes detrimental.

Malaysian studies have largely examined the factors and prevalence of mental well-being challenges among students rather than their direct impact on academic success. Academic stressors, including subject overload, tight deadlines, and perceived course irrelevance, often lead to last-minute studying, intensifying stress (Bakar et al., 2017). Non-academic concerns, such as future employment, economic conditions, and political

uncertainty, further heighten anxiety about life after graduation. Nor et al. (2019) found that 92% of accounting students experienced stress, with 30% at severe levels, and that private university students reported higher stress due to workload, assessment formats, and subject difficulty. Similarly, Lim et al. (2013) observed that elevated stress among accounting students was linked to poorer general health, though many adopted coping strategies as an adaptive response to academic demands.

3.4.2 Studies on Anxiety

(a) Non-Accounting Students: Anxiety and Academic Success

Anxiety has been widely linked to poorer academic performance, with studies across different contexts highlighting its adverse effects. Research in the United Kingdom and Australia found that students with higher anxiety levels struggled with exam performance (Adeoye-Agboola & Evans, 2015; Stallman, 2010), while studies in Canada and the USA reported that elevated anxiety was associated with lower GPAs and greater academic difficulties (Duffy et al., 2020; Wilson et al., 1998). These negative effects are largely attributed to anxiety's impact on cognitive functions, including impaired concentration, reduced memory retrieval, and difficulty in problem-solving. Such disruptions hinder students' ability to prepare effectively and perform under pressure, often leading to a cycle where heightened anxiety further exacerbates academic struggles.

While anxiety is often associated with negative academic outcomes, moderate levels can sometimes be beneficial. Research demonstrates that moderate anxiety can enhance academic performance by motivating greater effort and focus. This benefit occurs because anxiety driven by a fear of failure may enhance time management skills and promote academic engagement. However, this benefit depends on the intensity and an individual's ability to cope, highlighting the dual nature of anxiety in academic settings (Al-Qaisy, 2011; Andrews & Wilding, 2004; Eysenck et al., 2007).

Research on the relationship between anxiety and academic performance among Malaysian students has produced mixed findings. Vitasari et al. (2010) identified a strong association between high anxiety levels and lower GPAs among engineering students. Similarly, Kaswadi et al. (2018) reported a significant relationship between anxiety and CGPA. In contrast, Liew et al. (2021) found no direct effect of anxiety on CGPA, although an indirect effect was observed through academic motivation. Overall, the evidence suggests that anxiety can affect academic performance, though the nature of this relationship may differ across studies.

(b) Accounting Students: Anxiety and Academic Success

Anxiety among accounting students often arises from professional challenges such as career uncertainties, financial statement preparation, examination pressures, and the complexity of accounting systems (Duman et al., 2015). Research indicates that 77% of accounting students experience high anxiety levels. More than one-third of accounting students have been found to exhibit mild to severe anxiety, with over half also reporting mild to severe symptoms of depression (Janse van Vuuren et al., 2021).

Research indicates that anxiety affects accounting students across different performance levels. While some studies found that students with lower academic performance reported higher levels of worry (Duff & Mladenovic, 2015), others observed that anxiety was present among both low- and high-achieving students, suggesting that mental well-being challenges are not limited to those struggling academically (Dull et al., 2015). In online learning environments, anxiety and stress were identified as major barriers to student engagement and satisfaction, with Canadian accounting students relying on instructor strategies and social interaction to maintain motivation (Lux et al., 2023). In Malaysia, findings on the impact of anxiety on academic performance have been mixed. Liew et al. (2021) found no significant effect of anxiety on CGPA, while Khalid and Abdul Rauf (2023) reported a positive relationship, suggesting that in some cases, anxiety may act as a motivator, pushing students to work harder and achieve better results.

3.4.3 Studies on Depression

(a) Non-Accounting Students: Depression and Academic Success

Depression has been extensively studied in relation to students' academic performance, with most findings indicating a negative association. Academic performance tends to decline among students experiencing depression, particularly as they progress through university (Andrews & Wilding, 2004). While past depressive episodes are associated with poorer academic outcomes, treatment has been shown to weaken this relationship (Hysenbegasi et al., 2005). Similar trends have been observed in Canada, Jordan, and Nigeria where depression was linked to lower GPA and CGPA (Al-Qaisy, 2011; Duffy et al., 2020; Muhammad et al., 2018). This suggests a cycle where depressive symptoms hinder academic performance, which in turn exacerbates distress (Heiligenstein et al., 1996). However, research on medical students challenges this pattern, reporting no significant effect of depression on self-reported GPA, highlighting the potential role of coping mechanisms and academic discipline in shaping this relationship (Ngasa et al., 2017).

Beyond academic performance, depression also affects students' engagement and satisfaction with their studies. Higher levels of depression have been found to be associated with lower engagement, reduced vigour, dedication, and absorption in academic tasks among Chinese students (Tang & He, 2023). Depression also often acts as a barrier to academic participation, leading to missed classes, assignments, and even course withdrawal (Pedrelli et al., 2015). Furthermore, depression negatively correlates with academic satisfaction among medical students, with most students reporting only moderate levels of satisfaction (Mirhosseini et al., 2021), a trend also observed in other studies on students in general (Carranza Esteban et al., 2022).

(b) Accounting Students: Depression and Academic Success

While research has not directly examined depression's impact on academic performance among accounting students, related studies provide insights into psychological dynamics. Resilience has been found to negatively correlate with psychological distress and burnout symptoms, including anxiety and social withdrawal, and serves as a moderating factor that mitigates these effects on academic performance (Smith & Emerson, 2021). Additionally, female accounting majors reported lower resilience compared to their male counterparts and non-accounting students, suggesting potential vulnerabilities in managing academic stress (Smith et al., 2019).

In Malaysia, only one study has examined the relationship between depression and academic performance among accounting students and found a negative correlation with CGPA (Khalid et al., 2016). No research has explored its connection to engagement or satisfaction.

3.4.4 Studies on Multidimensional Well-Being Challenges

Some studies have examined both anxiety and depression, consistently linking them to lower GPAs (Bostani et al., 2014; Chu et al., 2023). However, this relationship is not always straightforward. Research has shown that when both conditions co-occur, the decline in GPA is more pronounced, suggesting a compounding effect (Eisenberg et al., 2009). Likewise, higher levels of both conditions have been significantly associated with poorer academic performance, with students experiencing anxiety demonstrating lower GPAs (Awadalla et al., 2020). Despite these findings, differences in their effects have also emerged. Depression, not anxiety, predicted a decline in exam performance among United Kingdom students progressing from their first to second year (Andrews & Wilding, 2004). A similar pattern was observed among medical students, where both anxiety and depression correlated negatively

with performance, but only depression significantly predicted lower grades (Mihăilescu et al., 2016).

Beyond academic performance, depression also affects students' satisfaction with their university experience. A significant negative correlation has been observed between depression and satisfaction with various aspects of university life, including facilities, teaching quality, course relevance, and the learning environment, whereas anxiety did not significantly impact satisfaction (Liu & Wang, 2024). These findings highlight the distinct yet interconnected roles of anxiety and depression in shaping students' academic success and overall university experience.

Several studies have explored the combined effects of stress, anxiety, and depression on student performance and engagement, highlighting their significant impact on the emotional, cognitive, and behavioural aspects of learning. Research on medical students revealed that these challenges indirectly affected GPA by reducing engagement (Sinval et al., 2025). Similarly, the emotional and cognitive burdens associated with stress, anxiety, and depression have been shown to reduce academic engagement (Moreira de Sousa et al., 2018). Supporting these findings, a study among U.S. students reported significant negative associations between GPA and all three mental well-being challenges (Jehi et al., 2024). Collectively, these studies emphasise the need to address stress, anxiety, and depression to enhance student engagement, satisfaction, and academic success.

Stress, anxiety, and depression have been consistently linked to lower academic satisfaction (Hajduk et al., 2019; Hamaideh et al., 2021; Paschali & Tsitnas, 2010). The COVID-19 pandemic further intensified these challenges by disrupting routines and increasing feelings of isolation and uncertainty (Hamaideh et al., 2021). Additionally, maladaptive coping mechanisms such as self-blame and denial contribute to emotional distress, further reducing students' overall satisfaction with their academic experience (Liu & Wang, 2024). These findings underscore the need to address mental well-being challenges to foster a more supportive and fulfilling university experience.

In the Malaysian context, Ooi et al. (2022) found that stress, anxiety, and depression were negatively correlated with university life satisfaction, though their study focused on overall life satisfaction rather than academic satisfaction. Notably, only depression significantly predicted lower life satisfaction, highlighting its distinct impact on students’ well-being.

To date, no study, either within or outside Malaysia, has examined accounting students considering all three mental well-being challenges together in relation to academic success.

3.4.5 Research Gaps on Mental Well-Being Challenges and Academic Success

Stress, anxiety, and depression often correlate strongly, leading many studies to examine them collectively (Crawford & Henry, 2003; Faleel et al., 2012; Oei et al., 2013).

However, analysing these dimensions separately reveals their distinct effects on students' academic success. While stress and anxiety do not always hinder academic achievement, and in some cases, moderate levels can even serve as motivation. In contrast, depression consistently demonstrates a negative impact, impairing both engagement and performance.

Despite these insights, several gaps remain in understanding mental well-being challenges and their academic implications. First, research involving accounting students in this area is particularly scarce, despite their documented low help-seeking behaviours when facing difficulties. Existing studies on the effects of mental well-being challenges on academic performance have largely focused on healthcare students, such as those in medical, and dental programmes (Mihăilescu et al., 2016; Mirhosseini et al., 2021; Sanders & Lushington, 2002). Given the increasing enrolment in accounting programmes and the profession's social impact (American Institute of Certified Public Accountants, 2023), more research is needed to understand the unique challenges and academic experiences of accounting students.

Second, prior research on academic success has primarily measured performance using GPA or grades, often overlooking other important aspects such as engagement and satisfaction. Both engagement and satisfaction are complex, multidimensional constructs (Fredricks et al., 2004; Hanssen & Solvoll, 2015; Skinner et al., 2008; Westermann et al., 1996), necessitating a broader perspective when examining their relationship with mental well-being challenges. A more comprehensive understanding of academic success should incorporate engagement and satisfaction alongside performance to capture the full impact of stress, anxiety, and depression on students' success.

Third, in the Malaysian context, studies on mental well-being challenges have primarily identified their causes and prevalence, rather than examining their comprehensive effects on academic success. There is a notable gap in understanding how these challenges influence students' engagement, satisfaction, and overall academic performance, highlighting the need for further investigation in this area.

3.5 Mental Well-Being Dual Continua and Students' Academic Success

The DCM of mental well-being provides a comprehensive framework for understanding the coexistence of positive mental well-being and mental well-being challenges. Unlike traditional perspectives that view mental health and mental illness as opposing ends of a single spectrum, this model recognises them as distinct yet interrelated dimensions.

The DCM has been widely applied to examine the interplay between positive mental well-being and mental well-being challenges, with foundational research primarily originating in the USA. Keyes (2002, 2005) introduced the distinction between mental health, encompassing emotional, psychological, and social well-being as represented by the Mental

Health Continuum (MHC),[8] and mental illness, including conditions such as depression. Within this model, flourishing refers to individuals with high levels of emotional, psychological, and social well-being, whereas languishing describes those with low levels across these dimensions. Keyes' research demonstrated that flourishing individuals exhibit greater resilience, psychosocial functioning, and goal-setting abilities, while those who are languishing are more prone to depressive symptoms, reduced productivity, and emotional difficulties. These findings highlight the importance of assessing mental health and mental illness as separate but interconnected constructs, forming the basis for integrating positive well-being into public health and educational strategies.

The following section begins with studies on the application of the DCM across various contexts, starting with the general population, followed by university students. It then examines the model's relevance to students' academic success and concludes with reflections on the reviewed literature.

3.5.1 Application of Dual Continua Model in Various Contexts

(a) General Population

Research has validated the DCM across diverse populations and contexts, highlighting its broader applicability beyond the initial studies by Keyes (2002, 2005). In a Canadian sample, individuals with complete mental health exhibited greater resilience and better physical health outcomes (Gilmour, 2014). Comparisons between mental health-focused, mental illness-focused, and integrated frameworks further reinforced the model's utility, with findings indicating that an integrated approach is most effective for informing and developing health promotion strategies (Keyes, 2005, 2024). Additionally, research has supported the need to treat mental health and mental illness as distinct constructs, advocating for assessments at the subdomain level, such as depression, anxiety, and stress, rather than relying solely on global psychological distress (Stephens et al., 2023). These studies collectively demonstrate the limitations of focusing exclusively on either mental illness or mental health, underscoring the importance of dual-factor frameworks that account for both dimensions to provide a more comprehensive understanding of mental well-being.

Psychometric studies have reinforced the validity of the DCM, demonstrating its effectiveness across diverse cultural contexts. A systematic review by Iasiello et al. (2020) summarised research from various countries, including the USA, the Netherlands, Poland, Italy, China, and Portugal, all of which validated the model's ability to distinguish between

[8] Keyes' DCM is further discussed in Chapter 4, Section 4.3.2 Keyes' Dual Continua Model of Mental Well-Being.

mental health and mental illness. Findings from studies across these regions have highlighted its robustness in capturing both dimensions within varied populations. Collectively, this body of research establishes the model as a reliable framework for assessing mental well-being and mental illness across different cultural settings.

The DCM has been applied in various contexts, including post-traumatic stress disorder (Díaz et al., 2018), suicidal ideation (Teismann et al., 2019), and social support networks (Bariola et al., 2017; Magalhães & Calheiros, 2017). Longitudinal studies have also examined its role in predicting recovery from mental illness (Iasiello et al., 2019) and its distinct pathways compared to mental illness (Kinderman et al., 2015). Though not focused on students' academic success, the use of the DCM has contributed to a deeper understanding of these specific issues, highlighting the interplay between positive mental well-being and mental well-being challenges. These applications reinforce the model's relevance in mental health research and its value in shaping targeted interventions.

The DCM has received little attention in Malaysia, with existing research focusing more on general mental well-being than its direct application. A study on school teachers in Selangor during the COVID-19 Movement Control Order found moderate levels of both stress and PWB (Rosli & Bakar, 2021). Additionally, the Malay versions of the MHC-Short Form (MHC-SF) and the Flourishing Scale were validated with 131 undergraduate students from a public university in Sabah, confirming their reliability for assessing positive mental health (Japil et al., 2023). While these studies contribute to understanding mental well-being, they do not examine its relationship with academic success within the dual continua framework, leaving a gap in its application to Malaysian students.

(b) University students

Studies on university students typically classify them into mental health groups using predefined cutoff scores or T-scores based on established thresholds.[9] Eklund et al. (2011), for example, classified students into four groups: well-adjusted (78%), at-risk (9%), ambivalent (4%), and distressed (9%). Higher levels of hope, grit, and gratitude were linked to better outcomes, regardless of psychopathological symptoms, while attention problems were more prevalent among those with mental illness. Similarly, Baghoori et al. (2022) grouped Canadian university students into four categories: flourishing without illness (76%), languishing without illness (8%), flourishing with illness (13%), and languishing with illness (3%). Strong social support and approach-oriented coping strategies were associated with better mental well-

[9] Thresholds are applied in instruments such as Keyes' MHC, which classifies individuals as *flourishing* when they score high on both psychological and social well-being, and have at least one high score on emotional well-being (Keyes, 2002).

being, even among students with a history of mental illness. Additionally, demographic differences showed that women, married individuals, and PhD students reported higher well-being and lower distress, underscoring the impact of personal circumstances on mental health.

While most studies categorise students into four groups, some have adopted a six-group model to provide a more nuanced understanding of mental well-being. Peter et al. (2011), in a study on Canadian university students, classified them into six groups: flourishing (23.8%), flourishing and depressed (0.4%), moderately healthy (55.2%), moderately healthy and depressed (12%), languishing (4.2%), and languishing and depressed (4.4%). Students in the flourishing group demonstrated greater resilience, stronger social connections, and fewer symptoms of depression and anxiety compared to their peers. Similarly, Xiao et al. (2021) applied both the four-group and the six-group categorisations to Chinese university students, showing that the six-group approach allows for more precise screening and intervention strategies. This approach captures varying levels of positive mental well-being by including a moderate group, rather than relying solely on high or low classifications, making it a more practical tool for universities with limited resources to identify and support at-risk individuals.

Beyond these approaches, other methods have been used to categorise students' mental health based on the DCM. Latent Profile Analysis (LPA)[10] identified four profiles among students with eating disorders: flourishing (32%), vulnerable (16%), partially symptomatic but content (30%), and languishing (22%). While these findings partially supported the model, they also highlighted its limitations in capturing complex conditions like eating disorders (Scutt et al., 2023). Similarly, an LPA-based study on first-year undergraduates in New Zealand identified six mental health clusters, revealing that physical and financial health further complicate students' mental health (Morrison et al., 2023). Another method, cluster analysis, identified a well-adjusted group with high life satisfaction and low distress, showing the most favourable outcomes in personality traits, coping strategies, and thought patterns. In contrast, the troubled group, marked by low life satisfaction and high psychopathology, exhibited the least favourable patterns (Antaramian, 2024). These various classification methods provide deeper insights, demonstrating the importance of addressing both positive mental well-being and mental well-being challenges.

[10] LPA is a statistical method used to identify hidden subgroups within a population by analysing patterns in specific variables. It categorises individuals based on their probability of belonging to distinct groups, each reflecting unique personal or environmental attributes (Spurk et al., 2020).

3.5.2 Application of Dual Continua Model on Students' Academic Success

Several studies applying the DCM have focused on school children's academic functioning. Students with complete mental health, also referred to as positive mental health or flourishing, are characterised by high subjective well-being[11] and low psychopathology. These students attended school more regularly, received fewer disciplinary actions, maintained positive attitudes, demonstrated stronger social relationships, exhibited better physical health, were less likely to engage in risky behaviours like substance use, showed higher engagement, and achieved better academic performance (Rose et al., 2017; Suldo & Shaffer, 2008; Suldo et al., 2016; Venning et al., 2013). Even students experiencing psychological symptoms but maintaining high subjective well-being outperformed their peers with low well-being, regardless of symptoms presence (Lyons et al., 2013; Suldo & Shaffer, 2008; Suldo et al., 2011; Suldo et al., 2016). Furthermore, students with low subjective well-being but no psychopathology still faced academic challenges comparable to those with clinical symptoms, reinforcing that the absence of mental illness alone does not ensure optimal academic outcomes (Antaramian et al., 2010).

Few studies have examined university students' academic success using the DCM. Given the limited research on DCM applications, including student categorisation, measurement instruments, and related aspects, a deeper discussion is necessary to identify knowledge gaps and understand how the model has been applied in academic contexts. Firstly, Renshaw and Cohen (2014) explored subjective well-being and psychological distress among American university students. Positive mental well-being was assessed using the Quality-of-Life Interview–Brief Version (QOL-BV) (Lehman, 1995), which was combined into the General Life Satisfaction Scale (QOL-BV-GLS). While this scale lacked normative data, composite scores were categorised into levels such as "moderate-to-high life satisfaction." Psychological distress was measured using the Brief Symptom Inventory-18 (BSI-18) (Derogatis, 2001), which evaluates somatisation, depression, and anxiety, with classifications based on T-scores from community norms. Students were divided into four mental health categories: mentally healthy (61%), asymptomatic yet discontent (19%), symptomatic yet content (5%), and mentally unhealthy (15%). The study found that life satisfaction, independent of psychological distress, significantly predicted GPA and interpersonal functioning, with higher satisfaction linked to better academic and social outcomes.

Similarly, Antaramian (2015) assessed university students' subjective well-being and psychopathology. Subjective well-being was measured using PANAS and SWLS, with scores standardised and combined across life satisfaction, positive affect, and negative affect.

[11] Subjective well-being, reflecting the hedonic aspect of well-being, is typically measured through a combination of positive emotions and overall life satisfaction (Diener, 2000; Diener et al., 1985).

Participants were classified as having high or low well-being based on their mean scores. Psychopathology was determined using a T-score cut-off of 60 on the Center for Epidemiologic Studies Depression Scale. The study classified students into four groups: well-adjusted (47%) with high subjective well-being and low psychopathology, at-risk (26%) with low subjective well-being but no significant psychopathology, ambivalent (6%) with high subjective well-being but elevated symptoms, and distressed (21%) with low subjective well-being and high psychopathology. Findings showed that students with high well-being and low psychopathology performed better academically, particularly in GPA and engagement. However, those with low well-being but no mental illness faced academic challenges similar to students with clinical symptoms, reinforcing that the mere absence of mental illness alone does not ensure academic success.

Expanding on this, Galsky (2019) examined the interaction between subjective well-being, mental health challenges, and academic outcomes such as GPA, academic efficacy, engagement, and satisfaction. Well-being was measured using PANAS and SWLS, while psychopathology was assessed for anxiety, depression, and attention deficit hyperactivity disorder symptoms. Students were classified into four groups: complete mental health (70%) with moderate-to-high subjective well-being and no illness, vulnerable (6%) with moderate-to-high well-being but with illness, symptomatic but content (14%) with moderate-to-high well-being despite elevated illnesses, and troubled (10%) with low well-being and high psychopathology. The symptomatic but content group had the highest GPA, though the difference was not significant compared to the complete mental health group. However, the complete mental health group reported greater academic self-efficacy, engagement, and satisfaction, with the largest differences observed in academic satisfaction. Despite having no mental illness, the vulnerable group performed worse than the symptomatic but content group, underscoring the protective role of high subjective well-being.

Kim et al. (2022) examined the mental health of Korean university students during online learning during the COVID-19 pandemic. Mental health was assessed using the MHC-SF, while the Korean-Mental Development Index measured distress caused by clinical symptoms such as depression. Students were categorised into four groups: flourishing and moderate (78%), pure languishing (15%), pure mental disorder (4%), and mental disorder and languishing (3%). Findings revealed that students in the languishing and mental disorder groups had lower engagement, reduced academic efficacy, and higher academic distress than those in the flourishing and moderate groups. Even after accounting for mental disorders, students classified as languishing performed worse academically, highlighting the detrimental impact of low positive well-being. These findings highlight the need to address both well-being and psychological distress to support students in overcoming academic challenges.

3.5.3 Reflections on Mental Well-Being Using the Dual Continua Model

Studies applying the DCM to university students have typically classified participants into four or six mental well-being groups to examine their academic success. The four-group classification is the most commonly used due to its simplicity (e.g., Antaramian, 2015; Baghoori et al., 2022; Galsky, 2019; Kim et al., 2022; Renshaw & Cohen, 2014; Scutt et al., 2023). In contrast, the six-group classification (Peter et al., 2011; Xiao et al., 2021) provides a more detailed breakdown but is less frequently adopted. Some studies have also utilised alternative methods, such as cluster analysis and LPA (Morrison et al., 2023; Scutt et al., 2023), demonstrating the diversity in classification approaches.

The four-group classification differentiates individuals based on their levels of positive mental well-being and mental well-being challenges. The first group, characterised by high positive mental well-being and minimal challenges, is commonly referred to as "mentally healthy" (Galsky, 2019; Renshaw & Cohen, 2014), "well-adjusted" (Antaramian, 2015), or "flourishing" (Scutt et al., 2023). Terms such as "flourishing without illness" (Baghoori et al., 2022) and "flourishing and moderate" (Kim et al., 2022) similarly describe individuals in this category, who exhibit strong psychological functioning and resilience. The second group, defined by low well-being but minimal challenges, is labelled "vulnerable" (Galsky, 2019; Scutt et al., 2023), "asymptomatic yet discontent" (Renshaw & Cohen, 2014), "at-risk" (Antaramian, 2015), or "pure languishing" (Kim et al., 2022). While these individuals are not significantly affected by mental well-being challenges, their low well-being limits their overall functioning. The third group, with high well-being alongside significant challenges, demonstrates the coexistence of resilience and distress and is referred to as "symptomatic yet content" (Renshaw & Cohen, 2014), "flourishing with illness" (Baghoori et al., 2022), "pure mental disorder" (Kim et al., 2022), or "ambivalent" (Antaramian, 2015). Finally, the fourth group, combining low well-being and high challenges, represents the most dysfunctional group. It is often labelled "mentally unhealthy" (Renshaw & Cohen, 2014), "distressed" (Antaramian, 2015), "troubled" (Galsky, 2019), "languishing with illness" (Baghoori et al., 2022), or "mental disorder and languishing" (Kim et al., 2022).

The six-group classification refines the DCM by further differentiating the levels of positive mental well-being. Instead of broad dichotomy, it distinguishes between high (flourishing), moderate, and low (languishing) levels of positive well-being. Initially developed by Keyes (2002, 2005) and later applied by Peter et al. (2011), this framework offers a more granular approach to identifying mental health profiles. Advocates of the six-group model, including Xiao et al. (2021) and Keyes (2024), emphasise its utility in improving mental health screening and targeted interventions, particularly in educational settings. Since individuals are more likely to be moderately healthy than flourishing (Keyes, 2002, 2024), this system offers

a more accurate representation of mental health distribution. Without this distinction, previous studies may have overestimated the number of individuals classified as having complete mental health. Accordingly, this study adopted the six-group classification.

Efforts to evaluate and improve mental health are shaped by the methods used to collect data, including the measures, cut-offs, and classification systems applied. A key distinction across studies lies in the types of challenges measured and the tools used to classify positive mental well-being. Some studies (e.g., Antaramian, 2015; Keyes, 2002; Peter et al., 2011) define mental illness primarily through depression, while others (e.g., Galsky, 2019; Keyes, 2005; Renshaw & Cohen, 2014) assess a broader range of challenges, including somatisation, stress, anxiety, and panic disorder, using tools like the DASS and BSI. Similarly, the measurement of positive mental well-being varies. Keyes (2002, 2005) and Peter et al. (2011) used the MHC, which captures emotional, psychological, and social well-being, whereas other studies focused mainly on hedonic well-being using PANAS and SWLS (Antaramian, 2015; Galsky, 2019; Suldo & Shaffer, 2008; Suldo et al., 2011, 2016). While PANAS and SWLS remain widely used, Keyes (2002, 2024) argues that positive mental health extends beyond hedonic well-being to include psychological and social dimensions.

Studies have utilised various methods to categorise students into mental health groups, including T-scores (Antaramian, 2015; Renshaw & Cohen, 2014), meta-composite scores (Galsky, 2019), mean boundaries (Xiao et al., 2021), predefined thresholds for positive well-being dimensions (Keyes, 2002, 2005; Peter et al., 2011), and LPA (Moore et al., 2019; Scutt et al., 2023). These methodological differences contribute to variations in findings, particularly in the proportion of students classified as flourishing. However, consistent trends emerge across studies. Students with high well-being and minimal challenges tend to achieve better academic performance (Antaramian, 2015; Galsky, 2019; Renshaw & Cohen, 2014), exhibit stronger coping skills (Baghoori et al., 2022), higher engagement (Antaramian, 2015), fewer health-risk behaviours (Venning et al., 2013), and greater academic satisfaction (Galsky, 2019). Conversely, those with low well-being and high challenges consistently perform worse academically, engage less, and report lower satisfaction, reinforcing the need for targeted interventions.

Although the DCM has been applied to university students, its relevance to accounting students remains largely underexplored. Given the unique academic pressures and stressors in accounting education, tailored approaches may be necessary to understand their mental well-being and academic success. While studies have utilised the model in academic settings, few have directly examined its role in academic success beyond conventional metrics like grades and GPAs. Furthermore, most research has been conducted in English-speaking countries, with limited attention to Malaysia, where cultural and educational differences may influence students' well-being and academic experiences. Investigating the application of the

DCM in this context may yield important insights into the relationship between mental well-being and success, and inform more tailored support strategies.

3.6 Summary

Research on the effects of positive mental well-being on university students' academic success remains limited, though recent studies have begun to explore this area. Positive mental well-being encompasses hedonic aspects, such as EWB, and eudaimonic aspects, including PWB and SWB. Most research has focused on EWB and PWB, leaving SWB relatively underexplored. PWB is often associated with positive effects on academic performance, particularly in terms of GPA and grades. However, the impact of EWB appears mixed; while some studies report positive outcomes, others suggest negative or neutral effects. More importantly, existing research has yet to fully examine emotional, psychological, and social well-being as distinct yet interrelated dimensions of positive mental well-being among accounting students. This is an area the study seeks to address.

Studies on mental well-being challenges are more extensive compared to positive mental well-being. However, most still focus narrowly on GPA, with limited attention to other dimensions of academic success, such as engagement and satisfaction. The literature distinguishes between stress, anxiety, and depression, with depression showing the most consistent negative impact on academic success. Conversely, stress and anxiety are not inherently detrimental; under certain conditions, they may even contribute positively to academic performance.

Research on the DCM of mental well-being is still emerging. While widely applied to general population, its use in understanding university students' academic success remains limited, particularly in Malaysia and among accounting students. Studies often reveal distinct student group based on their levels of positive mental well-being and mental well-being challenges. Those with high positive well-being and low challenges tend to achieve the most favourable physical, cognitive, and academic outcomes. However, varying methods and instruments used to classify these groups have led to inconsistencies in reported percentages of students within the groups and might have captured student groupings differently. Nevertheless, the literature provides evidence supporting the value of the dual continua approach, emphasising the need to explore this area further, particularly among university students in Malaysia and accounting students.

The next chapter presents the theoretical underpinnings, conceptual framework, and research questions that are aligned with the study’s objectives.

Chapter 4: Theories and Conceptual Framework

4.1 Overview

This chapter establishes the theoretical foundation for understanding the connection between mental well-being and students' academic success. Section 4.2 introduces Maslow's Theory of Self-Actualisation, providing insights into motivation and self-fulfilment. This theory guides the understanding of how mental well-being may be connected to academic success among students. Section 4.3 discusses the theoretical foundations of mental well-being, beginning with exploring hedonic and eudaimonic perspectives and their relevance to this study. Keyes' Dual Continua Model (DCM) is then presented to distinguish between positive mental well-being and well-being challenges. This section further outlines the dimensions of emotional, psychological, and social well-being, followed by a discussion on stress, anxiety, and depression as key challenges to well-being. Section 4.4 focuses on academic success, through performance, engagement, and satisfaction. Section 4.5 integrates these theoretical foundations into a conceptual framework that links positive mental well-being, well-being challenges, and academic success. Section 4.6 presents the research questions derived from this framework. Finally, Section 4.7 summarises the chapter, consolidating its key theoretical and conceptual insights.

4.2 Maslow's Theory of Self Actualisation

This study employs Maslow's self-actualisation theory to establish a theoretical framework for investigating the relationship between mental well-being and academic success among university accounting students. Introduced by Abraham Maslow in 1943, this theory revolves around the idea that human motivation is driven by the sequential fulfilment of hierarchical needs. Maslow organises these needs into a pyramid with five levels: physiological needs at the base, followed by safety, love and belonging, esteem, and self-actualisation at the apex. Physiological needs, such as food, water, and shelter, form the foundation, as they are essential for survival. Safety needs encompass physical security, financial stability, and health. Above these are the needs for love and belonging, which relate to social connections and relationships, followed by esteem needs, involving feelings of accomplishment, recognition, and self-worth. Finally, at the top of the pyramid is self-actualisation, which represents the culmination of the hierarchy and the end goals (Maslow, 1943, 1958).

Self-actualisation refers to the process of realising one's full potential through creativity, autonomy, spontaneity, and a deep understanding of personal desires and goals (Maslow, 1943, 1958, 1981, 1997). Since each individual is unique, the drive for self-actualisation may manifest in different ways. For some, this might be achieved through artistic or literary expression, while for others, it could be realised through success in sports or professional achievements. In the academic context, university students may reach self-actualisation through intellectual growth and academic success. Self-actualised individuals often share certain characteristics: they are highly creative, hold strong moral and ethical standards, resist societal pressures while remaining authentic, and maintain deep, meaningful relationships with a few close people. They also accept both themselves and others for who they are and continuously seek challenges that align with their abilities and potential. Achieving self-actualisation is seen as the ultimate expression of personal fulfilment, where individuals live a purpose-driven life while contributing positively to society through their authentic self-expression and meaningful actions (Maslow, 1943,1997).

Maslow's ideas have been widely applied to address mental health concerns across diverse populations, including individuals facing homelessness (Henwood et al., 2015), children in crisis (Harper et al., 2003), adolescents with depressive symptoms (Crandall et al., 2020), and refugees' mental health (Lonn & Dantzler, 2017). Despite its broad influence and foundational status in psychology, Maslow's hierarchy has also faced criticism. Some researchers argue that its hierarchical structure lacks robust empirical support, as findings on the strict progression of needs have been mixed. Additionally, the theory has been criticised for cultural bias, reflecting predominantly individualistic Western values that may overlook diverse cultural perspectives (Montgomery et al., 2014). Critics also suggest that Maslow's model oversimplifies human motivation by disregarding situational and contextual factors affecting behaviour. While research by Tay and Diener (2011) supports the universality of Maslow's identified needs, it questions the rigid hierarchy, proposing that higher-level and basic needs can be met simultaneously. Over time, Maslow acknowledged that human motivation is more flexible than his original model suggested, allowing individuals to move between levels of the hierarchy based on cultural and personal differences (Gbadamosi et al., 2021; Lonn & Dantzler, 2017; Maslow, 1997).

Nevertheless, Maslow's theory provides the connection between mental well-being and academic success through the concept of self-actualisation. According to Maslow (1958), emotional well-being (EWB) improves when certain needs or goals are met. Self-actualisers, who have reached the highest level in Maslow's hierarchy, are known for their happiness and life satisfaction. They are resilient and able to bounce back quickly from challenges (Maslow, 1943). In terms of psychological well-being (PWB), several traits align with Maslow's idea of self-actualisation. Self-actualisers are optimistic, inspiring others to accept themselves and

build positive relationships (self-acceptance and purpose in life). They also show empathy and affection towards others, creating healthy social connections (positive relations). These individuals are driven by a continuous desire to grow and improve (personal growth). They rely on their own internal standards for validation, showing independence and authenticity (environmental mastery and autonomy) (Maslow, 1943; 1958; 1997). Regarding social well-being (SWB), Maslow suggests that self-actualisers have a strong sense of belonging and foster positive relationships. They understand the importance of meaningful connections with society and the community for their overall well-being. These individuals are open to new experiences and focused on continual growth. Additionally, self-actualisers are optimistic about society, viewing both the present and future positively. They see themselves and others as benefiting from societal progress (Maslow, 1943, 1958).

Mental well-being challenges, such as stress, anxiety, and depression (discussed in Section 4.3.4), often stem from unmet needs at the lower levels of Maslow's Hierarchy, particularly within safety and psychological needs. Stress and anxiety are linked to the need for security and stability, highlighting the importance of these factors for managing challenges (Zheng et al., 2016). Likewise, the need for love, belonging, and esteem plays a significant role. When individuals lack social connections or support, depression may worsen, leading to feelings of isolation or rejection. When these basic needs go unmet, negative emotions like anxiety and stress can prevent individuals from reaching self-actualisation (Maslow, 1954, 1981). Additionally, higher levels of self-actualisation have been reported to correlate with fewer mental well-being challenges such as depression (Schultz & Schultz, 2005). Overall, good mental well-being relies heavily on the fulfilment of these basic needs. Those who meet their needs are more likely to be happier, more productive, and mentally stable (Maslow, 1943). Taken together, these perspectives suggest that individuals with higher positive mental well-being and fewer mental well-being challenges, traits often associated with self-actualisation, tend to perform better academically, participate more actively in their studies, and report greater satisfaction with their academic experience.

4.3 Theoretical Foundations of Mental Well-Being

4.3.1 Key Theoretical Perspectives

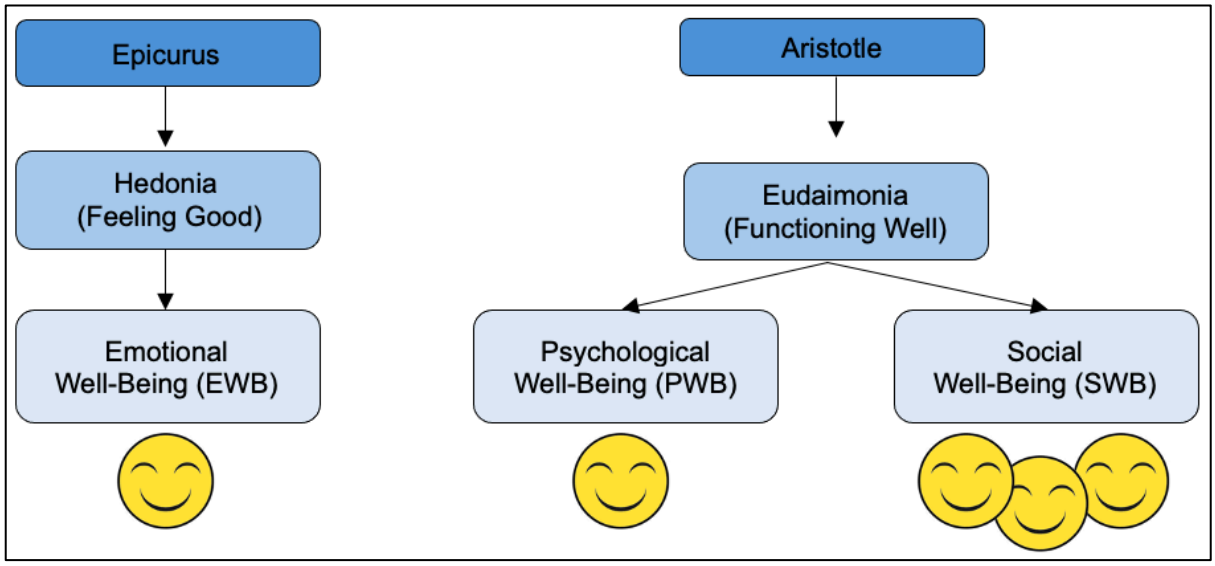
According to the World Health Organization ([WHO], 2005, p. 2), mental well-being is defined as a condition wherein individuals realise their potential, manage life's challenges effectively, contribute meaningfully to their communities, and sustain productivity. In this regard, mental well-being not only involves managing mental well-being challenges, but also deals with the positive aspects such as self-fulfilment and social contribution. The definition

also highlights three fundamental components of the positive aspects: the state of well-being, individual functionality, and communal contribution. Together, these components reflect its multinational nature and align with established theoretical foundations, forming the basis for its measurement in this study. Importantly, mental well-being is not solely an individual concern but also holds significant implications for the collective welfare of societies worldwide.

The literature on positive mental well-being often distinguishes between the hedonic and eudaimonic perspectives (Keyes, 2002; Ryan & Deci, 2001; Waterman, 1993). Hedonia, rooted in Epicurus' teachings from the third century B.C., emphasises the importance of feeling good but differs from self-indulgence. Hedonic well-being focuses on happiness, life satisfaction, and overall interest in life, capturing the emotional dimensions of well-being (Diener, 2000; Diener et al., 1999). This tradition has received significant attention in research, with early scholars such as Flügel (1925) and Bradburn (1969) examining individuals' daily emotional experiences. Later, Diener (1984, 2000) contributed to this discourse by equating “subjective well-being” with “hedonic well-being,” defining it as the presence of positive emotions, the absence of negative emotions, and high life satisfaction. These foundational studies laid the groundwork for understanding EWB and inspired further research into the complexities of human mental well-being.

In contrast, eudaimonia can be traced back to Aristotle's philosophy of happiness, where the realisation of one’s potential is a core aspect of a fulfilling life (Waterman, 1993). This paradigm shifts the focus from merely experiencing pleasure to functioning well, which involves engaging one’s highest capacities, and living in accordance with moral virtues and personal excellence (Aristotle, 1985; Nagel, 1972). By the late 20th century, psychologists began challenging the hedonic narrow emphasis on happiness and pleasure, advocating for a more comprehensive view of well-being (Ryff, 1989; Waterman, 1993). This shift led to a focus on well-being as arising from personal aspirations and optimal functioning (Ryan & Deci, 2001; Ryan et al., 2013; Ryff, 1989). As a result, the eudaimonic approach emerged, emphasising not only intellectual activity but also living a life aligned with moral virtues and practical wisdom to achieve personal excellence (Huta & Waterman, 2014; Waterman, 1993). Figure 4.1 illustrates the theoretical foundations of positive mental well-being by comparing the two key perspectives of hedonia and eudaimonia.

Figure 4.1 *Theoretical Foundations of Positive Mental Well-Being*



Note. Adapted from Keyes (2024, p. 56).

Building on earlier psychological theories of self-actualisation (Maslow, 1943; Rogers, 1959) and positive mental health (Jahoda, 1958), Ryff (1989) expands the concept of positive mental well-being by proposing a model of PWB with six key dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth (Ryff, 1989; Ryff & Keyes, 1995; Ryff & Singer, 2008). This model provides a more holistic view that goes beyond happiness to include self-fulfilment and the realisation of one's potential. Ryff's framework, along with the eudaimonic tradition (Ryan & Deci, 2001), lays the foundation for incorporating social aspects into positive mental well-being. Supporting this view, Keyes (1998) and Westerhof and Keyes (2010) argue that focusing solely on individual well-being is insufficient, highlighting that optimal well-being also depends on social functioning, which reflects how individuals engage within society. Drawing from classical sociological and social psychological literature (e.g., Durkheim, 1976; Marx, 1963; Maslow, 1943, 1958; Merton, 1957; Seeman, 1971), Keyes identifies five dimensions of SWB: social coherence, acceptance, actualisation, contribution, and integration, which reflect broader patterns of community engagement (Keyes, 1998, 2002).

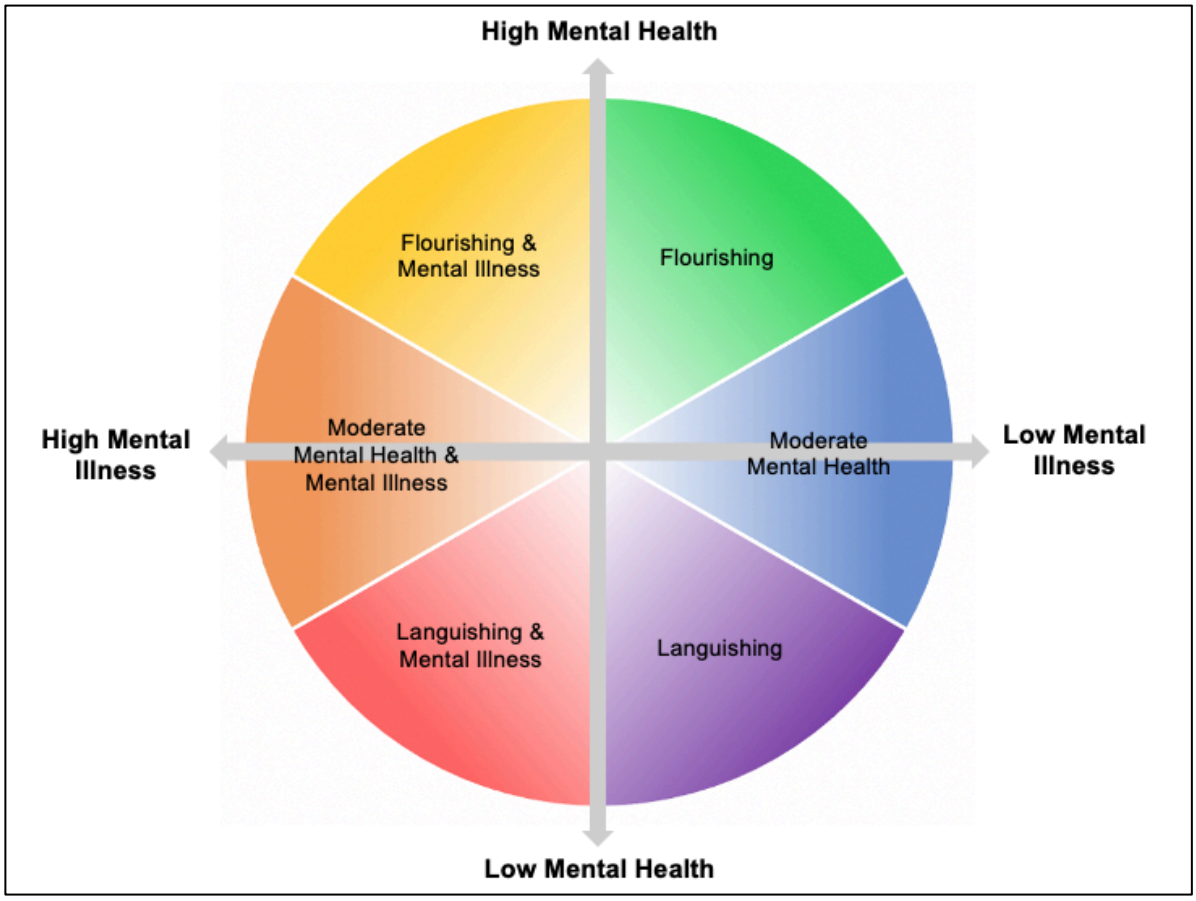
Keyes (1998, 2002) further extends the eudaimonic approach by shifting from an individual focus to a broader societal perspective, reinforcing the idea that true positive mental well-being integrates emotional, psychological, and social dimensions. In this framework, EWB corresponds to hedonic aspects, PWB represents optimal individual functioning, and SWB reflects how individuals thrive within their communities (Keyes, 2005; Keyes et al., 2012), consistent with the WHO's holistic view of mental well-being (Westerhof & Keyes, 2010). This genre of literature suggests that emotional, psychological, and social elements collectively contribute to human flourishing (Baghoori et al., 2022; Peter et al., 2011; Westerhof & Keyes,

2010). However, empirical studies have applied varied methodological approaches, leading to different outcomes. This study builds on Keyes' earlier work (2002, 2005; Keyes et al., 2012) by exploring the integration of EWB (Diener, 1984), PWB (Ryff, 1989), and SWB (Keyes, 1998) into a unified model of students' academic success.

4.3.2 Keyes' Dual Continua Model of Mental Well-Being

Keyes' DCM, also known as the DCM of mental health, challenges traditional views by redefining mental health as more than just the absence of mental illness. In social and health sciences, this model introduces a broader perspective, emphasising that true mental health includes both the absence of mental illness (i.e., mental well-being challenges) and the presence of mental health (i.e., positive mental well-being) (Keyes, 2002, 2005). Keyes argues that mental health should be understood as a complete state, where individuals not only lack symptoms of mental illness but also experience positive psychological and social functioning. To capture this holistic view, he proposes a two-dimensional model consisting of a mental illness continuum and a mental health continuum (MHC). These dimensions together provide a more comprehensive understanding of an individual's overall mental state, as illustrated in Figure 4.2.

Figure 4.2 *Keyes' (2002) Dual Continua Model of Mental Well-Being*



The right side of the quadrant in Figure 4.2 illustrates the MHC in the absence of mental illness, showing that individuals may fall into one of the three categories: flourishing, moderately mentally healthy, or languishing (Keyes, 2002). Flourishing individuals are deeply engaged with life, have a sense of purpose, and experience positive relationships with others. They thrive in multiple aspects of life, both internally and within their communities. Moderately mentally healthy individuals score lower than those who are flourishing on the MHC, and although they are free from mental illness,[12] they do not exhibit the same level of positive mental health. Languishing individuals are neither depressed nor mentally ill, but they are not thriving. They may feel a sense of emptiness or as if they are just going through the motions without actively engaging with life or society (Keyes, 2002, 2024). Languishing reflects a lack of positive mental health and is not a mental illness like depression. Individuals who are languishing often feel a vague sense of emptiness or unease, as if something essential is missing but hard to identify. They may feel emotionally flat, struggle to find excitement for upcoming events or milestones, and experience a diminishing sense of purpose or accomplishment in their work. Additionally, they may become more susceptible to others' opinions as they lose confidence in their own (Keyes, 2024).

The concept of flourishing in Keyes' model aligns closely with Maslow's idea of self-actualisation. Maslow's concept of self-actualisation represents the highest level of personal development, where individuals strive for growth, authenticity, and purpose (Maslow, 1943, 1958). In the context of mental well-being, this closely aligns with Keyes' notion of flourishing, which reflects optimal functioning across emotional, psychological, and social domains. While Maslow's theory positions self-actualisation as the outcome of fulfilling prior needs, implying that flourishing may emerge from reaching this stage, Keyes' model presents flourishing as a present state of well-being that enables individuals to thrive and function meaningfully. Rather than suggesting a strict sequence, these frameworks can be seen as mutually reinforcing. Individuals who flourish may be better positioned to pursue self-actualisation, while those who exhibit self-actualising traits such as emotional stability, autonomy, personal growth, meaningful goal pursuit, and a desire to contribute to society are more likely to flourish. In contrast, students who encounter internal struggles or external barriers may find it difficult to realise their potential, resulting in a languishing state characterised by low vitality, disconnection, and limited academic engagement. Integrating the perspectives of Maslow and

[12] Mental illness exists on a spectrum from low to high severity. The lower end does not imply a complete absence but rather minimal or manageable symptoms that do not significantly affect daily functioning. Thus, being "free from mental illness" refers to having low or normal levels rather than the total absence of symptoms.

Keyes offers a more comprehensive understanding of how mental well-being may support or hinder students' academic development and success.

The left side of the quadrant in Figure 4.2 represents the mental illness continuum, demonstrating that individuals can experience mental illness while also exhibiting varying levels of positive mental health. Some individuals may be flourishing despite managing mental illness, as they maintain strong coping mechanisms, a sense of purpose, and meaningful social connections that support their well-being. Similarly, those with moderate mental health and mental illness may still engage in fulfilling aspects of life while navigating illnesses. Individuals who experience both languishing and mental illness may face additional difficulties, as they experience lower levels of both positive mental health while navigating mental illness.[13]

Keyes' DCM has been applied in various contexts, including studies on depression among Americans (Keyes, 2002; 2005), health risk behaviours in high school students (Venning et al., 2013), mental health among university students (Baghoori et al., 2022; Eklund et al., 2011), and in students with eating disorders (Scutt et al., 2023). The model challenges the traditional view that being free from mental illness equates to being mentally healthy, suggesting instead that mental health is complex and multidimensional. This model introduces the concept of "incomplete mental illness," where individuals meet criteria for a mental disorder, such as anxiety, yet display positive mental health indicators, indicating that some aspects of flourishing can coexist with mental illness. Conversely, "complete mental illness" refers to those with symptoms of illness and minimal signs of positive mental health, placing them in a state of languishing. By emphasising the need to consider both positive indicators and the presence of illness, Keyes' model provides a more nuanced understanding of mental well-being.

4.3.3 Criteria for the Positive Mental Well-Being Continuum

The criteria for positive mental well-being are derived from Keyes's DCM and his concept of flourishing (Keyes, 1998, 2002). The first criterion, EWB, reflects positive emotions such as happiness, calmness, interest in life, and overall life satisfaction. The second criterion, PWB, consists of the following six key dimensions (Ryff, 1989; Ryff & Keyes, 1995), each crucial for personal growth and realising one's potential:

1. *Self-acceptance:* Having a positive attitude towards oneself, accepting both strengths and weaknesses, and feeling good about one's past.
2. *Positive relations with others:* Building warm, trusting, and fulfilling relationships; showing empathy, affection, and a sense of mutual care in relationships.

[13] This aspect of Keyes' DCM is further discussed in Section 4.5, where it forms part of the basis of this study's conceptual framework.

3. *Autonomy:* Being self-directed and independent, resisting external pressures, and making decisions based on personal values.
4. *Environmental mastery:* Feeling competent in managing daily life, making effective use of opportunities, and shaping environments that meet personal needs.
5. *Purpose in life:* Having goals, a sense of meaning, and direction; believing that life has purpose and working towards personal objectives.
6. *Personal growth:* Continuously developing as a person, being open to new experiences, realising potential, and improving self-awareness and effectiveness.

The third criterion, SWB (Keyes, 1998; 2002), refers to an individual's optimal functioning within society and includes the following five dimensions:

1. *Social integration:* The sense of belonging and feeling connected to the broader community, sharing commonalities with others.
2. *Social acceptance:* A positive attitude towards others, trusting them, and believing in their ability to be kind and responsible.
3. *Social contribution:* The belief that one plays a valuable role in society, feeling that one's actions and efforts are appreciated and make a difference.
4. *Social actualisation:* Hopefulness about society's future and potential, with the belief that society is capable of progress and growth.
5. *Social coherence:* Understanding how society works and feeling engaged with the social world, even while recognising its imperfections.

4.3.4 Mental Well-Being Challenges Continuum

The mental well-being challenges examined in this study include stress, anxiety, and depression.[14] Stress, as defined by Lazarus and Folkman (1984), is a dynamic process that arises from the interaction between individuals and their environment, particularly when perceived demands surpass available coping resources. The WHO (2023a) describes stress as the body's reaction to situations or events that require adjustment. Various factors, such as work-related pressures, financial strain, interpersonal issues, or traumatic events, can trigger stress, manifesting in physical, emotional, or behavioural symptoms. Prolonged or excessive stress can have serious consequences for both physical and mental health, including conditions such as cardiovascular diseases, anxiety disorders, and depression. While stress

[14] This present study examines general stress, anxiety, and depression, characterised by ongoing emotional states such as persistent overwhelm or sadness, rather than specific situational experiences like exam-related stress, social stress, or test anxiety.

may motivate some individuals, insufficient management of it can result in emotions like fear, inadequacy, worthlessness, anger, and guilt (WHO, 2023a).

Anxiety is characterised by subjective feelings of tension, apprehension, nervousness, and worry, typically accompanied by the activation of the nervous system (Spielberger, 1983). Although occasional anxiety is a normal emotional response, persistent anxiety can become overwhelming and interfere with daily life. Individuals experiencing heightened anxiety may struggle with everyday tasks and social interactions. Anxiety disorders are marked by extreme fear or worry, often without an apparent cause. This pervasive sense of unease can lead individuals to view daily life as unmanageable. According to the WHO (2023b), anxiety is the most common mental disorder globally, affecting 301 million people worldwide.

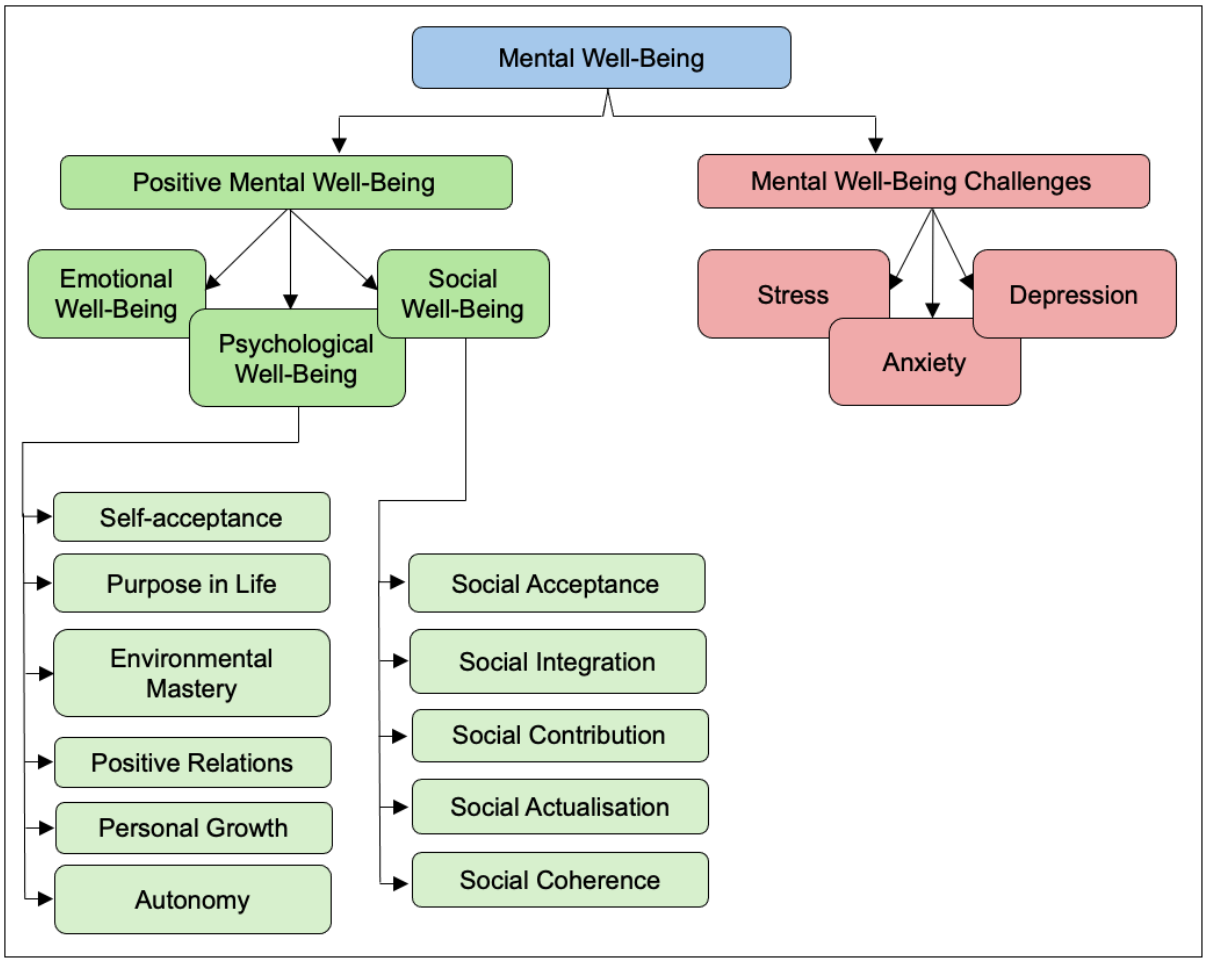
Depression is a serious and prevalent medical condition that negatively impacts an individual's emotions, thoughts, and behaviours (WHO, 2023c). Symptoms often include persistent sadness, loss of interest in previously enjoyable activities, feelings of worthlessness, and thoughts of death or suicide. Depression can result in significant emotional and physical difficulties, reducing one's ability to function both at work and at home. It can also impair cognitive processes, emotional regulation, and daily behaviours. According to the WHO (2023c), depression is the leading cause of disability worldwide and a major contributor to the overall burden of disease. Although effective treatments are available, more than 75% of individuals in low- and middle-income countries lack adequate care (Evans-Lacko et al., 2018). Barriers to effective treatment include insufficient investment in mental health care, a shortage of trained professionals, and social stigma linked to mental health conditions.

4.3.5 Components of Mental Well-being Used in the Study

To provide a clearer understanding, this section presents the key components of mental well-being for this study. Figure 4.3 illustrates these elements, distinguishing between positive mental well-being and mental well-being challenges. Positive mental well-being includes emotional, psychological, and social well-being. EWB reflects positive feelings towards life, PWB encompasses self-acceptance, purpose, and autonomy, and SWB involves meaningful connections and contributions to society.[15] In contrast, mental well-being challenges represent factors such as stress, anxiety, and depression that may affect the academic success of Malaysian university accounting students.

[15] Unlike psychological and social well-being, emotional well-being does not have separate dimensions. It is typically reflected through indicators such as positive emotions and life satisfaction, which are considered symptoms or outcomes rather than structured components.

Figure 4.3 *Components of Positive Mental Well-Being and Associated Challenges*



4.4 Theoretical Foundations of Students' Academic Success

The terms academic success and student success have been used interchangeably in the literature. In their review of the literature on student success, Kuh et al. (2006) define student success as "… academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational outcomes, and post-college performance" (p. 7). Therefore, there are several elements of students' academic success, and they mainly include students' achievement or performance, students' engagement, and students' satisfaction. Academic performance serves as a threshold assessment, capturing a student's ability to meet performance standards (York et al., 2015). Grades are used to assess learning and knowledge acquisition, serving as indicators of whether students have met learning objectives and gained the necessary skills and competencies.

While academic performance remains an important indicator of success, grades often rely heavily on traditional measures like GPA, which may present a limited perspective (York et al., 2015). As Kuh et al. (2006) and Arum and Roksa (2011) point out, these measures do

not fully capture learning or the development of cognitive skills. This recognition has led to a growing consensus on the need to broaden the concept of academic success to include other dimensions. One such dimension is student engagement, which plays a critical role in academic success. Engagement can refer to students' psychological investment or their commitment to engaging in educational behaviours (Chapman, 2003), or a broader involvement in academic activities, as discussed by Kuh et al. (2011). Despite the recognised importance of student engagement in higher education, there has been limited focus on how positive mental well-being and emotional responses, such as stress and anxiety, directly influence students' engagement with their learning experiences (Hammill et al., 2022; Kahu, 2013).

Student engagement is widely recognised as a complex and multidimensional concept (Appleton et al., 2008; Fredricks et al., 2004; Skinner et al., 2008). The three commonly accepted dimensions of engagement – behavioural, cognitive, and emotional – provide a comprehensive framework for understanding student engagement (Fredricks et al., 2004). These dimensions are interconnected, shaping the overall engagement experience. Behavioural engagement can be observed through actions such as attendance, academic preparation, participation in both curricular and extracurricular activities, and adherence to the rules of the educational institution. Cognitive engagement refers to the degree of students' investment in learning, demonstrated through their willingness to tackle challenging tasks, use effective learning strategies (e.g., elaboration instead of memorisation), and their ability to self-regulate. Emotional engagement involves students' emotional responses to their teachers, peers, coursework, and the overall environment of the educational institution. High emotional engagement is characterised by feelings of interest, happiness, and a sense of belonging, while the absence of negative emotions like boredom, anxiety, or sadness further indicates strong engagement.

Similar to academic achievement, satisfaction is a crucial element of academic success, as it helps assess the effectiveness of the learning environment. Satisfaction refers to how students evaluate their educational experiences, forming a short-term attitude based on their perceptions of the quality of those experiences (Elliott & Healy, 2001). When students have positive perceptions of their experiences, they are more likely to feel satisfied. However, when their expectations are not met, dissatisfaction may occur. Several key factors influence student satisfaction, including the quality of teaching, the relevance of learning materials, and the extent to which the learning environment supports their educational needs (Kuh et al., 2006). These are often referred to as contextual factors, as they shape the conditions in which learning takes place and significantly impact how students assess their educational experiences.

Student satisfaction is a multidimensional construct, shaped by varying expectations of educational experiences (Hanssen & Solvoll, 2015; Jereb et al., 2018; Sirgy et al., 2010; Weerasinghe et al., 2017; Wong & Chapman, 2023). Westermann et al. (1996), Schiefele and Jacob-Ebbinghaus (2006), and Wach et al. (2016) provide a robust framework for understanding satisfaction through three key dimensions. The first dimension, satisfaction with the content of learning, captures students' enjoyment and fulfilment in their chosen field of study, including their interest in the subject matter and its relevance to future career goals. The second, satisfaction with the conditions of learning, considers how well students perceive their academic programmes, focusing on course structure, availability of resources, and teaching quality. The third, satisfaction with personal coping, emphasises students' ability to manage academic demands such as stress, deadlines, and workload, which are essential for maintaining well-being and academic success.

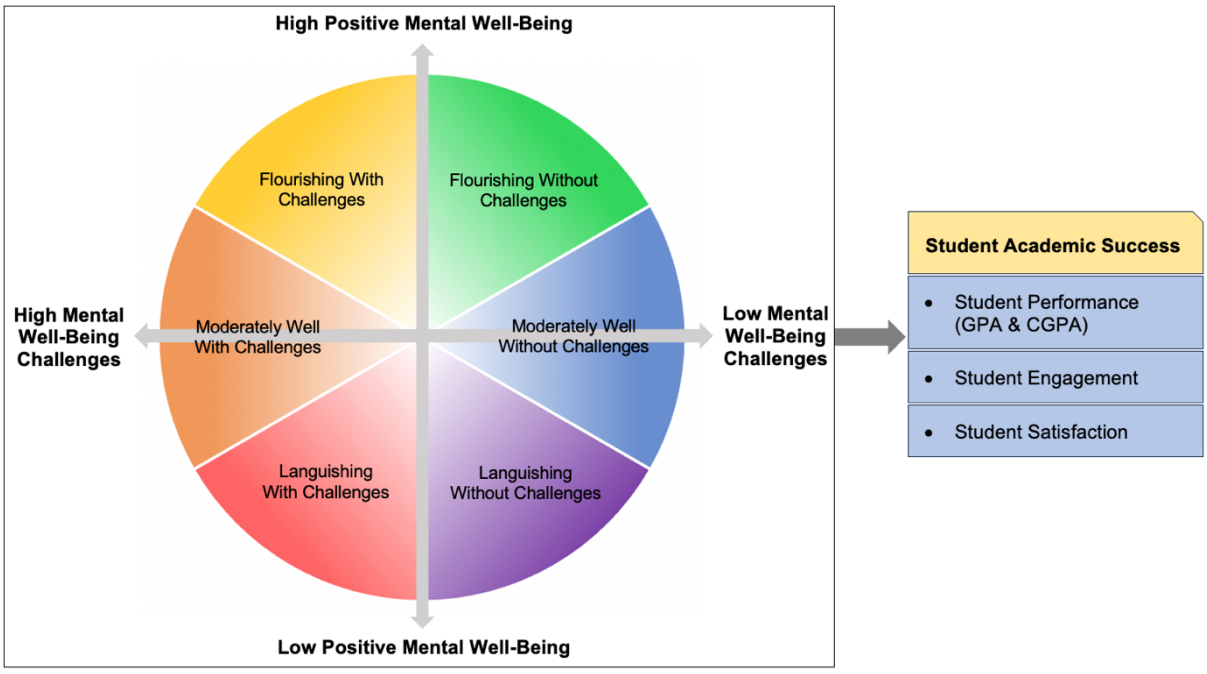
4.5 Conceptual Framework for the Study

The DCM raises key questions about how these dimensions of positive mental well-being influence academic success, which in this context is understood as more than just academic performance. Academic success also encompasses active participation, emotional investment, and satisfaction with the learning environment. By incorporating emotional, psychological, and social dimensions, the model provides a detailed view of how mental well-being might impact academic success. For instance, EWB relates to affective experiences, PWB to cognitive and behavioural functioning, and SWB to interpersonal relationships. Together, these factors are associated with resilience, engagement, and satisfaction in academic settings. In contrast, conditions like stress, anxiety, and depression have been linked to difficulties in concentration, information retention, and engagement, which may adversely affect performance and satisfaction with the learning experience.

Moreover, while each of these mental well-being challenges is individually associated with reduced performance, the combined influence of both positive and negative well-being factors on academic success remains unclear. Prior studies have generally examined these factors in isolation. For example, previous research often focused solely on the impact of stress on academic success (Aafreen et al., 2018; Elias et al., 2011; Gabre & Kumar, 2012) or considered only stress, anxiety, and depression in relation to performance (Wyatt et al., 2017; Yusoff, 2013). This study, however, integrates a broader range of factors, including emotional, psychological, and social well-being along with stress, anxiety, and depression, to offer a more comprehensive view of their potential combined effects on academic success. This approach aims to capture fresh insight into how these aspects of mental well-being interact to influence students' academic success.

Figure 4.4 illustrates the conceptual framework of this study. The left section of the figure depicts Keyes' DCM, adapted to categorise students' mental well-being. The vertical axis represents levels of positive mental well-being, ranging from low to high, while the horizontal axis represents levels of mental well-being challenges on the same scale (i.e., low to high). This configuration creates six well-being categories: flourishing without challenges, flourishing with challenges, moderately well without challenges, moderately well with challenges, languishing without challenges, and languishing with challenges. Within this framework, students categorised as flourishing without challenges are theorised to be in a favourable position to experience academic success in terms of performance, engagement, and satisfaction. Conversely, those in the languishing with challenges category may be more vulnerable to academic difficulties. Students in the moderately well categories, with or without challenges, may demonstrate varied academic experiences. These categories reflect students who possess some degree of well-being but whose academic success could be influenced by the presence or absence of mental well-being challenges.

Figure 4.4 *Mental Well-Being Dual Continua Model and Academic Success Framework*



The arrow connecting the well-being categories to the box on the right illustrates the possible influence of these mental well-being dimensions on academic success, the dependent variable in this study. Academic success is assessed through three primary outcomes: students' performance, engagement, and satisfaction. Performance is measured by GPA and CGPA, while engagement, as described in previous research, encompasses behavioural, cognitive, and emotional dimensions that reflect students' active involvement in their studies. Satisfaction includes factors such as contentment with learning materials,

learning conditions, and coping strategies, offering a more holistic view of students' educational experiences. Overall, this framework provides a comprehensive perspective on how different levels of positive mental well-being and well-being challenges may interact to shape academic success.

4.6 Research Questions

The conceptual framework of this research provides a theoretical perspective for exploring the impact of positive mental well-being and mental well-being challenges on academic success. It also underpins the development of research questions, ensuring they address essential components of the study. With the goal of understanding how mental well-being affects academic success among accounting students, this section presents the specific research questions that direct the study. The first research question investigates how positive mental well-being influences academic success, considering emotional, psychological, and social well-being as independent variables. These dimensions reflect subjective happiness, a sense of purpose, autonomy, personal growth, and supportive relationships. Together, they represent core aspects of students' mental well-being that may play a meaningful role in shaping their academic performance, engagement, and satisfaction.

A notable gap in the literature exists regarding the connection between positive mental well-being with multi-dimensions and academic success among accounting students. This gap arises not only from inconsistent methodologies, psychometric limitations, and varying findings but also from a lack of focused research exploring this specific relationship in the way this study does, as discussed in Chapter 3 (Literature Review). This research seeks to understand how these aspects of positive mental well-being contribute to academic success, measured through performance, engagement, and satisfaction. Thus, the first research question (RQ1) is as follows:

> *What are the effects of positive mental well-being, measured by emotional, psychological, and social well-being, on students' academic performance (RQ1a), engagement (RQ1b), and satisfaction (RQ1c)?*

Similarly, the second research question examines the impact of mental well-being challenges, specifically stress, anxiety, and depression on academic success. These challenges often arise due to the demanding nature of academic pursuits, leading to heightened levels of psychological distress and impairment in functioning. Understanding the prevalence and impact of these challenges is essential for identifying effective interventions and support mechanisms to alleviate students' burdens and promote their well-being. This

question is prompted by the DCM's acknowledgement of mental well-being challenges as negative factors that can coexist alongside positive mental well-being. Thus, the second research question (RQ2) is outlined as follows:

> *What are the effects of mental well-being challenges, measured by stress, anxiety, and depression, on students' academic performance (RQ2a), engagement (RQ2b), and satisfaction (RQ2c)?*

Lastly, the third research question investigates the differences in academic success among the six groups derived from the DCM: flourishing without challenges, flourishing with challenges, moderately well without challenges, moderately well with challenges, languishing without challenges, and languishing with challenges. This question is based on the understanding that individuals within these groups may experience different levels of positive mental well-being and mental well-being challenges, which can impact their academic success in various ways. By examining these differences, this research aims to provide insights into the nuanced relationship between mental well-being and academic success within distinct groups. Addressing these research questions will contribute to a comprehensive understanding of how mental well-being influences academic success among students with different combinations of positive mental well-being and well-being challenges. This leads to the formulation of the third research question (RQ3):

> *Do students in different mental well-being groups, derived from the dual continua model, differ in academic performance (RQ3a), engagement (RQ3b), and satisfaction (RQ3c)?*

4.7 Summary

This chapter began by discussing Maslow's theory of self-actualisation as a guiding framework. Maslow's concept suggests that when students' well-being is compromised, their ability to focus and perform academically may be affected. The chapter then examined the development of mental well-being, tracing its development from the initial emphasis on hedonic well-being, which centres on happiness as a key component of a good life, to the emergence of eudaimonic well-being, which focuses on growth and optimal functioning. Keyes' DCM was then introduced, integrating emotional, psychological, and social well-being dimensions in alignment with the WHO's criteria for mental well-being. The discussion then transitioned to academic success, traditionally measured by grades and GPA, but now also extended to include engagement and satisfaction as important dimensions. The chapter

concluded with the conceptual framework, which provides a visual map to clarify the relationships between the variables. This framework led to the formation of three research questions: the first examines the effect of positive mental well-being on accounting students' academic success, the second focuses on the impact of well-being challenges on success, and the third explores how mental well-being groups, such as *flourishing*, *languishing*, and *moderately well*, differ in their levels of performance, engagement, and satisfaction.

The next chapter discusses the research methodology, outlining the design, sampling procedures, data collection, and analysis techniques used in this study.

Chapter 5: Methodology

5.1 Overview

This chapter outlines the methodology employed to address the research questions in the study. Section 5.2 discusses the philosophical assumptions underpinning the research, including ontology, epistemology, axiology, and methodology. Section 5.3 focuses on the research design, covering the target population, sample size, survey instrument, and data collection procedures. Section 5.4 details the steps taken for data preparation and examination, including data coding to ensure quality. Section 5.5 describes the data analysis techniques used to interpret the results, followed by Section 5.6, which provides a summary of the chapter.

5.2 Research Philosophy

Research philosophy refers to a system of beliefs and assumptions about the development of knowledge. It establishes the worldview within which research is conducted, influencing which data are prioritised and how they are interpreted (Saunders et al., 2023). These assumptions include ontological perspectives (concerning the nature of reality), epistemological perspectives (relating to the nature of knowledge), and axiological perspectives (addressing the role of values in research). Together, these assumptions guide the formulation of research questions, the selection of methods, and the interpretation of findings (Crotty, 1998). A well-defined research philosophy ensures coherence between research questions, methodology, and analysis, thereby fostering credibility by aligning all elements within a cohesive framework (Johnson & Clark, 2006; Saunders et al., 2023). In this study, the research philosophy not only guides the approach to inquiry but also shapes the assumptions about reality, knowledge acquisition, and methods used to investigate how positive mental well-being (emotional, psychological, and social well-being) and mental well-being challenges (stress, anxiety, and depression) impact accounting students' academic success. Such alignment is essential for generating reliable and meaningful findings.

5.2.1 Ontology, Epistemology, and Axiology

Ontology refers to assumptions about the nature of reality (Crotty, 1998; Saunders et al., 2023). Ontology concerns what is considered real and what counts as reality in the research context. Ontology then translates into epistemology, where questions arise about how knowledge is determined, what forms it takes, and how it can be acquired and passed on

to others (Cohen et al., 2007; Fraser, 2014; Saunders et al., 2023). Epistemology is concerned with providing a philosophical grounding for what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate (Crotty, 1998; Saunders et al., 2023). Axiology refers to the role of values and ethics in research, focusing on how a researcher's values influence the process and outcomes. It also ensures that ethical considerations, such as integrity and respect for participants, are upheld to produce credible and trustworthy findings (Saunders et al., 2023).

These philosophical assumptions are scattered along two main positions or worldviews: objectivism and subjectivism (Saunders et al., 2023). Ontologically, objectivism aligns with realism, which views reality as real, external, and independent of human perception. In contrast, subjectivism embraces nominalism, which argues that reality is socially constructed and shaped by multiple perspectives. Epistemologically, objectivism reflects the assumptions of natural science, emphasising facts, numbers, and observable phenomena to generate law-like generalisations. On the other hand, subjectivism adopts the assumptions of the arts and humanities, focusing on context, opinions, and qualitative interpretations. Axiologically, objectivist researchers strive for value neutrality and detachment throughout the research process. Conversely, subjectivist researchers recognise the reflexive role of values, acknowledging their influence and integrating participants' perspectives and meanings into the inquiry (Burrell & Morgan, 2019; Crotty, 1998; Saunders et al., 2023).

5.2.2 Positivism and Interpretivism

There are two dominant paradigms that shape research in social sciences: positivism and interpretivism (de Villiers & Fouché, 2015).[16] Positivism is characterised by its emphasis on objectivity, theory testing, and the search for universal truths. In contrast, interpretivism emerged as a response to the limitations of positivism, particularly its inability to account for context and subjectivity (de Villiers & Fouché, 2015). Whether it is positivism or interpretivism, the chosen research paradigm underpins the research methodology, which is guided by ontological, epistemological, and axiological assumptions.

Positivism aligns with an objectivist ontology, which assumes that reality exists independently of human perception and can be measured through structured, scientific methods (Saunders et al., 2023; Walliman, 2011). Social phenomena are seen as governed by fixed laws, similar to those in the natural sciences, and research aims to uncover objective, generalisable truths. Epistemologically, positivism prioritises observable, quantifiable data and follows a deductive approach, testing theories through systematic methodologies. Quantitative

[16] There are other paradigms such as critical realism, post-positivism, constructivism, pragmatism, and post-modernism (Saunders et al., 2023).

methods, such as surveys, experiments, and statistical analysis, are commonly used to establish causal relationships and validate theories empirically. Positivist researchers maintain a detached stance to ensure objectivity and minimise bias in data collection and interpretation. In terms of axiology, positivism emphasises value neutrality, requiring researchers to remain independent of the study to prevent influencing outcomes (Bryman, 2008). As such, ethical considerations focus on validity, reliability, and replicability to maintain scientific rigor.

Interpretivism is rooted in a subjectivist ontology, asserting that reality is socially constructed through human experiences, interactions, and multiple perspectives (Bryman, 2008; Saunders et al., 2023). Rather than assuming a single universal truth, it recognises reality as fluid, context-dependent, and shaped by cultural and social influences. This paradigm acknowledges that individuals interpret the world differently, leading to diverse understandings of social phenomena. From an epistemological perspective, interpretivism values knowledge that is context-specific and developed through lived experiences. It follows an inductive approach, where theories emerge from qualitative data rather than being tested through predefined hypotheses (Cohen et al., 2007). Common methods include interviews, case studies, and narrative analysis, which help explore subjective meanings and social complexities. In terms of axiology, interpretivism emphasises reflexivity, acknowledging that research is influenced by the researcher's background and interactions with participants. Instead of striving for neutrality, this paradigm values engagement and recognises the researcher's perspective as integral to the inquiry (Creswell & Poth, 2018). This interpretivist approach shapes how research quality is evaluated and maintained. Hence, ethical considerations prioritise authenticity, trustworthiness, and a deep understanding of participants' perspectives over strict replicability.

5.2.3 Methodology and Paradigm Influence

Methodology refers to the overall approach, strategy, or design that connects the selected methods to the research goals, ensuring alignment with the study's objectives and desired outcomes (Crotty, 1998). The aim of this research is to examine the effect of university accounting students' mental well-being on their academic success, specifically focusing on performance, engagement, and satisfaction.

This study is grounded in an objectivist position, which assumes that reality exists independently of human perception and that a single "truth" can be uncovered to explain these effects. Based on this stance, the study follows a positivist paradigm that prioritises the collection of objective and measurable data to ensure neutrality and value-free inquiry. To minimise bias, the researcher maintains a detached role, avoiding subjective interpretations and ensuring that findings are unbiased, reliable, and generalisable.

A deductive approach is employed to achieve this aim, beginning with insights drawn from existing literature in the creation of a conceptual framework. The study then examines how these established assumptions correspond with the research findings, consistent with the positivist emphasis on verifying theory-informed assumptions, thereby contributing to a deeper understanding of the subject. To support this, key concepts are operationalised into measurable variables, allowing for objective analysis through a highly structured methodology that enhances the reliability and consistency of the results, as well as the potential for replication.

Surveys are selected as the primary method of data collection due to their efficiency in reaching a large sample size, thereby enhancing the generalisability of findings. Validated scales are employed to ensure the accuracy, reliability, and quantifiability of data. These standardised instruments allow for objective responses, aligning with the study's quantitative nature. To examine the relationship between mental well-being and academic success, a cross-sectional design is applied. This design enables data collection at a single point in time, providing valuable insights while maintaining practical feasibility.

In line with the positivist approach, ethical principles were carefully applied to ensure the research process remained objective and value-neutral. Participants were fully informed about the purpose of the study and their roles, with measures implemented to protect their identities and maintain trust and integrity. Respect for participants' autonomy was upheld by allowing them the freedom to provide or withhold responses. Given the sensitivity of researching mental well-being, special care was taken to minimise any potential emotional discomfort during data collection. Further details on ethical considerations are discussed in Section 5.3.3.1.

5.3 Research Design

This study adopts a quantitative approach, which is suitable for classifying and quantifying observable phenomena, constructing models to explain relationships, and generalising findings to a larger population (Bernard, 2012). As previously discussed, this study aligns predominantly with the positivist paradigm, which allows for the collection and analysis of quantifiable data to explore relationships between variables. Data for this study were collected through surveys and analysed using statistical techniques to identify, explain, and predict relationships and patterns among these social elements (Burrell & Morgan, 2019; Saunders et al., 2023).

The following section presents the target population, followed by the calculation of the sample size**.** It then discusses the survey instrument used to gather data before providing an overview of the data collection process.

5.3.1 Population and Sample

The target population for this study comprised undergraduate accounting students enrolled in Malaysian universities. These students were selected because they are at a critical transitional stage, moving from secondary school to university. This period brings greater responsibility, academic pressures, and social adjustments, all of which can impact their mental well-being (Carr et al., 2013; Cleary et al., 2011; Quince et al., 2012; Thompson et al., 2021). These factors make undergraduate students particularly relevant for examining the relationship between mental well-being and academic success. Moreover, undergraduate students provide a large sample size, which enhances the generalisability of the findings. Since GPA and CGPA are key measures of academic success in this study, only students in their second semester and above were included, as first-semester students do not yet have GPA and CGPA data. Although the mode of study (ODL, hybrid, or face-to-face) was not identified in the survey, all participants were undergraduate accounting students, placing them within a similar academic context.

As of 2023, a total of 52 universities in Malaysia offer accredited accounting programmes, including 15 public and 37 private institutions (MQA, 2023a) (see Appendix 5.1). Since the exact number of accounting students was unavailable, a two-step process was used to determine the sample size for this study.

Cochran's formula (1977), a widely recognised method for estimating sample size in survey research, was applied in this study (Bartlett et al., 2001). The calculation began by estimating the required sample size for an infinite population. Using a 95% confidence interval, a 5% margin of error, and assuming maximum variability (p = 50%),[17] the required sample size was calculated to be 384 participants, as shown in Equation 5.1. A finite population correction was then applied (Equation 5.2) based on an estimated population of 20,000 students, which is an approximation where the sample size tends to stabilise. The adjustment resulted in a slightly reduced sample size of 377. For large populations such as 20,000, this correction has a minimal impact, as the adjustment becomes negligible (Cochran, 1977; Israel, 1992; Raosoft, Inc., 2004). The full calculations are shown below.

$$n_0 = \frac{Z^2 \times p \times (1-p)}{e^2} \qquad \text{(Equation 5.1)}$$

[17] This study adopted an alpha value of .05, a widely used threshold in most research, corresponding to a 95% confidence interval and providing standard statistical reliability. A 5% margin of error was deemed acceptable, aligning with common research practices. Additionally, the maximum variability assumption of 50% was applied to ensure a conservative estimate and the largest possible sample size for robust analysis (Ary et al., 2010; Bartlett et al., 2001; Field, 2015).

$$\text{Sample size} = \frac{(1.96 \times 1.96) \times 0.5 \times (1 - 0.5)}{0.05 \times 0.05} = 384$$

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}} \quad \text{(Equation 5.2)}$$

$$\text{Sample size} = \frac{384}{1 + \frac{384 - 1}{20{,}000}} = 377$$

Where:

- n_0 : Sample size for an infinite population
- Z : Z-value for the desired confidence level (1.96 for 95%)
- p : Maximum variability (50%)
- e : Margin of error (5%)
- N : Population size (20,000)

To account for potential issues such as incomplete responses, inaccurate data, and other unforeseen circumstances, the target sample size was increased by 50%, resulting in 566 students (i.e., 377 + [377 x 50%]). This adjustment is a common practice in survey research to maintain data quality and ensure a sufficient valid response for analysis (Bartlett et al., 2001; Fink, 2003; Israel, 1992).

5.3.2 Survey Instrument

A questionnaire was used as the survey instrument in this study. It was developed through a structured process to ensure its effectiveness in collecting relevant data. The design began with a first draft that provided an initial framework for data collection. Several students reviewed this draft and offered critical feedback on its relevance, clarity, and areas for improvement. Individual interviews were then conducted to gain deeper insights and refine the questionnaire further based on participants' perspectives and comprehension of the items (detailed in Section 5.3.2.2, Pre-Pilot Study Interviews). These insights guided the second draft, which was prepared for preliminary testing. A pilot study was subsequently carried out to assess the questionnaire's effectiveness and identify necessary revisions (detailed in Section 5.3.2.3, Pilot Study). Responses were analysed and used to resolve identified issues or ambiguities. Through this iterative process, the final version of the questionnaire was developed, ensuring it was robust, clear, and aligned with the study's objectives.

5.3.2.1 Development of Questionnaire

A five-part questionnaire instrument was used in this study and structured as follows: Part A: General Information, Part B: Positive Mental Well-Being, Part C: Mental Well-Being Challenges, Part D: Students' Engagement, and Part E: Students' Satisfaction. Additionally, at the end of the questionnaire, an open-ended question was included to allow respondents to provide any additional comments. This offered participants an opportunity to share further insights into their mental well-being. A copy of the questionnaire is shown in Appendix 5.2. The discussion of each part is presented below.

Part A: General Information

This part gathered general information regarding the participant's gender, age, semester of study, ethnicity, study programme, type of university, GPA, and CGPA. In case participants cannot remember their exact GPA and CGPA, two additional questions were provided for them to indicate how well they think they have performed in the previous semester and overall using a five-point Likert scale (1 = *extremely well* to 5 = *not well at all*).

Part B: Positive Mental Well-Being

This section utilised Keyes' Mental Health Continuum (MHC). This instrument has been extensively applied and rigorously tested for validity and reliability (Keyes, 1998, 2002, 2005; Ryff & Keyes, 1995), making it a robust tool for assessing mental well-being. Its widespread adoption in studies of mental well-being further establishes its credibility. The instrument measures three dimensions, employing the Emotional Well-Being Scale (EWBS), the Psychological Well-Being Scale (PWBS), and the Social Well-Being Scale (SWBS).

The first dimension, emotional well-being (EWB),[18] evaluates how frequently respondents experienced positive emotions during the previous semester. Respondents rated how often they felt six indicators of positive affect: (a) cheerful, (b) in good spirits, (c) extremely happy, (d) calm and peaceful, (e) satisfied, and (f) full of life, using a five-point Likert scale ranging from "all the time" to "none of the time." Keyes (2002) reported a high internal reliability of .91 for this scale, demonstrating its consistency. Additionally, life satisfaction was assessed using a single-item scale where respondents rated their overall satisfaction with life on a scale from 1 (*worst*) to 10 (*best*).

The second dimension, psychological well-being (PWB), encompasses six key areas: self-acceptance (e.g., "I liked most parts of my personality"), positive relations with others (e.g., "Maintaining close relationships has been difficult and frustrating for me"), personal growth (e.g., "Life, for me, has been a continuous process of learning, changing, and growth"),

[18] The subjective well-being section in the questionnaire corresponds to emotional well-being.

purpose in life (e.g., “I sometimes felt as if I had done all there was to do in life”), autonomy (e.g., “I tend to be influenced by people with strong opinions”), and environmental mastery (e.g., “The demands of everyday life often got me down”). Each of these six areas was assessed using three items, with a balanced mix of positive and negative statements. Respondents rated their agreement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). This scale measured how respondents thought or felt about their functioning in these areas. Keyes (2002) reported a combined internal consistency of .81 for the 18-item PWBS.

The third dimension, social well-being (SWB), evaluates individuals' perceptions of their social functioning across five aspects: social integration (e.g., “I did not feel I belonged to any community”), social acceptance (e.g., “I felt people do not care about other people’s problems”), social contribution (e.g., “I felt I have something valuable to give the world”), social actualisation (e.g., “I felt the world is becoming a better place for everyone”), and social coherence (e.g., “I felt that the world is too complex for me”). Similar to the PWB dimension, each aspect was assessed using three items with a mix of positive and negative statements. Respondents rated their agreement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The internal consistency for the combined 15-item SWBS was also reported as .81 by Keyes (2002).

This study adopted a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) rather than a seven-point Likert scale (1 = *strongly agree* to 7 = *strongly disagree*), as it simplifies the response process, making it less cognitively demanding while still capturing meaningful data. While both scales are widely used and validated in social sciences, the inclusion of 96 questions in this study could be overwhelming for participants. Studies suggest that five-point scales may reduce confusion and may improve response rates (Babakus & Mangold, 1992; Devlin et al., 1993). This format was therefore selected for engagement and to improve the likelihood of completing the survey**.**

Part C: Mental Well-Being Challenges

Mental well-being challenges were assessed using the Depression, Anxiety, and Stress 21 Scale (DASS-21), a widely validated and reliable instrument commonly used in mental well-being challenges research (Amir Hamzah et al., 2019; Zanon et al., 2021). The DASS-21 comprises three self-reported subscales designed to measure the negative emotional states of depression, anxiety, and stress, with seven items per subscale, totalling 21 items. The depression subscale evaluates symptoms such as dysphoria, hopelessness, self-depreciation, and lack of interest (e.g., "I could not seem to experience any positive feelings at all"). The anxiety subscale measures autonomic arousal and physical effects, such as muscle tension, with items like "I experienced breathing difficulty (e.g., excessively rapid breathing and breathlessness without physical exertion)”. The stress subscale assesses

difficulty relaxing, heightened nervous arousal, and irritability (e.g., "I found it difficult to relax"). Respondents were asked to rate the extent to which they experienced these symptoms during the previous semester. The internal consistency values were .91 for depression, .84 for anxiety, and .90 for stress (Lovibond & Lovibond, 1995), indicating high reliability.

The original DASS-21 instrument uses a four-point Likert scale (0 = *never* to 3 = *almost always*) to measure the frequency of symptom occurrence. However, for this study, a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) was adopted. This adjustment was based on feedback from the pre-pilot study (discussed in Section 5.3.2.2), where participants reported difficulty recalling the frequency of symptoms over an extended period, such as the previous semester.

Part D: Students' Engagement

The students' engagement instrument used in this study was adapted from the University Student Engagement Inventory (USEI) developed by Marôco et al. (2016), based on the Utrecht Work Engagement Scale (UWES) by Schaufeli et al. (2002).[19] This instrument assesses students' engagement across three dimensions: behavioural, cognitive, and emotional, with each measuring five items. The behavioural dimension evaluates positive classroom behaviours (e.g., "I paid attention in class"), while the cognitive dimension focuses on students' thoughts and strategies for knowledge acquisition (e.g., "When I read a book, I question myself to ensure I understand the subject I'm reading about"). The emotional dimension captures feelings and emotions associated with the learning process (e.g., "My class was an interesting place to be") (Carter et al., 2012; Marôco et al., 2016). The internal reliability of the combined 15 items was reported as .88 (Marôco et al., 2016). Furthermore, the psychometric properties of USEI have been extensively validated and shown to be reliable (Assunção et al., 2020; Maluenda-Albornoz et al., 2024; Sharif Nia et al., 2022; Sinval et al., 2021) and widely used in academic research (Abreu Alves et al., 2022; Marôco et al., 2020).

Several modifications were made to the original instrument to improve its suitability and relevance for this study. First, a new question (item p) was added to measure behavioural engagement: "I participated in at least one extracurricular activity (e.g., sports, clubs, community service, etc)." This addition aimed to provide a more comprehensive assessment of behavioural engagement, which encompasses students' involvement in both academic and extracurricular activities. Other modifications stemmed from feedback received during the pre-

[19] The UWES has faced criticism regarding its construct definitions, dimensionality, and applicability to university students (Kulikowski, 2017; LaNasa et al., 2009). Consequently, the USEI was developed to address these concerns (Assunção et al., 2020; Marôco et al., 2016).

pilot interview stage. For example, the original Likert scale (1 = *never* to 5 = *always*), which measured the frequency of events, was replaced with a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) to improve consistency and reduce recall difficulties for respondents. Additionally, several items were rephrased to enhance clarity and cultural relevance in the Malaysian context. (see Section 5.3.2.2).

Part E: Students' Satisfaction

Students' satisfaction was measured using the Students' Satisfaction Questionnaire (SSQ), originally developed by Westermann et al. (1996) and later adapted by Schiefele and Jacob-Ebbinghaus (2006). Building on their foundational work, Wach et al. (2016) refined the SSQ for broader use in assessing various dimensions of student satisfaction. The instrument comprises nine items divided equally across three dimensions: Satisfaction with Study Content, Satisfaction with Study Conditions, and Satisfaction with Coping with Study-Related Stress.

The first dimension, Study Content, examines students' enjoyment and satisfaction with their chosen field of study (e.g., "I really enjoyed what I was studying"). The second dimension, Study Conditions, evaluates students' perceptions of their learning environment and university facilities (e.g., "I felt frustrated with my study because of the lecturers' teaching quality"). The third dimension, Satisfaction with Coping, assesses the extent to which academic stress impacts students' lives and their ability to manage these demands (e.g., "I often felt exhausted from my studies"). Each item is rated on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). This instrument has been employed in academic research, with studies reporting internal consistency reliability values ranging from .78 to .83 (Bebermeier et al., 2022; Kryshko et al., 2022; Wach et al., 2016).

To enhance clarity and ensure cultural relevance, one item was rephrased based on feedback. The original statement, "I am not able to reconcile my study requirements with other personal obligations," was revised to "I struggled to balance my studies with other obligations (e.g., family)." This adjustment simplified the language, making the item more relatable and easier to understand for participants.

5.3.2.2 Pre-Pilot Study Interviews

The initial questionnaire, developed from validated scales and instruments, underwent a series of informal interviews with accounting students to validate and refine its content. These interviews aimed to assess the appropriateness, clarity, and relevance of the questionnaire items for university accounting students in Malaysia. Specific objectives included evaluating the comprehensiveness of the questions, ensuring the language used was easily understood, identifying ambiguities, and addressing potential difficulties such as the

structure or flow of the questions, or confusion about the intent of certain items. Feedback and suggestions gathered during this process were used to improve the questionnaire, ensuring that it was clear, relevant, and suitable for the study's target audience.

Initially, a focus group was planned to gather information; however, due to participants' varying availability, the focus group was replaced with individual interviews to better accommodate their schedules. These interviews offer similar benefits, enabling deeper exploration of unique perspectives (Creswell & Poth, 2018) while also reducing social desirability bias, where participants may adjust responses to fit group norms (Krumpal, 2013). This approach was likely more suitable for Malaysian students, as they may feel more comfortable communicating one-to-one, allowing for more personalised data collection and adding depth and richness to the information gathered.

Ethics Committee approval from Massey University was obtained prior to the interviews, with the study classified as low risk (see Appendix 5.3).[20] To ensure diverse perspectives, four accounting lecturers from different universities in Malaysia were contacted by email with the request to recommend eligible participants (i.e., accounting students) based on various factors such as gender, age, ethnicity, and type of university. The lecturers were sent a PDF version of the questionnaire along with an information sheet to potential student participants, allowing them to review the content beforehand. Each item in the questionnaire included a comment box for participants to provide feedback or suggestions. At the end of the questionnaire, students who were interested in taking part were invited to provide their email addresses if they preferred to meet online via Zoom. Once availability was confirmed, a Zoom link was shared with each participant. The interviews began with open-ended questions related to the study topic, allowing the interviewer (i.e., researcher of the study) to follow up as needed, particularly regarding the clarity and understandability of the questionnaire items. Each interview lasted approximately 30 to 40 minutes. Table 5.1 provides background information on the four participants.

Table 5.1 *Interview Participants' Demographic Profile and Meeting Dates*

Participant	Gender	Age	Semester	Ethnicity	Programme	University	Meeting Date
1	Male	22	8	Malay	Degree	Private	Jan 6th, 2023
2	Female	21	7	Malay	Degree	Public	Jan 10th, 2023
3	Female	21	4	Chinese	Degree	Private	Jan 10th, 2023
4	Female	22	5	Indian	Diploma	Private	Feb 3rd, 2023

All four participants understood the questionnaire items clearly but suggested a few wording changes to improve clarity and simplicity. For example, in the PWB section, one

[20] Further details about the ethics application can be found in Section 5.3.3.1, Ethics Applications.

participant recommended replacing "pleased" with "happy" in the statement "I am pleased with how things have turned out in my life so far," as "pleased" might not be familiar to all students. In the Mental Well-Being Challenges section, another participant suggested changing "blue" to "sad" to make the wording more relatable. Additionally, one participant proposed modifying "I was good at managing the responsibilities of daily life" to "I was good at managing the responsibilities of my daily life" for better clarity. Other minor adjustments were also suggested to ensure the language was easy to understand. However, since participants raised diverse concerns rather than agreeing on the same issues, and the changes were considered minor, no revisions were made to the questionnaire.

A key issue identified during the interviews was related to the mental well-being challenges section, which utilised the DASS-21. All four participants reported difficulty recalling the frequency of occurrences from the previous semester, highlighting challenges in remembering their mental state from one to six months ago. The original instrument uses a four-point Likert scale ranging from 0 (*never*) to 3 (*almost always*), which is typically suited for assessing mental well-being states over the past week. However, the decision to adapt this timeline to the previous semester was intended to align with the GPA measurement, as GPA reflects academic performance for that same period. Unlike prior studies that evaluated mental well-being challenges over the past week while relating GPA to events from months earlier, this adjustment aimed to provide a more consistent timeline between mental well-being and academic performance data.

Taking into account the feedback received, it was deemed appropriate to modify the Likert scale in the mental well-being challenges section of the instrument to a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). This adjustment addressed participants' difficulties in recalling the frequency of occurrences over an extended period. Similar adaptations have been made in other studies, such as scales ranging from "*Not true*" to "*Very true*" (e.g., Szabo & Lovibond, 2022) and "*I strongly disagree*" to "*I strongly agree*" (da Silva et al., 2016).

Two adjustments were made to the students' engagement section of the USEI to ensure accuracy and cultural relevance. The first adjustment involved changing the original five-point Likert scale (1 = *never* to 5 = *always*), which measured the frequency of events, to a format using a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*). This modification was a response to feedback from all four participants who found it difficult to recall the frequency of past events accurately. Additionally, the change aimed to maintain consistency across the scales used in the questionnaire and reduce potential confusion. The second adjustment addressed the use of the term "school" in the original inventory, which participants identified as potentially misleading in the Malaysian context. For example, the item "I like being at school" was revised to "I like being at university," and "I did not feel very accomplished at

this school" was changed to "I did not feel very accomplished at this university." This was necessary as "school" in Malaysia generally refers to primary and secondary education, whereas “university” refers specifically to higher education. These modifications ensured that the instrument was clear, culturally appropriate, and relevant for the target population.

Other than the changes mentioned, no other changes were made to the wording of the questionnaire items to maintain comparability with previous studies that used the same instruments. However, the structure of the questionnaire was adjusted based on participants’ feedback. Initially, Part A focused on Positive Mental Well-Being, Part B on Mental Well-Being Challenges, Part C on Students’ Engagement, Part D on Students’ Satisfaction, and Part E on General Information. During the interviews, all four participants agreed that the General Information section should be placed at the beginning, as is commonly done in research studies and surveys conducted in Malaysia. In response, the General Information section was moved to the start of the questionnaire to align with these expectations. After the interviews, each participant received a letter of appreciation from the School of Accountancy (see Appendix 5.4) and a token of RM50 from the researcher as a gesture of gratitude for their contribution.

5.3.2.3 Pilot Study

Building on the feedback from the interviews, a revised version of the questionnaire was developed for further evaluation through a pilot study. The pilot study employed a small sample of participants and served multiple objectives. Firstly, it aimed to identify any problems participants might encounter while completing the survey, including unclear, confusing, or challenging questions and structural issues within the questionnaire. Secondly, the study sought to estimate the time required to complete the survey and assess the overall user experience. Additionally, the pilot study provided an opportunity to collect constructive feedback and suggestions from participants, which could be used to refine the questionnaire further. To facilitate this, a dedicated section was included at the end of the survey where participants could share their comments and recommendations.

Upon the approval of the second ethics application by the Ethics Committee of Massey University (see Appendix 5.5), a pilot study was promptly initiated using Qualtrics, a web-based survey tool designed for survey research, evaluations, and other data collection activities. To ensure easy access for participants, a link to the questionnaire was provided, allowing them to click the link and directly access the survey page. The questionnaire was designed to be user-friendly and compatible with various devices, including mobile phones, tablets, and computers, to maximise accessibility. The pilot study commenced in late May 2023 and concluded in mid-June 2023. During this period, four accounting lecturers – two from a public university and two from private universities – contributed to the recruitment

process. With over five years of teaching experience, they were well-positioned to identify participants based on their knowledge of the academic context and student suitability.

Fourteen students completed the questionnaire, with the time taken ranging from nine to 18 minutes. Table 5.2 presents their demographic details, along with the completion time. None of the participants reported any difficulties or suggested revisions to the questionnaire items. Two participants provided positive feedback, highlighting the questionnaire's clarity and design. One mentioned, "No comments, because all were good as per my expectations," while another stated, "All good, I can understand all of the questions." No concerns or issues were raised during this pilot study. Consequently, no changes were made to the questionnaire following this phase.

Table 5.2 *Pilot Study Participants' Demographic Profile and Completion Times*

Participant	Gender	Age	Semester	Ethnicity	Programme	University	Time Taken (in Minutes)
1	Male	23	4	Malay	Degree	Private	17
2	Female	23	8	Malay	Degree	Private	18
3	Female	20	4	Malay	Diploma	Public	16
4	Male	27	8	Indian	Degree	Private	15
5	Male	33	3	Iban	Degree	Private	12
6	Male	22	2	Malay	Degree	Private	10
7	Male	20	4	Malay	Diploma	Public	10
8	Female	20	4	Malay	Diploma	Public	9
9	Male	20	4	Malay	Diploma	Public	14
10	Female	20	4	Malay	Diploma	Public	15
11	Male	20	4	Malay	Diploma	Public	13
12	Male	22	3	Chinese	Degree	Private	9
13	Female	21	2	Chinese	Degree	Private	13
14	Female	23	8	Malay	Degree	Private	14

One issue emerged related to the Qualtrics settings. Upon reviewing the results in Microsoft Excel and SPSS, it was found that two students answered both Question 7 (GPA) and Question 8 in Part A (i.e., the subjective assessment of a previous semester's performance). To resolve this, the "Add Display Logic" feature in Qualtrics was used. Question 8 was set to appear only if participants selected "Cannot remember (please go to Question 8)" in Question 7. This ensured that students who provided their GPA in Question 7 would not see Question 8 so as to prevent redundancy. A similar adjustment was applied to CGPA in Question 9. If participants answered Question 9 (CGPA), Question 10 (subjective assessment of overall performance) would be hidden. Question 10 was displayed only if participants selected "Cannot remember (please go to Question 10)" in Question 9. These modifications streamlined the survey and minimised duplicate or irrelevant responses.

5.3.3 Data Collection for the Main Study

This section provides an overview of the ethics applications, detailing the submission of two separate applications to ensure compliance with ethical standards, the rationale for using an online survey as a secure and effective method for handling sensitive data, the implementation of Qualtrics as a reliable and user-friendly survey platform, and the multi-phase data collection process that utilised diverse sampling techniques to maximise response rates.

5.3.3.1 Ethics Approval

A consultation with Massey University's Vice-Chancellor's nominee for the Human Ethics Committee was held in mid-November 2022 to clarify ethical requirements. The advice was to submit two separate ethics applications. The first application, classified as low risk, was for pre-pilot interviews focused on refining the questionnaire's clarity and design rather than collecting data. The second, a full application, covered both the pilot and main studies, as these involved participants' responses to sensitive questions and required a comprehensive review.

The full application was submitted to the Human Ethics Committee in early December 2022, covering project details, cultural considerations, consent, privacy, confidentiality, and the Treaty of Waitangi.[21] Although the study focuses on Malaysian accounting students, potential relevance to Māori was acknowledged. Consultations with the Director of the University's Māori Student Association and the Māori Student Wellbeing Advisor confirmed minimal risk and highlighted the findings' potential relevance to Māori groups exploring mental well-being and academic success.

The application also included an Information Sheet for Participants (see Appendix 5.6), outlining study aims, participant rights, withdrawal options, confidentiality, and access to support resources. Additionally, the questionnaire (see Appendix 5.2) and recruitment letter (see Appendix 5.7) were also submitted. These steps ensured transparency in data handling and adherence to ethical standards. The process was finalised by mid-May 2023.

5.3.3.2 Why Online Survey?

The decision to conduct the survey online instead of using a paper-and-pencil format was driven by the sensitive nature of the information being collected. Online surveys offer a higher level of anonymity, making participants more comfortable in disclosing personal or

[21] The Treaty of Waitangi, signed in 1840, is a foundational agreement between the British Crown and Māori chiefs that established British authority while recognising Māori rights (Ministry for Culture and Heritage, 2017).

sensitive details. Research has shown that computerised data collection encourages greater self-disclosure (Buchanan, 2000; Gnambs & Kaspar, 2015). Moreover, conducting the survey online immerses participants in a virtual environment, creating a heightened sense of privacy (Gnambs & Kaspar, 2015). This virtual setting can alleviate concerns about judgment or negative evaluations of sensitive topics (Weisband & Kiesler, 1996) such as mental well-being, depression, and anxiety.

To enhance participants' experience and support accurate disclosure, several strategies were employed. Participants were assured of confidentiality and anonymity, as clearly outlined in the participants' rights section of the information sheet. This transparency helped build trust and increased their willingness to respond (Joinson, 1999). The questionnaire was designed to be neutral and non-judgmental to reduce bias and facilitate honest disclosure (Tourangeau & Yan, 2007). For example, Part C of the survey included the statement: "Everyone experiences stress and anxiety at one time or another, some more often than others." This preface intended to normalise such experiences and minimise potential discomfort that might arise. Participants also received informed consent, explaining how their data would be used, stored, and protected. Clear privacy policies and terms of use further enhanced participants' trust and willingness to participate (Grady, 2015).

5.3.3.3 Qualtrics

To facilitate this online approach, the final version of the questionnaire was developed using Qualtrics (https://www.qualtrics.com), a web-based survey platform known for its user-friendly design. A unique survey link was generated, allowing respondents to easily access it via smartphone, tablet, or computer, which offers flexibility that can increase response rates and engagement (Wu et al., 2022). The questionnaire was prefaced with an information sheet detailing the survey's purpose, participants' rights, and assurances of confidentiality. At the end of the information sheet was a consent statement that read: "By clicking next, it means that you have read the information sheet and are willing to participate in the survey." This step ensured that participants provided informed consent before proceeding.

The survey was designed with user-friendly features to support accessibility and ease of use. Answer options were presented as clickable buttons, making selection straightforward. "Next" and "Back" buttons at the bottom of each screen enabled navigation, allowing respondents to move forward or revisit previous questions to review or modify their responses. A progress bar at the top of the page provided a visual indication of the respondents' progress, allowing them to gauge how much of the questionnaire they had completed.

To safeguard data integrity, precautionary measures were implemented to minimise the risk of duplicate responses. The "Prevent Ballot Box Stuffing" feature in Qualtrics was activated, preventing multiple submissions from the same browser or device. Upon completing

the survey, respondents were directed to a final page with the message: "We thank you for your time spent taking this survey. Your response has been recorded".

5.3.3.4 Data Collection Process

The data collection process spanned 15 weeks, beginning in mid-July 2023 and concluding at the end of October 2023. Table 5.3 summarises the phases of data collection and the responses obtained. In the first phase, purposive sampling was employed to target five top public and five top private universities, selected based on their academic reputation in the QS World University Rankings (QS, 2023). These universities were chosen for their well-established accounting programmes and are often regarded as benchmarks of academic excellence. They also tend to have larger student populations and more accessible information on faculty members such as lecturers, Deans, and Heads of Departments (HoDs) through their official websites, making the coordination process more manageable. Emails were sent to the Deans and HoDs of accounting faculties, including a sample questionnaire, an information sheet, and an Ethics Committee approval letter. Those who responded received the survey link and were asked to distribute it to their students. This phase resulted in 128 completed surveys.

Table 5.3 *Data Collection Phases and Responses*

Phase	Distribution Method	Start Date	Number of Responses
First	Deans and Heads of Departments	Mid-July 2023	128
Second	Deans and Heads of Departments (Reminder)	Early August 2023	37
Third	Deans and Heads of Departments	End of August 2023	195
Fourth	Lecturers	Mid-September 2023	117
Fifth	Heads of Departments and Lecturers	Early October 2023	310
Total		*Finalised End of October 2023*	*787*

In early August 2023, the second phase involved sending reminders to Deans and HoDs who had not responded in the first phase. These reminder emails followed the same format as the initial communication and successfully generated an additional 37 responses, bringing the total to 165.

When the response rate remained below expectations, the outreach was expanded in late August 2023 to include all public and private universities in Malaysia. Emails were sent to Deans and HoDs at all public universities. However, nearly half of the private universities lacked publicly available contact information, limiting outreach to their students. Many Deans

and HoDs who responded requested the survey link directly, which helped facilitate its distribution. This phase yielded 195 additional responses, predominantly from public university students, increasing the total to 360.

In mid-September 2023, lecturers from universities where Deans and HoDs had not replied were contacted to further boost participation. In this phase, emails were sent with the survey link included immediately, as earlier phases showed that Deans and HoDs often preferred receiving the link directly without prior discussion. This phase produced another 117 responses, bringing the cumulative total to 477.

Despite these efforts, the response rate remained below the desired threshold of 566 students. Therefore, snowball sampling was adopted in early October 2023, which involves using existing respondents to refer others who meet the study's criteria (Biernacki & Waldorf, 1981). In this phase, the researcher contacted lecturers who had previously assisted with distribution and encouraged them to identify additional eligible students. These lecturers also informed their students about the survey and encouraged them to share the survey link with peers and colleagues. For example, lecturers passed the link to other lecturers or students within their networks to help with the distribution. This approach was effective, yielding an additional 310 responses by late October 2023.

In total, 787 completed surveys were obtained across all phases. This multi-phase strategy, integrating purposive and snowball sampling methods, assured a robust sample size and diversity despite initial challenges with response rates and accessibility.

5.4 Data Preparation and Examination

The data preparation and examination phase involved several key steps to ensure the dataset was clean, accurate and ready for analysis.[22] Initial checks focused on identifying incomplete responses, missing values, and irregular patterns that could compromise data integrity. This was followed by data coding and input verification to confirm consistency and accuracy in data entry. These procedures helped minimise errors and ensured the dataset was reliable for statistical analysis (Field, 2015; Hair et al., 2009). The following subsections outline each stage of the data preparation process in more detail.

5.4.1 Handling Missing Data

All missing values were carefully examined to minimise bias in the findings (Field, 2015; Hair et al., 2009). Missing data can be categorised into missing completely at random,

[22] Preliminary advice on the selection and application of statistical analyses was obtained through a consultation with Massey University's Statistical Consultancy Service. This discussion in selecting appropriate analysis techniques for the study's objectives and data structure.

missing at random, and missing not at random, each requiring specific handling techniques. Various imputation methods have been recommended by previous studies to address these types of missing data. They include complete data imputation, case substitution, hot and cold deck imputation, mean substitution, regression imputation, and model-based techniques (Bennett, 2001; Field, 2015; Hair et al., 2009).

After the initial data screening and cleaning, the dataset was further examined to identify cases (students) requiring exclusion through the complete data imputation method. As shown in Table 5.4, a total of 787 responses were collected. However, 88 responses were classified as partial completions, where participants stopped at different sections of the survey. Specifically, 49 respondents who completed up to Part A (General Information) were excluded, as this section was required for subsequent chi-square tests to examine differences based on demographic information. Furthermore, Part A included critical data on GPA and CGPA, which were essential for further analysis.

Another 24 responses were completed up to Part B (Positive Mental Well-Being), 11 responses up to Part C (Mental Well-Being Challenges), and four responses up to Part D (Engagement). Although some respondents reached Part D, they were excluded because missing data occurred in a systematic, non-random pattern, particularly at the end of the questionnaire. These respondents did not complete Part E (Satisfaction), a dependent variable in this study. As a result, cases with missing data for a dependent variable are removed to prevent artificially inflating the relationship with independent variables (Hair et al., 2009).

In addition to partial completions, 30 responses were excluded based on predefined criteria to maintain the integrity of the dataset. This included nine cases with 10% or more missing data, as incomplete responses could hinder reliable analysis (Hair et al., 2009). Additionally, two cases were identified as “straight liners” and “speedsters”,[23] where respondents either selected the same response for all items (Field, 2015; Zhang & Conrad, 2014) and completed the survey in an unrealistically short time, suggesting low-quality data. Further exclusions were applied to responses from one lecturer and one PhD student, as they fell outside the study’s target population. Similarly, three first-semester students and 14 professional paper students (ACCA/CPA) were excluded because they did not meet the inclusion criteria.[24] After these exclusions, the final dataset consisted of 669 valid responses.

[23] “Straight liners” refer to respondents who consistently selected the same response option, such as “Strongly agree” or “Somewhat agree,” for all questions, regardless of whether the statements were positive or negative. “Speedsters” are those who completed the entire survey in under 2.5 minutes, a duration considered insufficient to provide thoughtful and valid answers.

[24] The lecturer, PhD student, first-semester students, and professional paper students identified themselves as such in the survey and did not provide semester, GPA, and CGPA information. They were also removed because they fell outside the target population of diploma and bachelor’s students.

This careful “vetting” process ensured that the remaining data was complete, reliable, and appropriate for subsequent analyses.

Table 5.4 *Survey Responses and Exclusions Summary*

Category	*N*	*N*
Total Responses		787
Partial Responses		
Completed Part A (General Information)	49	
Completed Part B (Positive Mental Well-Being)	24	
Completed Part C (Mental Well-Being Challenges)	11	
Completed Part D (Engagement)	4	
Less: Total Partial Responses		88
Additional exclusions		
Missing 10% or more of questions/items	9	
“Straight liner” and “speedster”	2	
Lecturer	1	
PhD student	1	
First-semester student	3	
Student undertaking professional course (ACCA/CPA)	14	
Less: Total Additional Exclusions		30
Final Usable Responses		669

All the 669 respondents completed Part A. However, 83 respondents (12.4%) had at least one missing data point across the 84 items in Parts B to E, while 586 respondents (87.6%) provided complete responses with no missing data (see Appendix 5.8). The survey data showed no distinct pattern of missing responses across these parts. Among the 84 items, 22 had no missing data. The highest number of missing data for a single item was five, representing 0.75%. Across all 84 questions, the total number of missing values amounted to 129 cases, equivalent to 0.23% of the dataset. According to Tabachnick et al. (2013), missing data below 5% is generally considered negligible, as most handling methods yield similar results. Given the minimal levels of missing data in this study, the mean substitution method was employed using SPSS. This method was deemed appropriate to ensure all cases have complete information (Hair et al., 2009).

5.4.2 Data Coding and Input Verification

After obtaining a complete dataset free of missing values and extreme cases ($N = 669$), all items were assigned specific names and descriptive labels to ensure clarity and consistency in analysis. Applicable items were then reverse-coded to align the scoring system with the intended constructs. Responses were recoded as follows: 1 (*strongly disagree*)

became 5 (*strongly agree*), 2 (*disagree*) became 4 (*agree*), 3 (*neither agree nor disagree*) remained unchanged, 4 became 2, and 5 became 1. For example, negative items in the PWBS were reverse-scored to ensure higher scores reflected higher levels of PWB. In contrast, DASS-21 items, which are inherently negative, were not reversed, as higher scores correspond to greater mental well-being challenges. Specifically, the following items as shown in the questionnaire were reverse-coded: d, e, f, g, j, n, o, and p in PWBS; a, b, g, h, i, j, m, and o in SWBS; item f in USEI; and items d, e, f, g, h, and i in SSQ. Details of the recoded items are provided in Appendix 5.8 (Missing Data and Item Reversals), with the last two right columns indicating the specific recoding applied.

Composite scores were then calculated to provide an overall measure for each variable. For EWBS, scores ranged from 6, indicating low emotional well-being, to 30, reflecting a high level of well-being. PWBS scores ranged from 18 to 90, with higher scores indicating greater psychological well-being. SWBS scores varied between 15, representing low SWB, and 75, indicating high SWB. For DASS-21, the scores for each dimension, including stress, anxiety, and depression, ranged from 7, indicating lower levels, to 35, reflecting higher or more severe levels. USEI scores ranged from 16, representing low engagement, to 80, representing high engagement. Finally, SSQ scores ranged from 9, reflecting low satisfaction, to 45, representing high satisfaction. These ranges provided a clear and consistent framework for interpreting the results across all variables.

5.4.3 Handling Extreme Values

The revised dataset (N = 669), containing no missing values, was examined for univariate outliers using the boxplot and z-scores in SPSS. This step ensured that individual items did not include extreme values that could potentially distort the analysis (Field, 2015; Hair et al., 2009). The screening process identified three extreme outliers: one in PWBS, one in DASS-21, and one in USEI. To address these outliers, winsorisation was applied. This technique involves adjusting extreme values to the nearest highest or lowest non-outlier value to reduce their impact on the analysis while preserving the overall distribution of the data (Hair et al., 2009; Reifman & Garrett, 2010). For example, in PWBS, one extreme data point had a z-score of 3.12, with a total composite score of 82. Since extreme values can disproportionately affect the mean and variance, this value was adjusted to 80, which had a z-score of 2.85 and was within the non-outlier range.

5.5 Further Statistical Analyses

A comprehensive series of statistical analyses were conducted to address the research questions and gain meaningful insights from the dataset. These analyses included descriptive statistics, chi-square tests of association, NVivo thematic analysis for qualitative data, and advanced parametric analyses such as correlation, regression, and multivariate analysis of variance (MANOVA), all executed using SPSS.

The initial stage involved descriptive analyses, including frequencies, means, and standard deviations, to evaluate the levels and patterns within the independent and dependent variables. These analyses aimed to identify items with higher or lower mean scores, offering an overview of the data distribution. Following this, chi-square tests were performed to assess the prevalence of academic success variables (GPA, CGPA, engagement, and satisfaction) across demographic categories such as gender, age, semester, programme, and type of university. To further explore qualitative data, word cloud visualisations and thematic analyses of participants' responses to open-ended questions on mental well-being were conducted using NVivo software. The findings of these exploratory analyses are detailed in Section 6.6.

Before proceeding to correlation, regression, and MANOVA analyses, assumption checks were performed to ensure the data met the criteria required for these advanced statistical methods. These checks included normality, reliability, and linearity assessments. Unlike assumption checks specific to regression or MANOVA, these general evaluations were conducted to confirm the suitability of the dataset for parametric analyses and to minimise the risk of drawing inaccurate conclusions (Field, 2015). Assumption checks are vital for validating the use of parametric statistical methods and for ensuring meaningful and accurate results. Normality was assessed by calculating skewness and kurtosis values for each variable, with detailed results provided in Section 6.7.1 (Normality Analysis). Reliability was examined through Cronbach’s alpha values to evaluate the internal consistency of the scales, as discussed in Section 6.7.2 (Reliability Analysis). Lastly, linearity analyses were conducted to confirm linear relationships between variables, which are critical for correlation and regression analyses, with findings presented in Section 6.7.3 (Linearity Analysis).

Next, correlation analyses were performed to examine the relationships between independent and dependent variables. Prior to conducting these analyses, bivariate outliers were identified using scatterplots to ensure data accuracy. To address research questions 1 and 2, regression analyses were conducted. Ordinal logistic regression was employed to investigate the effect of mental well-being variables on GPA and CGPA, which are ordinal categorical variables. Assumptions for ordinal logistic regression, such as parallel lines and goodness-of-fit tests, were examined and are detailed in Section 7.3 (Effect of Mental Well-Being on Performance). Additionally, multiple linear regression analyses assessed the effects

of mental well-being on engagement and satisfaction. Assumption checks for these analyses included multicollinearity using tolerance values, normality of residuals, homoscedasticity, and the assessment of outliers through Mahalanobis distance, as explained in Section 7.4 (Effect of Mental Well-Being on Engagement and Satisfaction). These rigorous checks ensured the validity and robustness of the regression analyses.

Lastly, to address the third research question, which investigated differences in success outcomes among mental well-being groups defined by the DCM, a MANOVA was conducted. Assumption checks, such as tests for equality of covariances and equality of error variances, were performed to validate the analysis. Details for this analysis are presented in Section 7.6.4 (Comparing Success Outcomes Among Mental Well-Being Groups). These steps provided critical insights and ensured the accuracy of the comparisons.

5.6 Summary

This chapter outlined the research methodology employed in the study, which adopted a quantitative approach within the positivist paradigm. This perspective treats the social world as an objective reality that can be measured and quantified. The study focused on undergraduate accounting students who were at least in their second semester of study. The sample size was calculated using Cochran's formula, resulting in a target of 377 respondents; however, to account for unforeseeable circumstances, a larger sample size of 566 was targeted. The questionnaire consisted of five sections: demographic information, positive mental well-being, mental well-being challenges, student engagement, and student satisfaction. It underwent a series of refinement phases, including a pre-pilot interview and a pilot study, before being finalised for the main study. The survey was hosted on the Qualtrics platform, and the link was distributed to Deans, HoDs, and lecturers for dissemination. Data collection for the main study spanned 15 weeks, yielding a total of 669 usable responses. The data were analysed using SPSS, employing statistical techniques such as descriptive statistics, correlation analysis, regression, and MANOVA.

The following chapter, Chapter Six, presents the findings and discussion of the descriptive results.

Chapter 6: Findings and Discussion: Descriptive Results

6.1 Overview

The purpose of this chapter is to present the study's descriptive results. Sections 6.2 to 6.5 provide an overview of the students' demographic characteristics, followed by descriptive statistics for both the dependent and independent variables. These sections include chi-square association analyses to assess the prevalence of success variables and mental well-being status across selected demographic characteristics. Section 6.6 covers the responses to the open-ended questions, offering qualitative insights into the data, while Section 6.7 discusses the normality, reliability, and linearity tests performed to ensure data consistency and confirm the suitability of the data distribution for subsequent statistical analyses in Chapter 7. Finally, Section 6.8 provides a summary of the chapter.

6.2 Demographic Information

Table 6.1 presents the demographic characteristics of 669 accounting students, revealing that females comprised 80.9%, while males made up 19.1%. This gender disparity aligned with national trends, where female enrolment in tertiary education has surpassed that of males (The Sun, 2023), a pattern also noted by Hassan et al. (2020) and Shahira et al. (2018). The predominance of female accounting students reflects broader university trends, with female participation exceeding 70% across various disciplines (Amir Hamzah et al., 2019; Kamarulzaman et al., 2023; Mohd Azlan et al., 2024). Additionally, previous research suggests that women are more likely to engage in online surveys (Becker, 2022; Smith, 2008), which may also have contributed slightly to the sample composition.

The majority of students were between 18 and 21 years old (58.3%), while 41.7% were aged 22 and above. This pattern reflects typical university demographics in Malaysia, where students generally transition from SPM at 17 to higher education (MyGovernment, 2024). Similar trends have been observed in studies on Malaysian universities (Amir Hamzah et al., 2019; Mohd Azlan et al., 2024).

Regarding academic standing, 58.0% of students were in semesters 2 to 4, while 42.0% were in semesters 5 and beyond. The distribution reflects typical academic progression, where most students fell within the earlier semesters. In diploma programmes, semesters 6 and above are classified as extended semesters, while in bachelor's degree programmes, semesters 9 and beyond generally indicate extended enrolment, as discussed in Section 2.3.1 of this study.

Table 6.1 *Demographics of Accounting Students*

Characteristic	Category	*N*	%
Gender	Male	128	19.1
	Female	541	80.9
Age	18 to 21	390	58.3
	22 and above	279	41.7
Semester	2 to 4	388	58.0
	5 and above	281	42.0
Ethnicity	Malay	626	93.6
	Non-Malay	43	6.4
Programme	Diploma	148	22.1
	Bachelor's degree	521	77.9
University	Public	624	93.3
	Private	45	6.7

The study cohort was predominantly Malay (93.6%), while the remaining 6.4% comprised non-Malay students, including Chinese, Indian, Bidayuh, Iban, and Kadazan (see Appendix 6.1). This distribution mirrors the demographic composition of many public universities in Malaysia, as discussed in Chapter 2, and aligns with previous studies on mental well-being in the country (Amir Hamzah et al., 2019; Nor et al., 2019).

The majority of students were enrolled in bachelor's degree programmes (77.9%), while 22.1% pursued undergraduate diplomas. Bachelor's degrees are generally preferred in Malaysia due to their higher earning potential (Jobstreet, 2024). Additionally, most respondents were from public universities (93.3%), with only 6.7% from private institutions. This difference may have been linked to the proactive support from public university deans and HoDs in facilitating survey distribution. In contrast, fewer private university administrators assisted in forwarding the survey. Moreover, public universities provide more accessible contact information for lecturers, deans, and HoDs on their websites, making outreach easier compared to private institutions.

6.3 Descriptive Statistics for Dependent Variables

This study measures student success through three key dependent variables. Firstly, academic performance is gauged through GPA and CGPA metrics, providing insights into students' academic achievements at university. Secondly, student engagement is assessed using behavioural, emotional, and cognitive dimensions, offering a comprehensive understanding of students' involvement and interaction with academic activities. Lastly, student satisfaction is evaluated through content, conditions, and coping, reflecting students'

contentment and fulfilment with their academic experiences.[25] These dependent variables collectively provide a nuanced and multifaceted perspective on students' academic success and experiences within the educational environment.

6.3.1 Academic Performance: GPA and CGPA scores

Table 6.2 shows the GPA and CGPA distribution. Analysis of the previous semester's performance, as indicated by the GPA, revealed that 33.8% of the students performed extremely well (i.e., in the 3.50 to 4.00 GPA range) and 38.0% of students performed very well (i.e., in the 3.00 to 3.49 GPA range). Additionally, 21.5% performed moderately well (i.e., in the 2.50 to 2.99 GPA range), 3.3% performed slightly well (i.e., in the 2.00 and 2.49 GPA range), and a mere 0.3% performed not well at all (i.e., scored below 2.00 GPA). Notably, 21 students (3%) could not recall their GPA scores and provided qualitative assessments instead. Among these, 1.2% perceived their performance as "Not well at all," while 0.7% considered it "Slightly well," 1.0% as "Moderately well," and 0.1% as "Very well", with no students rating themselves as "Extremely well."

Table 6.2 *Initial GPA and CGPA Distribution*

Variable	Academic Performance	*N*	%
GPA	Below 2.00	2	0.3
	2.00 to 2.49	22	3.3
	2.50 to 2.99	144	21.5
	3.00 to 3.49	254	38.0
	3.50 to 4.00	226	33.8
	Not well at all	8	1.2
	Slightly well	5	0.7
	Moderately well	7	1.0
	Very well	1	0.1
	Extremely well	0	0.0
	Total	*669*	*100*
CGPA	Below 2.00	1	0.1
	2.00 to 2.49	16	2.4
	2.50 to 2.99	101	15.1
	3.00 to 3.49	287	42.9
	3.50 to 4.00	245	36.6
	Not well at all	3	0.4
	Slightly well	5	0.7
	Moderately well	9	1.3
	Very well	2	0.3
	Extremely well	0	0.0
	Total	*669*	*100*

[25] The Cronbach's alpha for the items included in each of the variables is shown in Table 6.18.

Similarly, CGPA utilised for overall performance throughout the students' year of studies showed that 36.6% of the students performed extremely well (in the 3.50 to 4.00 range), and 42.9% of students performed very well (in the 3.00 to 3.49 range). Furthermore, 15.1% moderately well, having attained CGPA scores between 2.50 and 2.99, 2.4% performed slightly well with scores between 2.00 and 2.49, and a mere 0.1% performed not well at all (scored below 2.00). Nineteen students (2.7%) could not recall their CGPA scores and provided qualitative assessments instead. Among these, 0.4% perceived their performance as "Not well at all," 0.7% as "Slightly well," 1.3% as "Moderately well," and 0.3% as "Very well", with no students rating themselves as "Extremely well."

Students' GPA and CGPA scores were initially grouped into these five categories. However, assumption checks using ordinal logistic regression (OLR) indicated a violation of the test of parallel lines due to considerable imbalances in group sizes.[26] To address this, certain groups were combined to ensure sufficient sample size for robust analysis. Specifically, the groups "Not well at all" and "Slightly well" were merged into a new group called "Poor" because they both represent the lowest performance score ranges. Moderately well students were categorised as "Satisfactory," very well students as "Good," and extremely well students as "Excellent." Ultimately, four groups were employed for further analyses, including regression, chi-square analysis, and MANOVA. Table 6.3 provides a breakdown of students' academic performance across these four groups.

Table 6.3 *Students' GPA and CGPA Distribution*

Variable	Academic Performance	*N*	%
GPA Combined	Poor	37	5.5
	Satisfactory	151	22.6
	Good	255	38.1
	Excellent	226	33.8
	Total	*669*	*100*
CGPA Combined	Poor	25	3.7
	Satisfactory	110	16.4
	Good	289	43.2
	Excellent	245	36.6
	Total	*669*	*100*

A large proportion of students fall into the "Good" and "Excellent" categories, reflecting higher GPA and CGPA levels. This finding is consistent with other Malaysian studies (e.g., Kamarulzaman et al., 2023; Nor et al., 2019) which show that a majority of students reported GPAs above 3.00. Additionally, the lower number of students from the "poor" and "satisfactory"

[26] This test assesses the reasonability of assuming that parameters are consistent across all response categories (O'Connell, 2006, p. 39).

groups may be attributed to their willingness to participate in surveys (Adams & Umbach, 2012; Avery et al., 2006).

6.3.2 Students' Engagement

The results presented in Table 6.4 show the mean scores for students' engagement items, providing insights into their commitment and involvement in diverse academic dimensions. Engagement was measured across three key dimensions: behavioural, emotional, and cognitive, with higher scores indicating greater engagement levels. Overall, students demonstrated a relatively high level of engagement (M = 3.61, SD = 0.54). Among the three dimensions, behavioural engagement scored the highest (M = 3.74, SD = 0.63), followed closely by cognitive engagement (M = 3.71, SD = 0.63). In contrast, emotional engagement was comparatively lower (M = 3.37, SD = 0.72). This pattern is consistent with findings from the USA, Taiwan, and Macau (Assunção et al., 2020), suggesting that Malaysian students, like their counterparts in these countries, tend to be more engaged in academic tasks and classroom participation but may exhibit lower emotional investment in their studies.

In the behavioural engagement dimension, actively participating in group assignments (M = 4.02, SD = 0.82) and adhering to university rules (M = 4.00, SD = 0.83) received the highest mean scores. Additionally, punctuality in completing assignments (M = 3.86, SD = 0.93) and attentiveness in class (M = 3.71, SD = 0.89) indicated active involvement and compliance with academic requirements. Cognitive engagement was evident through students' proactive learning strategies, such as consulting resources when encountering difficulties (M = 4.10, SD = 0.80) and integrating knowledge to solve problems (M = 3.74, SD = 0.81). These scores indicate that students adopted self-regulated learning strategies, trying to enhance their understanding beyond basic coursework. Furthermore, the inclination to question and integrate interdisciplinary knowledge (M = 3.68, SD = 0.81) suggests that students were engaging with academic content on a deeper level rather than passively absorbing information.

In contrast, emotional engagement items received comparatively lower mean scores, suggesting that while students were academically engaged, they might have felt less emotionally connected to their studies. While there was general interest in university studies (M = 3.60, SD = 0.88) and enjoyment of the university environment (M = 3.57, SD = 0.94), feelings of excitement about studies (M = 3.49, SD = 0.91) and perceptions of the classroom as interesting (M = 3.39, SD = 0.96) were only moderately endorsed. Notably, feeling accomplished at university received the lowest mean score (M = 2.84, SD = 1.08), suggesting that some students might have struggled with a sense of achievement or personal fulfilment in their academic experience.

Table 6.4 *Students' Engagement – Means (M) and Standard Deviations (SD)*

Dimension/Item	Statement	*M*	*SD*
Behavioural			
e.	I usually participated actively in group assignments.	4.02	0.82
b.	I followed the university's rules.	4.00	0.83
c.	I usually did my assignments on time.	3.86	0.93
a.	I paid attention in class.	3.71	0.89
p.	I participated in at least one extracurricular activity (e.g., sports, clubs, community service, etc.).	3.48	1.19
d.	When I had doubts, I asked questions and participated in class.	3.38	1.05
Overall[a]		3.74	0.63
Cognitive			
m.	If I did not understand the meaning of a word, I tried to solve the problem, for example, by consulting a dictionary or asking someone else.	4.10	0.80
k.	When I read a book, I questioned myself to ensure I understand the subject I'm reading about.	3.84	0.84
n.	I tried to integrate the acquired knowledge into solving new problems.	3.74	0.81
o.	I tried to integrate subjects from different disciplines into my general knowledge.	3.68	0.81
l.	I talked to people outside the university about matters I learned in class.	3.19	1.09
Overall[a]		3.71	0.63
Emotional			
i.	I was interested in university studies.	3.60	0.88
h.	I liked being at university.	3.57	0.94
g.	I felt excited about university studies.	3.49	0.91
j.	My class was an interesting place to be.	3.39	0.96
f.	I did not feel very accomplished at this university.	2.84	1.08
Overall[a]		3.37	0.72
Overall engagement[a]		3.61	0.54

Note. [a]The term "overall" refers to the average score of all items in a particular dimension. "Overall engagement" refers to the average score across all items in the engagement scale. This explanation applies to all similar tables throughout the chapter.

6.3.3 Students' Satisfaction

Table 6.5 provides insights into students' satisfaction, offering a detailed perspective on their experiences and perceptions across different dimensions. Satisfaction was measured across three key areas: content, conditions, and coping, with higher scores indicating greater satisfaction. Overall, students reported moderate satisfaction across all dimensions (M = 2.83, SD = 0.51). Among these, satisfaction with content had the highest mean score (M = 3.47, SD = 0.80). In contrast, coping-related satisfaction was lower (M = 2.51, SD = 0.77), while satisfaction with conditions, which includes environmental and institutional factors, was the

lowest (*M* = 2.49, *SD* = 0.67). These findings align with previous studies by Gadosey et al. (2022) and Wach et al. (2016), where students reported the highest satisfaction with content, followed by coping and then conditions.

Table 6.5 *Students' Satisfaction – Means (M) and Standard Deviations (SD)*

Dimension/Item	Statement	*M*	*SD*
Content			
a.	I really enjoyed what I was studying.	3.59	0.91
c.	I found my studies really interesting.	3.53	0.89
b.	I found peacefulness when I study.	3.29	0.96
Overall		3.47	0.80
Coping			
g.	I struggled to balance my studies with other obligations (e.g., family).	2.68	1.15
h.	The study consumed me.	2.60	0.86
i.	I often felt exhausted from my studies.	2.28	0.99
Overall		2.51	0.77
Conditions			
f.	My university pays too little attention to the students' interests (e.g., sports).	2.87	1.00
e.	I felt frustrated with my study because of the lecturers' teaching quality.	2.79	1.10
d.	I wished that the facilities at the university were better.	1.83	0.86
Overall		2.49	0.67
Overall Satisfaction		2.83	0.51

For content-related satisfaction, students expressed enjoyment in their studies (*M* = 3.59, *SD* = 0.91) and found their academic pursuits genuinely interesting (*M* = 3.53, *SD* = 0.89). Moreover, students reported an average experience of a sense of peacefulness when engaged in their studies (*M* = 3.29, *SD* = 0.96). These findings suggest a positive overall perception of the university's academic content and learning experiences.

Concerns about the university's conditions were evident among students. Satisfaction with the university's attention to students' interests (*M* = 2.87, *SD* = 1.00) and frustration with teaching quality (*M* = 2.79, *SD* = 1.10) ranked lower on the list. In terms of coping-related items, students also reported difficulties in managing their academic responsibilities alongside other obligations, as reflected in struggles to balance commitments (*M* = 2.68, *SD* = 1.15) and feelings of being overwhelmed by their studies (*M* = 2.60, *SD* = 0.86). Notably, coping-related items had lower mean scores than contentment-related ones, indicating that students find it more challenging to manage academic demands and personal obligations. Satisfaction with university facilities was the lowest, further contributing to overall dissatisfaction. This aligns with findings that inadequate university facilities are a common issue in Malaysian higher

education institutions (Yusoff et al., 2015). Additionally, exhaustion from studies (*M* = 2.28, *SD* = 0.99) was among the least satisfactory aspects, reflecting the high academic demands placed on students. This is particularly relevant for accounting students, who frequently experience study-related fatigue (Gabre & Kumar, 2012; Smith & Emerson, 2021).

6.4 Students Success by Demographic Characteristics

This section examines how multiple student success variables, namely, GPA, CGPA, student engagement, and satisfaction, vary across various student demographics, such as gender, age, semester, programme, and type of university. The study does not examine ethnicity due to the overwhelming majority (93%) of students being Malay. Employing chi-square association analysis, the investigation centres on determining the prevalence of these success indicators across various demographic characteristics. This analysis aims to yield crucial insights into the factors associated with students' success within the academic setting.

6.4.1 Academic Performance: GPA and CGPA

Table 6.6 presents the demographic characteristics associated with academic performance. The pattern for GPA and CGPA were similar, with most demographic variables showing significant associations, except for gender. Although a higher percentage of female students fell into the "Excellent" category, the difference was not statistically significant. This finding is consistent with past studies (e.g., Byrne & Flood, 2008; Papageorgiou, 2017; Van Wyk, 2011), which also reported no significant link between gender and academic performance. Regarding age, younger students (aged 18 to 21) were more likely to attain excellent results, supporting findings that younger learners tend to excel, possibly due to recent academic exposure and stronger knowledge retention (Van Wyk, 2011; Koh & Koh, 1999). In comparison, older students may face challenges in adapting to academic routines and examinations (Koh & Koh, 1999), and despite often being more motivated, external commitments such as work and family may limit their academic focus (Martinis et al., 2003).

Students in early-semester and diploma programmes were more represented in the excellent category, partly due to the less complex nature of early-semester courses, which typically cover foundational topics compared to the more advanced and challenging content in later semesters. Diploma programmes also have more straightforward learning outcome requirements compared to bachelor's degree programmes (MQA, 2023b; MQA, 2024a). Another factor could be the gradual decline in learning motivation over time (Jacobs & Newstead, 2000). Early-year students are also generally more proactive in seeking academic support (Johnson et al., 2022), a behaviour linked to enhanced academic achievement, which may explain their stronger results (Aristoteles et al., 2020).

Table 6.6 *Prevalence of GPA and CGPA by Demographic Characteristics*

	Academic Performance Based on GPA					Academic Performance Based on CGPA				
Demographics	Poor % (*N*)	Satisfactory % (*N*)	Good % (*N*)	Excellent % (*N*)	χ^2	Poor % (*N*)	Satisfactory % (*N*)	Good % (*N*)	Excellent % (*N*)	χ^2
Gender										
Male	8.6% (11)	25.0% (32)	35.2% (45)	31.3% (40)	3.76	3.9% (5)	24.2% (31)	41.4% (53)	30.5% (39)	7.59
Female	4.8% (26)	22.0% (119)	38.8% (210)	34.4% (186)		3.7% (20)	14.6% (79)	43.6% (236)	38.1% (206)	
Age										
18 to 21	6.4% (25)	18.7% (73)	37.7% (147)	37.2% (145)	10.70**	4.9% (19)	14.4% (56)	39.0% (152)	41.8% (163)	16.39**
22 and above	4.3% (11)	28.0% (78)	38.7% (108)	29.0% (81)		2.2% (6)	19.4% (54)	49.1% (137)	29.4% (82)	
Semester										
2 to 4	5.7% (22)	18.0% (70)	38.7% (150)	37.6% (146)	12.55**	3.6% (14)	14.7% (57)	40.5% (157)	41.2% (160)	8.74*
5 & above	5.3% (15)	28.8% (81)	37.4% (105)	28.5% (80)		3.9% (11)	18.9% (53)	47.0% (132)	30.2% (85)	
Programme										
Diploma	5.4% (8)	18.9% (28)	28.4% (42)	47.3% (70)	16.13**	4.1% (6)	11.5% (17)	35.1% (52)	49.3% (73)	14.12**
Bachelor's	5.6% (29)	23.6% (123)	40.9% (213)	29.9% (156)		3.6% (19)	17.9% (93)	45.5% (237)	33.0% (172)	
University										
Public	5.8% (36)	23.9% (149)	38.8% (242)	31.6% (197)	22.48***	4.0% (25)	17.1% (107)	43.9% (274)	34.9% (218)	12.89**
Private	2.2% (1)	4.4% (2)	28.9% (13)	62.4% (29)		0.0% (0)	6.7% (3)	33.3% (15)	60.0% (27)	

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ (two-tailed), $df = 3$.

Students from private universities were more likely to fall into the excellent GPA and CGPA categories and less likely to be in the poor and satisfactory categories. This may be due to a stronger culture of knowledge sharing during academic tasks such as assignments (Chong et al., 2012). As an important learning skill, knowledge sharing benefits both the giver and the receiver and may contribute to higher academic performance. Private university students are also more likely to actively consult lecturers or tutors (Chong et al., 2012), a behaviour that may further support their performance. Additionally, they might show greater motivation and dedication because of the higher fees they pay compared to students at subsidised public universities. For instance, Beneito et al. (2018) reported that Spanish students who paid fees earned better grades, while Bietenbeck et al. (2023) found that German students increased their academic effort when tuition fees were introduced.

6.4.2 Students' Engagement

Figure 6.1 provides an overview of student engagement levels, categorised into three tiers: low, moderate, and high. To examine engagement in relation to demographic characteristics, scores were recalibrated using a five-point Likert scale with the following mean score ranges: (a) Strongly disagree, 1.00 to 1.49; (b) Disagree, 1.50 to 2.49; (c) Neither agree nor disagree, 2.50 to 3.49; (d) Agree, 3.50 to 4.49; and (e) Strongly agree, 4.50 to 5.00. This categorisation establishes clear boundaries, improving interpretability and reducing unwarranted assumptions about the means (Lindner & Lindner, 2024; Pornel & Saldana, 2013). Students who strongly disagree or disagree are placed in the "low" engagement group, indicating lower engagement. Those who neither agree nor disagree are categorised as "moderate," as they are not fully engaged but not entirely disengaged either. Students who agree or strongly agree fall into the "high" engagement group, reflecting greater engagement with their studies.

Among the 669 students, 15 (2.4%) were categorised as having low engagement, indicating minimal involvement or investment in academic activities. Conversely, most students demonstrated higher engagement levels, with 243 students (36.3%) falling into the moderate category and 410 students (61.3%) into the high category. This is consistent with the descriptive analysis where the overall mean score for engagement is 3.61 (as shown in Table 6.4), which is at the lower end of the high category, close to moderate, explaining that most students are either in high or moderate levels of engagement. These findings highlight the predominance of active participation and commitment among the student body, with a smaller proportion displaying lower levels of engagement.

Figure 6.1 *Distribution of Students by Level of Engagement*

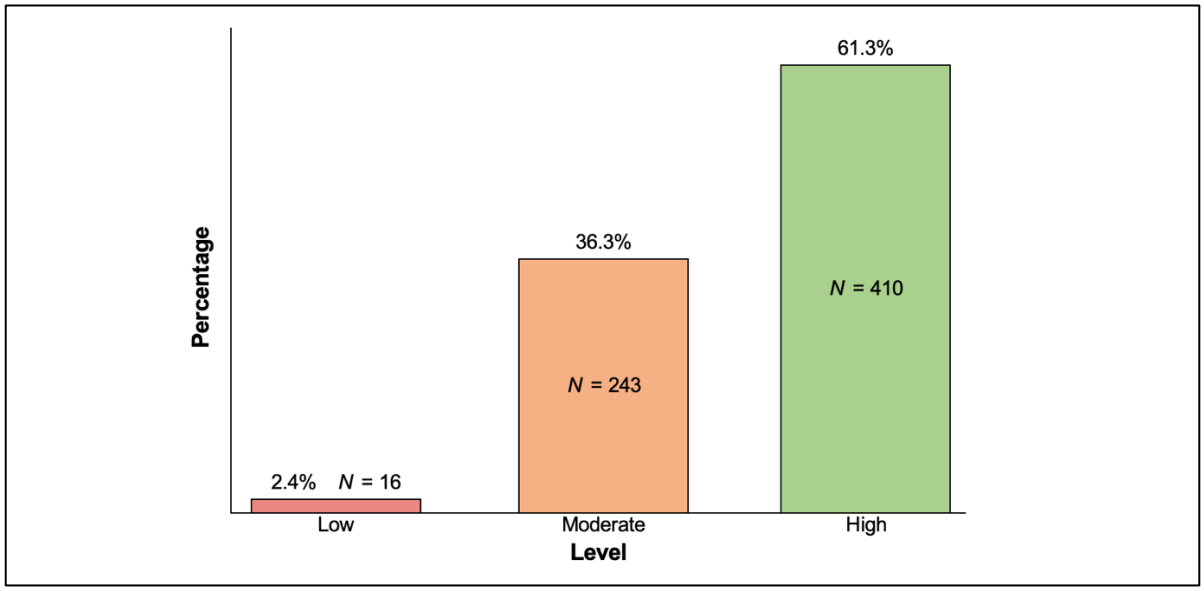


Table 6.7 shows variations in student engagement across demographic variables. The results indicate that none of the demographic factors showed a statistically significant association with engagement levels. While female students, those in earlier semesters, diploma students, and those attending private universities appeared to exhibit higher engagement, though these differences were not statistically significant.

Table 6.7 *Prevalence of Engagement by Demographic Characteristics*

	Student Engagement			
	Low	Moderate	High	
Demographics	% (*N*)	% (*N*)	% (*N*)	χ^2
Gender				
Male	3.1% (4)	38.3% (49)	58.6% (75)	.71
Female	2.2% (12)	35.9% (194)	61.9% (335)	
Age				
18 to 21	1.5% (6)	37.2% (145)	61.3% (239)	3.04
22 and above	3.6% (10)	35.1% (98)	61.3% (171)	
Semester				
2 to 4	1.3% (5)	35.8% (139)	62.9% (244)	5.15
5 and above	3.9% (11)	37.0% (104)	59.1% (166)	
Programme				
Diploma	2.0% (3)	33.1% (49)	64.9% (96)	1.04
Bachelor's	2.5% (13)	37.2% (194)	60.3% (314)	
University				
Public	2.6% (16)	36.7% (229)	60.7% (379)	1.97
Private	0.0% (0)	31.1% (14)	68.9% (31)	

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ (two-tailed), $df = 2$.

6.4.3 Students' Satisfaction

To analyse the relationship between satisfaction and demographic characteristics, the satisfaction levels were recalibrated using the same five-point Likert scale as used for engagement. Satisfaction was categorised into three tiers based on mean score boundaries, ensuring a consistent approach to measuring both engagement and satisfaction. Figure 6.2 provides insights into student satisfaction levels among the 669 survey participants. The majority, 451 students (67.4%), reported moderate satisfaction, indicating a fair level of contentment with their academic experience. Meanwhile, 156 students (23.3%) expressed low satisfaction, highlighting potential areas for improvement, while only 62 students (9.3%) reported high satisfaction, reflecting a strong sense of fulfilment. The overall mean satisfaction score of 2.83 (as shown in Table 6.5) places it at the lower end of the moderate range, suggesting that most students experience either low or moderate satisfaction. This aligns with findings by Tessema et al. (2012), who reported that business students had the lowest satisfaction with their curriculum compared to students in Education, Liberal Arts, Nursing/Health Sciences, and Science and Engineering.

Figure 6.2 Distribution of Students by Level of Satisfaction

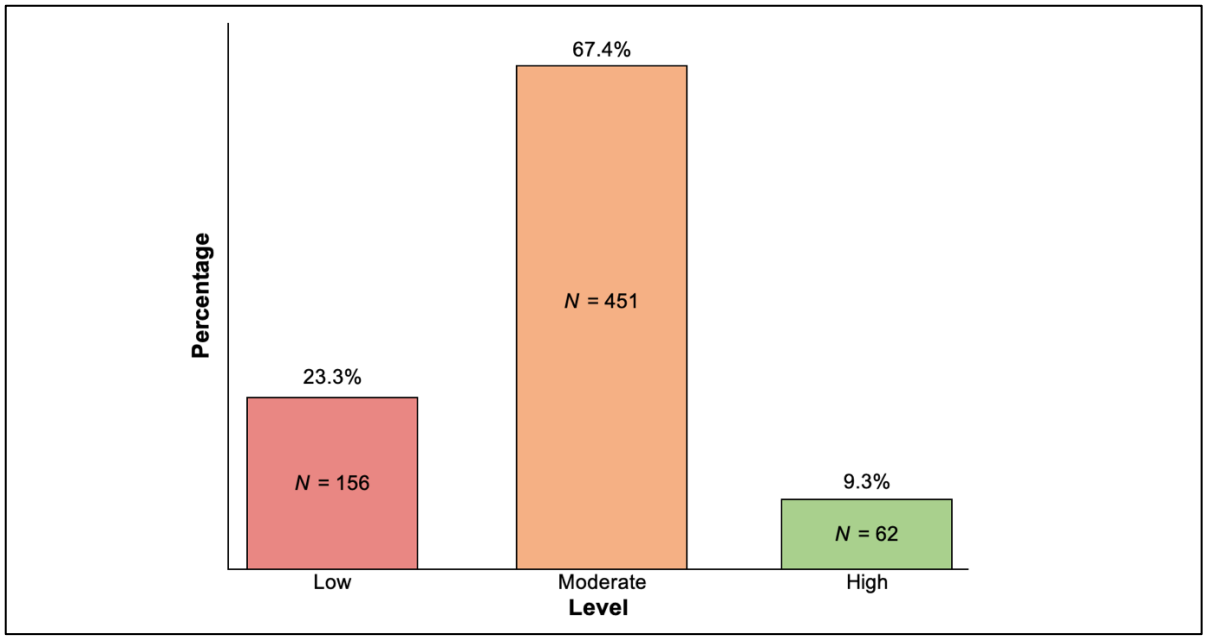


Table 6.8 presents student satisfaction levels across various demographic categories. Gender-wise, male students are more prevalent in the high-satisfaction group and fewer in the low-satisfaction group, indicating that they tend to be more satisfied. In comparison, a larger number of female students reported moderate satisfaction. This result aligns with the findings of Yusoff et al. (2015), who observed that male students in a Malaysian university were generally more satisfied than their female counterparts.

Table 6.8 *Prevalence of Satisfaction by Demographic Characteristics*

	Student Satisfaction			
	Low	Moderate	High	
Demographics	% (*N*)	% (*N*)	% (*N*)	χ^2
Gender				
Male	19.5% (25)	64.8% (83)	15.6% (20)	8.03*
Female	24.2% (131)	68.0% (368)	7.8% (42)	
Age				
18 to 21	23.3% (91)	67.4% (263)	9.2% (36)	.00
22 and above	23.3% (65)	67.4% (188)	9.3% (26)	
Semester				
2 to 4	19.1% (74)	71.4% (277)	9.5% (37)	9.38*
5 and above	29.2% (82)	61.9% (174)	8.9% (25)	
Programme				
Diploma	25.0% (37)	65.5% (97)	9.5% (14)	.34
Bachelor's	22.8% (119)	67.9% (354)	9.2% (48)	
University				
Public	23.6% (147)	67.0% (418)	9.5% (59)	.83
Private	20.0% (9)	73.3% (33)	6.7% (3)	

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ (two-tailed), $df = 2$.

Additionally, a higher proportion of students in semesters 2 to 4 are in the high satisfaction group, whereas students in semesters 5 and above are more prevalent in the low satisfaction group. This suggests that earlier semester students tend to have higher satisfaction, possibly due to lower initial expectations regarding their study contents and conditions. In contrast, those who have spent more time at the university may develop higher expectations and recognise areas for improvement. This is consistent with Yusoff et al. (2015), who found that first-year Malaysian university students are more satisfied with the student support facilities and class sizes compared to second- and third-year students. Regarding other characteristics, age groups, current programmes, and type of university did not show significant differences in satisfaction levels.

6.5 Descriptive Statistics for Independent Variables

The independent variables considered in this study encompass various aspects of well-being. They include emotional, psychological, and social well-being, which collectively contribute to overall positive mental well-being. Additionally, the study addresses the challenges that include stress, anxiety, and depression, as these factors may pose a threat to well-being. Each independent variable is thoroughly examined and analysed within the context of this study, providing a comprehensive understanding of the factors that influence the well-being of students in academic environments.

6.5.1 Emotional Well-Being

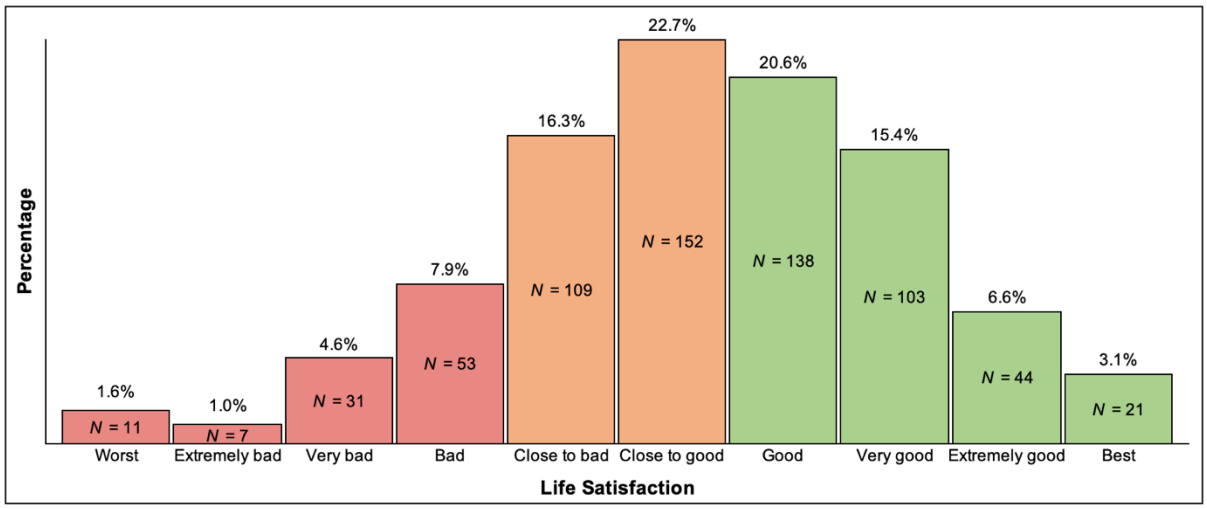
Table 6.9 presents the mean scores for students' emotional well-being (EWB), where higher scores indicate greater well-being. Overall, students reported a moderate level of EWB (*M* = 2.91, *SD* = 0.66), suggesting a balanced but not highly positive emotional state. Among the specific indicators, students reported feeling cheerful (*M* = 3.10, *SD* = 0.77) and in good spirits (*M* = 3.07, *SD* = 0.73) some of the time. Experiences of calmness and peacefulness were also moderate (*M* = 2.87, *SD* = 0.89), as were feelings of being full of life (*M* = 2.87, *SD* = 0.91). Satisfaction was reported close to some of the time (*M* = 2.81, *SD* = 0.87). Notably, extreme happiness had the lowest mean score (*M* = 2.71, *SD* = 0.88), indicating that intense joy was the least commonly experienced emotion.

Table 6.9 *Emotional Well-Being – Means (M) and Standard Deviations (SD)*

Item	Statement	*M*	*SD*
a.	How much of the time did you feel cheerful?	3.10	0.77
b.	How much of the time did you feel in good spirits?	3.07	0.73
d.	How much of the time did you feel calm and peaceful?	2.87	0.89
f.	How much of the time did you feel full of life?	2.87	0.91
e.	How much of the time did you feel satisfied?	2.81	0.87
c.	How much of the time did you feel extremely happy?	2.71	0.88
Overall EWB		2.91	0.66

Another aspect of measuring EWB is life satisfaction. Figure 6.3 illustrates students' ratings on a 10-point scale ranging from 1 (*Worst*) to 10 (*Best*). Each point represents the percentage of students who selected that level of satisfaction, offering insight into the distribution of life satisfaction within the sample. The majority of students (22.7%) rated their life satisfaction as "Close to good," reflecting a sense of contentment albeit with room for improvement. This is followed by "Good" (20.6%) and "Very good" (15.4%). Conversely, the percentages decrease gradually towards the extremes, with fewer students indicating the lowest and highest levels of satisfaction rated as "Worst" (1.6%) or "Extremely bad" (1.0%) and "Extremely good" (6.6%) and "Best" (3.1%), respectively. Overall, it portrays the varying degrees of life satisfaction among the students surveyed, although a majority (68.4% from "Close to Good" to "Best") of students reported positive life satisfaction during their previous semester of studies.

Figure 6.3 *Distribution of Students' Life Satisfaction*



EWB was further categorised into low, moderate, and high levels using two distinct scales. These scales are essential for applying the Dual Continua Model (DCM), further explained in Section 7.6.1, to determine students' positive mental well-being category, whether they are flourishing, moderately well, or languishing.

Table 6.10 displays the levels of EWB measured by the two scales. The first was based on the mean scores of items ("a" to "f") on a five-point Likert scale, defined as follows: None of the time (1.00 to 1.49), A little of the time (1.50 to 2.49), Some of the time (2.50 to 3.49), Most of the time (3.50 to 4.49), and All the time (4.50 to 5.00). Students who scored in the "None of the time" and "A little of the time" ranges were classified as having low EWB, those in the "Some of the time" range as moderate, and those in the "Most of the time" and "All the time" ranges as high.

The second scale assessed overall life satisfaction using the 10-point rating described earlier. For DCM classification, the scores were grouped into five categories: very low (1–2), low (3–4), moderate (5–6), high (7–8), and very high (9–10). Specifically, scores of 1 (Worst) and 2 (Extremely bad) represented the lowest end and were categorised as very low satisfaction. Scores of 3 (Very bad) and 4 (Bad) fell into the low satisfaction range. The midpoint scores, 5 (Close to bad) and 6 (Close to good) were classified as moderate, as they sat between the negative and positive ends. Meanwhile, 7 (Good) and 8 (Very good) reflected high satisfaction, and 9 (Extremely good) and 10 (Best) represented very high satisfaction. To streamline analysis and maintain consistency with other variables in this study, very low and low categories were combined as "low satisfaction," while high and very high were grouped as "high satisfaction." This approach helps balance the category sizes and supports a more structured interpretation.

Overall, most students reported moderate EWB (59.0%) based on the first scale. Life satisfaction scores were higher, with 45.7% of students classified in the high category. This

suggests that although EWB was generally moderate, students perceive their overall life satisfaction more positively.

Table 6.10 *Level of Overall Emotional Well-Being*

Scale	Level			*M*	*SD*
	Low	Moderate	High		
	% (*N*)	% (*N*)	% (*N*)		
First (item “a” to “f”)	21.1% (141)	59.0% (395)	19.9% (133)	2.91	0.66
Second (life satisfaction)	15.2% (102)	39.0% (261)	45.7% (306)	6.25	1.83

6.5.2 Psychological Well-Being

Table 6.11 presents the mean scores for the six dimensions of psychological well-being (PWB): self-acceptance, purpose in life, environmental mastery, positive relations, personal growth, and autonomy (individual item scores are detailed in Table 6.12). PWB levels follow the same classification as engagement, satisfaction, and EWB, using a five-point Likert scale: Strongly disagree (1.00–1.49), Disagree (1.50–2.49), Neither agree nor disagree (2.50–3.49), Agree (3.50–4.49), and Strongly agree (4.50–5.00). Higher scores indicate greater PWB. Students who strongly disagree or disagree were categorised as low, those who neither agree nor disagree were classified as moderate, and those who agree or strongly agree were placed in the high category, reflecting stronger PWB. Similar to EWB, this classification of low, moderate, and high PWB is also used in Section 7.6.1 to categorise students as flourishing, moderately well, or languishing based on the DCM.

Table 6.11 *Level of Psychological Well-Being*

No.	Dimension	Level			*M*	*SD*
		Low	Moderate	High		
		% (*N*)	% (*N*)	% (*N*)		
1	Personal growth	0.9% (6)	26.2% (175)	72.9% (488)	3.92	0.64
2	Environment mastery	8.1% (54)	61.0% (408)	30.9% (207)	3.25	0.56
3	Self-acceptance	18.7% (125)	49.8% (333)	31.5% (211)	3.16	0.77
4	Autonomy	12.4% (83)	63.7% (426)	23.9% (160)	3.14	0.62
5	Positive relations	17.0% (114)	54.1% (362)	28.8% (193)	3.13	0.72
6	Purpose in life	11.5% (77)	66.2% (443)	22.3% (149)	3.13	0.60
Overall PWB		2.4% (16)	68.5% (458)	29.1% (195)	3.29	0.41

The descriptive analysis revealed that most students exhibited moderate overall PWB. Among the six dimensions, personal growth had the highest mean score, followed by environmental mastery, self-acceptance, autonomy, positive relations, and purpose in life.

Personal growth was the only dimension where the majority of students fell into the high category (*M* = 3.92, *SD* = 0.64), with just 1% reporting low personal growth. In the remaining five dimensions, most students demonstrated moderate PWB. Environmental mastery (*M* = 3.25, *SD* = 0.56) showed that over half of the students demonstrated a moderate level. Self-acceptance (*M* = 3.16, *SD* = 0.77) had a more even distribution across low, moderate, and high levels, with nearly half in the moderate group. Similarly, autonomy (*M* = 3.14, *SD* = 0.62), positive relations (*M* = 3.13, *SD* = 0.72), and purpose in life (*M* = 3.13, *SD* = 0.60) had the majority of students in the moderate category. Overall, students exhibited moderate PWB (*M* = 3.29, *SD* = 0.41), with 68.5% in the moderate group, 29.1% in the high group, and only 2.4% reporting low PWB.

These findings align with previous research on Malaysian university students. For instance, Roslan et al. (2017) also found that personal growth scored the highest. Similarly, Visvanathan et al. (2021) reported that 68% of students had moderate PWB, with fewer students in the high and low categories, reflecting a comparable distribution in this study.

Table 6.12 presents the mean scores for each PWB item, providing insights into students' perceptions across different dimensions. Among these, personal growth received the highest endorsement, with "Life, for me, has been a continuous process of learning, changing, and growth" (*M* = 4.34, *SD* = 0.71), reflecting strong agreement. Students also valued new experiences that challenged their perspectives (*M* = 4.17, *SD* = 0.77), reinforcing the importance of continuous self-improvement. In the environmental mastery dimension, students reported feeling generally in control of their circumstances (*M* = 3.77, *SD* = 0.86) and competent in managing daily responsibilities (*M* = 3.46, *SD* = 0.89). However, challenges in coping with everyday demands were also evident, as "The demands of everyday life often got me down" scored lower (*M* = 2.54, *SD* = 0.92), suggesting that some students struggled with maintaining a sense of control.

Regarding self-acceptance, students moderately agreed with statement such as "I am pleased with how things have turned out in my life so far" (*M* = 3.45, *SD* = 0.96), though feelings of disappointment about achievements were also present (*M* = 2.70, *SD* = 1.14). Autonomy scores indicated a reasonable level of confidence in personal judgment (*M* = 3.48, *SD* = 0.94), yet susceptibility to external influence remained apparent (*M* = 2.55, *SD* = 0.97). In terms of positive relations, students generally perceived themselves as giving and willing to share time with others (*M* = 3.56, *SD* = 0.92). However, difficulties in maintaining close relationships were noted (*M* = 2.69, *SD* = 1.10), suggesting that while social engagement was present, relationship challenges persisted. Finally, the purpose in life dimension showed moderate endorsement, with students affirming a sense of direction (*M* = 3.27, *SD* = 0.97). However, some reported a lack of future orientation (*M* = 3.20, *SD* = 1.13) or a diminished sense of purpose (*M* = 2.91, *SD* = 0.98).

Overall, the findings highlight a tendency towards moderate PWB, with personal growth being the most positively rated dimension, while aspects of self-acceptance, autonomy, and environmental mastery revealed areas of mixed perceptions.

Table 6.12 *Psychological Well-Being – Means (M) and Standard Deviations (SD)*

Dimension/Item	Statement	*M*	*SD*
Personal growth			
k.	Life, for me, has been a continuous process of learning, changing, and growth.	4.34	0.71
l.	I thought it was important to have new experiences that challenge how I think about myself and the world.	4.17	0.77
n.	I gave up trying to make big improvements or changes in my life long ago.	3.24	1.11
Environmental mastery			
h.	I felt I am in charge of the situation in which I live in general.	3.77	0.86
i.	I was good at managing the responsibilities of daily life.	3.46	0.89
d.	The demands of everyday life often got me down.	2.54	0.92
Self-acceptance			
b.	I am pleased with how things have turned out in my life so far.	3.45	0.96
a.	I liked most parts of my personality.	3.34	0.93
e.	I felt disappointed about my achievements in life in many ways.	2.70	1.14
Autonomy			
r.	I judge myself by what I think is important, not by the values of what others think is important.	3.48	0.94
q.	I was confident in my own opinions, even if they were different from how most others thought.	3.39	0.90
o.	I tend to be influenced by people with strong opinions.	2.55	0.97
Positive relations			
m.	People would describe me as a giving person, willing to share my time with others.	3.56	0.92
p.	I have not experienced many warm and trusting relationships with others.	3.15	1.07
f.	Maintaining close relationships has been difficult and frustrating for me.	2.69	1.10
Purpose in life			
c.	I felt some people wandered aimlessly through life, but I was not one of them.	3.27	0.97
g.	I lived life one day at a time and didn't really think about the future.	3.20	1.13
j.	I sometimes felt as if I had done all there was to do in life.	2.91	0.98

6.5.3 Social Well-Being

Table 6.13 shows the mean scores for the five dimensions of social well-being (SWB) (individual item scores are detailed in Table 6.14). SWB, like other previously mentioned variables, was assessed using a five-point Likert scale with mean score ranges defined as follows: Strongly disagree (1.00 to 1.49), Disagree (1.50 to 2.49), Neither agree nor disagree (2.50 to 3.49), Agree (3.50 to 4.49), and Strongly agree (4.50 to 5.00). Higher mean scores indicate greater SWB. Students who strongly disagree or disagree were classified in the low category, those who neither agree nor disagree fell into the moderate category, and those who agree or strongly agree were placed in the high category, signifying stronger SWB. This classification is consistent with the approach used for EWB and PWB, and is also applied in Section 7.6.1 to determine students who are flourishing, moderately well, or languishing based on the DCM.

Table 6.13 *Level of Social Well-Being*

No.	Dimension	Level			*M*	*SD*
		Low	Moderate	High		
		% (*N*)	% (*N*)	% (*N*)		
1	Social integration	15.1% (101)	49.8% (333)	35.1% (235)	3.23	0.74
2	Social contribution	14.9% (100)	50.8% (340)	34.2% (229)	3.19	0.74
3	Social acceptance	13.8% (92)	60.8% (407)	25.4% (170)	3.14	0.64
4	Social actualisation	14.5% (97)	58.4% (391)	27.1% (181)	3.14	0.72
5	Social coherence	16.6% (111)	63.2% (423)	20.2% (135)	3.02	0.61
Overall SWB		9.0% (60)	69.8% (467)	21.2% (142)	3.14	0.52

Among the five dimensions, social integration had the highest mean score (M = 3.23, SD = 0.74), with 35.1% of students in the high category, reflecting a strong sense of belonging in their social environments. Social contribution followed closely (M = 3.19, SD = 0.74), suggesting that students generally viewed themselves as valuable members of their communities. Social acceptance (M = 3.14, SD = 0.64) and social actualisation (M = 3.14, SD = 0.72) displayed similar trends, with the majority of students falling in the moderate category and smaller proportions in the high category (25.4% and 27.1%, respectively). These findings indicate that while students acknowledged societal potential and accepted others, such aspects were not as strongly perceived as social integration and contribution. Social coherence had the lowest mean (M = 3.02, SD = 0.61), with only 20.2% of students in the high category, reflecting difficulty in understanding and making sense of the social world.

Overall, SWB was predominantly moderate (M = 3.14, SD = 0.52), with 69.8% of students in the moderate category, 21.2% in the high category, and 9.0% in the low category.

Table 6.14 presents the mean scores of each individual SWB item, providing insights into students' perceptions across different dimensions. For social integration, students generally reported a moderate sense of belonging, with agreement on feeling close to their communities (*M* = 3.25, *SD* = 0.89) and viewing them as a source of comfort (*M* = 3.20, *SD* = 0.96). Additionally, most students identified with at least one community (*M* = 3.23, *SD* = 1.06), reinforcing a moderate to strong level of integration. Regarding social contribution, students believed that they had something valuable to offer (*M* = 3.36, *SD* = 0.91) and did not feel that they lacked an important role in society (*M* = 3.26, *SD* = 1.05). However, their lower agreement on contributing to their community through daily activities (*M* = 2.96, *SD* = 0.92) suggests uncertainty about the tangible impact of their contributions. In social acceptance, students expressed a strong belief in people's kindness (*M* = 3.79, *SD* = 0.86), reflecting a generally positive outlook. However, some scepticism remained, as fewer students agreed that people genuinely cared about others' problems (*M* = 2.65, *SD* = 1.09) or performed favours without expecting anything in return (*M* = 2.99, *SD* = 1.00).

Table 6.14 *Social Well-Being – Means (M) and Standard Deviations (SD)*

Dimension/Item	Statement	*M*	*SD*
Social integration			
f.	I felt close to other people in my community.	3.25	0.89
b.	I did not feel I belonged to any community.	3.23	1.06
k.	I felt my community is a source of comfort.	3.20	0.96
Social contribution			
d.	I felt I have something valuable to give the world.	3.36	0.91
o.	I felt I have nothing important to contribute to society.	3.26	1.05
g.	My daily activities did not create anything worthwhile for my community.	2.96	0.92
Social acceptance			
n.	I believed that people are kind.	3.79	0.86
c.	I felt people who do a favour expect nothing in return.	2.99	1.00
j.	I felt people do not care about other people’s problems.	2.65	1.09
Social actualisation			
i.	I felt society has stopped making progress.	3.22	0.93
e.	I felt the world is becoming a better place for everyone.	3.13	1.00
m.	I felt society isn’t improving for people like me.	3.06	0.97
Social coherence			
l.	I tried to think about and understand what could happen next in our country.	3.65	0.84
h.	I could not make sense of what was going on in the world.	2.99	0.99
a.	I felt the world is too complex for me.	2.41	0.94

Perceptions of societal progress in social actualisation were moderate. Many students believed that society was still advancing (*M* = 3.22, *SD* = 0.93) and that the world was improving for everyone (*M* = 3.13, *SD* = 1.00), though doubts persisted regarding whether this progress included people like them (*M* = 3.06, *SD* = 0.97). Social coherence had the lowest overall scores, suggesting that students found it challenging to interpret societal events. While many actively tried to understand national issues (*M* = 3.65, *SD* = 0.84), comprehending global affairs was more difficult (*M* = 2.99, *SD* = 0.99). The lowest mean score (*M* = 2.41, *SD* = 0.94) indicated that a significant number of students perceived the world as overly complex, making it the most challenging aspect of SWB.

Overall, students exhibited moderate SWB, with the highest endorsement in social acceptance and integration, particularly in their trust in others and sense of belonging. However, social coherence remained the weakest dimension, highlighting difficulties in making sense of broader societal issues.

6.5.4 Mental Well-Being Challenges

Table 6.15 provides a detailed breakdown of the stress, anxiety, and depression levels of students, categorised by the severity of each mental well-being issue (individual item scores are detailed in Table 6.16). The severity levels are divided into four categories: Normal, Mild, Moderate, and Severe. The challenge levels are based on a five-point Likert scale with mean score ranges as follows: (a) Normal, 1.00 to 2.99; (b) Mild, 3.00 to 3.49; (c) Moderate, 3.50 to 3.99; and (d) Severe, 4.00 to 5.00. Higher mean scores indicated a higher level of severity.

The majority of students fell within the normal stress category (35%), while 65% experienced some level of stress, with 32% classified as mild, 18% as moderate, and 14% as severe. Comparatively, studies on Malaysian university students reported stress levels ranging from 25% to 43% (Amir Hamzah et al., 2019; Dasor et al., 2023). Internationally, the reported stress among university students also varied, with 48% in Turkey (Bayram & Bilgel, 2008), 38% in the USA (Beiter et al., 2015), and 37% in Canada (Meckamalil et al., 2022). A similar pattern emerged for anxiety and depression, with most students falling into the normal category, while approximately 60% experienced anxiety and 48% reported some sort of depression. In comparison, Amir Hamzah et al. (2019) found that 50% of students had anxiety and 21% had depression, while Dasor et al. (2023) reported higher figures, with 67% experiencing anxiety and 61% depression. International studies similarly showed that around 40% of students experienced anxiety and depression (Beiter et al., 2015; Meckamalil et al., 2022). Overall, stress (*M* = 3.12, *SD* = 0.75) and anxiety (*M* = 3.10, *SD* = 0.83) had higher mean scores, indicating greater prevalence among accounting students, while depression (*M* = 2.83, *SD* = 0.88) was comparatively lower.

Table 6.15 *Proportion of Students' Mental Well-Being Challenges*

Challenge	Level				*M*	*SD*
	Normal	Mild	Moderate	Severe		
	% (*N*)	% (*N*)	% (*N*)	% (*N*)		
Stress	35.6% (238)	32.0% (214)	18.1% (121)	14.3% (96)	3.12	0.76
Anxiety	40.1% (268)	27.5% (184)	15.8% (106)	16.6% (111)	3.10	0.84
Depression	52.2% (349)	25.4% (170)	11.5% (77)	10.9% (73)	2.83	0.89

Since all three mental well-being challenges fell within the average range, examining individual items provided deeper insights. Table 6.16 presents the mean scores for depression, anxiety, and stress items, highlighting students' experiences across these dimensions. Responses were measured on a five-point Likert scale, where higher scores indicate stronger agreement with each statement.

Stress-related symptoms were widespread, with students reporting frequent nervous energy (*M* = 3.47, *SD* = 1.09), difficulty in unwinding (*M* = 3.22, *SD* = 0.93), and overreacting to situations (*M* = 3.17, *SD* = 1.09). These symptoms suggest a heightened state of physiological and emotional arousal, where students may find it difficult to calm their minds or regulate their emotions. Feeling easily irritated (*M* = 3.07, *SD* = 1.13) and experiencing agitation (*M* = 3.02, *SD* = 1.00) further indicate a lowered threshold for frustration, which may lead to impulsive reactions or heightened emotional sensitivity. Additionally, struggling to relax (*M* = 2.95, *SD* = 1.15) and intolerance for interruptions (*M* = 2.97, *SD* = 1.00) highlight an inability to disengage from stressors, possibly leading to exhaustion over time.

Anxiety symptoms also showed strong endorsement, particularly physical manifestations such as dryness of the mouth (*M* = 3.53, *SD* = 1.03) and increased heart rate awareness (*M* = 3.07, *SD* = 1.12). These symptoms suggest an intensified fight-or-flight response, where the body reacts to perceived threats even in non-threatening situations. Fear of panic (*M* = 3.47, *SD* = 1.16) and irrational fear (*M* = 3.10, *SD* = 1.22) indicate excessive worry, where students may anticipate negative outcomes even without clear reasons. Trembling (*M* = 3.00, *SD* = 1.25) and difficulty in breathing (*M* = 2.59, *SD* = 1.18) are further signs of autonomic hyperactivity, often associated with anxiety attacks. These physiological symptoms can be distressing, reinforcing cycles of fear and making it harder for individuals to regain a sense of control.

Depressive symptoms, while slightly less pronounced, still indicated emotional distress. Difficulty in initiating activities (*M* = 3.06, *SD* = 1.03) and a lack of enthusiasm (*M* = 2.85, *SD* = 1.06) suggest a reduced sense of motivation, where everyday tasks feel burdensome. Feelings of worthlessness (*M* = 2.95, *SD* = 1.28) and hopelessness (*M* = 2.84, *SD* = 1.14) reflect negative self-perception, where individuals may struggle to see their own

value or future potential. A reduced ability to experience positive emotions (*M* = 2.61, *SD* = 1.07) further suggests emotional blunting, where moments of joy or satisfaction may feel muted. The lowest mean score, feeling life is meaningless (*M* = 2.53, *SD* = 1.23), indicates that some students may experience existential concerns or a diminished sense of purpose.

Table 6.16 *Depression, Anxiety, and Stress – Means (M) and Standard Deviations (SD)*

Challenge/Item	Statement	*M*	*SD*
Stress			
h.	I felt that I was using a lot of nervous energy.	3.47	1.09
a.	I found it hard to wind down.	3.22	0.93
f.	I tended to overreact to situations.	3.17	1.09
r.	I felt that I was rather touchy.	3.07	1.13
k.	I found myself getting agitated.	3.02	1.00
n.	I was intolerant of anything that kept me from getting on with what I was doing.	2.97	1.00
l.	I found it difficult to relax.	2.95	1.15
Anxiety			
b.	I was aware of the dryness of my mouth.	3.53	1.03
i.	I was worried that I might panic and make a fool of myself.	3.47	1.16
t.	I felt scared without any good reason.	3.10	1.22
s.	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	3.07	1.12
g.	I experienced trembling (e.g., in my hands).	3.00	1.25
o.	I felt I was close to panic.	2.93	1.17
d.	I experienced breathing difficulty (e.g., excessively rapid breathing and breathlessness without physical exertion).	2.59	1.18
Depression			
e.	I found it difficult to work up the initiative to do things.	3.06	1.03
m.	I felt downhearted and blue.	2.98	1.11
q.	I felt I wasn't worth much as a person.	2.95	1.28
j.	I felt that I had nothing to look forward to.	2.84	1.14
p.	I was unable to become enthusiastic about anything.	2.85	1.06
c.	I could not seem to experience any positive feelings at all.	2.61	1.07
u.	I felt that life was meaningless.	2.53	1.23

Overall, stress and anxiety symptoms were more prevalent than depressive symptoms, though all three showed moderate endorsement. The findings suggest that while many students experience heightened arousal and worry, depressive symptoms such as low motivation and emotional numbness are also present. The variation in symptom expression highlights the complexity of mental well-being challenges, where individuals may struggle with different aspects of emotional regulation, physical symptoms, and cognitive patterns.

6.6 Open-Ended Question

The open-ended questionnaire responses provided valuable insights into students' mental well-being (see Appendix 6.4 for all comments). Responses were received from 111 students (16.6%) and they were proofread for spelling and wording to enhance clarity without altering their original meaning. However, five responses were too vague and lacked sufficient detail for effective categorisation. These responses came from the following student codes (SC): (SC5) “Secret,” (SC17) “Money issue,” (SC40) “No, I guess,” (SC59) “Personal problems,” and (SC64) “I think enough.” Additionally, some comments were brief and too general, making it difficult to gain a deeper understanding of students' perspectives. Additionally, the categorisation process was not always straightforward, as some responses were implied rather than explicitly stated.

NVivo software was utilised to analyse the remaining responses using two methods. First, a word cloud was generated to visually represent word frequency, where larger words indicated higher frequency. Second, a thematic analysis was conducted. The thematic analysis results were then manually refined to ensure clarity and accuracy. This process uncovered recurring themes, including aspects of positive mental well-being, such as emotional, psychological, and social factors, as well as mental well-being challenges like stress, anxiety, and depression. Additionally, significant themes related to student engagement and satisfaction were identified.

6.6.1 Word Cloud

The word cloud analysis in Figure 6.4 highlights several key terms that are crucial for understanding student experiences and well-being. The most prominent word, "feel," reflects the importance of emotional experiences in the students' narratives. This emphasis on "feel" suggests that students are deeply engaged with their emotional states, whether those emotions are positive, such as happiness or contentment, or negative, such as stress and anxiety. The word "studying" is also highly prominent, indicating that academic responsibilities and challenges are at the forefront of their concerns, directly linking to themes of student academic engagement and the pressures they face in their educational journey.

Social relationships are another critical aspect of the students' experiences, as evidenced by the frequent mention of "people," "friends," and "family." These terms highlight the significance of interpersonal connections in shaping students' emotional and social well-being. The word "good" suggests that many students attempt to convey their experiences in a generally positive light, even when discussing challenges. However, words like "think," "time," and "mental" indicate that cognitive processes, time management, and mental well-being are key areas of concern. "Think" reflects the introspective nature of many responses,

where students are grappling with their thoughts and decisions, while "time" highlights the stress related to managing academic and personal responsibilities.

Figure 6.4 *Word Cloud Analysis of Students' Insights on Their Mental Well-Being*

The appearance of "university" signifies the importance of the institutional context in students' lives, impacting both their academic engagement and overall satisfaction. The inclusion of words such as "exhausting," "stressed," and "hard" points to the significant challenges students face, particularly the physical and emotional toll of their academic responsibilities. These words highlight the pervasive stress and difficulty that many students associate with their university experience. Together, these terms provide a comprehensive picture of the students' lived experiences, emphasising the interconnectedness of emotional, social, and academic factors in shaping their well-being and academic success.

6.6.2 Emerging Themes on the Insights of Students' Mental Well-Being

The first theme explores three dimensions of well-being: emotional, psychological, and social. The theme of EWB captures a range of student experiences, from contentment to ongoing struggles with mental stability. Many express emotional resilience through statements like "I'm fine," "Good," and "All is well," indicating acceptance of their current state, even if it is not always ideal. Others emphasise mindfulness and self-care, finding comfort in small joys or supportive relationships, such as with family or partners. However, not all students

consistently experience positive EWB; some notice their feelings fluctuate between good and bad days, depending on academic pressures, social interactions, and living conditions. Religion, hobbies, and physical activities like going to the gym are common coping mechanisms used to maintain or improve EWB. Despite dissatisfaction in some areas of life, students generally strive to stay positive and manage their circumstances.

Students' PWB reflects a broad spectrum of experiences, from actively managing issues to ongoing struggles with self-worth and life direction. Many students consciously address their well-being through professional help, coping mechanisms like exercise, or familial support, recognising its importance and committing to personal growth, even when progress is slow and challenging. However, uncertainty and doubt frequently surface, with students questioning their choices, abilities, and future paths, often struggling to find a sense of purpose in life. Common feelings of inadequacy, self-criticism, and fear of judgment highlight the pressures of academic life and social expectations. While some students strengthen their PWB through routines or positive thinking, others face ongoing challenges in achieving self-acceptance, purpose in life, and environmental mastery, often grappling with decisions that impact their sense of autonomy and growth.

The theme of SWB reveals the significant impact of social interactions and relationships on students' mental well-being and academic success. Many students face challenges in navigating social circles, with some finding stability through supportive relationships while others struggle with isolation and social pressures. The ability to connect with others, whether through friendships, family, or romantic relationships, is crucial for stabilising mental well-being. However, difficulties in forming and maintaining these connections, often due to feeling misunderstood or judged, are common, especially among introverts or those overwhelmed by social expectations. For instance, SC102 remarked: *“I am an introvert. It’s hard for me to be honest about what I feel, and I will care more about other people’s feelings than my own”*. The fear of judgment or not fitting in can lead to stress, loneliness, and feelings of inferiority, particularly when students perceive themselves as different regarding social status, academic performance, or personal traits. Additionally, these challenges are exacerbated by a broader societal issue: the lack of understanding and support for mental well-being in both peer groups and family settings.

The second theme addresses mental well-being challenges, specifically stress, anxiety, and depression. The focus on stress reveals the profound impact of academic and personal pressures on students' overall mental well-being. Many feel overwhelmed and exhausted by the demands of university life, especially when balancing heavy workloads, high expectations, and the need to excel. Family pressures and competitive academic environments add to this stress, leading to persistent fatigue. This stress often spills over into personal relationships and overall quality of life, with some students struggling with

overthinking and mental exhaustion. Financial concerns, part-time work, and societal pressures further exacerbate their stress. The result is a deep fatigue, with many students feeling they are just going through the motions, burdened by responsibilities. While some look forward to relief after exams, the overall sense is one of being constantly drained by the ongoing pressures of university life.

Anxiety emerges as a significant challenge for students, profoundly affecting their mental well-being. Many students report experiencing intense anxiety tied to academic pressures, especially during exams and when striving to meet expectations. For example, SC45 stated: *"I am afraid of failure. I want to make my parents proud… the pressure is real, and I am extremely anxious about my final exams".* This anxiety often presents with physical symptoms like increased heart rate, headaches, and trembling, as well as emotional distress, including fear of failure and overwhelming nervousness. The pressure to meet academic standards or avoid disappointing family members further heightens their anxiety. For some, this anxiety is compounded by broader concerns, such as overthinking future scenarios or struggling with underlying mental well-being conditions like depression or bipolar disorder.

The theme of depression among students reveals deep emotional and mental struggles, characterised by feelings of emptiness, emotional numbness, hopelessness, exhaustion, and pervasive inadequacy. These emotions are often accompanied by a loss of motivation or a desire to escape their current circumstances. Many students describe a profound sense of hopelessness, believing their efforts will never be sufficient. This pressure, driven by academic and familial expectations, exacerbates their depression, leading to emotional numbness and a sense of disconnection from their surroundings. Several comments reflect deeper emotional turmoil, with students expressing thoughts of worthlessness, self-criticism, and regret over past decisions. These burdens can become overwhelming, manifesting physically as fatigue and decision-making difficulties and mentally as serious issues like suicidal ideation. The mention of seeking psychiatric help, along with diagnoses such as major depressive disorder (MDD) and bipolar disorder, highlights the severe impact of depression on their lives.

The third theme, centred on student engagement, highlights the various factors influencing students' involvement in their studies. Many students grapple with maintaining interest and motivation, particularly when faced with challenging subjects, unsatisfactory co-curricular activities, or the stress of balancing academic and personal responsibilities. While some remain optimistic and focus on improving their weaknesses, others feel overwhelmed by the expectations placed on them, leading to thoughts of quitting or postponing their studies. As SC52 stated: *"There are times when I think I want to fill out the form to stop or postpone my studies"*. Social interactions also play a critical role, with some students drawing motivation from friendships while the stress of managing social dynamics hinders others. Organisational

skills and time management are crucial, as students who excel in these areas tend to feel more in control and focused, whereas those who struggle often feel overwhelmed, leading to decreased engagement.

The final theme pertains to student satisfaction, which reveals a mix of contentment and frustration with academic experiences. Many students are dissatisfied with aspects of university life, such as heavy workloads, inefficient scheduling, and the pressure of unrelated subjects that don't contribute to their major. This dissatisfaction is worsened by external factors like the need to work part-time, which makes it harder to focus on studies. Some students express a desire for better university support, especially in recognising the intensity of their programmes and adjusting to reduce stress. However, a few find satisfaction in personal support systems like family, which helps them navigate challenges. Even those who feel supported acknowledge the difficulties of balancing academic and individual responsibilities. These comments highlight the need for universities to help students improve time management, reduce unnecessary academic burdens, and create a more supportive environment that fosters both academic success and mental well-being.

6.7 Assessment of Statistical Assumptions

This section evaluates the statistical assumptions required before conducting parametric tests in Chapter 7, including multiple regression, Pearson correlation, and MANOVA to address the research questions. The assumption tests include normality, reliability, and linearity, ensuring the data meet the necessary conditions for valid statistical analysis.

6.7.1 Normality Analysis

Skewness and kurtosis are statistical measures used to evaluate the shape and distribution of data. Skewness assesses the symmetry of the data distribution, while kurtosis measures its peakedness or flatness relative to a normal distribution (Field, 2015; Pallant, 2020). As shown in Table 6.17, student satisfaction, EWB, PWB, SWB, and depression exhibit positive skewness, indicating a rightward tail extension. In contrast, students' engagement, stress, and anxiety demonstrate negative skewness, indicating a leftward tail extension. Both positive mental well-being and mental well-being challenges exhibit negative skewness when their respective dimensions are combined. All variables meet acceptable normality thresholds.

Regarding kurtosis, both dependent variables, student engagement and satisfaction, as well as all three well-being measures, display positive values (leptokurtic), suggesting fatter tails and sharper peaks compared to a normal distribution. Positive mental well-being also follows this pattern. Among mental well-being challenges, stress remains leptokurtic, whereas

anxiety and depression exhibit negative kurtosis (platykurtic), indicating flatter peaks and thinner tails.

Table 6.17 *Normality Assessment of Variables*

Variable	Skewness	Kurtosis
Students Engagement	–.136	.646
Students Satisfaction	.061	.336
Emotional Well-Being	.223	.765
Psychological Well-Being	.141	.991
Social Well-Being	.029	1.188
Positive Mental Well-Being (combined measure)	–.005	1.315
Stress	–.261	.068
Anxiety	–.142	–.267
Depression	.083	–.352
Mental Well-Being Challenges (combined measure)	–.153	–.050

Graphical representations further support the normality of the distribution. Appendix 6.2 displays histograms and Q-Q (quantile-quantile) plots for all six variables, confirming normality. The histograms show symmetrical, bell-shaped curves, while the Q-Q plots depict data points aligning closely with a straight line, reinforcing the assumption of normality (Field, 2015).

6.7.2 Reliability Analysis

Cronbach's alpha is a widely used measure of internal consistency reliability in psychometrics. While there is no strict rule for interpretation, commonly accepted guidelines suggest that values below .6 indicate poor reliability, .6 to .7 suggest moderate reliability, .7 to .8 are acceptable, and values above .8 reflect high internal consistency (DeVellis, 2016; Streiner, 2003; Tavakol & Dennick, 2011).

Table 6.18 presents the Cronbach's alpha values for all variables. Students' engagement (α = .871) demonstrates high internal consistency, while students' satisfaction (α = .673) falls within the moderate range. Among positive mental well-being components, EWB (α = .870) and SWB (α = .822) exhibit high reliability, whereas PWB (α = .724) is within the acceptable range. The combined measure of positive mental well-being (α = .890) also indicates high internal consistency. For mental well-being challenges, stress (α = .843), anxiety (α = .844), and depression (α = .893) all demonstrate strong internal consistency. The combined measure of these challenges (α = .942) exhibits very high reliability, confirming consistency across stress, anxiety, and depression items.

Table 6.18 *Dependent and Independent Variables – Cronbach Alpha*

Variable's Name	No. of Items	Cronbach's Alpha
Students' Engagement	16	.871
Students' Satisfaction	9	.673
Emotional Well-Being	6	.870
Psychological Well-Being	18	.724
Social Well-Being	15	.822
Positive Mental Well-Being (combined measure)	39	.890
Stress	7	.843
Anxiety	7	.844
Depression	7	.893
Mental Well-Being Challenges (combined measure)	21	.942

All variables except for students' satisfaction show acceptable to high internal consistency between items. Further examination revealed that item "d" (see Table 6.19), which pertains to satisfaction regarding facilities at the university, contributed to the low alpha value. The Corrected Item-Total Correlation for item "d" was negative (–.043) and had the lowest Mean (1.83). This suggests that accounting students are generally dissatisfied with the facilities at their universities. The researcher acknowledges the validity of this observation, considering that some Malaysian universities face challenges such as slow internet connections, limited study spaces, large class sizes, and overcrowded libraries, among others (Fadzil et al., 2022; Yusoff et al., 2015).

Table 6.19 *Students' Satisfaction – Cronbach Alpha*

No.	Item	*M*	*SD*	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
a.	I really enjoyed what I was studying.	3.59	0.91	.402	.636
b.	I found peacefulness when I study.	3.29	0.96	.364	.643
c.	I found my studies really interesting.	3.53	0.89	.398	.637
d.	I wished that the facilities at the university were better.	1.83	0.86	–.043	.716
e.	I felt frustrated with my study because of the lecturers' teaching quality.	2.79	1.10	.353	.646
f.	My university pays too little attention to the students' interests (e.g., sports).	2.87	1.00	.302	.657
g.	I struggled to balance my studies with other obligations (e. g. family).	2.68	1.15	.420	.630
h.	The study consumed me.	2.60	0.86	.392	.639
i.	I often felt exhausted from my studies.	2.28	0.99	.559	.599

An alternative was to exclude item “d”, but the effect of exclusion was found to be trivial. Therefore, it was retained to maintain consistency with previous studies (Bebermeier et al., 2022; Gadosey et al., 2022; Schiefele & Jacob-Ebbinghaus, 2006; Wach et al., 2016; Westermann et al., 1996) and established practices in the field. Additionally, when dealing with scales containing a small number of items, such as fewer than 10 (in this case, nine items measuring satisfaction), obtaining a satisfactory Cronbach’s alpha value can sometimes be challenging (Field, 2015, p. 709; Pallant, 2020, p. 106). Of note is that this study utilises an established set of satisfaction statements from previous research. It is worth noting that Cronbach’s alpha below .7 is acceptable, particularly if the scale measures a complex or multidimensional construct (Field, 2015, p. 709; DeVellis, 2016). In this study, three dimensions of satisfaction were examined, focusing on content, conditions, and coping.

6.7.3 Linearity Analysis

A set of linearity tests was conducted to assess whether the relationships among variables followed a linear pattern, a key assumption for correlation and regression analyses (see Appendix 6.3). The results confirmed that all relationships exhibit linear trends. For instance, EWB and engagement demonstrate a clear positive linear relationship, while depression and satisfaction display a clear negative linear relationship. These findings support the assumption of linearity, ensuring the reliability of subsequent parametric analyses.

6.8 Summary

This chapter presented the descriptive results of this study, analysing responses from 669 accounting students. The demographic findings highlight a predominant representation of female students, with the majority aged between 18 and 21. Most students were in the early stages of their academic journey, particularly in semesters 2 and 4, and were pursuing undergraduate degrees at public universities. Additionally, Malay students made up the largest ethnic group in the sample.

The majority of accounting students demonstrated good academic performance, as reflected in their GPA and CGPA scores. In terms of engagement, behavioural engagement emerged as the strongest component, with students actively participating in group assignments and adhering to university rules. However, emotional engagement received slightly lower scores, suggesting room for improvement in students’ emotional investment and overall satisfaction with their academic experience. Findings on student satisfaction indicated strong contentment with their studies, as students expressed enjoyment, interest, and a sense of peacefulness during academic engagement. However, concerns remain regarding

university conditions, particularly teaching quality and the extent to which student interests are considered.

Students' EWB was marked by prevalent feelings of cheerfulness, being in good spirits, and calmness, though extreme happiness was less common. PWB showed a strong endorsement of personal growth and new experiences, alongside moderate levels of environmental mastery and positive relations. However, lower scores in purpose in life and autonomy raised concerns. SWB findings indicated a general belief in people's kindness and engagement in societal issues, but mixed views on social contribution and progress. While many felt connected to their communities, some remained uncertain about their societal roles and the direction of societal change. Regarding students' experiences with depression, anxiety, and stress, findings reported moderate levels of agreement with all three dimensions of challenges. Notably, some depression-related items received lower mean scores, indicating varied endorsement levels compared to anxiety and stress statements.

The final section examined students' comments, resulting in the creation of a word cloud and the identification of several key themes. The most frequently mentioned words, such as "feel," "studying," "good," "time," and "mental," highlight the study's emphasis on understanding students' emotions, mental well-being, and their current academic experiences. The analysis led to the emergence of themes encompassing three aspects of well-being: emotional, psychological, and social, as well as challenges like stress, anxiety, and depression, alongside themes related to student engagement and satisfaction.

The next chapter presents the results of the study addressing the three research questions, by examining the effect of positive mental well-being and well-being challenges on GPA, CGPA, engagement, and satisfaction.

Chapter 7: Findings and Discussion: Addressing the Research Questions

7.1 Overview

This chapter examines how mental well-being influences the academic success of Malaysian university accounting students, considering both its positive aspects, including emotional, psychological, and social well-being, and its challenges, such as stress, anxiety, and depression. Section 7.2 analyses correlations between the independent and dependent variables. Section 7.3 presents ordinal logistic regression findings on GPA and CGPA, while Section 7.4 shows linear regression results for engagement and satisfaction. Section 7.5 discusses the overall impact of mental well-being on academic success. Section 7.6 presents the findings of groups identified based on the DCM, categorising students according to their levels of positive mental well-being and mental well-being challenges. Finally, MANOVA and post hoc tests examine group differences in academic success.

7.2 Correlation

The Pearson product-moment correlation coefficient was used to assess the relationships between the variables. The directions and strengths of these relationships were interpreted according to Cohen's (1988, pp. 79-81) guidelines.

Table 7.1 presents the correlation coefficients, showing significant positive relationships between positive mental well-being, including EWB, PWB, and SWB, and academic success, as measured by GPA, CGPA, engagement, and satisfaction. These findings align with previous research (e.g., Baby et al., 2022; Erden et al., 2022; Pan et al., 2023). Students with higher levels of positive mental well-being tend to perform better academically. Notably, positive mental well-being factors show stronger correlations with engagement and satisfaction than with GPA and CGPA. For instance, PWB correlated with GPA at .204, whereas its correlations with engagement and satisfaction were higher at .579 and .471, respectively. This pattern may indicate that students with greater PWB engage more actively in their academic environment and derive greater satisfaction from their studies. Their ability to manage academic demands more effectively may contribute to better overall academic experiences. In general, students with higher emotional stability, psychological resilience, and social connectedness tend to achieve greater academic success.

Mental well-being challenges including stress, anxiety, and depression negatively correlate with academic success, aligning with the literature (e.g., Antaramian, 2015; Galsky, 2019; Wong et al., 2023). Again, the negative relationship is stronger with engagement and

satisfaction than with GPA and CGPA. For instance, depression showed a moderate to strong negative correlation with both engagement (r = –.464) and satisfaction (r = –.516), in contrast to GPA (r = –.187) and CGPA (r = –.184), highlighting how depressive symptoms could significantly reduce students' academic involvement and satisfaction, more so than their academic performance. One plausible reason is that stress, anxiety, and depression can impair cognitive functioning, making it harder for students to concentrate, retain information, and stay motivated (Suddell et al., 2023), thus resulting in reduced engagement, and decreased satisfaction, ultimately lower academic performance.

EWB, PWB, and SWB variables are strongly interrelated, as evidenced by their significant positive correlations, supporting their validity and providing a comprehensive understanding of positive well-being. For example, students with strong PWB tend to have better SWB (r = .663). This interconnectedness aligns with Howell's (2009) findings, suggesting that these dimensions work together to enhance mental well-being. Conversely, stress, anxiety, and depression exhibited strong negative correlations with positive well-being variables. Depression, in particular, showed a large negative correlation with SWB (r = –.643), indicating that higher levels of depressive symptoms are associated with lower SWB. The findings corroborate those of Blasco-Belled et al. (2021) and Kotera and Ting (2021), who found that higher levels of positive well-being are associated with fewer mental health problems, reinforcing the inverse relationship between well-being and mental health challenges.

The correlation table further shows that stress, anxiety, and depression are closely interrelated. The high positive correlations among these variables, particularly between stress and anxiety (r = .817), stress and depression (r = .767), and anxiety and depression (r = .722), indicate that students experiencing higher levels of stress are likely to also experience higher levels of anxiety and depression. This interconnection suggests that these mental well-being challenges often coexist and may exacerbate each other, forming a complex network of negative emotional states that can significantly impact students' overall well-being. This is evidenced by some students' comments. For example, one student (SC76) shared, "*I was diagnosed with MDD, then Anxiety*" while another (SC107) stated, "*I have high-functioning autism disorder with mixed depressive anxiety disorder.*" These findings are consistent with previous research which highlight the interconnectedness of these challenges (Ahmad et al., 2022; Janse van Vuuren et al., 2021; Renshaw et al., 2016).

Table 7.1 *Pearson Correlation Coefficients Between Variables*

Variable	1	2	3	4	5	6	7	8	9	10
1. EWB	1									
2. PWB	.508***	1								
3. SWB	.518***	.663***	1							
4. Stress	–.454***	–.468***	–.507***	1						
5. Anxiety	–.400***	–.432***	–.441***	.817***[*]	1					
6. Depression	–.521***	–.641***	–.643***	.767***	.722***	1				
7. GPA	.146***	.204***	.114**	–.108**	–.096*	–.187***	1			
8. CGPA	.147***	.213***	.100*	–.106**	–.116**	–.184***	.818***	1		
9. Engagement	.444***	.579***	.551***	–.288***	–.251***	–.464***	.232***	.208***	1	
10. Satisfaction	.510***	.471***	.472***	–.483***	–.427***	–.516***	.155***	.129**	.435***	1

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ (two-tailed).

Finally, the correlations between GPA, CGPA, engagement, and satisfaction highlight their interconnectedness in academic success. The strong correlation between GPA and CGPA (r = .818) indicates consistent academic performance over time. Engagement showed positive correlations with GPA (r = .232) and CGPA (r = .208), suggesting that more engaged students tend to achieve better results. Previous research identifies academic engagement as a factor that promotes positive mental well-being and comprehensive student development (Carranza Esteban et al., 2022), which ultimately enhances academic performance (Antaramian, 2015; Ayala & Manzano, 2018; Janse van Vuuren et al., 2021). Satisfaction, however, had a smaller correlation with GPA (r = .155) and CGPA (r = .129), compared to engagement, indicating that while linked to academic performance, its influence is less pronounced. Notably, engagement correlated more strongly with satisfaction (r = .435) than with GPA or CGPA, suggesting that more engaged students are generally more satisfied with their academic experiences. This may be because active involvement fosters a stronger connection to their studies and their universities, making the learning process more enjoyable and rewarding. This finding highlights the strong interconnection between academic performance, engagement, and satisfaction, demonstrating how these outcomes influence one another. This aligns with previous studies, which also emphasise their close relationship (Galsky, 2019; Mamani-Benito et al., 2024).

7.3 Effect of Mental Well-Being on Performance

Ordinal logistic regression was used to analyse the effects of various predictors on academic performance, as measured by GPA and CGPA. This method was selected for its suitability in handling ordinal outcomes while accounting for the categorical nature of GPA and CGPA levels. The primary objective was to identify significant predictors, including EWB, PWB, SWB, stress, anxiety, and depression. Additionally, the regression model incorporates control variables such as gender, age, semester, programme, and university type. This analysis aimed to address the following research questions (RQ):

> *What are the effects of positive mental well-being, measured by emotional, psychological, and social well-being, on students' academic performance? (RQ1a)*
>
> *What are the effects of mental well-being challenges, measured by stress, anxiety, and depression, on students' academic performance? (RQ2a)*

Pre-analysis checks were conducted before performing ordinal logistic regression on GPA and CGPA, both with and without control demographic variables. The statistically significant chi-square statistics indicate that the final models significantly improve over the

intercept-only models. The Pearson and Deviance goodness-of-fit tests suggest that all models fit the data well. Additionally, the Test of Parallel Lines showed non-significant results, indicating that the proportional odds assumption holds, meaning the effects of the explanatory variables are consistent across different GPA and CGPA thresholds. Detailed results are provided in Appendix 7.1 (GPA) and Appendix 7.2 (CGPA).[27]

7.3.1 Mental Well-Being on GPA

Table 7.2 reports the effect of mental well-being variables on GPA with and without demographic controls (Columns 1 and 2). The regression model was statistically significant in both cases. Without demographic control, $R^2 = .066$, χ^2 (6, 669) = 40.887, $p < .001$, while with demographic factors, R^2 increased to .113, χ^2 (11, 669) = 72.940, $p < .001$, indicating that demographic variables enhance the model's explanatory power. Among the mental well-being variables, PWB had a significant positive effect on GPA ($B = 0.044$, $p < .01$ in Column 2), increasing the odds of achieving a higher GPA by 1.05 times. Conversely, depression was significantly associated with a lower GPA ($B = –0.064$, $p < .01$), where a one-unit increase in depression decreased the odds of achieving a higher GPA by 0.94 times. Other factors, including EWB, SWB, stress, and anxiety, were not significantly associated with GPA categories.

Table 7.2 *Ordinal Logistic Regression Analyses for GPA*

	(1) No Demographic Controls			(2) With Demographic Controls		
	B	*p*	*OR*	*B*	*p*	*OR*
EWB	.020	.370	1.021	.019	.409	1.019
PWB	.044**	.003	1.045	.044**	.003	1.045
SWB	–.024	.078	.976	–.023	.099	.978
Stress	.013	.622	1.013	.011	.667	1.011
Anxiety	.024	.271	1.025	.017	.438	1.018
Depression	–.066**	.003	.936	–.064**	.005	.938
Gender (Male)				–.407*	.030	.666
Age (18 to 21)				–.173	382	.841
Semester (2 to 4)				.528**	.003	1.695
Programme (Diploma)				.514*	.011	1.671
University (Public)				–1.120***	.000	.326

Note. *$p < .05$, **$p < .01$, ***$p < .001$ (two-tailed).

[27] The proportion of variance explained by the regression model serves as a useful measure of how well the independent variables predict the dependent variable (Nagelkerke, 1991; O'Connell, 2006).

Regarding the demographic controls, male students had lower odds of achieving a higher GPA compared to female students ($p < .05$). Students in semesters 2 to 4 were 1.7 times more likely to achieve higher GPAs than those in later semesters ($p < .01$). Similarly, diploma students had better odds of achieving higher GPA levels than bachelor's degree students ($p < .05$). Public university students were significantly less likely to achieve higher GPAs than those at private institutions ($p < .001$). Overall, all demographic variables, except age, were significant predictors of GPA.

7.3.2 Mental Well-Being on CGPA

Table 7.3 reveals the effect of mental well-being variables on CGPA. The regression model was statistically significant in both cases, with and without demographic controls. Without demographic control, $R^2 = .066$, χ^2 (6, 669) = 41.425, $p < .001$, whereas with demographic factors, R^2 increased to.116, χ^2 (11, 669) = 73.528, $p < .001$, indicating that demographic variables improve the model's explanatory power. Again, the result in Column 2 shows PWB had a significant positive effect on GPA ($B = 0.051$, $p < .01$), increasing the odds of achieving a higher GPA by 1.05 times. In contrast, depression was significantly associated with a lower GPA ($B = –0.056$, $p < .05$), where a one-unit increase in depression decreased the odds of achieving a higher GPA by 0.95 times. Unlike GPA, SWB was negatively associated with CGPA, reducing the odds of a higher CGPA by 0.97 times ($B = –0.033$, $p < .05$). Other variables, including EWB, stress, and anxiety, were not significantly associated with GPA categories.

Table 7.3 *Ordinal Logistic Regression Analyses for CGPA*

	(1) No Demographic Controls			(2) With Demographic Controls		
	B	*p*	*OR*	*B*	*p*	*OR*
EWB	.022	.341	1.022	.023	.325	1.023
PWB	.050**	.001	1.051	.051**	.001	1.052
SWB	–.034*	.015	.967	–.033*	.021	.968
Stress	.026	.327	1.027	.023	.389	1.024
Anxiety	.006	.789	1.006	.004	.846	.996
Depression	–.063**	.006	.939	–.056*	.015	.945
Gender (Male)				–.597**	.002	.551
Age (18 to 21)				–.097	629	.907
Semester (2 to 4)				.435*	.018	1.544
Programme (Diploma)				.520*	.012	1.682
University (Public)				–.990**	.001	.372

Note. *$p < .05$, **$p < .01$, ***$p < .001$ (two-tailed).

Among the demographic factors, male students were less likely to achieve a higher CGPA ($p < .01$). Students in earlier semesters had 1.5 times greater odds of obtaining higher CGPAs ($p < .05$) than those in later semesters. Additionally, diploma students had better odds than bachelor's degree students ($p < .05$). Finally, students at public universities were less likely to achieve higher CGPAs compared to those at private institutions ($p < .01$).

7.4 Effect of Mental Well-Being on Engagement and Satisfaction

Multiple linear regression was conducted to examine the effects of various predictors on engagement and satisfaction among accounting students. The analysis addressed the following research questions:

> *What are the effects of positive mental well-being, measured by emotional, psychological, and social well-being on students' academic engagement (RQ1b) and satisfaction (RQ1c)?*
>
> *What are the effects of mental well-being challenges measured by stress, anxiety, and depression on students' academic engagement (RQ2b) and satisfaction (RQ2c)?*

Pre-analysis checks were conducted for both engagement and satisfaction, with and without controlling for demographic variables, to ensure that the assumptions of multiple regression were met. To evaluate multicollinearity, tolerance values and Variance Inflation Factors (VIF)[28] were examined. All tolerance values were above 0.10, and all VIF values were below 10, indicating no multicollinearity issues among the predictors. Additionally, engagement and satisfaction met the necessary assumptions of normality, linearity, homoscedasticity, and independence of residuals. The Normal Probability Plot (P-P) revealed that the data points closely followed a straight diagonal line, suggesting no significant deviations from normality. Furthermore, the Scatterplot of standardised residuals displayed a roughly rectangular distribution, with no discernible or systematic patterns, further confirming that these assumptions were satisfied. Although a few outliers were detected, they were not considered problematic due to the large sample size. Casewise Diagnostics identified a small number of cases slightly outside the critical value of the Mahalanobis Distance, but these constituted less than 1% of the data. Cook's Distance was also below 1, indicating that no individual data points exerted undue influence on the model. These details are available in Appendix 7.3 (engagement) and Appendix 7.4 (satisfaction).

[28] Tolerance indicates the proportion of a predictor's variance that is not explained by the other predictors in the model. VIF is the inverse of tolerance and reflects how much predictor's coefficient variance is increased due to multicollinearity (O'Brien, 2007; Pallant, 2020).

7.4.1 Mental Well-Being on Engagement

The multiple regression analysis examining the relationship between mental well-being variables and engagement is presented in Table 7.4. The model demonstrated statistical significance in both scenarios, regardless of demographic controls. When demographic controls were excluded (R^2 = .413, F(6, 662) = 77.76, p < .001), the model accounted for 41.3% of the variance in engagement. When demographic factors were included (R^2 = .422, F(11, 657) = 43.67, p < .001), the explanatory power increased slightly to 42.2%. PWB emerged as the strongest positive predictor in both models (β = .327, t = 7.454, p < .001 in Column 2), indicating that higher PWB significantly enhances student engagement. EWB (β = 0.143, t = 3.852, p < .001) and SWB (β = 0.248, t = 5.661, p < 0.001) also had significant positive effects on engagement. Stress showed a smaller but significant positive effect (β = 0.115, t = 1.983, p < .05), suggesting that it may contribute to increased engagement. Anxiety, however, was not a significant predictor. In contrast, depression had a significant negative effect (β = –0.169, t = –2.939, p < .01), highlighting its detrimental impact on student engagement.

As for demographic controls, students in the earlier semester showed higher engagement (p < .05) compared to their later semesters. University type was also a significant predictor, with students at public universities reporting lower engagement (p < .05).

Table 7.4 *Multiple Linear Regression Analyses Predicting Engagement*

	(1) No Demographic Controls			(2) With Demographic Controls		
	β	*t*	*p*	β	*t*	*p*
EWB	.151***	4.067	.000	.143***	3.852	.000
PWB	.321***	7.347	.000	.327***	7.454	.000
SWB	.247***	5.625	.000	.248***	5.661	.000
Stress	.119*	2.055	.040	.115*	1.983	.048
Anxiety	.084	1.567	.117	.085	1.569	.117
Depression	–.173**	-3.015	.003	–.169**	–2.939	.003
Gender (Male)				–.020	–.663	.507
Age (18 to 21)				–.032	–.788	.431
Semester (2 to 4)				.089*	2.424	.016
Programme (Diploma)				–.008	–.245	.807
University (Public)				–.061*	–2.014	.044

Note. *p < .05, **p < .01, ***p < .001 (two-tailed).

7.4.2 Mental Well-Being on Satisfaction

Table 7.5 provides insights into the predictors of student satisfaction, with and without demographic controls. The model was significant in both cases. Without demographic controls (R^2 = .377, F(6, 662) = 66.77, p < .001), it explained 37.7% of the variance in satisfaction. When demographic factors were included (R^2 = .380, F(11, 657) = 36.63, p < .001), the explanatory power increased slightly to 38%. EWB was the strongest positive predictor in both models (β = 0.258, t = 6.716, p < .001 in Column 2), followed by PWB (β = 0.131, t = 2.875, p < .01) and SWB (β = 0.009, t = 2.178, p < .05). Conversely, stress had a significant negative effect on satisfaction (β = –0.169, t = –2.807, p < .01), while anxiety and depression were not significant predictors. Additionally, none of the demographic variables showed significant predictive power, highlighting the central role of well-being factors and challenges in determining student satisfaction.

Table 7.5 *Multiple Linear Regression Analyses Predicting Satisfaction*

	(1) No Demographic Controls			(2) With Demographic Controls		
	β	*t*	*p*	β	*t*	*p*
EWB	.262***	6.869	.000	.258***	6.716	.000
PWB	.126**	2.800	.005	.131**	2.875	.004
SWB	.101*	2.227	.026	.099*	2.178	.030
Stress	–.166**	-2.781	.006	–.169**	–2.807	.005
Anxiety	–.022	-.392	.695	–.015	–.276	.783
Depression	–.091	-1.533	.126	–.088	–1.484	.138
Gender (Male)				.014	.458	.647
Age (18 to 21)				–.055	–1.318	.188
Semester (2 to 4)				.050	1.334	.183
Programme (Diploma)				–.010	–.276	.783
University (Public)				–.013	–.419	.676

Note. *p < .05, **p < .01, ***p < .001 (two-tailed).

7.5 Discussion on the Effect of Mental Well-Being on Students' Success

7.5.1 Positive Mental Well-Being

PWB significantly predicted all academic success variables, including performance (GPA and CGPA), engagement, and satisfaction. Its positive impact on performance (Bordbar et al., 2011; Mustafa et al., 2020; Xiang et al., 2024) and engagement (Pan et al., 2023; Lizarte Simón et al., 2024) is well documented. Students with high PWB are typically more academically engaged, showing greater focus on their goals and higher motivation levels (Fredrickson & Joiner, 2018). This focus and motivation may enhance their ability to self-regulate their learning processes, which in turn could support academic goal achievement (Davis & Hadwin, 2021). Additionally, students with high PWB, tend to develop better coping strategies, enabling them to manage academic pressures more successfully (Freire et al., 2016). Beyond performance and engagement, PWB plays a key role in enhancing satisfaction. It fosters emotional regulation, which reduces frustration and burnout while promoting self-esteem and self-worth (Ryff, 1989). This helps students maintain a positive outlook on their studies and view academic challenges as opportunities for growth, ultimately contributing to greater satisfaction.

Most students in this study were between 18 and 21 years old, a developmental period known as "emerging adulthood," where individuals navigate increasing independence and responsibility (Arnett, 2007). This phase presents both opportunities for growth and heightened academic pressures, making PWB a crucial factor in students' ability to adapt, persist, and succeed. The significant predictive role of PWB across academic performance, engagement, and satisfaction suggests that students with higher well-being may be better at balancing the demands of overall university life. PWB includes self-acceptance, autonomy, and environmental mastery (Ryff, 1989, 2014; Ryff & Keyes, 1995), which may explain its strong association with academic success. Students with higher autonomy tend to take initiative in their learning, while greater environmental mastery allows them to navigate academic and social demands more effectively. Those with strong self-acceptance are likely to handle academic setbacks with a healthier mindset, reducing the negative impact of failure on their motivation and overall satisfaction (Ryff & Singer, 2008; Ryff, 2014). Furthermore, students with a clearer sense of purpose and emotional resilience may find university life more fulfilling, contributing to greater academic satisfaction. These findings reinforce the far-reaching impact of PWB, not just on academic outcomes but also on students' ability to adapt, stay motivated, and maintain long-term well-being throughout their university experience.

EWB, characterised by positive feelings such as happiness, calmness, and being in good spirits, did not significantly predict either GPA or CGPA in this study. EWB is often

described as an emotional state closely associated with hedonic well-being, which emphasises pleasure and happiness (Deci & Ryan, 2008). Kryza-Lacombe et al. (2019) also found that hedonic motives, akin to EWB, did not influence GPA, while eudaimonic motives – similar to PWB – positively affect performance. This distinction may arise from the differing nature of EWB and PWB. Although both contribute to a fulfilling life (Huppert, 2017), PWB emphasises the pursuit of long-term goals and self-actualisation (Linley & Joseph, 2004; Ryff, 1989), while EWB centres on positive, yet often fleeting, emotions (Clarke, 2020; Huta, 2016; Kaya & Erdem, 2021). Academic performance, which requires sustained effort and engagement over time, may be more influenced by the stable, enduring qualities of PWB. Thus, EWB's transient nature might explain its lack of a direct impact on academic performance.

A student's (SC3) reflection illustrates this balance:

> *I started paying more attention to the little things around me – the swaying trees, the rustling leaves, the gentle breeze, and the passing clouds. I find more happiness and peace now that I prioritise self-care over academic performance.*

This insight demonstrates that prioritising EWB may sometimes require stepping back from the pressures of academic achievement, fostering personal happiness and peace, even if it means placing less emphasis on academic performance.

The positive impact of EWB is most evident in its ability to predict both engagement and satisfaction. When students experience positive emotions, they tend to display higher energy levels, maintain an optimistic outlook, and invest greater effort into academic activities. This shift in behaviour shapes their attitudes towards learning and leads to increased engagement in academic tasks (Fredricks, 2011). EWB also acts as a buffer against stress and academic pressure, resulting in higher levels of satisfaction, even though it may not directly improve academic performance. Emotional states, however, can fluctuate due to personal or external factors (Huta, 2015). While EWB fosters engagement and satisfaction in the short term, GPA and CGPA require sustained effort, cognitive ability, and effective study habits, which EWB alone may not provide. Thus, although EWB may not significantly influence long-term academic performance, it remains a strong predictor of how engaged and satisfied students feel. These conclusions align with Eriksen and Bru (2023), who also found that EWB positively predicts student engagement.

SWB, which includes social integration, acceptance, contribution, actualisation, and coherence, was found to predict CGPA negatively but did not significantly impact GPA. This discrepancy can be attributed to the difference between GPA and CGPA, where CGPA reflects cumulative performance over multiple semesters, capturing the longer-term effects of SWB.

While SWB is often beneficial, over-engagement in social activities may detract from academic responsibilities over time, which impacts cumulative measures like CGPA more than immediate performance like GPA. Students who emphasise social integration or social contribution may prioritise extracurricular or social obligations, leading to potential academic decline over time (Shemeir et al., 2024). For instance, feeling connected with peers is associated with better engagement (Furrer & Skinner, 2003), yet controlling or incompatible friendships can negatively affect academic motivation (Furrer & Marchand, 2022; Legault et al., 2006).

A few student comments reinforce this experience. One shared the positive impact of having supportive roommates:

> *I think having good roommates is what helped me to study better during previous semester. (SC63)*

On the other hand, others shared negative experiences of peer pressure:

> *I hate being used, I still help them because I am desperate to have friends. (SC31)*

> *It's just really hard to care about others' feelings, especially when it comes to friendships…It's really stressful, and it's starting to affect my studies. (SC32).*

These examples illustrate that while being accepted or integrated is typically positive, the nature of those social connections can affect their academic performance over time.

SWB, while negatively affecting CGPA, had a positive impact on student engagement and satisfaction. This finding aligns with Lux et al. (2023), who found that social interaction positively predicts academic engagement. When students experience a sense of belonging and mutual understanding within their academic community, supported by peers and family, they are more likely to remain engaged in education (Hart, 2012; Osterman, 2000; Vygotsky, 1978). Peer connections and friendships facilitate collaborative learning and the exchange of ideas, which enhances academic involvement (Alotaibi et al., 2023; Kahu, 2013) and ultimately may lead to greater satisfaction. Additionally, daily interactions provide opportunities for students to share concerns and find empathy when dealing with personal and academic challenges (Thorpe & Godwin, 2006), contributing to improved coping satisfaction. This sense of belonging alleviates feelings of isolation and stress, allowing students to focus more effectively on their studies and become more emotionally invested in their learning, which may enhance engagement and satisfaction, even if it does not necessarily result in improved performance. These shared experiences foster emotional reassurance, creating an environment that encourages participation and contribution. Positive social experiences can

also strengthen students' perceptions that their university is inclusive, supportive, and conducive to learning, which leads to higher satisfaction with the academic conditions they encounter. Overall, students with good social ties tend to exhibit higher levels of both engagement and satisfaction.

7.5.2 Mental Well-Being Challenges

Stress did not significantly impact academic performance but had a positive effect on students' engagement and a negative effect on satisfaction. This study therefore identifies a dual effect of stress: higher engagement alongside lower satisfaction, with no direct association with GPA or CGPA. While chronic stress can impair cognitive functions like concentration, memory, and problem-solving, acute stress may not have long-term negative consequences if individuals regain balance once the stressor is removed (Aschbacher et al., 2013). Stress can also act as a motivator, pushing students to work harder, participate more, and maintain focus, which aligns with the concept of eustress – a positive form of stress that helps individuals thrive in demanding environments, such as universities (Pluut et al., 2022). Research supports that short-term stress can enhance memory, aiding students during exams (Yaribeygi et al., 2017), while moderate stress can boost personal initiative and productivity (Dienstbier, 1989; Epel et al., 1998; Fay & Sonnentag, 2002). This form of stress positively impacts students' behaviour, emotions, and cognitive engagement.

However, how individuals perceive and manage stress plays a critical role in determining its effects (Lazarus & Folkman, 1984). While stress can positively affect engagement, it does not necessarily lead to improved academic performance. This is consistent with findings by Sanders and Lushington (2002), who also found that stress did not predict academic performance. Sustained academic success generally requires continuous effort, and the short-term cognitive or emotional benefits of stress may not be sufficient to support long-term academic achievement. Even though stress can enhance focus or memory, these temporary effects may not always translate into the sustained effort needed for high academic performance.

Additionally, stress was found to negatively affect satisfaction, which is consistent with findings by Lee and Jang (2015) and Kumalasari and Akmal (2021). Even when stress serves as a motivator, it can lead to an imbalance in students' lives, especially when they feel compelled to sacrifice important areas like leisure, social interactions, or personal well-being to meet academic demands. While stress may initially drive engagement, the ongoing pressure to stay focused and productive can become overwhelming. Over time, this pressure can reduce students' enjoyment of and fulfilment in academic activities, ultimately lowering their satisfaction with the content they study, the university environment, and their ability to balance academic and personal responsibilities. As one student (SC25) expressed:

Despite our efforts to stay positive, the demands of university life, particularly the heavy workload in both studies and assessments, can leave us feeling exhausted. Our accounting curriculum is already rigorous, and the additional burden of unrelated subjects seems unfair. The assessment criteria for these extra subjects often prove to be more challenging than those for accounting, yet we are expected to excel.

This sentiment captures the toll that excessive academic pressure can take on students, as they struggle to balance demanding courses and assessments. Even when stress drives engagement, the lack of balance can diminish students' overall satisfaction with their academic experience.

Interestingly, anxiety did not significantly predict performance. This is consistent with Andrews and Wilding (2004), who found that while depression negatively influenced performance, anxiety had no such effect. Although anxiety can induce worry, potentially impairing cognitive functions like attention, memory, and problem-solving, it may also encourage individuals to adopt compensatory strategies that maintain performance effectiveness (Eysenck & Calvo, 1992). However, high anxiety is associated with poorer performance (Awadalla et al., 2020; Eisenberg et al., 2009), whereas moderate anxiety can sometimes enhance academic outcomes (Andrews & Wilding, 2004; Al-Qaisy, 2011; Eysenck et al., 2007). While mild anxiety may have some motivational benefits, excessive anxiety tends to undermine efficiency and daily functioning (Cody & Teachman, 2011; Nieuwenhuys & Oudejans, 2012). Thus, the impact of anxiety on academic performance is more nuanced and complex, which may explain why it did not significantly predict GPA and CGPA.

This nuanced relationship between anxiety and performance may similarly extend to engagement and satisfaction. Just as compensatory strategies can help maintain performance under moderate anxiety, students might or might not engage or feel satisfied when experiencing anxiety. For instance, Pekrun et al. (2002) found that anxiety can be negatively correlated with motivation in some students, while positively influencing motivation in others. However, at excessive levels, anxiety is likely to impair both engagement and satisfaction. Nevertheless, anxiety remains a risk factor for long-term mental and physical health issues (Stewart-Brown et al., 2000). Unlike stress, which typically arises from specific external stressors and can drive immediate action (such as studying to prepare for exams), anxiety tends to be more diffuse and ongoing, without a clear or immediate solution (Beck & Clark, 1997; Hirsch & Mathews, 2012). This internal, prolonged nature of anxiety may make it less effective at prompting the focused actions needed for engagement. Additionally, students experiencing anxiety may struggle to form a clear connection between their emotional state and their satisfaction with academic life.

Depression was found to be a significant negative predictor of both performance and engagement. While this aligns with numerous studies that have primarily focused on performance (Andrews & Wilding, 2004; Awadalla et al., 2020; Eisenberg et al., 2009; Elliott, 1998; Holmes et al., 2008; Tang & He, 2023), the negative impact on engagement observed in this study extends the understanding of how depression affects students' academic experiences more broadly. This highlights the pervasive effects of depression, which impair cognitive functioning, including concentration, attention, and memory, weakening students' ability to retain information and perform academically (Elliott, 1998; Holmes et al., 2008). Additionally, symptoms such as low self-esteem, low self-confidence, fatigue, poor attendance, and reduced motivation further hinder students' academic performance (Bernal-Morales et al., 2015; Heiligenstein et al., 1996; Megivern et al., 2003). In short, the chronic nature of depression not only diminishes students' ability to engage consistently with their studies but also affects their academic performance.

However, depression did not predict satisfaction. Individuals with depression often experience deep, unshakable sadness and diminished interest in nearly all activities (Horwitz & Wakefield, 2007; Rosenström & Jokela, 2017). This could be because students with depression often experience emotional numbing and apathy, leading them to feel disconnected or indifferent towards various aspects of their academic environment, including satisfaction with content, coping strategies, or conditions. The hopelessness associated with depression may cause students to feel that, regardless of how good the academic environment is, it will not alleviate their emotional struggles, reducing the relevance of satisfaction in their overall experience. Moreover, depression reduces the ability to engage emotionally, making it difficult for students to reflect on whether they are satisfied with their academic life. This emotional detachment from external factors may lead to indifference about their academic conditions and coping strategies.

This experience is reflected in one student's (SC75) reflection:

> *My body is numb from focusing too much on excelling in exams. I feel like I'm basically a walking dead. There's nothing interesting to attract anyone's attention because I'm drowning myself with too many responsibilities and burdens.*

This sentiment reflects the deep emotional numbness and disconnection that many students with depression face. Their overwhelming sense of responsibility and constant pressure to perform academically leave them emotionally drained and indifferent, reinforcing why they may struggle to find satisfaction in their academic environment. In this case, the student's focus on performance and the burden of responsibility may amplify the sense of hopelessness

and emotional isolation, which might further distance them from any sense of academic satisfaction.

7.5.3 Demographic Variables

The findings suggest that demographic factors influence GPA, CGPA, and engagement but not satisfaction. Gender, semester, programme, and university type were significant predictors, while age had no effect on academic success. Female students outperformed males, likely due to greater conscientiousness, more consistent study habits, and higher intrinsic motivation (Pirmohamed et al., 2017; Voyer & Voyer, 2014). Students in earlier semesters also attained higher GPAs and CGPAs, possibly due to increasing academic workload, burnout, and external commitments in later semesters (Reyes-de-Cózar et al., 2023). As coursework becomes more complex (MQA, 2024a), maintaining performance becomes more difficult. Engagement was higher among earlier semester students, potentially reflecting higher motivation and subject interest during the initial stages of university study, which tend to decline over time (Benden & Lauermann, 2022; Wild et al., 2024).

Diploma students outperformed those in bachelor's programmes, which may be due to less intensive course content (MQA, 2024a). Additionally, private university students demonstrated better performance and higher engagement than their public university counterparts, potentially due to differences in faculty quality, institutional resources, and financial investment in education (Naidu & Derani, 2016). As students in private universities typically pay higher tuition fees, this financial commitment may encourage greater effort in their studies (Bietenbeck et al., 2023).

In contrast, age was not a significant predictor of any academic success variable, which may be due to the relatively narrow age range of students (mostly 18 to 21 years old) in this study. Research suggests that age-related differences become more pronounced in more diverse age groups, where older students often have different responsibilities, motivations, and learning approaches than younger peers (Richardson et al., 2003).

A clear trend emerges where the same demographic patterns appear for GPA and CGPA, with female students, early-semester students, diploma students, and private university students performing better. The influence of demographics was strongest for GPA and CGPA, while fewer significant effects were found for engagement and none for satisfaction. This suggests that while demographic characteristics may affect academic performance, they play a more limited role in shaping engagement levels and do not influence satisfaction.

7.6 Dual Continua Model of Mental Well-Being

This section investigates students' mental well-being through the DCM. It begins with chi-square analyses to assess the prevalence of stress, anxiety, and depression across the three positive mental well-being categories of the DCM: languishing, moderately well, and flourishing. These categories are then merged with mental well-being challenge status (whether students experience challenges or not), to produce refined groups such as flourishing without challenges, flourishing with challenges, languishing without challenges, and languishing with challenges. Next, these groups are compared in terms of academic success (GPA, CGPA, engagement, and satisfaction) using MANOVA, followed by post hoc tests to identify specific group differences. Finally, the prevalence of these mental well-being groups is examined across demographic characteristics, including gender, age, semester, programme, and type of university, to identify any significant associations.

The purpose of examining students' mental well-being through the DCM and categorising them accordingly is to determine whether positive mental well-being and mental well-being challenges exist on distinct continuums, as proposed by Keyes (2002, 2005) and other studies on student success (Baghoori et al., 2022; Galsky, 2019). This exploration further considers whether the framework can be useful in guiding interventions by assessing how specific dimensions of positive mental well-being (emotional, psychological, and social) and mental well-being challenges (stress, anxiety, and depression) relate to academic success variables (GPA, CGPA, engagement, and satisfaction). Understanding these relationships may help the development of more effective mental well-being interventions for university students, particularly by addressing both positive well-being and challenges in a structured manner.

7.6.1 Stress, Anxiety, and Depression in Relation to Positive Well-Being Categories

This section begins by examining the first continuum of mental well-being (shown in Figure 4.4), which refers to the students' mental well-being challenges. The categories for stress, anxiety, and depression (normal, mild, moderate, and severe, as shown in Table 6.15) were recoded into a dichotomous classification: "no challenges" and "have challenges". This approach is consistent with previous studies (Amir Hamzah et al., 2019; Mohd Azlan et al., 2024), in which students reporting mild, moderate, or severe levels were classified as having the respective mental well-being challenges, while only those at the normal level were considered to have no challenge.

Table 7.6 summarises the proportions of students falling into each category. The results indicate that 64.4% of students experienced stress, 59.9% experienced anxiety, and 47.8% experienced depression. These findings suggest that a considerable proportion of

students were affected by at least one of these challenges. Conversely, 35.6% of students reported no stress, 40.1% reported no anxiety, and 52.2% reported no depression.

Table 7.6 *Classification of Mental Well-Being Challenges Status*

Type	Severity Levels	Individual Classification (%, *N*)
Stress	• Normal	Normal = No stress (35.6%, *N* = 238/669)
	• Mild • Moderate • Severe	Mild, moderate & severe = Have stress (64.4%, *N* = 431/669)
Anxiety	• Normal	Normal = No anxiety (40.1%, *N* = 268/669)
	• Mild • Moderate • Severe	Mild, moderate & severe = Have anxiety (59.9%, *N* = 401/669)
Depression	• Normal	Normal = No depression (52.2%, *N* = 349/669)
	• Mild • Moderate • Severe	Mild, moderate & severe = Have depression (47.8%, *N* = 320/669)

The second continuum of mental well-being (shown in Figure 4.4) concerns students' positive mental well-being. Based on their scores in EWB, PWB, and SWB, students were categorised into three categories: flourishing, moderately well, and languishing. Following Keyes' (2002) framework, students who scored high on at least one of the two EWB scales and at least six of the 11 PWB and SWB scales were categorised as flourishing. In contrast, those with low scores on these scales were categorised as languishing. Students who did not meet the criteria for either flourishing or languishing were categorised as moderately well. This categorisation aligns with the criteria outlined in Section 6.5.1 (EWB), 6.5.2 (PWB), and 6.5.3 (SWB).

As shown in Table 7.7, the analysis revealed that only 17.5% of students were flourishing, while the majority, 78.3%, were moderately well. A small proportion, 4.2%, was languishing. These findings are comparable to Keyes' (2002, 2005) original research, which reported that 18% of American adults were flourishing. However, it is important to note that his study focused on the general adult population rather than university students in the accounting discipline. Moreover, the proportion classified as moderately well in Keyes' study was lower (65%), indicating potential differences in positive well-being patterns between university students enrolled in the accounting programme and the wider adult population.

Table 7.7 *Classification of Positive Mental Well-Being Categories*

Type	Dimensions/Scales	Scoring Levels	Category (%, *N*)
EWB	1. Positive emotions	•High •Moderate •Low	**Flourishing**: High score in at least one of the two EWB scales and high score in six or more of the 11 PWB and SWB dimensions. (17.5%, *N* = 117/669)
	2. Life satisfaction	•High •Moderate •Low	
PWB	1. Autonomy	•High •Moderate •Low	
	2. Environmental mastery	•High •Moderate •Low	
	3. Personal growth	•High •Moderate •Low	
	4. Positive relations	•High •Moderate •Low	**Moderately well**: Does not meet the criteria for flourishing or languishing. (78.3%, *N* = 524/669)
	5. Purpose in life	•High •Moderate •Low	
	6. Self-acceptance	•High •Moderate •Low	
SWB	7. Social integration	•High •Moderate •Low	**Languishing**: Low scores in at least one of the two EWB scales and low scores in at least six or more of the 11 PWB and SWB dimensions. (4.2%, *N* = 28/669)
	8. Social acceptance	•High •Moderate •Low	
	9. Social contribution	•High •Moderate •Low	
	10. Social actualisation	•High •Moderate •Low	
	11. Social coherence	•High •Moderate •Low	

Comparisons with previous research involving general university students revealed varying trends. For instance, Peter et al. (2011) reported 24% flourishing, 67% moderately well, and 9% languishing, while Howell (2009) found 21% flourishing, 59% moderately well, and 9% languishing. In contrast, Xiao et al. (2021) observed a higher percentage of flourishing students (70%), with 23% moderately well and 7% languishing. Baghoori et al. (2022) reported 23% flourishing, 65% moderately well, and 11% languishing. These differences may be attributed to the variations in how the dual continua scales were applied, the differing disciplines in which students are enrolled, and potentially cultural and economic backgrounds that may influence their well-being.

Table 7.8 presents the prevalence of mental well-being challenges across the three positive mental well-being categories. A clear gradient was observed, with flourishing students reporting the lowest rates of stress, anxiety, and depression, while languishing students showing the highest. For example, 92.9% of languishing students experienced stress, compared to 70.2% of those who were moderately well, and only 31.6% of flourishing students. This suggests that moderately well students were 2.2 times (70.2% / 31.6%) more likely to experience stress than their flourishing peers, while languishing students were 2.9 times (92.9% / 31.6%) more likely.

Table 7.8 *Prevalence of Challenges Across Positive Mental Well-Being Categories*

	Positive Mental Well-Being Categories		
	Languishing	Moderately well	Flourishing
	% (*N*)	% (*N*)	% (*N*)
	4.2% (28)	78.3% (524)	17.5% (117)
Challenges			
Stress	92.9% (26/28)	70.2% (368/524)	31.6% (37/117)
Anxiety	92.9% (26/28)	63.9% (335/524)	34.2% (40/117)
Depression	100% (28/28)	53.4% (280/524)	10.3% (12/117)

Note. For the separate tests of the association of each positive mental well-being category with each challenge, $p < .001$ (two-tailed) is found for all chi-square tests.

An even more pronounced pattern emerged for depression, where moderately well students were over five times (53.4% / 10.3%) more likely to experience depression than flourishing students, while languishing students were over 9.7 times (100% / 10.3%) more likely. These findings highlight that languishing can be a major risk factor for stress, anxiety, and depression. Additionally, students who are moderately well still face considerable risk, indicating that simply not being languishing is insufficient to safeguard against these challenges.

7.6.2 Overall Mental Well-Being Groups Based on the DCM Model

Before classifying students into overall mental well-being groups based on the DCM, namely, *flourishing without challenges*, *flourishing with challenges*, *moderately well without challenges*, *moderately well with challenges*, *languishing without challenges*, and *languishing with challenges*, it was first necessary to distinguish between students with and without mental well-being challenges. To do this, stress, anxiety, and depression were considered collectively. Students who scored within the normal level for all three challenges were categorised as having “no challenges”, while those experiencing at least one challenge, even at a mild level in a single domain, were classified as “with challenges.” This calibration approach is consistent with prior studies (Bariola et al., 2017; Keyes, 2005).

Overall, the results shown in Table 7.9 indicate that 26.5% of students (177 out of 669) were categorised as having no challenges, while 73.5% (492) were identified as experiencing at least one. This proportion is notably higher than those reported in previous studies. For example, Keyes (2002) found that 14.1% of American adults met the criteria for major depressive disorder (MDD), while his 2005 study reported a 22.9% prevalence when combining four mental illnesses (MDD, anxiety disorder, panic disorder, and alcohol dependence). Similarly, Peter et al. (2011) and Xiao et al. (2021) reported depression rates of 16% and 20% among university students, respectively. These lower figures are expected, as

those studies focused on specific clinical diagnoses or symptoms. In contrast, the present study assessed symptoms of stress, anxiety, and depression collectively, which may explain the higher overall prevalence. Furthermore, the elevated rates observed here also reflect trends reported among Malaysian university students, where stress ranges from 25% to 65%, anxiety from 60% to 85%, and depression from 36% to 60% (Amir Hamzah et al., 2019; Dasor et al., 2023; Mohd Azlan et al., 2024). By capturing multiple dimensions of mental well-being challenges, this broader scope may provide a more comprehensive understanding of students' experiences to help develop targeted intervention strategies.

Table 7.9 further shows the six distinct student groups formed by combining the positive mental well-being categories (flourishing, moderately well, and languishing), with their challenge status (with or without challenges), in line with the DCM. To reflect the presence or absence of mental well-being challenges, each of the positive well-being categories was refined by adding the descriptor "with challenges" or "without challenges". For instance, a student identified as flourishing who also reported symptoms of stress, anxiety, or depression was placed in the *flourishing with challenges* group. Conversely, a moderately well student with no reported challenges was classified in the *moderately well without challenges* group.

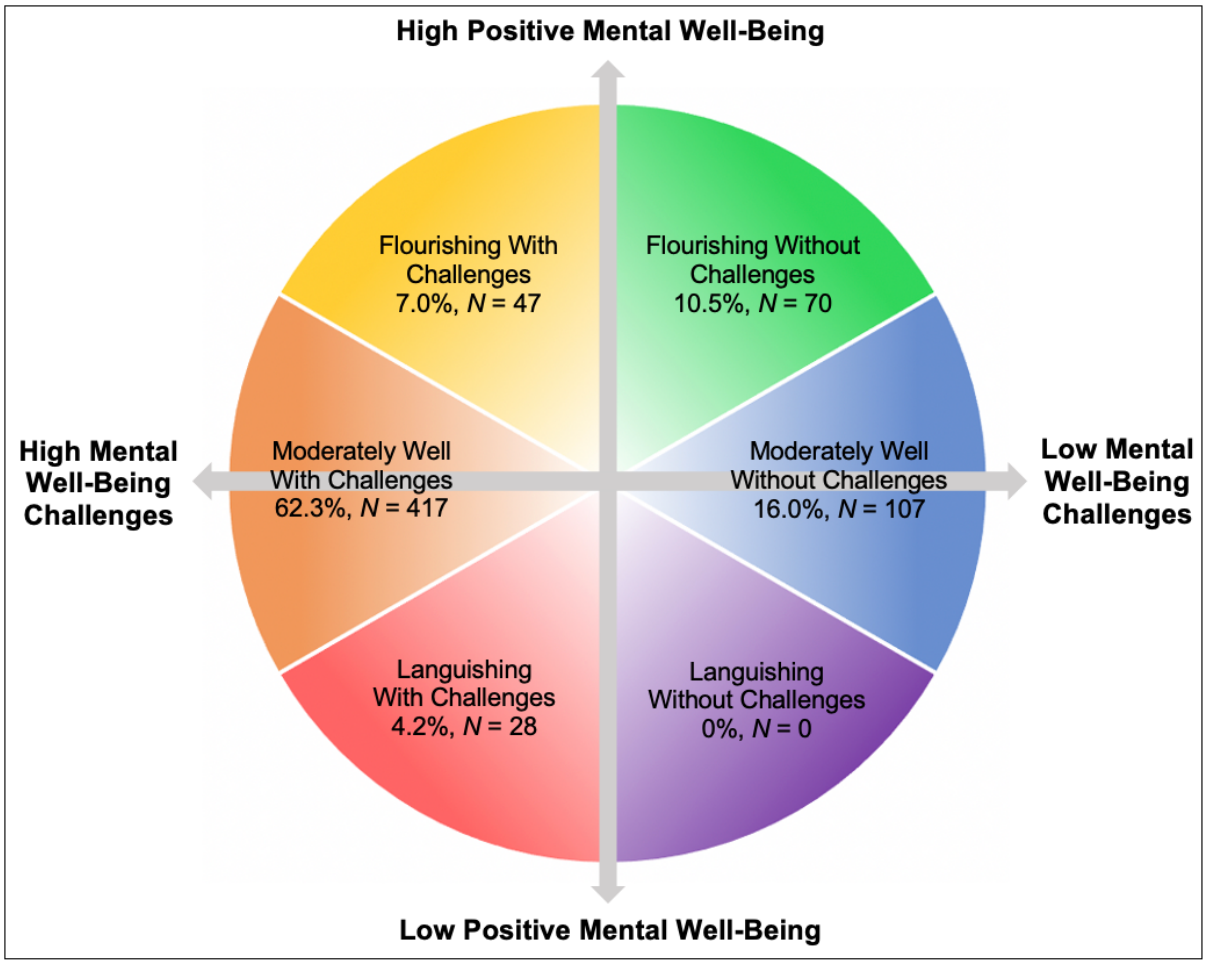
Table 7.9 *Grouping Based on Positive Mental Well-Being and Well-Being Challenges*

Positive Mental Well-Being Category	Mental Well-Being Challenges Status	
	No Challenges	With Challenges
Flourishing 17.5% (*N* = 117/669)	**Flourishing without challenges** (10.5%, *N* = 70/669)	**Flourishing with challenges** (7.0%, *N* = 47/669)
Moderately well 78.3% (*N* = 524/669)	**Moderately well without challenges** (16.0%, *N* = 107/669)	**Moderately well with challenges** (62.3%, *N* = 417/669)
Languishing 4.2% (*N* = 28/669)	**Languishing without challenges** (0%, *N* = 0/669)	**Languishing with challenges** (4.2%, *N* = 28/669)
Total *100% (N = 669/669)*	*26.5% (N = 177/669)*	*73.5% (N = 492/669)*

Based on the information shown in Table 7.9, Figure 7.1 visually illustrates the distribution of students across the six mental well-being groups derived from the DCM. As shown in Figure 7.1, the majority of students (78.3%, 524 out of 669) were classified within the moderately well group. Of these, a substantial portion (62.3%, 417 students) fell into the *moderately well with challenges* group. This suggests that while these students maintained a moderate level of positive mental well-being, they also experienced some form of challenges, such as stress, anxiety, or depression. The remaining 16.0% (107 students) were classified

as *moderately well without challenges*, indicating a balanced state of positive mental well-being without the presence of mental health concerns.

Figure 7.1 *Mental Well-Being Groups Based on the Dual Continua Model*



Among the 17.5% of students in the flourishing group (117 out of 669), 10.5% (70 students) were *flourishing without challenges*, reflecting high levels of positive well-being with no symptoms of stress, anxiety, or depression. However, a smaller proportion, 7.0% (47 students) were classified as *flourishing with challenges*. This highlights that even students who exhibited high positive mental well-being could still experience mental well-being difficulties.

At the lower end of the spectrum, 4.2% of students (28 out of 669) were categorised as *languishing with challenges*, indicating both low positive mental well-being and the presence of mental health concerns. Notably, no students were classified as *languishing without challenges*, suggesting that all students with low positive mental well-being also faced symptoms of stress, anxiety, and depression.

7.6.3 Prevalence of Mental Well-Being Status by Demographic Characteristics

Table 7.10 presents the cross-tabulation of mental well-being status by gender, age, semester, programme, and university type. The findings show a higher prevalence of poor mental well-being among female students, which is consistent with prior research (Keyes, 2002). Female students were more likely to be categorised as *languishing with challenges*, while male students were more likely to be in the *flourishing without challenges* group. The *moderately well without challenges* and *flourishing with challenges* groups were more evenly distributed across genders, indicating that gender differences are most evident at the extremes of mental well-being.

Table 7.10 *Prevalence of Mental Well-Being by Demographic Characteristics*

	Mental Well-Being Status					
Demographics	Languishing with challenges % (*N*)	Moderately well with challenges % (*N*)	Flourishing with challenges % (*N*)	Moderately well without challenges % (*N*)	Flourishing without challenges % (*N*)	χ^2
Gender						
Male	0.8% (1)	54.7% (70)	8.6% (11)	15.6% (20)	20.3% (26)	21.108***
Female	5.0% (27)	64.1% (347)	6.7% (36)	16.1% (87)	8.1% (44)	
Age						
18 to 21	4.1% (16)	63.8% (249)	6.9% (27)	14.6% (57)	10.5% (41)	1.487
22 & above	4.3% (12)	60.2% (168)	7.2% (20)	17.9% (50)	10.4% (29)	
Semester						
2 to 5	3.4% (13)	61.9% (240)	7.2% (28)	17.5% (68)	10.1% (39)	3.125
5 & above	5.3% (15)	63.0% (177)	6.8% (19)	13.9% (39)	11.0% (31)	
Programme						
Diploma	4.7% (7)	63.5% (94)	8.8% (13)	12.2% (18)	10.8% (16)	2.780
Degree	4.0% (21)	62.0% (323)	6.5% (34)	17.1% (89)	10.4% (54)	
University						
Public	4.5% (28)	61.4% (383)	7.1% (44)	16.3% (102)	10.7% (67)	3.843[a]
Private	0% (0)	75.6% (34)	6.7% (3)	11.1% (5)	6.7% (3)	

Note. *p < .05 **p < .01 ***p < .001 (two-tailed).
a. Fisher's Exact Test was used for the type of university variable. This test is a statistical significance analysis used in contingency tables, especially when sample sizes are small or expected frequencies are less than 5, where the chi-square test's assumptions may not hold (Giannini, 2005, p. 166).

In contrast, age was not significantly associated with mental well-being status in this study. This is consistent with Antaramian (2015) but differs from Keyes (2002), who reported that older individuals (aged 25 to 74) were more likely to be in the flourishing and less likely to be languishing. The discrepancy may be explained by the narrower and younger age range in the present study, which focused primarily on accounting students aged 18 to 23. Furthermore, no significant associations were found between mental well-being status and semester, programme, or type of university.

Given these substantial differences in mental well-being and the associated challenges, it is particularly meaningful to further examine how combining these well-being groups relates to academic success, specifically in terms of performance, engagement, and satisfaction.

7.6.4 Comparing Success Outcomes Among Mental Well-Being Groups

Research Question 3 investigates differences among various mental well-being groups (*flourishing without challenges, flourishing with challenges, moderately well without challenges, moderately well with challenges,* and *languishing with challenges*) derived from the DCM, in relation to accounting students' academic success.

> *Do students in different mental well-being groups, derived from the dual continua model, differ in academic performance (RQ3a), engagement (RQ3b), and satisfaction (RQ3c)?*

To explore these research questions, a one-way between-groups MANOVA was conducted to examine differences in students' academic success across the mental well-being groups identified by the DCM. The dependent variables included GPA, CGPA, engagement, and satisfaction, with mental well-being groups as factors. Preliminary tests confirmed that assumptions of normality, linearity, and multicollinearity were met, with no univariate or multivariate outliers identified. Additionally, Box's test of equality of covariance matrices produced a significance value greater than .001, confirming the homogeneity of variance-covariance matrices. Levene's test of equality of error variances showed no violations for GPA, CGPA, and engagement, though satisfaction violated this assumption. Consequently, Pillai's Trace[29] was used. For post hoc comparisons, Tukey Honestly Significant Difference was utilised for GPA, CGPA, and engagement, while Games-Howell was employed for satisfaction.[30] The detailed MANOVA results are shown in Appendix 7.5.

Table 7.11 presents the results of the overall MANOVA, which revealed statistically significant differences among the five mental well-being groups across GPA, CGPA, engagement, and satisfaction, $F(16, 2656) = 18.40$, $p < .001$, Pillai's Trace = .399, partial $\eta^2 = .100$. This indicates that mental well-being groups were associated with meaningful variation

[29] Pillai's Trace is recommended for its robustness and suitability when there are violations of assumptions (Tabachnick et al., 2013).

[30] Tukey's test is generally reliable and particularly effective when comparing a large number of means, though it can be conservative. The Games-Howell test is better suited when sample sizes are unequal, as it adjusts for differences in variances, making it more accurate in such scenarios (Field, 2015, p. 459).

in academic success, accounting for approximately 10% of the variance. When examining the contributions of each academic success indicator, all of them reached statistical significance, after applying the Bonferroni-adjusted alpha level of .0125 (α = .05/4).[31] For GPA, although the difference was significant, $F(4, 664) = 5.60$, $p < .001$, the effect size was small (η_p^2 = .033),[32] indicating modest variation across groups. CGPA followed a similar pattern, with a small effect size, suggesting modest variation in cumulative academic performance. Engagement and satisfaction also varied significantly between groups, with effect sizes of .275 and .265 respectively, reflecting differences in students' involvement and satisfaction based on their mental well-being status.

Table 7.11 *Mental Well-Being Groups Across Academic Success Variables*

Variable	*df*1	*df*2	*F*	*p*	η_p^2
Multivariate Test (Pillai's Trace)	16	2656	18.40	.000	.100
Univariate Test:					
• GPA	4	4.284	5.60	.000	.033
• CGPA	4	3.377	5.21	.000	.030
• Engagement	4	3500.739	63.09	.000	.275
• Satisfaction	4	938.194	59.86	.000	.265

While the results indicated significant differences among the groups for all of the academic success variables, it is also important to examine the mean scores to understand the magnitude of these differences across the mental well-being groups. Based on the descriptive statistics in Table 7.12, it is evident that students who are *flourishing without challenges* consistently show the highest mean scores across all variables compared to other groups, indicating better academic performance, higher engagement, and greater satisfaction. For instance, the *flourishing without challenges* group has a mean GPA of 3.30 and a CGPA of 3.40, both higher than the other groups. Conversely, the *languishing with challenges* group shows the lowest mean scores across all variables, with a GPA of 2.61 and a CGPA of 2.71, suggesting that students in this group struggle more academically and have lower engagement and satisfaction.

[31] The alpha value of .05 is divided by four to account for the four dependent variables used in this study, following the Bonferroni correction to control for Type I error (Pallant, 2020).

[32] Recommended guidelines for interpreting partial eta squared (η_p^2) as an effect size measure are small = .01, medium = .06, large .014 (Field, 2015; Pallant, 2020).

Table 7.12 *Descriptive Statistics for Academic Success by Mental Well-Being Groups*

Dependent Variable	Groups	*M*	*SD*
GPA	Flourishing without challenges	3.30	.81
	Moderately well without challenges	3.18	.87
	Flourishing with challenges	3.11	.98
	Moderately well with challenges	2.92	.88
	Languishing with challenges	2.61	.83
CGPA	Flourishing without challenges	3.40	.65
	Moderately well without challenges	3.25	.78
	Flourishing with challenges	3.21	.88
	Moderately well with challenges	3.07	.82
	Languishing with challenges	2.71	.85
Engagement	Flourishing without challenges	66.04	7.83
	Moderately well without challenges	59.81	7.33
	Flourishing with challenges	65.19	7.32
	Moderately well with challenges	56.03	7.34
	Languishing with challenges	44.50	8.64
Satisfaction	Flourishing without challenges	30.88	4.24
	Moderately well without challenges	26.85	3.47
	Flourishing with challenges	27.85	5.03
	Moderately well with challenges	24.23	3.82
	Languishing with challenges	20.85	4.91

Moderately well students, both with and without challenges, tend to fall in the middle. However, those in the *moderately well without challenges* group perform slightly better than those with challenges. Notably, the *flourishing with challenges* group, despite facing challenges, maintains relatively high engagement levels, closely aligning with the *flourishing without challenges* group. For satisfaction, while their levels are higher than the *moderately well without challenges* group, there remains a noticeable gap compared to the *flourishing without challenges* group. Overall, GPA and CGPA followed a similar pattern of means (i.e., $M_{\text{flourishing without challenges}} > M_{\text{moderately well without challenges}} > M_{\text{flourishing with challenges}} > M_{\text{moderately well with challenges}} > M_{\text{languishing with challenges}}$). However, engagement and satisfaction showed a slightly different pattern, with the *flourishing with challenges* group having higher means than the *moderately well without challenges* group.

Table 7.13 presents the pairwise comparison results (post hoc analysis) between mental well-being groups across GPA, CGPA, engagement, and satisfaction. For GPA, significant differences were observed between the *flourishing without challenges* group and both the *moderately well with challenges* and *languishing with challenges* groups, with the latter two groups having lower GPA scores. Additionally, the *moderately well without challenges* group shows significant differences when compared to the *languishing with*

challenges group. The CGPA results mirrored those of GPA, with similar group differences identified.

These results align with existing research in disciplines other than accounting that links high positive well-being and low challenges to better academic performance, while students with low well-being and high challenges are associated with poorer outcomes (Antaramian, 2015; Kim et al., 2022; Lyons et al., 2013; Renshaw & Cohen, 2014). *Flourishing without challenges* students may have enhanced emotional regulation (ability to manage and respond to emotional experiences in a constructive manner), grit, resilience, and persistence, which enable them to manage their responsibilities. Additionally, their absence of mental well-being challenges may further contribute to their ability to meet academic demands (Baghoori et al., 2022; Blasco-Belled et al., 2021; Eklund et al., 2011; Howell, 2009). In contrast, students who are *languishing with challenges* may lack a clear sense of purpose, struggle with self-acceptance, or feel socially disconnected. Combined with symptoms of stress, anxiety, or depression, these may interfere with their ability to concentrate and remain engaged in learning tasks (Eklund et al., 2011; Keyes, 2024), which could contribute to lower GPA and CGPA.

Regarding engagement, the analysis indicates more pronounced group differences across mental well-being groups. Significant differences were found between nearly all groups, consistent with previous research (Antaramian, 2015; Galsky, 2019), except between the *flourishing without challenges* and *flourishing with challenges* groups. It is possible that both groups share similar characteristics, as those with high positive mental well-being have high intrinsic motivation to learn and commitment to academic tasks (González Olivares et al., 2020; Ryff, 2014). This high level of intrinsic motivation, which includes curiosity, persistence, and a commitment to learning, buffers the negative effects of stressors and challenges that might otherwise reduce engagement. According to the DCM, positive mental well-being and challenges can coexist. As a result, flourishing students with challenges remain as engaged as those without challenges. Their resilience in managing difficulties while staying focused on academic tasks may explain the lack of significant differences in engagement between these groups.

Table 7.13 *Pairwise Comparisons of Academic Success Across Well-Being Groups*

(a) Well-Being Groups	(b) Well-Being Groups	*MD* (a - b)	*SE*	*p*
	GPA			
Flourishing without challenges	Moderately well without challenges	.12	.13	.893
	Flourishing with challenges	.19	.17	.766
	Moderately well with challenges	.38**	.11	.007
	Languishing with challenges	.69**	.20	.004
Moderately well without challenges	Flourishing with challenges	.07	.15	.990
	Moderately well with challenges	.26	.10	.054
	Languishing with challenges	.57*	.19	.019
Flourishing with challenges	Moderately well with challenges	.19	.14	.642
	Languishing with challenges	.50	.21	.119
Moderately well with challenges	Languishing with challenges	.31	.17	.353
	CGPA			
Flourishing without challenges	Moderately well without challenges	.15	.12	.756
	Flourishing with challenges	.19	.15	.732
	Moderately well with challenges	.33*	.10	.013
	Languishing with challenges	.69**	.18	.001
Moderately well without challenges	Flourishing with challenges	.04	.14	.999
	Moderately well with challenges	.19	.09	.212
	Languishing with challenges	.54*	.17	.015
Flourishing with challenges	Moderately well with challenges	.15	.12	.766
	Languishing with challenges	.50	.19	.073
Moderately well with challenges	Languishing with challenges	.35	.16	.165
	Engagement			
Flourishing without challenges	Moderately well without challenges	6.23***	1.15	.000
	Flourishing with challenges	.85	1.40	.974
	Moderately well with challenges	10.00***	.96	.000
	Languishing with challenges	21.54***	1.67	.000
Moderately well without challenges	Flourishing with challenges	-5.38***	1.30	.000
	Moderately well with challenges	3.77***	.81	.000
	Languishing with challenges	15.31***	1.58	.000
Flourishing with challenges	Moderately well with challenges	9.15***	1.15	.000
	Languishing with challenges	20.69***	1.78	.000
Moderately well with challenges	Languishing with challenges	11.54***	1.45	.000
	Satisfaction			
Flourishing without challenges	Moderately well without challenges	4.04***	.61	.000
	Flourishing with challenges	3.03**	.89	.009
	Moderately well with challenges	6.65***	.54	.000
	Languishing with challenges	10.03***	1.06	.000
Moderately well without challenges	Flourishing with challenges	-1.00	.81	.729
	Moderately well with challenges	2.61***	.38	.000
	Languishing with challenges	5.99***	.99	.000
Flourishing with challenges	Moderately well with challenges	3.61***	.76	.000
	Languishing with challenges	6.99***	1.18	.000
Moderately well with challenges	Languishing with challenges	3.38*	.95	.010

Note. *p < .05, **p < .01, ***p < .001 (two-tailed).

When comparing the best and least engaged groups, the *flourishing without challenges* group, which scored the highest engagement overall, demonstrated strong behavioural engagement by actively participating in group assignments, following university rules, and completing tasks on time. They also showed high cognitive engagement by problem-solving, integrating knowledge, and questioning their understanding of the material, which aligns with effective learning strategies (Schunk & Zimmerman, 2012). Moreover, their emotional engagement was evident through positive attitudes towards their studies and enthusiasm for their university experience, which supports the link between positive emotions and higher engagement (Pekrun & Linnenbrink-Garcia, 2014). In contrast, the *languishing with challenges* group lacked these qualities, struggling with engagement likely due to difficulties in maintaining attention, motivation, and positive attitudes towards their academic experience.

For satisfaction, most between-group comparisons revealed significant differences, consistent with Galsky (2019), except between the *moderately well without challenges* and *flourishing with challenges* groups. This suggests that being moderately well even without challenges is somewhat equivalent to *flourishing with challenges* in terms of satisfaction. Both groups may experience similar levels of satisfaction, albeit for different reasons. *Moderately well without challenges* students might not face significant stressors but also do not experience the high levels of positive well-being that flourished students do. They may experience satisfaction at a steady level, potentially due to the lack of significant stressors, though without the heightened well-being seen in flourishing students. On the other hand, students who are *flourishing with challenges* may have higher positive well-being overall but still face stressors that offset some of the positive effects. Essentially, while the pathways differ, one group has fewer challenges and the other has more well-being, both groups appear to reach a similar equilibrium in their satisfaction levels. This balance could explain why no significant difference was found between them.

When comparing the highest and least satisfied groups, *flourishing without challenges* students might find their studies enjoyable and interesting, which is associated with greater engagement in academic content (Wach et al., 2016). Additionally, these students may have better coping strategies, manage academic demands more effectively, and experience less exhaustion compared to their languishing peers who may struggle with balancing studies and other responsibilities, leading to lower satisfaction. Conversely, *languishing with challenges* students may express dissatisfaction with study conditions, such as inadequate attention to their interests and poor teaching quality, reflecting how adverse conditions can negatively impact satisfaction (Jereb et al., 2018; Sirgy et al., 2010; Wong & Chapman, 2023).

While the *moderately well without challenges* group was more engaged and satisfied with their academic studies compared to some groups (e.g., *moderately well with challenges* and *languishing with challenges*), they still lag behind the flourishing group. Although

moderately well without challenges students do not face significant challenges, they also lack the high levels of positive well-being, motivation, and emotional engagement that flourishing students exhibit. As a result, they may not have the resilience and drive required to reach their full potential at university. This distinction is important as it highlights that the absence of problems is not the same as thriving. In this study, the majority of accounting students were categorised as moderately well, both with and without challenges, suggesting that most may not reach the highest levels of academic success compared to those in the flourishing group.

The more pronounced differences observed in engagement and satisfaction, compared to GPA and CGPA, likely stem from the subjective nature of these constructs. Satisfaction and engagement are influenced by personal perceptions, experiences, and interactions, leading to greater variation and clearer distinctions between groups. For example, students' satisfaction may be shaped by how they perceive study conditions, such as the teaching quality or the adequacy of learning facilities. Similarly, academic engagement is closely tied to emotional and cognitive involvement, which can vary substantially between groups. In contrast, GPA and CGPA are objective indicators based on standardised grading scales, often classified into broad categories such as poor, satisfactory, good, or excellent. While these measures are widely used and remain important indicators of academic success, their limited range may not fully reflect the complexity of students' academic experiences. Consequently, they may be less responsive to the subtle differences observed between mental well-being groups, especially in how students engage with and interpret their academic environments.

Overall, the results of the current study provide additional evidence supporting the DCM among university students, particularly accounting students in Malaysia. Students who exhibited high positive well-being and faced no significant challenges were considered to have the most favourable mental well-being profiles and were classified as *flourishing without challenges*. In contrast, a second group of students, identified as *languishing with challenges*, displayed the opposite mental well-being pattern, characterised by low positive well-being and the presence of challenges. These classifications align with those that would be made using a traditional one-factor mental well-being model. However, this study also identifies another group – those flourishing despite challenges – which further supports the DCM.

This finding demonstrates that positive well-being and challenges are not simply opposite ends of a single continuum; individuals can experience high positive well-being even when facing challenges. As a result, traditional screening approaches that exclusively assess for psychopathological symptoms or challenges might have mislabelled this group by overlooking their positive well-being. This study confirms previous studies (Antaramian, 2015; Baghoori et al., 2022; Keyes, 2002, 2005; Peter et al., 2011; Iasiello et al., 2020), reinforcing the view that mental well-being comprises two separate constructs. However, it is worth noting

that no students were identified as purely languishing (without challenges), suggesting that while students with challenges may still report high positive mental well-being (*flourishing with challenges*), those with low positive mental well-being (languishing) inevitably experience some form of mental well-being challenge. This explains why all students initially classified as languishing based on positive mental well-being alone were subsequently grouped under *languishing with challenges* when mental well-being challenges were also considered.

Table 7.14 provides a summary of the key findings on the effects of positive mental well-being and mental well-being challenges on students' academic success, as well as group differences in academic outcomes based on the DCM.

Table 7.14 *Summary of Results*

Research Questions	Findings
RQ1: What are the effects of positive mental well-being, measured by emotional, psychological, and social well-being, on students' academic success, measured by:	
a. performance	PWB positively affected both GPA and CGPA. SWB negatively affected CGPA.
b. engagement	All positive mental well-being, EWB, PWB, and SWB positively affected engagement.
c. satisfaction	All positive mental well-being, EWB, PWB, and SWB positively affected engagement.
RQ2: What are the effects of mental well-being challenges, measured by stress, anxiety, and depression, on students' academic success, measured by:	
a. performance	Depression negatively affected both GPA and CGPA.
b. engagement	Stress positively affected engagement. Depression negatively affected engagement.
c. satisfaction	Stress negatively affected satisfaction.
RQ3: Do students in different mental well-being groups, derived from the dual continua model, differ in academic success, measured by:	
a. performance	Group differences found between *flourishing without challenges* and *moderately well with challenges*, between *flourishing without challenges* and *languishing with challenges*, and between *moderately well without challenges* and *languishing with challenges*, for both GPA and CGPA.
b. engagement	All groups differed except between *flourishing without challenges* and *flourishing with challenges*.
c. satisfaction	All groups differed except between *moderately well without challenges* and *flourishing with challenges*.

7.7 Summary

The regression analysis highlighted the significance of PWB as the strongest predictor of all success outcomes, positively influencing performance, engagement, and satisfaction. This suggests that accounting students who strive for personal growth, set goals, and are committed to their university experience are more likely to succeed academically and feel more engaged and satisfied. EWB, while a strong predictor of engagement and satisfaction, did not predict performance, suggesting that feeling happy or emotionally stable alone may not be sufficient to boost academic achievement. Similarly, SWB had a positive influence on engagement and satisfaction, but its effect on GPA was neutral, and it even negatively affected CGPA, potentially due to social interactions distracting students in the long term.

Among the well-being challenges, depression was the most detrimental, negatively impacting both performance and engagement. Accounting students who are depressed may feel emotionally indifferent, which could explain why depression did not significantly predict satisfaction despite its negative effects on other outcomes. On the other hand, stress showed a more complex relationship with academic success. It positively influenced engagement but had a negative impact on satisfaction. This aligns with the idea that stress, in manageable amounts, may motivate students to engage in their studies, but prolonged or excessive stress diminishes overall satisfaction. Finally, anxiety had the least pronounced effect, with no significant influence on any of the academic success variables, highlighting its relatively lesser impact in comparison to depression and stress.

The findings from the DCM offered further insights into the interplay between positive well-being and mental well-being challenges. The majority of accounting students were classified as moderately well, with or without challenges, but an important group identified as *flourishing with challenges* demonstrated that students can still maintain high levels of positive well-being despite facing mental health difficulties. Interestingly, no students were classified as *languishing without challenges*, suggesting that those who experience low levels of positive mental well-being consistently report concurrent mental well-being challenges. As expected, the students in the *flourishing without challenges* group demonstrated the highest levels of academic success, while those *languishing with challenges* experienced the lowest. The most notable differences between groups were in terms of engagement and satisfaction, with GPA and CGPA showing less pronounced differences across groups, suggesting that academic engagement and satisfaction may be more sensitive to variations in mental well-being than academic performance alone.

The next chapter concludes by synthesising the key findings of this research and discussing their broader theoretical and practical implications.

Chapter 8: Conclusion

8.1 Introduction

This study was motivated by the need to address students' mental well-being within accounting education, a field where such discussions remain limited. In Malaysia, stigma and low mental health literacy further complicate the issue, making it difficult for students to fully engage with or relate to existing narratives, which are often framed through a Western lens. Moreover, mental well-being is frequently understood only in terms of challenges such as stress, anxiety, and depression, rather than as a continuum that also includes positive dimensions essential for academic and personal success.

Guided by Keyes' (2002) Dual Continua Model (DCM), which distinguishes between flourishing and languishing, this study explores both the positive (emotional, psychological, and social well-being) and negative (stress, anxiety, and depression) aspects of mental well-being in relation to student success. Unlike traditional approaches that define success solely by academic performance (i.e., Grade Point Average [GPA] or Cumulative Grade Point Average [CGPA]), this study adopts a broader perspective by incorporating student engagement and satisfaction, which are critical for persistence and overall academic experience.

A quantitative approach was employed, using a structured questionnaire distributed via an online survey. To complement the findings, open-ended responses were also collected to provide deeper insights into students' struggles, awareness of mental well-being, and barriers to seeking help. A series of analyses, including regression, were conducted to examine the extent to which different dimensions of well-being influence academic success. Additionally, categorising students into flourishing, moderately well, and languishing groups allowed for a fresher understanding of how mental well-being status relates to student outcomes.

The remainder of this chapter is organised as follows: Section 8.2 presents the key findings, followed by Section 8.3, which details the study's contributions. Section 8.4 discusses the implications and recommendations, while Section 8.5 outlines the study's limitations and directions for future research. Finally, Section 8.6 provides a concluding note.

8.2 Key Findings

8.2.1 Research Question 1

What are the effects of positive mental well-being, measured by emotional, psychological, and social well-being, on students' academic performance (RQ1a), engagement (RQ1b), and satisfaction (RQ1c)?

The findings of this study highlight the critical role of psychological well-being (PWB) in all dimensions of academic success. PWB was found to positively influence performance (both GPA and CGPA), engagement, and satisfaction, reinforcing its importance in shaping accounting students' overall university experience. This aligns with previous research suggesting that PWB reflects a long-term commitment to personal development. For instance, goal-setting and striving for excellence are commonly associated with purpose in life and personal growth, while confidence in one's abilities and effective functioning relate to self-acceptance and environmental mastery. Together, these qualities may contribute to stronger academic outcomes. Given that PWB also fosters self-regulation, resilience, and critical thinking (Lo & Ip, 2022; Ryff, 1989, 2014), it may exert a more enduring impact on academic success compared to other dimensions of positive mental well-being. Unlike emotional and social well-being, which may fluctuate in response to external circumstances, PWB provides a stable foundation for sustained academic success. Students with higher PWB are not only more likely to perform well but also to remain engaged and feel satisfied with their studies.

In contrast, emotional well-being (EWB) positively influenced engagement and satisfaction but did not significantly affect academic performance. This suggests that students who experience positive emotions (e.g., happiness, calm, peaceful) are more likely to participate actively in their learning and feel a sense of fulfilment in university life, even if this does not directly translate into higher grades. While EWB enhances engagement, academic performance requires sustained effort, cognitive endurance, and discipline, which EWB alone may not provide.

Social well-being (SWB), on the other hand, had mixed effects. It contributed positively to engagement and satisfaction but negatively impacted CGPA. This finding indicates that while strong social connections enhance a sense of belonging and university involvement, they may also create distractions that reduce sustained academic effort. Unlike PWB, which fosters long-term academic commitment, SWB may prioritise interpersonal relationships over academic performance. While a strong social life is beneficial, it must be balanced with academic responsibilities to prevent negative effects on performance.

These findings reinforce the pivotal role of PWB in academic success. Although EWB, PWB, and SWB, all positively influenced engagement and satisfaction, only PWB positively affected performance. This distinction may reflect the nature of PWB, which encompasses enduring qualities such as autonomy, motivation, and perseverance, characteristics strongly linked to sustained academic success. In contrast, EWB is transient, and SWB is externally influenced; in other words, they may not provide the same sustained drive needed for high academic achievement. Given its influence on GPA, CGPA, engagement, and satisfaction, interventions aimed at improving students' PWB could yield the most substantial academic benefits. Moreover, as suggested by Keyes (2024), strengthening PWB could also foster improvements in other areas of well-being, contributing to a more holistic and fulfilling university experience. As such, future efforts to support accounting student success should therefore prioritise strategies that cultivate PWB as a central component of academic development.

8.2.2 Research Question 2

What are the effects of mental well-being challenges, measured by stress, anxiety, and depression, on students' academic performance (RQ2a), engagement (RQ2b), and satisfaction (RQ2c)?

Among the three mental well-being challenges examined, depression emerged as the most detrimental, significantly impairing GPA, CGPA, and engagement. Unlike stress and anxiety, which may sometimes act as short-term motivators, depression is chronic and pervasive, depleting students' energy, motivation, and cognitive resources. It disrupts concentration, induces fatigue, and fosters withdrawal, making academic success particularly challenging. While stress can be situational and temporary, depression often manifests as a long-term state of hopelessness and disengagement, which explains its significant negative effects on both academic performance and engagement.

Stress, however, exhibited a complex and paradoxical pattern of effects. While it did not influence GPA or CGPA, it positively affected engagement but negatively impacted satisfaction. This aligns with the Yerkes-Dodson Law of optimal arousal, which suggests that moderate stress can enhance focus and motivation (Teigen, 1994), though it does not necessarily translate into improved academic performance. In this study, stress appeared to push students to stay engaged in academic activities, likely encouraging them to participate actively in coursework and maintain academic momentum. However, its prolonged presence likely contributed to emotional exhaustion and dissatisfaction, which suggests that while stress can be beneficial in driving short-term engagement, excessive or sustained stress may erode overall well-being, reducing students' academic satisfaction.

In contrast, anxiety did not demonstrate significant effects on any academic success variables. This may be due to individual differences in how students cope with anxiety. For some, it can serve as a motivator, prompting increased focus and effort to stay on top of academic responsibilities. For others, anxiety becomes overwhelming, leading to cognitive overload and disengagement (Folkman & Lazarus, 1985; Shalaby & Elkasaby, 2023; Suls & Fletcher, 1985). The absence of a clear effect in this study suggests that anxiety's impact is highly individualised, potentially making it more difficult to consistently predict academic success.

The contrasting effects of stress and depression highlight the complexity of mental well-being challenges in academic settings. Depression consistently leads to negative academic outcomes, with no apparent adaptive benefits, reinforcing the importance of early awareness and support. Given its far-reaching impact on both engagement and performance, increasing awareness and encouraging help-seeking behaviours may be essential to prevent further academic decline. Unlike stress, which may temporarily enhance engagement, depression offers no such advantage, as it drains students' cognitive and emotional resources, making academic success increasingly difficult.

These findings highlight the need to address each mental well-being challenge based on its distinct influence rather than treating them collectively as a single issue. Stress, for example, can carry both risks and potential benefits. When managed effectively, it may serve as a source of motivation and sustained engagement. Therefore, support efforts should not aim to eliminate stress entirely, but instead help accounting students regulate it to remain at a productive level, avoiding the point at which it leads to burnout or disengagement. In contrast, the consistently negative effects of depression on academic performance and engagement suggest a different approach. Rather than reactive measures, there is value in fostering early awareness and ensuring access to mental health resources that encourage help-seeking. Recognising these distinctions can guide universities in creating targeted support systems that reflect how different mental well-being challenges uniquely influence students' academic experiences.

8.2.3 Research Question 3

Do students in different mental well-being groups, derived from the dual continua model, differ in academic performance (RQ3a), engagement (RQ3b), and satisfaction (RQ3c)?

The five mental well-being groups, which include *flourishing without challenges*, *moderately well without challenges, flourishing with challenges, moderately well with challenges,* and *languishing with challenges*, exhibited distinct differences in academic success. Students *flourishing without challenges* achieved the highest GPAs and CGPAs, with

scores declining steadily through to those *languishing with challenges.* Significant differences were observed between *flourishing without challenges* and both *moderately well with challenges* and *languishing with challenges*, as well as between *moderately well without challenges* and *languishing with challenges,* suggesting a clear link between declining mental well-being and lower academic performance. A similar trend emerged for engagement, where *flourishing without challenges* students reported the highest levels and those *languishing with challenges* the least. However, engagement did not differ between the two flourishing groups, suggesting that positive well-being can sustain engagement amidst challenges. For satisfaction, all differences were significant except between *flourishing with challenges* and *moderately well without challenges*. This indicates that strong positive mental well-being, even with some struggles, can still contribute to a fulfilling academic experience.

These findings reinforce the relevance of the DCM in understanding student mental well-being. Only a small proportion (10.5%) of students were *flourishing without challenges*, while an additional 7% were flourishing despite facing some forms of stress, anxiety, or depression. This highlights how rare optimal mental well-being is among university accounting students, suggesting that many may struggle to maintain both high academic success and positive well-being. At the opposite end, 4.2% of students were *languishing with challenges*, facing compounded risks to both their mental health and academic outcomes. The majority of students fell into the moderately well category, with a striking 62.3% of them experiencing mental well-being challenges, reinforcing the notion that being moderately well does not necessarily equate to psychological resilience or academic success.

The differences between these groups have critical implications. Accounting students who were flourishing, particularly those without challenges, generally showed the most favourable levels of engagement and satisfaction. However, performance scores (GPA and CGPA) did not significantly differ between *flourishing without challenges* and *moderately well without challenges* students, suggesting that high performance can still be achieved without reaching a flourishing state, as long as mental well-being challenges are minimal. While *moderately well without challenges* students performed comparably to *flourishing without challenges* students in terms of GPA and CGPA, their lower engagement and satisfaction levels suggest that moderate positive mental well-being may help sustain performance, but may not be sufficient to foster a more fulfilling and enriching academic experience. In contrast, students who were *languishing with challenges* consistently reported the lowest outcomes across all student academic success variables, highlighting the need for greater support.

Overall, these findings emphasise that the goal should not be solely to reduce stress, anxiety, and depression but also to cultivate flourishing. Universities should prioritise mental well-being interventions that move beyond symptom reduction and actively foster psychological growth, resilience, and engagement. This perspective aligns with the broader

aims of higher education, which seek to develop not only academic competence but also holistic personal development. By shifting focus towards promoting flourishing, universities may better support accounting students in excelling academically while also preserving their overall mental well-being.

8.3 Contribution

This study makes a significant contribution to the broader mental well-being literature by extending its focus beyond clinical and workplace settings to the academic environment. While previous research has largely examined mental well-being in professional and healthcare contexts, its role in shaping student academic success remains underexplored. By positioning mental well-being within the university setting, this study highlights its impact on academic outcomes, engagement, and satisfaction. It reinforces the need for higher education institutions to view mental well-being not just as a personal health issue but as an integral factor in student achievement in the academic setting. More specifically, this study advances understanding of the relationship between mental well-being and university accounting students' academic success. By examining emotional, psychological, social well-being, stress, anxiety, and depression, alongside academic performance, engagement, and satisfaction, it provides empirical evidence on how different aspects of well-being interact with student success.

A notable contribution of this study is addressing a critical gap in accounting education, where mental well-being has received far less attention than in fields such as medical and psychological education. Despite the rigorous demands of accounting studies and the increasing awareness of student mental well-being challenges, research on its impact on academic success and engagement remains limited. Unlike disciplines that naturally incorporate well-being discussions through clinical training or interpersonal skill development, accounting education tends to focus on technical competencies while overlooking the psychological resilience required for sustained academic and professional performance. This study challenges that narrow focus by demonstrating that mental well-being is not a secondary concern but a key determinant of accounting student outcomes. By broadening the discourse in accounting education, this research advocates for an approach that not only strengthens technical expertise but also fosters resilience, engagement, and satisfaction, ultimately preparing students for long-term success.

By expanding the concept of accounting student success, this study moves beyond traditional academic performance indicators, such as GPA and CGPA, to include engagement and satisfaction. While performance remains a key indicator, engagement includes behavioural, cognitive, and emotional aspects, while satisfaction relates to content, conditions,

and coping. Engagement reflects students' motivation, effort, and active participation in learning, which are essential for sustained academic and professional growth. Satisfaction captures students' perceptions of their academic environment, resources, and ability to manage challenges, influencing their motivation and persistence. By incorporating these dimensions, this study highlights that student success is not solely about grades but also about how well accounting students engage in their studies and sustain their well-being. Expanding this understanding ensures that institutional efforts focus not just on academic outcomes but also on fostering a supportive learning environment that promotes long-term academic and personal development.

This study further addresses a gap in the literature by examining positive mental well-being through both hedonic and eudaimonic dimensions, incorporating EWB, PWB, and SWB. While much of the existing research has focused on mental well-being challenges such as stress and depression, few studies have explored how positive mental well-being contributes to accounting student success. By integrating EWB, which aligns with hedonic perspectives on pleasure and life satisfaction, alongside PWB and SWB, which reflect eudaimonic dimensions of personal growth, purpose, and meaningful connections, this study offers a more comprehensive understanding of how well-being influences academic outcomes. This perspective highlights that fostering mental well-being is not merely about reducing distress but about promoting deeper, sustained positive mental well-being that supports academic engagement, satisfaction, and long-term success.

This study also contributes to the literature on mental well-being by providing insights specific to Malaysian university accounting students and is the first to examine the DCM within this context. By applying this model in a Malaysian setting, the study extends the understanding of mental well-being beyond Western paradigms and highlights its cultural relevance. Malaysian students often face distinct challenges, including high parental expectations, limited institutional support for mental well-being, and performance pressure which may heighten mental well-being challenges, making it a crucial consideration in student success (Dasor et al., 2023; Mohd Azlan et al., 2024; Phang et al., 2011; Yaacob et al., 2025; Yusoff et al., 2009). Additionally, while this study does not focus on cultural or ethnic differences, its findings may still offer insight into non-Western academic settings, particularly in Southeast Asia and other developing countries with similar educational environments.

The application of Keyes' DCM in this study strengthens its relevance in accounting education by demonstrating that well-being is not merely the absence of distress but an active contributor to academic success. By categorising students into flourishing, moderately well, and languishing groups, while also accounting for stress, anxiety, and depression, this study confirms that positive mental well-being plays a critical role in academic outcomes, even when challenges exist. The findings reinforce Keyes' argument that positive mental well-being and

mental well-being challenges exist on separate continua rather than representing opposite ends of a single continuum. Additionally, this study extends his framework to the academic context, showing the need for interventions that not only alleviate distress but also actively foster EWB, PWB, and SWB. As such, Keyes' model emerges as a valuable tool for accounting educators and institutions seeking to integrate well-being into curriculum design, learning environments, and targeted support for accounting students.

Moreover, this study refines the categorisation of students' positive mental well-being by distinguishing moderately well students from those who are flourishing. Prior research has often categorised these groups together, potentially overlooking the unique experiences of students who are functioning (i.e., moderately well) but not thriving (i.e., flourishing). Consistent with Keyes's work (2002, 2024), this study highlights that moderately well students may still experience limitations that affect their academic engagement and satisfaction. Recognising this distinction provides a clearer understanding of how positive mental well-being influences all facets of academic success and may help inform more tailored interventions that support students beyond a binary framework of flourishing versus languishing.

With its empirical findings, this study enriches the literature by empirically reinforcing the centrality of PWB as the most critical dimension of positive mental well-being for academic success. While EWB and SWB show the influence on engagement and satisfaction, PWB is uniquely linked to tangible academic performance, such as GPA and CGPA. Its role in fostering self-regulation, perseverance, and goal-setting reflects the qualities associated with Maslow's self-actualisers. This alignment suggests that students with higher PWB are more likely to pursue academic excellence and attain fulfilment. Further, this study supports Keyes' (2024) claim that PWB underpins other aspects of well-being, particularly EWB, highlighting its foundational importance in achieving holistic mental well-being. These findings highlight the need for universities to prioritise strategies that cultivate resilience, critical thinking, and long-term academic perseverance in preparing students for both academic and professional success.

Furthermore, this study broadens the understanding of mental well-being challenges by clarifying their varied academic impacts, with a particular focus on contrasting the influence of depression and stress. Depression emerged as the most detrimental factor, negatively affecting academic performance and engagement, likely due to persistent fatigue, cognitive decline, and withdrawal, making it a significant barrier to academic success. In contrast, stress displayed a dual role; while it could boost engagement in certain contexts, it often eroded overall satisfaction, suggesting its context-sensitive nature. These insights emphasise the urgency of early detection and proactive support systems for students at risk of depression before their academic progress is severely impacted. Meanwhile, stress demands context-

aware strategies that channel its potential to drive effort while reducing its negative emotional impact. This complexity reinforces the importance of distinguishing between mental well-being challenges rather than treating them as a singular issue. By providing a more nuanced perspective, this study highlights the necessity of tailored interventions that can mitigate the harmful effects of depression while promoting adaptive coping strategies for stress to sustain engagement.

Finally, this study contributes to the understanding of student academic success by applying Maslow's theory**,** demonstrating how PWB enables accounting students to progress towards self-actualisation, while mental well-being challenges hinder this journey. When students meet their needs such as self-acceptance, purpose, and personal growth, they are likely to be motivated and engaged, perform well, and feel more satisfied with their studies. Conversely, mental well-being challenges, particularly depression, disrupt this progression by limiting cognitive, emotional, and motivational resources. Viewed through Maslow's lens, academic success becomes more achievable when students' deeper psychological needs are met.

8.4 Implications and Recommendations

Findings from this study suggest that recognising students' mental well-being status, such as flourishing with or without challenges, moderately well, or languishing, can offer valuable insights into their support needs. While it may not be practical to categorise students into specific mental well-being groups in everyday settings, the framework can still help identify general patterns and guide the development of more inclusive and responsive support strategies. Universities could draw on these insights to tailor initiatives that reflect the diverse well-being profiles within their student population. Additionally, structured mental well-being programmes and resilience training have been shown to be cost-effective in promoting flourishing and preventing the onset of mental health challenges (Forsman et al., 2015; Keyes, 2024; Kobau et al., 2011). Since fostering flourishing is generally more attainable than treating clinical symptoms such as depression, these approaches may offer meaningful benefits not only for accounting students currently facing difficulties but also for the broader student community.

Accounting educators can play a crucial role in supporting student mental well-being, as their daily interactions shape both academic and emotional experiences. Beyond content delivery, they are encouraged to create classroom environments that acknowledge the pressures students face. This may include providing timely feedback, balancing workloads, and designing tasks that are appropriately challenging (Ison et al., 2020). For example, spacing assessments across the semester, instead of clustering deadlines, can reduce

avoidable stress. Offering flexibility in submission formats or timelines, where appropriate, may also benefit students juggling academic and personal demands. Setting clear expectations from the beginning and incorporating low-stakes assessments such as short quizzes or ungraded practice tasks, can enhance students' sense of control and confidence. Small gestures, such as checking in during high-pressure periods or expressing encouragement, can further foster a sense of support and connection. Moreover, findings from this study highlight that PWB significantly influences students' performance, engagement, and satisfaction. As such, practices guided by these dimensions like self-acceptance, personal growth, purpose, and environmental mastery can contribute meaningfully to students' holistic development. Embedding these approaches in regular teaching should be viewed not as an extra responsibility but as an essential element of effective pedagogy.

In addition, accounting educators can also focus on making the classroom a more enjoyable and engaging space. As highlighted by Keyes (2024), incorporating elements of "play" into learning can enhance students' EWB and contribute to a more positive academic experience. This might include game-based activities, interactive case discussions, or light-hearted examples that help students connect complex accounting concepts to real-life situations. When the classroom atmosphere feels less rigid and more dynamic, students are not only more inclined to participate, but also more likely to view learning as intrinsically rewarding rather than purely outcome-focused. Creating opportunities for fun, creativity, and humour can help reduce anxiety, foster a sense of belonging, and support flourishing. This is particularly relevant given that findings from this study revealed that flourishing students were less likely to experience stress, anxiety, or depression. Consistent with Keyes' assertion that flourishing tends to co-occur with fewer mental well-being challenges (2002, 2005, 2024), the findings show that flourishing students had lower stress, anxiety, and depression (see Table 7.8). Hence, promoting enjoyment and positive emotional engagement in accounting education may serve a dual purpose: enriching the learning experience while protecting students' mental well-being.

Accounting educators are also encouraged to help destigmatise mental well-being concerns by fostering open, non-judgmental conversations about emotions and stress challenges within the classroom. Normalising these discussions signals that such experiences are common and manageable, rather than signs of inadequacy. This can be achieved by integrating mental well-being language into lectures such as acknowledging that some topics or deadlines might feel overwhelming, inviting students to take short breaks when discussing complex material, creating space for informal conversations, or responding empathetically to students' concerns. These actions are particularly meaningful, as educators' emotions and instructional behaviour influence students' emotions in the classroom (Becker et al., 2014). Being attentive to rising stress levels and adjusting the pace of teaching, such as by slowing

down for complex topics or simplifying non-essential tasks, also demonstrates responsiveness and care. Moreover, educators can use reflective prompts that invite students to share their emotional state, such as asking them to write or share how they felt about a group project or challenging topic (Ison et al., 2020; Yulia et al., 2020). In addition, encouraging peer support and self-awareness, such as prompting students to recognise signs of strain in themselves or others, can further reinforce a sense of shared responsibility for well-being. These small yet intentional actions help create a psychologically safe learning culture where students feel supported, respected, and better prepared to succeed.

Universities can also play a pivotal role in addressing mental well-being among accounting students through systemic, accessible, and preventive strategies. While large-scale reforms may take time, universities can still lead by adopting more proactive approaches. Encouraging students to prioritise their mental well-being, similar to their physical health, can help prevent issues from escalating (Fazel et al., 2014). One practical step in this direction is promoting mental well-being literacy among both staff and students. Training academic and administrative personnel to recognise signs of distress and respond with empathy can help bridge the gap between students and available services (Yulia et al., 2022). Faculty members and students should also be familiar with university helplines and support services so as to assist peers when needed. Even where mental well-being infrastructure already exists, increasing its visibility, especially during high-pressure periods such as exam seasons, help ensure these services are effectively utilised. When mental well-being efforts are visible and consistently reinforced, they become part of the academic culture rather than remaining peripheral.

To complement formal support, universities may also provide accessible, stigma-free entry points. Since some students fear embarrassment or judgement when seeking help (Henriques, 2018), anonymous options such as virtual listening platforms, digital self-help tools, and mental health kiosks, like those used in US universities can serve as effective first steps (Yulia et al., 2022). These tools allow students to privately assess their mental health and receive guidance without fear of exposure. Expanding and promoting these resources is crucial for fostering a responsive and inclusive campus environment. Integrating them with visible signage, learning portals, or peer-led reminders can encourage their uptake.

However, visibility and accessibility alone are not enough. Many students with the lowest well-being are often the least likely to seek help (Goodwin et al., 2016). In Malaysia, mental well-being remains a sensitive issue, shaped by cultural stigma and societal expectations (Phang et al., 2011; Yusoff et al., 2009), in addition to scepticism about professional support (Arifin et al., 2022; Kumaran et al., 2023; Pheng et al., 2019). To address this, universities can embed mental well-being messages in orientation programmes, student activities, and peer ambassador initiatives to build a culture that normalises help-seeking.

Educational campaigns clarifying the purpose and benefits of mental well-being services can help reduce stigma and build trust (Yulia et al., 2022). Short videos, peer-led discussions, and testimonials, when delivered with consent and confidentiality are especially effective. Repeating these messages throughout the academic year ensures sustained visibility. Additionally, regular campus-wide surveys, feedback mechanisms, and consultation sessions can help universities monitor trends and respond promptly to emerging concerns.

Subsequently, universities can support students by actively fostering social connectedness and a sense of belonging. Social support emerged as an important theme in this study, with several students highlighting a need for stronger peer relationships and deeper community ties. Strengthening social integration can enhance overall SWB and help students feel more connected to their academic environment. Universities can facilitate this by creating opportunities for meaningful interactions, particularly during the early stages of university life. For example, programmes in some US universities incorporate motivational speakers and student-led discussions that encourage students to reflect on their personal support networks (Kramer et al., 2023). These initiatives not only help students familiarise themselves with available resources but also demonstrate the university's commitment to student welfare. When students feel supported by their university, they will be more at ease to participate in student activities and engage in their studies (Braxton et al., 2014). Moreover, by strengthening students' sense of connection and belonging, such efforts may also foster psychological well-being by enhancing motivation, confidence, and personal growth.

Student-led initiatives and peer support programmes can also serve as valuable avenues for promoting mental well-being. Since students often turn to their peers before seeking formal assistance (Goodwin et al., 2016), student organisations are well-placed to cultivate inclusive and stigma-free environments. Accounting student societies and broader university clubs may take an active role by organising events such as de-stress weeks, study-life balance talks, or informal peer support circles. Sharing similar experiences in these spaces may help peers connect through their struggles, exchange coping strategies, and foster trust among vulnerable or at-risk students, making them more likely to seek social support (Byrom, 2018). Involving students in planning and leading these initiatives can also enhance their relevance and impact, while building empathy, leadership, and a sense of shared responsibility. Collaborations with university counselling services or external mental health professionals can further strengthen the structure and credibility of these programmes, creating a more cohesive and accessible support framework on campus.

Broader changes to the Malaysian accounting education system may help foster more supportive and flexible learning environments for Malaysian university accounting students. The current system's emphasis on rigid academic structures, high-stakes assessments, and limited curriculum flexibility (Yaacob et al., 2025) can create considerable pressure, especially

within accounting programmes known for their intense workloads, performance expectations, and competitive nature (Ghani et al., 2008; Smith & Emerson, 2021). These demands, when coupled with high parental expectations often seen in Malaysian society (Al-Dubai et al., 2011; Bakar et al., 2017; Yusoff et al., 2009), may heighten students' risk of stress and anxiety. Given this context, greater attention to accounting students' mental well-being is especially important. While embedding well-being content directly into academic modules may not always be feasible, a more practical approach involves promoting optional well-being initiatives outside the classroom. Emotional resilience workshops, mindfulness sessions, and peer support groups can help students build coping skills and encourage self-care. Accounting faculties can support these efforts by raising awareness through course announcements, learning portals, and well-being ambassadors.

Government support is also a key component in strengthening the mental well-being ecosystem within Malaysian universities. Malaysia faces resource constraints that limit the reach of support services (Murugesan, 2024; Shah, 2022). There is limited availability of mental well-being services in Malaysian universities (Dasor et al., 2023; Mohd Azlan et al., 2024), which may further restrict students' access to timely and adequate care. Increased investment could help expand professional mental health teams, fund preventive well-being initiatives, and improve service access across public and private universities. Policies aimed at increasing the number of trained mental health professionals in universities are especially important, as Malaysia's psychologist-to-population ratio remains below WHO recommendations (WHO, 2025b). In addition, national awareness campaigns that promote help-seeking behaviours and challenge mental health stigma could help reinforce institutional efforts and contribute to a more supportive environment for students.

These recommendations operationalise a layered model grounded in Keyes' Dual Continua Model and Maslow's self-actualisation. Reducing mental well-being challenges secures the base of deficit needs and aligns with the finding that flourishing students had few mental well-being challenges. Cultivating flourishing, particularly PWB, develops higher order growth resources such as purpose, autonomy, and mastery that convert opportunities into attainment and move students towards self-actualisation. Emotional and social well-being primarily enhance engagement and satisfaction by strengthening affect and belonging, which supports progress up the hierarchy. This balance also accommodates the dual pattern of stress, which can energise behaviour while lowering affective quality. Overall, pairing prevention with the deliberate development of growth resources offers a coherent path to self-actualisation and sustained academic success in accounting education.

8.5 Limitations and Future Research

While this study provides valuable insights into the relationship between mental well-being and academic success among Malaysian accounting students, several limitations should be acknowledged. These limitations highlight areas where future research could expand and refine the findings.

The sample lacked representation from non-Malay ethnic groups, such as Chinese, Indian, and other Bumiputra communities. As a result, the findings may not fully capture the diverse experiences and perspectives of students from different cultural backgrounds, which may affect the generalisability of the results. Including a more ethnically diverse sample in future research could offer a broader understanding of how cultural norms and values shape students' participation and perceptions of mental well-being. For instance, Hofstede's Cultural Dimensions Theory (Hofstede, 2001) may offer useful insights into how cultural differences influence academic experiences across ethnic groups.

In addition, the sample was predominantly drawn from public universities. The institutional skew was partly due to restricted access to student contacts on private university websites and limited responses from faculty despite several outreach attempts. The sample also included more women than men. These imbalances may limit generalisability. Future research could strengthen coverage through stratified sampling, collaboration with student associations or faculty members who have close links to students in private universities and to male students, and the use of weighting or multi group analyses to test differences across these groups. This approach may provide a more balanced view of mental well-being and academic success across institutional context and genders.

Academic performance distribution was another area of imbalance, with underrepresentation of students in the poor and satisfactory performance categories. Although this pattern may reflect the general academic profile of Malaysian university students, where most fall into higher performance groups, it may limit the ability to explore the specific academic and mental well-being faced by lower-performing students. Future studies may consider engaging academic advisors or course coordinators to reach this group more effectively and encourage wider participation across the academic spectrum.

An additional limitation is the cross-sectional design, which captures data at a single point in time. While this approach allows for identifying associations between mental well-being and academic success, it does not establish causality. Longitudinal studies would be beneficial in tracking changes in mental well-being and academic performance over time, providing stronger evidence of causal relationships. Future research could explore how mental well-being fluctuates across different academic years, particularly during high-stress periods

such as exam seasons or final-year projects, to understand its long-term impact on student success.

The reliance on self-reported data introduces the possibility of response bias, as participants may have underreported or overreported their mental well-being due to social desirability concerns or personal reluctance to disclose challenges. This concern is particularly relevant for sensitive topics such as stress, anxiety, and depression, where cultural stigma may affect the accuracy of responses. While self-reported surveys are widely used in psychological and educational research, they reflect subjective perceptions rather than clinically validated assessments. Future studies could incorporate objective measures, such as academic records, faculty evaluations of engagement, or physiological indicators of stress, to complement self-reported data. However, such an approach would require non-anonymous participation, raising ethical and privacy concerns that must be carefully managed.

Further, there is the possibility of recall bias, as students were asked to reflect on their mental well-being in the previous semester. Some participants may not have accurately recalled their emotional states, stress levels, or engagement levels, particularly if these experiences fluctuated. Given that mental well-being is dynamic, real-time data collection methods, such as experience sampling techniques or mobile-based assessments, could offer more precise insights into the relationship between mental well-being and academic success.

While this study focused specifically on mental well-being, the modest R-squared values reported in Section 7.3 indicate that other factors may also play a role in academic success. Future research could expand on this work by examining additional predictors, such as prior accounting knowledge, academic interest, self-efficacy, personality traits, financial stress, and social support, and exploring how these elements interact with mental well-being to provide a more comprehensive understanding of student outcomes. Furthermore, qualitative studies could also offer deeper insights into students' lived experiences, capturing contextual nuances not fully reflected in quantitative measures.

SWB showed a mixed pattern in this study. It was positively associated with engagement and satisfaction but negatively associated with CGPA, while showing no effect on GPA. This suggests that social ties may energise day-to-day participation and how students feel about their studies while not necessarily translating into higher long-term attainment. The study did not examine employability outcomes such as teamwork, communication, leadership, and professional networking. Future research could investigate whether SWB supports the development of these generic skills through group work, co-curricular activities, and work placements, and whether such skills mediate longer term academic and career outcomes. This would clarify the conditions under which SWB benefits students and would recognise its importance alongside attainment.

Finally, expanding this line of inquiry to international contexts may yield valuable comparative insights. Conducting similar studies with accounting students in other countries could reveal how cultural, institutional, and systemic differences shape the relationship between mental well-being and academic success. Such cross-cultural comparisons may help identify universal trends as well as context-specific challenges, further enriching the global conversation on accounting education and student well-being.

By addressing these limitations, future research can build upon this study's foundation, contributing to theoretical development and informing more effective, evidence-based strategies to support both academic success and student well-being in diverse educational settings.

8.6 A Final Note

This study was driven by the recognition that mental well-being is integral to academic success, particularly in the rigorous field of accounting. Despite the prevalence of stress, anxiety, and depression among students, mental well-being has not received adequate attention in accounting education. The findings highlight that mental well-being is not merely an adjunct to academic success but a fundamental pillar that sustains performance, engagement, and satisfaction. Universities should be more than centres of knowledge transfer; they should foster environments that promote both academic excellence and personal growth. Prioritising mental well-being is not a secondary concern but a necessity for cultivating a resilient student body prepared for both professional and academic challenges. By embedding mental well-being into educational priorities, universities can enhance student experiences and contribute to a more balanced, capable, and well-rounded workforce.

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Appendices

Appendix 5.1 *List of Universities Offering Accounting Programmes (2023)*

Public University		
No.	**Name of University**	**Location**
1	Universiti Islam Antarabangsa Malaysia (UIAM)	Selangor
2	Universiti Kebangsaan Malaysia (UKM)	Selangor
3	Universiti Malaya (UM)	Kuala Lumpur
4	Universiti Malaysia Kelantan (UMK)	Kelantan
5	Universiti Malaysia Sabah (UMS)	Sabah
6	Universiti Malaysia Sarawak (UNIMAS)	Sarawak
7	Universiti Malaysia Terengganu (UMT)	Terengganu
8	Universiti Pendidikan Sultan Idris (UPSI)	Perak
9	Universiti Putra Malaysia (UPM)	Selangor
10	Universiti Sains Islam Malaysia (USIM)	Negeri Sembilan
11	Universiti Sains Malaysia (USM)	Penang
12	Universiti Sultan Zainal Abidin (UniSZA)	Terengganu
13	Universiti Teknologi Malaysia (UTM)	Johor
14	Universiti Teknologi MARA (UiTM)	Selangor (Main Campus)
15	Universiti Utara Malaysia (UUM)	Kedah
Private University		
No.	**Name of University**	**Location**
1	AIMST University	Kedah
2	Asia Metropolitan University	Johor
3	Asia Pacific University of Technology and Innovation (Asia Pacific UTI)	Kuala Lumpur
4	Binary University of Management and Entrepreneurship	Selangor
5	City University	Selangor
6	Curtin University Malaysia	Sarawak
7	DRB-HICOM University of Automotive Malaysia	Pahang
8	HELP University	Kuala Lumpur
9	Infrastructure University Kuala Lumpur	Selangor
10	INTI International University	Negeri Sembilan
11	Limkokwing University of Creative Technology	Selangor
12	MAHSA University	Selangor
13	Management and Science University (MSU)	Selangor
14	Manipal International University	Negeri Sembilan
15	Monash University Malaysia	Selangor
16	Multimedia Campus University (MMU)	Selangor
17	Nilai University	Negeri Sembilan
18	Open University Malaysia (OUM)	Kuala Lumpur
19	Quest International University Perak	Perak

20	Raffles University (RU)	Johor
21	SEGi University	Selangor
22	Sunway University (SU)	Selangor
23	Swinburne University of Technology	Sarawak
24	Taylor's University (TU)	Selangor
25	Tunku Abdul Rahman University of Management & Technology	Kuala Lumpur
26	UCSI University	Kuala Lumpur
27	UNITAR International University	Selangor
28	Universiti Islam Antarabangsa Sultan Abdul Halim Mu'adzam Shah (UniSHAMS)	Kedah
29	Universiti Islam Pahang Sultan Ahmad Shah (UNIPSAS)	Pahang
30	Universiti Kuala Lumpur	Kuala Lumpur
31	Universiti Selangor (UNISEL),	Selangor
32	Universiti Sultan Azlan Shah (USAS)	Perak
33	Universiti Tenaga Nasional (UNITEN)	Selangor
34	Universiti Tun Abdul Razak (UNIRAZAK)	Selangor
35	Universiti Tunku Abdul Rahman (UTAR)	Selangor
36	Wawasan Open University	Penang
37	Xiamen University Malaysia	Selangor

Appendix 5.2 *Questionnaire*

PART A: GENERAL INFORMATION

Please select the appropriate response or answer the questions in the space provided.

1. What is your gender?
   - O Male
   - O Female
   - O Gender diverse
   - O Prefer not to say

2. What is your age? …… years old.

3. What is your current semester of study?
   - O Semester 1
   - O Semester 2
   - O Semester 3
   - O Semester 4
   - O Semester 5
   - O Semester 6
   - O Semester 7
   - O Semester 8
   - O Other, please specify: ……

4. What is your ethnicity?
   - O Malay
   - O Chinese
   - O Indian
   - O Other, please specify: ……
   - O Prefer not to say

5. What is your current programme?
   - O Diploma
   - O Bachelor's degree
   - O Other, please specify: ……

6. Which type of university are you currently studying in?
   - O Public university
   - O Private university

7. What is your previous Grade Point Average (GPA)?
   - O 3.50 to 4.00
   - O 3.00 to 3.49
   - O 2.50 to 2.99
   - O 2.00 to 2.49
   - O Below 2.00
   - O Cannot remember (please go to Question 8)

8. If you cannot remember your previous semester's GPA, how well do you think you have performed in the previous semester?
    - O Extremely well
    - O Very well
    - O Moderately well
    - O Slightly well
    - O Not well at all

9. What is your Cumulative Grade Point Average (CGPA)?
    - O 3.50 to 4.00
    - O 3.00 to 3.49
    - O 2.50 to 2.99
    - O 2.00 to 2.49
    - O Below 2.00
    - O Cannot remember (please go to Question 10)

10. If you cannot remember your CGPA, how well do you think you have performed in your studies so far?
    - O Extremely well
    - O Very well
    - O Moderately well
    - O Slightly well
    - O Not well at all

PART B: POSITIVE MENTAL WELL-BEING

The following statements relate to **subjective mental well-being**. Using a scale of 1 (None of the Time) to 5 (All the Time), please indicate for each of the following statements which are the closest to how you felt in the previous semester of study at your university.

In the **previous semester** of your study, how much of the time did you feel…

	None of the Time	A Little of the Time	Some of the Time	Most of the Time	All the Time
a…. cheerful?	O	O	O	O	O
b…. in good spirits?	O	O	O	O	O
c…. extremely happy?	O	O	O	O	O
d…. calm and peaceful?	O	O	O	O	O
e…. satisfied?	O	O	O	O	O
f…. full of life?	O	O	O	O	O

The following statement relates to **overall life satisfaction**. Using a scale of 0 (the worst possible life) to 10 (the best possible life), overall, how would you rate your overall life satisfaction during the **previous semester** of study at your university?

Worst	O	O	O	O	O	O	O	O	O	O	Best

The following statements relate to **psychological well-being**. Using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree), please indicate how much you disagree or agree with each of the following statements.

In the **previous semester** of my study:

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a.	I liked most parts of my personality.	O	O	O	O	O
b.	I am pleased with how things have turned out in my life so far.	O	O	O	O	O
c.	I felt some people wandered aimlessly through life, but I was not one of them.	O	O	O	O	O
d.	The demands of everyday life often got me down.	O	O	O	O	O
e.	I felt disappointed about my achievements in life in many ways.	O	O	O	O	O
f.	Maintaining close relationships has been difficult and frustrating for me.	O	O	O	O	O
g.	I lived life one day at a time and didn't really think about the future.	O	O	O	O	O
h.	I felt I am in charge of the situation in which I live in general.	O	O	O	O	O
i.	I was good at managing the responsibilities of daily life.	O	O	O	O	O
j.	I sometimes felt as if I had done all there was to do in life.	O	O	O	O	O
k.	Life, for me, has been a continuous process of learning, changing, and growth.	O	O	O	O	O
l.	I thought it was important to have new experiences that challenge how I think about myself and the world.	O	O	O	O	O
m.	People would describe me as a giving person, willing to share my time with others.	O	O	O	O	O

n.	I gave up trying to make big improvements or changes in my life long ago.	O	O	O	O	O
o.	I tend to be influenced by people with strong opinions.	O	O	O	O	O
p.	I have not experienced many warm and trusting relationships with others.	O	O	O	O	O
q.	I was confident in my own opinions, even if they were different from how most others thought.	O	O	O	O	O
r.	I judge myself by what I think is important, not by the values of what others think is important.	O	O	O	O	O

The following statements relate to **social well-being**. Using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree), please indicate how much you disagree or agree with each of the following statements.

In the **previous semester** of my study:

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a.	I felt the world is too complex for me.	O	O	O	O	O
b.	I did not feel I belonged to any community.	O	O	O	O	O
c.	I felt people who do a favour expect nothing in return.	O	O	O	O	O
d.	I felt I have something valuable to give the world.	O	O	O	O	O
e.	I felt the world is becoming a better place for everyone.	O	O	O	O	O
f.	I felt close to other people in my community.	O	O	O	O	O
g.	My daily activities did not create anything worthwhile for my community.	O	O	O	O	O
h.	I could not make sense of what was going on in the world.	O	O	O	O	O
i.	I felt society has stopped making progress.	O	O	O	O	O
j.	I felt people do not care about other people's problems.	O	O	O	O	O
k.	I felt my community is a source of comfort.	O	O	O	O	O
l.	I tried to think about and understand what could happen next in our country.	O	O	O	O	O
m.	I felt society isn't improving for people like me.	O	O	O	O	O
n.	I believed that people are kind.	O	O	O	O	O
o.	I felt I have nothing important to contribute to society.	O	O	O	O	O

PART C: MENTAL WELL-BEING CHALLENGES

Everyone experiences stress and anxiety at one time or another, some more often than others. Using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree), please indicate how much you disagree or agree with each of the following challenges.

In the **previous semester** of my study:

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a.	I found it hard to wind down.	O	O	O	O	O
b.	I was aware of the dryness of my mouth.	O	O	O	O	O
c.	I could not seem to experience any positive feelings at all.	O	O	O	O	O
d.	I experienced breathing difficulty (e.g., excessively rapid breathing and breathlessness without physical exertion).	O	O	O	O	O
e.	I found it difficult to work up the initiative to do things.	O	O	O	O	O
f.	I tended to overreact to situations.	O	O	O	O	O
g.	I experienced trembling (e.g., in my hands).	O	O	O	O	O
h.	I felt that I was using a lot of nervous energy.	O	O	O	O	O
i.	I was worried that I might panic and make a fool of myself.	O	O	O	O	O
j.	I felt that I had nothing to look forward to.	O	O	O	O	O
k.	I found myself getting agitated.	O	O	O	O	O
l.	I found it difficult to relax.	O	O	O	O	O
m.	I felt downhearted and blue.	O	O	O	O	O
n.	I was intolerant of anything that kept me from getting on with what I was doing.	O	O	O	O	O
o.	I felt I was close to panic.	O	O	O	O	O
p.	I was unable to become enthusiastic about anything.	O	O	O	O	O
q.	I felt I wasn't worth much as a person.	O	O	O	O	O
r.	I felt that I was rather touchy.	O	O	O	O	O
s.	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	O	O	O	O	O
t.	I felt scared without any good reason.	O	O	O	O	O
u.	I felt that life was meaningless.	O	O	O	O	O

PART D: STUDENTS' ENGAGEMENT

The following statements relate to engagement in face-to-face and/or online classes. Using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree), please indicate how much you disagree or agree with each of the following statements.

In the **previous semester** of my study:

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a.	I paid attention in class.	O	O	O	O	O
b.	I followed the university's rules.	O	O	O	O	O
c.	I usually did my assignments on time.	O	O	O	O	O
d.	When I had doubts, I asked questions and participated in class.	O	O	O	O	O
e.	I usually participated actively in group assignments.	O	O	O	O	O
f.	I did not feel very accomplished at this university.	O	O	O	O	O
g.	I felt excited about university studies.	O	O	O	O	O
h.	I liked being at university.	O	O	O	O	O
i.	I was interested in university studies.	O	O	O	O	O
j.	My class was an interesting place to be.	O	O	O	O	O
k.	When I read a book, I questioned myself to ensure I understand the subject I'm reading about.	O	O	O	O	O
l.	I talked to people outside the university about matters I learned in class.	O	O	O	O	O
m.	If I did not understand the meaning of a word, I tried to solve the problem, for example, by consulting a dictionary or asking someone else.	O	O	O	O	O
n.	I tried to integrate the acquired knowledge into solving new problems.	O	O	O	O	O
o.	I tried to integrate subjects from different disciplines into my general knowledge.	O	O	O	O	O
p.	I participated in at least one extracurricular activity (e.g., sports, clubs, community service, etc.).	O	O	O	O	O

PART E: STUDENTS' STUDY SATISFACTION

The following statements relate to study satisfaction. Using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree), please indicate how much you disagree or agree with each of the following statements.

In the **previous semester** of my study:

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a.	I really enjoyed what I was studying.	O	O	O	O	O
b.	I found peacefulness when I study.	O	O	O	O	O
c.	I found my studies really interesting.	O	O	O	O	O
d.	I wished that the facilities at the university were better.	O	O	O	O	O
e.	I felt frustrated with my study because of the lecturers' teaching quality.	O	O	O	O	O
f.	My university pays too little attention to the students' interests (e.g., sports).	O	O	O	O	O
g.	I struggled to balance my studies with other obligations (e. g. family).	O	O	O	O	O
h.	The study consumed me.	O	O	O	O	O
i.	I often felt exhausted from my studies.	O	O	O	O	O

Comment

Are there any further insights you like to share about your mental wellbeing?

We thank you for your time spent taking this survey.

Your response has been recorded.

Appendix 5.3 *Pre-Pilot Interview Ethics Approval*

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Dear:

Thank you for the above application that was considered by the Massey University Human Ethics Committee:

at their meeting held on

On behalf of the Committee I am pleased to advise you that the ethics of your application are approved.

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Brian Finch Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 951 6841; 06 95106840
E humanethics@massey.ac.nz; animalethics@massey.ac.nz; gtc@massey.ac.nz

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Dear:

Thank you for submitting a low risk notification for your research/teaching/evaluation.

This email is to acknowledge receipt of the low risk notification and to inform you that the details of your project have been recorded in our database for inclusion in the annual reports to the Health Research Council Ethics Committee (HRCEC) and the Massey University Research Committee (URC).

You may proceed with your research, though it is advisable to provide a couple of weeks before commencing, as all low risk notifications are checked for completeness and clarity by a Research Ethics Advisor. You may be contacted if your application is incomplete and/or further clarification is required.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis.

If a sponsoring organisation, funding authority (e.g., the Health Research Council) or a journal require evidence of ethical approval from a Human Ethics Committee (with an approval number), you need to complete a full Massey University Human Ethics application to be reviewed and approved by one of our Human Ethics Committees. Applications must be submitted and approved prior to the commencement of the research.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact the Research Ethics Office, email humanethics@massey.ac.nz. "

Please include the following statement on all public documents (e.g., information sheet, consent form) related to your project:

> ***This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.***
>
> ***If you have any concerns about the ethical conduct of this research that you want to raise with someone other than the researcher(s), please contact Massey University Human Ethics by email: humanethics@massey.ac.nz.***

I wish you all the best in your research, teaching or evaluation activities and appreciate your thoughtful consideration of ethics principles and practices.

Ngā mihi nui,

Dr Brian Finch Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 951 6841; 06 951 6840
E humanethics@massey.ac.nz; animalethics@massey.ac.nz; gtc@massey.ac.nz

Appendix 5.4 *Letter of Appreciation*

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

MASSEY BUSINESS SCHOOL
TE KURA WHAI PAKIHI

March 9, 2023

Dear (Participant),

Kia Ora,

We thank you for participating in a research interview on **mental well-being and university accounting students' academic success.**

The data collected during the interview process contributed to a better understanding of the current situation of accounting students' mental well-being and its effect on their academic success in Malaysia. Furthermore, your ideas, knowledge, and input were highly valuable and aided the researcher in developing the questionnaire for the PhD study.

Any information gathered during our session is for internal use only and will not be publicised without your permission. If you have any questions or concerns regarding the data collected during the online interview session or its purpose, please feel free to contact:

PhD Student
Idham Rodzali: [redacted]

Supervisors (School of Accountancy)
Associate Professor Lin Mei Tan: L.M.Tan@massey.ac.nz
Associate Professor Radiah Othman: R.Othman@massey.ac.nz

Again, we thank you for your time and highly value your feedback!

Sincerely,

F. Laswad

Head of School

School of Accountancy
Private Bag 11222, Palmerston North 4442, New Zealand
06 356 9099 | www.massey.ac.nz

AACSB ACCREDITED Accounting

Appendix 5.5 *Pilot and Main Study Ethics Approval*

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

18/05/2023

Dear: Idham Rodzali

Re: Ethics Application - OM2 23/13 - A pilot study and actual data collection for a project on mental well-being and university accounting students' academic success in Malaysia.

Thank you for the above application that was considered by the Massey University Human Ethics Committee:

Ohu Matatika 2 at their meeting held on **Thursday, 23 March 2023**

On behalf of the Committee I am pleased to advise you that the ethics of your application are approved.

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Professor Craig Johnson
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 951 6841; 06 95106840
E humanethics@massey.ac.nz; animalethics@massey.ac.nz; gtc@massey.ac.nz

Appendix 5.6 *Information Sheet*

Mental Well-Being and University Accounting Students' Academic Success in Malaysia

Information Sheet for Accounting Students

Researcher Introduction

This research is being conducted by Idham Rodzali, a PhD student at Massey University, School of Accountancy. The academic supervisors are Associate Professor Lin Mei Tan and Associate Professor Radiah Othman.

Research Description

Mental well-being affects the way people think, feel, connect, and function in their daily lives. Positive mental well-being is critical to university students, as it may affect their academic success. This PhD study intends to investigate the effect of mental well-being on university accounting students' academic success in Malaysia.

Invitation to Participate

You are invited to participate in this research by sharing your experience in the following sections:

- The subjective, psychological, and social well-being of your previous semester.
- The mental well-being challenges you faced in your previous semester.
- The study engagement of your previous semester.
- The study satisfaction of your previous semester.

Your help with my PhD study would be greatly appreciated. This survey is only for students in their second semester and above. You do not need to participate if you are in your first semester. Your participation would provide invaluable insights into students' mental well-being and its effect on academic success in university. Please read the instructions for each question and consider the response options carefully. The questionnaire consists of five parts; Part A: General Information, Part B: Positive Mental Well-Being, Part C: Mental Well-Being Challenges, Part D: Students' Engagement, and Part E: Students' Satisfaction. It should take about 10 to 20 minutes to complete this questionnaire.

Participant's Rights

This questionnaire contains some questions about stress, anxiety, and depression that may be sensitive to some people. Participation in this study is completely voluntary. You are under no obligation to accept this invitation. You have the right to decline to answer any questions. You can withdraw from the study at any time before you submit it. However, once you have submitted, you will not be able to withdraw the information you have provided up to that point because data cannot be retracted. Withdrawing from the study, should you choose to, will not result in any disadvantage to you. You can ask any questions about the study at any time during participation by emailing the researcher. You have the right to be given access to a summary of the research findings when it is concluded. Be assured that the survey will be anonymous, and the confidentiality of the information solicited is guaranteed.

If you would like to receive a summary of the research findings or have any questions, feel free to contact the researcher at [redacted].

Security and Storage of Your Information

All data/information will be treated confidentially and stored in a secure location for at least seven years on the Massey University Manawatu Campus, then destroyed.

PhD Student

Idham Rodzali: [redacted]

Supervisors (School of Accountancy)

Associate Professor Lin Mei Tan: L.M.Tan@massey.ac.nz

Associate Professor Radiah Othman: R.Othman@massey.ac.nz

You may also contact the Massey University Human Ethics Committee (MUHEC) involving any concerns that you may have:

This project has been reviewed and approved by the Massey University Human Ethics Ohu Matatika 2, Application OM2 23/13. If you have any concerns about the conduct of this research, please contact Associate Professor Fiona Te Momo, Chair, Massey University Human Ethics Ohu Matatika 2, telephone 09 414 0800 x 43347, email humanethics2@massey.ac.nz.

Getting help is the most important first step in overcoming any form of mental well-being challenges. If you need someone to talk to about any mental health challenges you face, there are a range of resources and services available. Below are some contact details of the services available in Malaysia that offer support and help.

The Malaysian Mental Health Association (MMHA)

Phone: +603 2780 6803

Website: www.mnha.org.my

Talian Kasih

Phone: 15999 or WhatsApp: +6019 261 5999

Website: www.kpwkm.gov.my

Befrienders Malaysia

Phone: +603 7627 2929

This survey is only for students who are in their second semester and above. You do not need to participate if you are in your first semester. By clicking next, it means that you have read the information sheet and are willing to participate in the survey.

Appendix 5.7 *Recruitment Letter*

Dear [Name of the Dean/Head of Faculty/Lecturer],

My name is Idham Rodzali. I am a PhD student at Massey University, New Zealand. I am working on my PhD research titled 'Mental Well-being and University Accounting Students' Academic Success in Malaysia.' My research aim is to investigate the effect of mental well-being on university accounting students' academic success in Malaysia. The sample for my research will be drawn from public and private universities accredited by the Malaysian Qualifications Agency (MQA) that offer accounting programmes. Students' insights are important as they will provide a better understanding of the effect of mental well-being on students' academic success in university.

Therefore, I would like to request your assistance in forwarding the link to the questionnaire to your accounting students. Please note that the questionnaire contains questions about stress, anxiety, and depression that may be sensitive to some students. However, they can withdraw from participation at any time before or during the research. Participation in this study is completely voluntary. This information and their rights to participate are included in the information sheet attached to the questionnaire.

I would greatly appreciate if you could kindly confirm whether you are able to help with forwarding the link to students. If you can, please let me know and I will send it to you.

Thank you for considering my request, and I look forward to hearing from you soon.

Best regards,

Idham Rodzali

Appendix 5.8 *Missing Data and Item Reversals*

No.	Item	Missing data		Positive/ Negative	Recode
		N	%		
Part A: General Information		-	-	Positive	No
1	What is your gender?	-	-	Positive	No
2	What is your age?	-	-	Positive	No
3	What is your current semester of study?	-	-	Positive	No
4	What is your ethnicity?	-	-	Positive	No
5	What is your current programme?	-	-	Positive	No
6	Which type of university are you currently studying in?	-	-	Positive	No
7	What is your previous Grade Point Average (GPA)?	-	-	Positive	No
8	If you cannot remember your previous semester's GPA, how well do you think you have performed in the previous semester?	-	-	Positive	No
9	What is your Cumulative Grade Point Average (CGPA)?	-	-	Positive	No
10	If you cannot remember your CGPA, how well do you think you have performed overall in your studies so far?	-	-	Positive	No
Part B: Positive Mental Well-Being					
	Emotional Well-Being **(EWBS)**				
a	How much of the time did you feel cheerful?	0	0.00	Positive	No
b	How much of the time did you feel in good spirits?	1	0.15	Positive	No
c	How much of the time did you feel extremely happy?	3	0.45	Positive	No
d	How much of the time did you feel calm and peaceful?	4	0.60	Positive	No
e	How much of the time did you feel satisfied?	1	0.15	Positive	No
f	How much of the time did you feel full of life?	2	0.30	Positive	No
	How would you rate your overall life satisfaction	5	0.75	Positive	No
	Psychological Well-Being **(PWBS)**				
a	I liked most parts of my personality.	0	0.00	Positive	No
b	I am pleased with how things have turned out in my life so far.	0	0.00	Positive	No
c	I felt some people wandered aimlessly through life, but I was not one of them.	2	0.30	Positive	No
d	The demands of everyday life often got me down.	0	0.00	Negative	Yes
e	I felt disappointed about my achievements in life in many ways.	1	0.15	Negative	Yes
f	Maintaining close relationships has been difficult and frustrating for me.	3	0.45	Negative	Yes
g	I lived life one day at a time and didn't really think about the future.	0	0.00	Negative	Yes
h	I felt I am in charge of the situation in which I live in general.	0	0.00	Positive	No
i	I was good at managing the responsibilities of daily life.	0	0.00	Positive	No
j	I sometimes felt as if I had done all there was to do in life.	0	0.00	Negative	Yes
k	Life, for me, has been a continuous process of learning, changing, and growth.	2	0.30	Positive	No
l	I thought it was important to have new experiences that challenge how I think about myself and the world.	0	0.00	Positive	No
m	People would describe me as a giving person, willing to share my time with others.	3	0.45	Positive	No
n	I gave up trying to make big improvements or changes in my life long ago.	2	0.30	Negative	Yes
o	I tend to be influenced by people with strong opinions.	1	0.15	Negative	Yes
p	I have not experienced many warm and trusting relationships with others.	3	0.45	Negative	Yes
q	I was confident in my own opinions, even if they were different from how most others thought.	1	0.15	Positive	No
r	I judge myself by what I think is important, not by the values of what others think is important.	0	0.00	Positive	No
	Social Well-Being **(SWBS)**				
a	I felt the world is too complex for me.	0	0.00	Negative	Yes
b	I did not feel I belonged to any community.	1	0.15	Negative	Yes
c	I felt people who do a favour expect nothing in return.	1	0.15	Positive	No

No.	Item	Missing data		Positive/ Negative	Recode
		N	%		
d	I felt I have something valuable to give the world.	1	0.15	Positive	No
e	I felt the world is becoming a better place for everyone.	2	0.30	Positive	No
f	I felt close to other people in my community.	0	0.00	Positive	No
g	My daily activities did not create anything worthwhile for my community.	2	0.30	Negative	Yes
h	I could not make sense of what was going on in the world.	1	0.15	Negative	Yes
i	I felt society has stopped making progress.	0	0.00	Negative	Yes
j	I felt people do not care about other people's problems.	2	0.30	Negative	Yes
k	I felt my community is a source of comfort.	2	0.30	Positive	No
l	I tried to think about and understand what could happen next in our country.	0	0.00	Positive	No
m	I felt society isn't improving for people like me.	2	0.30	Negative	Yes
n	I believed that people are kind.	0	0.00	Positive	No
o	I felt I have nothing important to contribute to society.	3	0.45	Negative	Yes
Part C: Mental Well-Being Challenges (DASS-21)					
a	I found it hard to wind down.	0	0.00	Negative	No
b	I was aware of the dryness of my mouth.	3	0.45	Negative	No
c	I could not seem to experience any positive feelings at all.	1	0.15	Negative	No
d	I experienced breathing difficulty (e.g., excessively rapid breathing and breathlessness without physical exertion).	2	0.30	Negative	No
e	I found it difficult to work up the initiative to do things.	2	0.30	Negative	No
f	I tended to overreact to situations.	1	0.15	Negative	No
g	I experienced trembling (e.g., in my hands).	2	0.30	Negative	No
h	I felt that I was using a lot of nervous energy.	2	0.30	Negative	No
i	I was worried that I might panic and make a fool of myself.	2	0.30	Negative	No
j	I felt that I had nothing to look forward to.	2	0.30	Negative	No
k	I found myself getting agitated.	2	0.30	Negative	No
l	I found it difficult to relax.	1	0.15	Negative	No
m	I felt downhearted and blue.	1	0.15	Negative	No
n	I was intolerant of anything that kept me from getting on with what I was doing.	2	0.30	Negative	No
o	I felt I was close to panic.	2	0.30	Negative	No
p	I was unable to become enthusiastic about anything.	1	0.15	Negative	No
q	I felt I wasn't worth much as a person.	0	0.00	Negative	No
r	I felt that I was rather touchy.	2	0.30	Negative	No
s	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	1	0.15	Negative	No
t	I felt scared without any good reason.	1	0.15	Negative	No
u	I felt that life was meaningless.	1	0.15	Negative	No
Part D: Students' Engagement (USEI)					
a	I paid attention in class.	2	0.30	Positive	No
b	I followed the university's rules.	3	0.45	Positive	No
c	I usually did my assignments on time.	2	0.30	Positive	No
d	When I had doubts, I asked questions and participated in class.	1	0.15	Positive	No
e	I usually participated actively in group assignments.	3	0.45	Positive	No
f	I did not feel very accomplished at this university.	1	0.15	Negative	Yes
g	I felt excited about university studies.	2	0.30	Positive	No
h	I liked being at university.	1	0.15	Positive	No
i	I was interested in university studies.	4	0.60	Positive	No
j	My class was an interesting place to be.	0	0.00	Positive	No
k	When I read a book, I questioned myself to ensure I understand the subject I'm reading about.	0	0.00	Positive	No
l	I talked to people outside the university about matters I learned in class.	0	0.00	Positive	No
m	If I did not understand the meaning of a word, I tried to solve the problem, for example, by consulting a dictionary or asking someone else.	5	0.75	Positive	No
n	I tried to integrate the acquired knowledge into solving new problems.	5	0.75	Positive	No

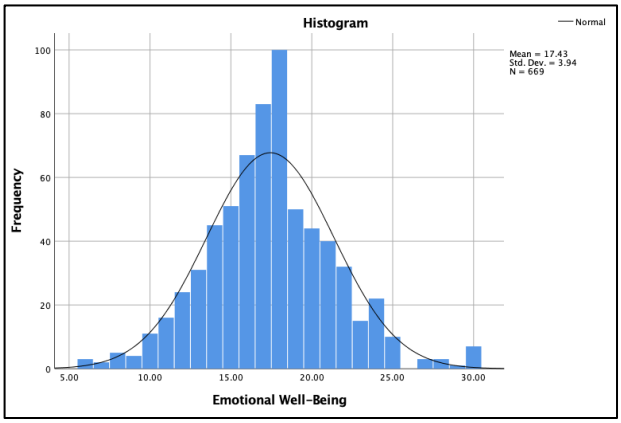
No.	Item	Missing data		Positive/ Negative	Recode
		N	%		
o	I tried to integrate subjects from different disciplines into my general knowledge.	2	0.30	Positive	No
p	I participated in at least one extracurricular activity (e.g., sports club, community service, etc.).	3	0.45	Positive	No
Part E: Students' Satisfaction (SSQ)					
a	I really enjoyed what I was studying.	1	0.15	Positive	No
b	I found peacefulness when I study.	2	0.30	Positive	No
c	I found my studies really interesting.	2	0.30	Positive	No
d	I wished that the facilities at the university were better.	2	0.30	Negative	Yes
e	I felt frustrated with my study because of the lecturers' teaching quality.	2	0.30	Negative	Yes
f	My university pays too little attention to the students' interests (e.g., sports).	0	0.00	Negative	Yes
g	I struggled to balance my studies with other obligations (e. g. family).	3	0.45	Negative	Yes
h	The study consumed me.	1	0.15	Negative	Yes
i	I often felt exhausted from my studies.	0	0.00	Negative	Yes
	Are there any further insights you like to share about your mental wellbeing?	-	-	-	No
Total Missing Values (Total percentage divided by total number of items) (19.35% / 86) = **0.23%**		**129**	**0.23**		

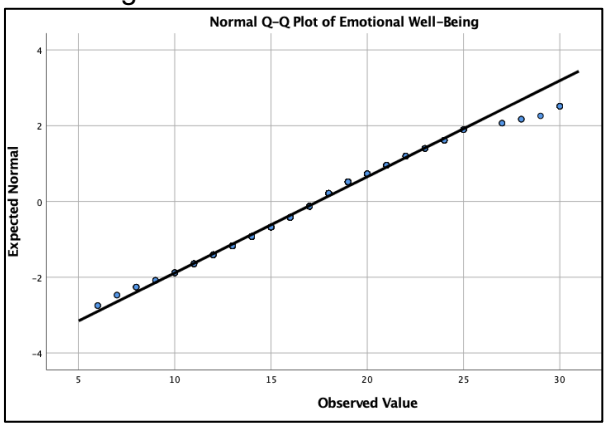
Appendix 6.1 *Ethnicity Summary*

Ethnicity	*N*	%
Malay	625	93.4
Chinese	22	3.3
Indian	7	1.0
African	1	.1
Bangladeshi	1	.1
Bidayuh	1	.1
Iban	1	.1
Sino	2	.3
Siamese	1	.1
Yemeni	2	.3
Rungus	1	.1
Kadazan Dusun	3	.4
Kenyah	1	.1
Sino Kadazan	1	.1
Total	*669*	*100.0*

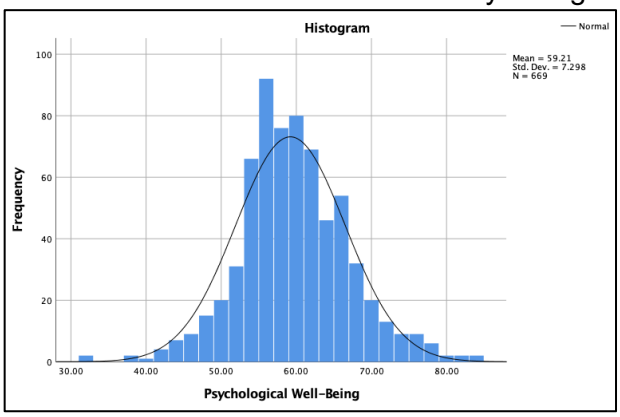
Appendix 6.2 *Normality Analysis*

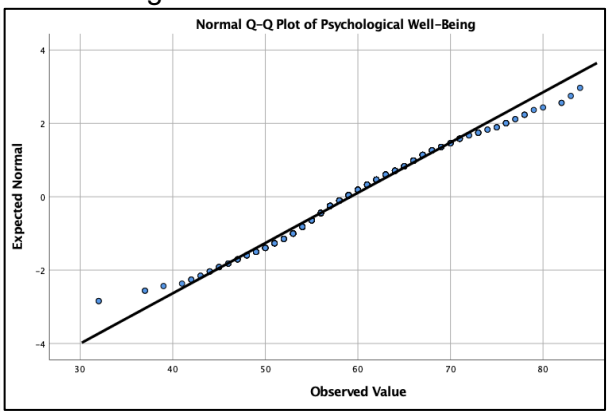
Emotional Well-Being



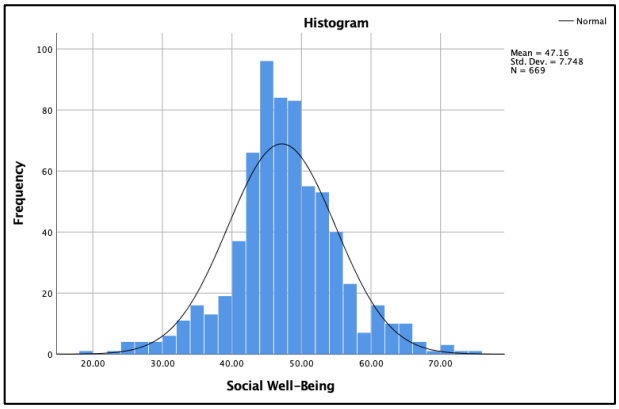


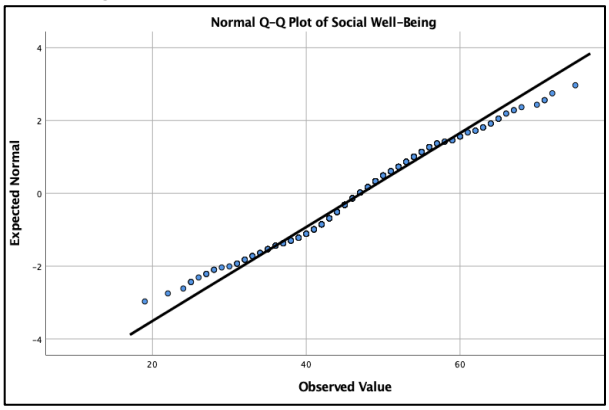
Psychological Well-Being



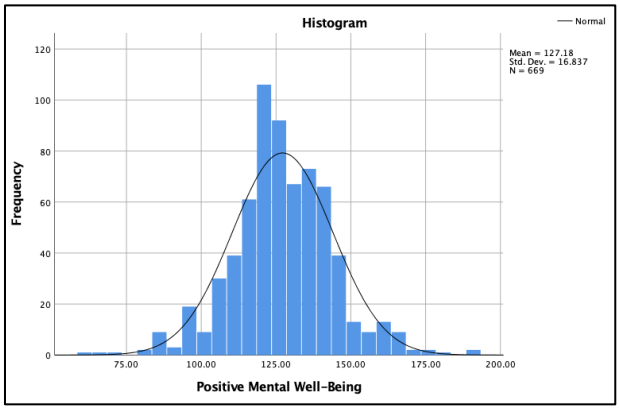


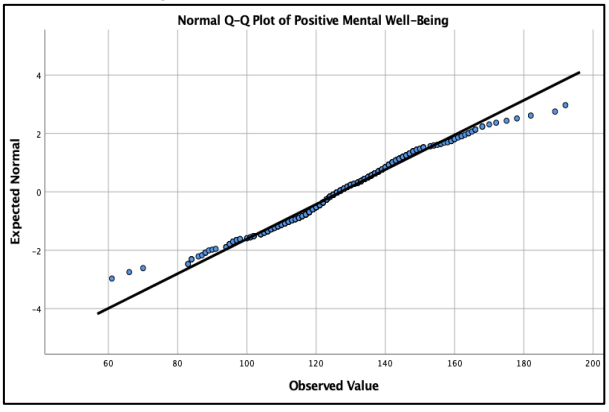
Social Well-Being



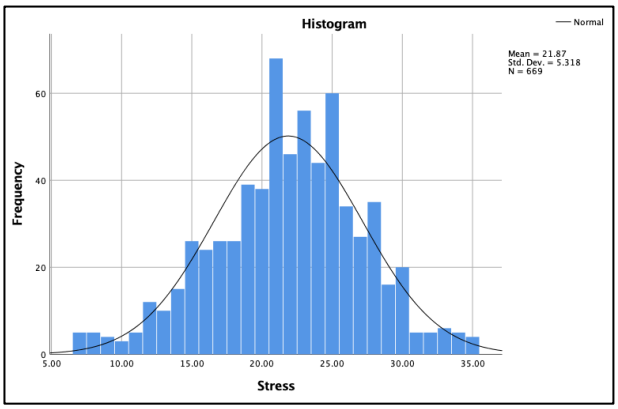


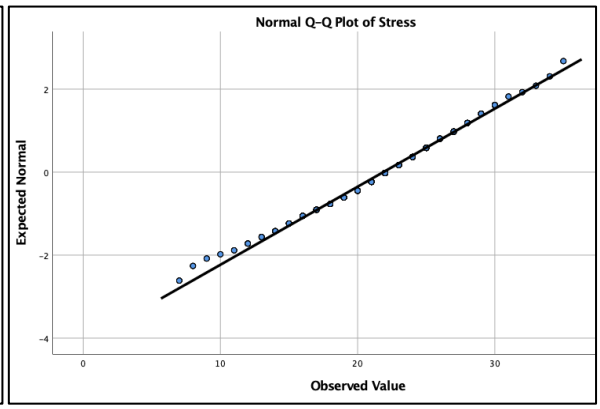
Positive Mental Well-Being



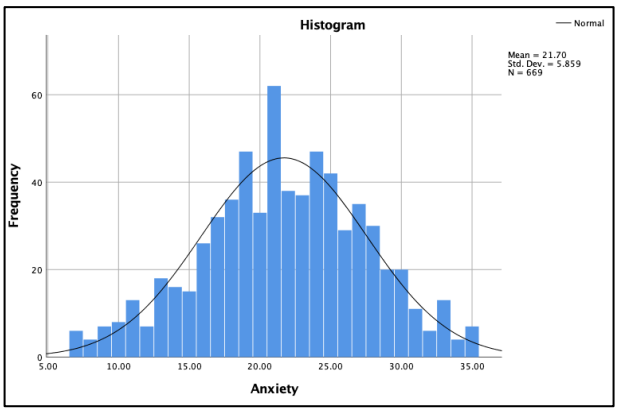


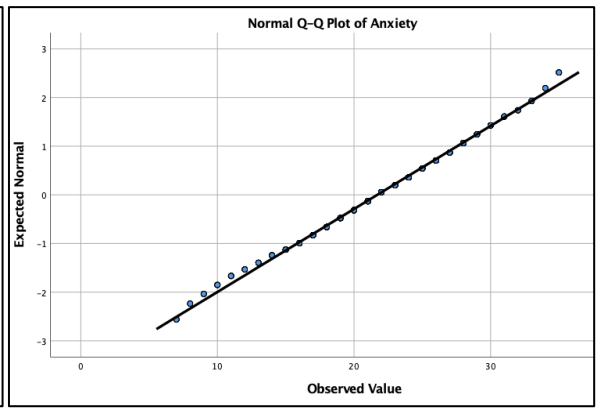
Stress



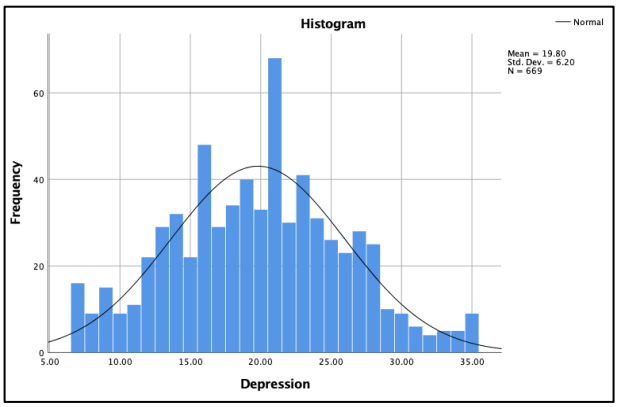


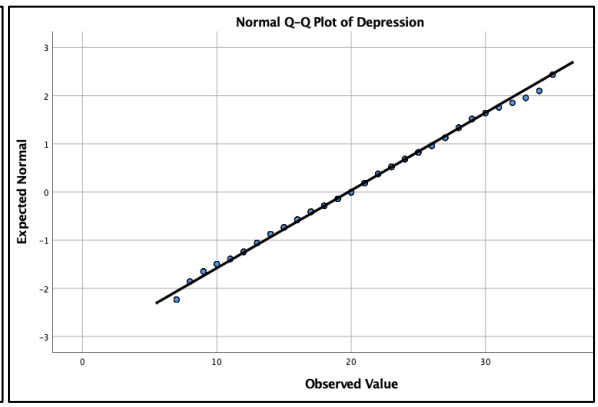
Anxiety



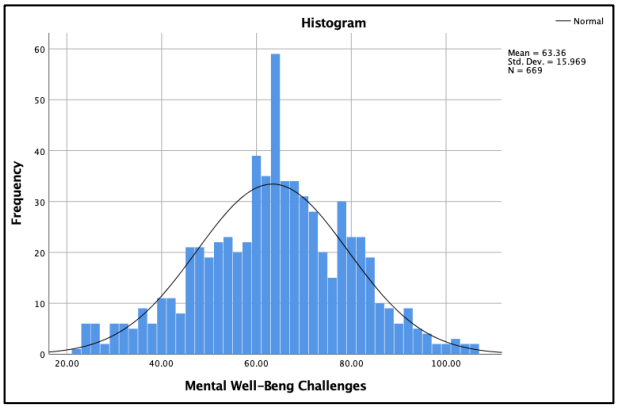


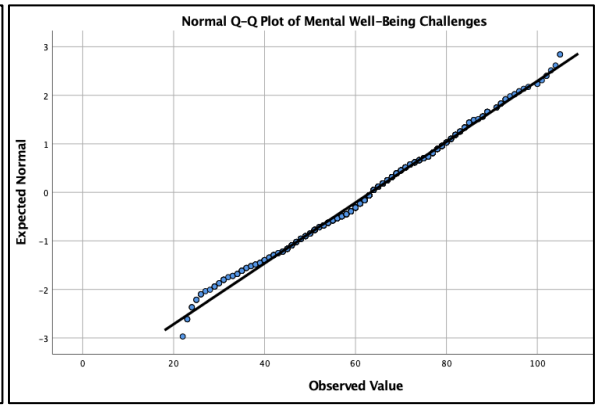
Depression



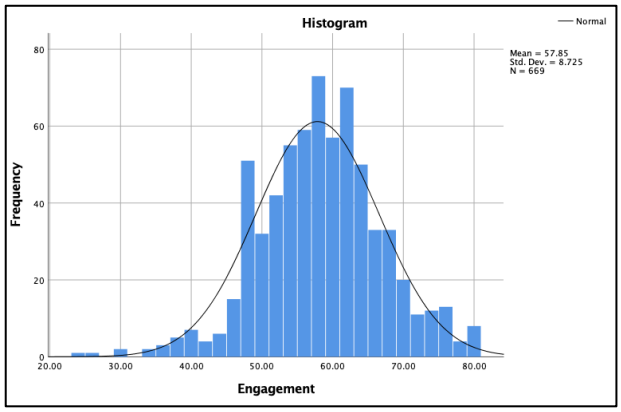


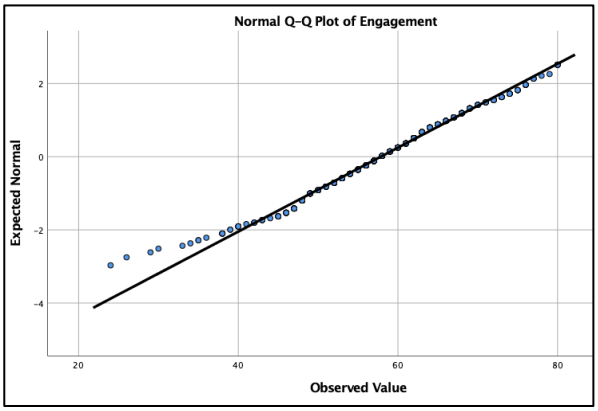
Mental Well-Being Challenges



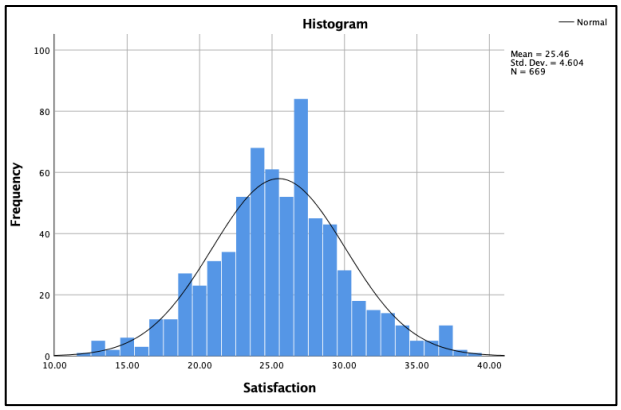


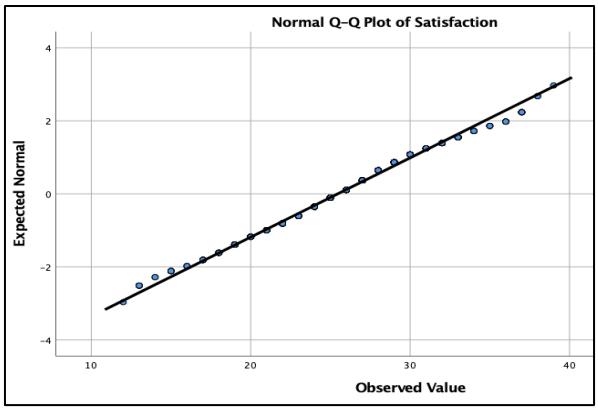
Student Engagement



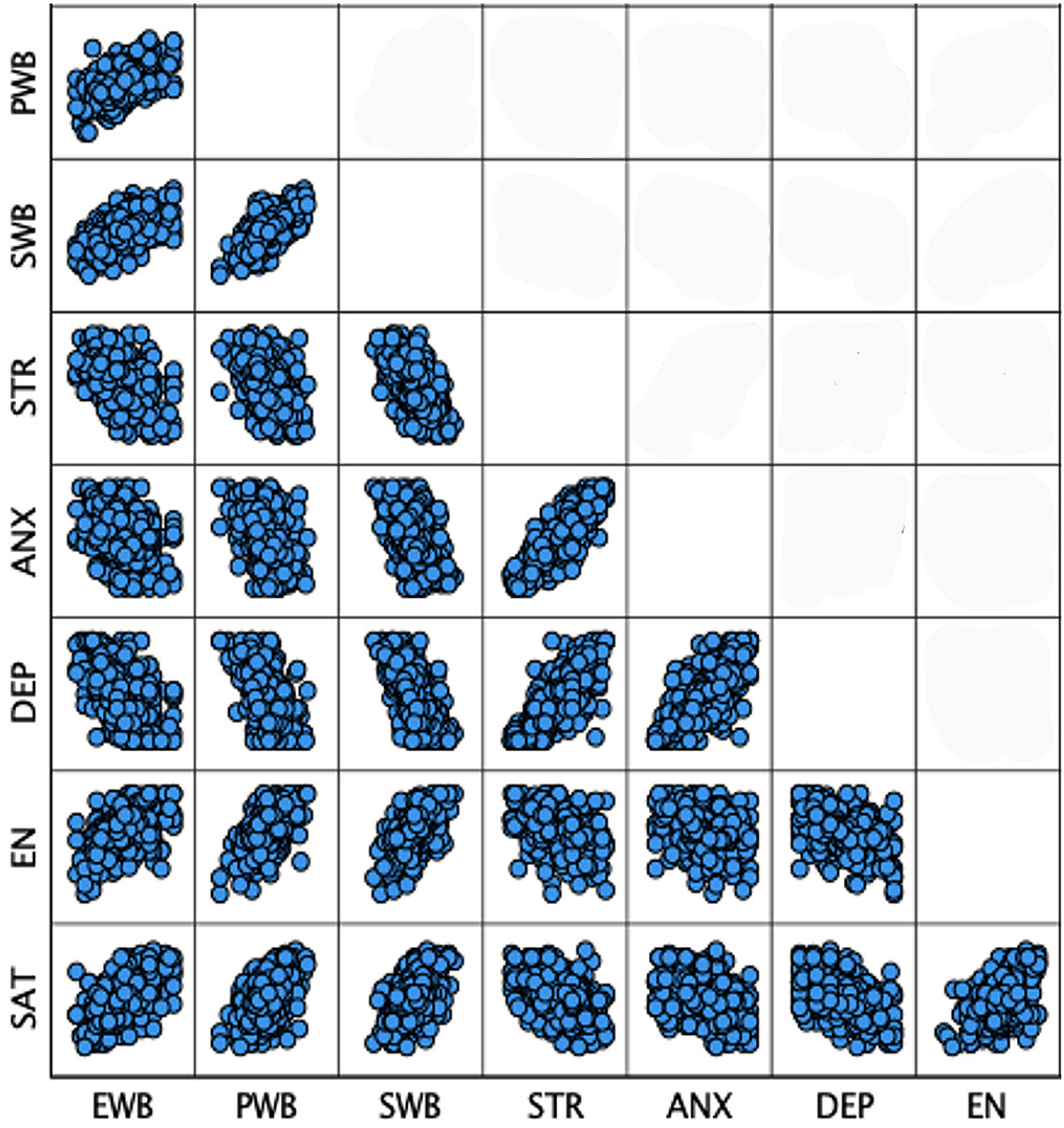


Student Satisfaction





Appendix 6.3 *Linearity Graphs Between Variables*



Note.
EWB : Emotional well-being
PWB : Psychological well-being
SWB : Social well-being
STR : Stress
ANX : Anxiety
DEP : Depression
EN : Engagement
SAT : Satisfaction

Appendix 6.4 Themes

Theme 1: Positive Mental Well-Being

Theme 1a: Emotional Well-Being

No.	Student Code	Comment
1	2	I'm fine
2	3	I started paying more attention to the little things around me – the swaying trees, the rustling leaves, the gentle breeze, and the passing clouds. I find more happiness and peace now that I prioritise self-care over academic performance. I remind myself that everything – the good and the bad – is temporary. In summary, I'm grateful for where I am now and proud of myself for overcoming the internal battles I've faced.
3	6	During the previous semester, I struggled to study alone because I had issues with my surroundings and my social circle. However, I am very happy because I have a really supportive family.
4	8	I'm okay, thanks for asking.
5	14	Everyone has their good and bad days in life. Never give up; you will shine when the time comes.
6	16	Always turn to Allah (God).
7	18	Getting back into my hobbies and being in a relationship with someone I can depend on has helped improve my mental stability.
8	20	Not okay but it's okay.
9	22	Sometimes, I feel dissatisfied with what I've done, which makes me upset because I couldn't do my best for the next time.
10	25	Despite our efforts to stay positive, the demands of university life, particularly the heavy workload in both studies and assessments, can leave us feeling exhausted.
11	28	Everything went well.
12	30	I feel happy when I can study alone in my own zone, such as when I study online at home with my family. However, when I study surrounded by classmates or friends, I feel anxious, fearing they may judge my studying habits.
13	31	I really hate it when people keep saying that I'm gifted... well, I'm not. I struggle with every little thing.
14	34	Overall, things are good, but there are times when you feel like the world is not on your side.
15	36	I'm just fine.
16	51	Good.
17	54	Good.
18	56	All is well.
19	58	Okay, good.
20	63	I think having good friends and roommates is what helped me study better during previous semester. ^_^

21	73	I'm good. I don't even believe in something that can weaken me, like depression. After I finish my classes, I go to the gym almost every day. Also, I work during the weekend. I'm totally organised. I embrace suffering. Stay hard and stay focused.
22	74	Just okay and nice
23	77	Be happier.
24	82	It’s getting better.
25	83	But I'm all fine.
26	84	My mental well-being right now is like a roller coaster.
27	85	Sometimes, it's good; sometimes, it's bad.
28	89	I have an intense dislike of my accommodation surroundings during my studies, but I kind of miss the air quality where it is far away from the city. I am generally happy with good people, but the complacent surroundings can eat away at your motivation over time.
29	98	Sometimes good, sometimes not.
30	101	I don't think that I have any mental illness, but there were times when I felt sad because of people's opinions, especially my parents'. I think they don't really see much of me, so they just do things that are necessary for a parent to do and then leave me to live by myself. In addition, they don't seem to have any interest in me at all.
31	104	Lack the confidence but never lacking in the spirit.
32	108	Good.
33	111	Since I'm taking the professional paper for CPA, it's kind of stressful at the moment. But once it's finished, I will feel relieved and happy.

Theme 1b: Psychological Well-Being

No.	Student Code	Comment
1	3	I faced family issues that caused me to spiral into a meltdown until I sought help from a counsellor. Unfortunately, she couldn’t provide much assistance, but I recognised the importance of addressing my mental health. Gradually, I began to adapt to my surroundings. Whenever I felt down or sensed myself spiralling, I would go for a run. I'm confident that maintaining this mindset will lead to personal growth, albeit gradually and sometimes painfully.
2	10	I know I have a problem with myself, but I don't know who to talk to.
3	11	I think my mental health is generally okay, but I notice that when I push myself too quickly into tasks outside of my comfort zone, I often feel overwhelmed and stressed. Therefore, I need to take some time to wind down and relax once in a while.
4	14	Everyone has their good and bad days in life. Never give up; you will shine when the time comes.
5	15	I'm feeling kind of lost about my future path as everything still seems blurry.
6	18	I feel like this semester, I will see improvement.

7	22	Sometimes, I feel dissatisfied with what I've done, which makes me upset because I couldn't do my best for the next time.
8	23	I have already sought further treatment for my mental health, and Alhamdulillah, the support I received from the staff and lecturers has slowly helped me stabilise my life.
9	26	I have experienced moments when I lack interest in studying and contemplate quitting. However, my family's constant encouragement motivates me to persist in my endeavours.
10	31	I really hate it when people keep saying that I'm gifted... well, I'm not. I struggle with every little thing
11	33	I need to take care of myself.
12	34	Overall, things are good, but there are times when you feel like the world is not on your side.
13	37	Solve the problem to ease our minds from thinking about others.
14	43	I feel like my mind is so messy. There are a lot of things going on in there that I am scared if people knew what I am constantly thinking about.
15	44	No matter how hard I try, it will never be enough.
16	46	I'm okay with my exam results, but it was my friend who made me feel down, as if I didn't study much (even though my result was actually considered good by others). Maybe because my results are lower than hers, so I kind of feel humiliated by her. That's why I don't share my results with friends. For me, I see improvements, but for them, they're just comparing.
17	47	I do sometimes feel confused about my own mental well-being, but so far, I am able to maintain my mental health.
18	53	The question is, do I still have good mental health?
19	57	No good, bro. I don't even have decision-making skills anymore, and I'm afraid I'm hurting people by making poor decisions. I actually made one, and it consumed me. I feel like I'm dying.
20	73	I'm good. I don't even believe in something that can weaken me, like depression. After I finish my classes, I go to the gym almost every day. Also, I work during the weekend. I'm totally organised. I embrace suffering. Stay hard and stay focused.
21	76	I will always seek my psychiatrist! I was diagnosed with MDD, then Anxiety, and now it's becoming bipolar disorder.
22	79	No, since nothing will change it... just tolerate it and enjoy life as I can.
23	81	Is this a good choice for me? Am I on the right path? It's hard for someone with ADHD.
24	86	I feel like I'm just going with the flow right now. After COVID, I think I lost direction for a moment and still don't know what I want.
25	87	I felt like I suffered from ADHD. I've already tried to get diagnosed once, but it didn't really matter, since the doctor thought I only had difficulties adjusting to my new campus, not ADHD.
26	90	When I study something and find it hard to understand, I feel so stupid and blame myself for not studying enough to get a high mark, even though I've been struggling. I somehow feel like it's not enough.
27	95	Is it wrong to prioritise logic over feelings?

28	97	I experienced failing 5 subjects in the previous semesters. I often think, 'Am I worth continuing in my accounting field?' No matter how much people try to persuade me, I still have doubts about my ability.
29	99	Every person would be at one point where everything does not turn out well. For me, it's just one of those days. I assure myself that everything will turn out fine in the end.
30	101	I don't think that I have any mental illness, but there were times when I felt sad because of people's opinions, especially my parents'. I think they don't really see much of me, so they just do things that are necessary for a parent to do and then leave me to live by myself. In addition, they don't seem to have any interest in me at all.
31	102	I am an introvert. It's hard for me to be honest about what I feel, and I will care more about other people's feelings than my own, which I should not do because I should love myself more than others. I'm also more into taking care of other people's impressions. Sometimes, I always ask myself, 'If you do this, what will people say?' or 'If you wear this, what will people say?' This thing, I fear, will one day destroy me. I am afraid that one day I will be a fake person in front of the public.
32	104	Lack the confidence but never lacking in the spirit.
33	105	I think I'm a person who always overthinks about things that haven't happened yet, which gives me pressure and makes me scared.
34	106	Lately, I've been feeling so moody and haven't been talking or interacting as much as I did in previous semesters. Sometimes, I feel like I want to give up on my studies, but when I think about my parents' feelings, I try my best to keep studying for them.

Theme 1c: Social Well-Being

No.	Student Code	Comment
1	6	During the previous semester, I struggled to study alone because I had issues with my surroundings and my social circle.
2	18	Getting back into my hobbies and being in a relationship with someone I can depend on has helped improve my mental stability.
3	23	I have already sought further treatment for my mental health, and Alhamdulillah, the support I received from the staff and lecturers has slowly helped me stabilise my life. Sometimes, especially among younger people, there is fear of seeking help due to the judgment and perspective of netizens towards those facing mental health problems. I don't blame either side, as awareness about mental health is not fully understood in older generations.
4	29	I think talking to a lot of people helps me become more open to the real world, which in turn helps me stabilise my emotions.
5	30	My mental well-being depends on the people I'm with. For example, I feel happy when I can study alone in my own zone, such as when I study online at home with my family. However, when I study surrounded by classmates or friends, I feel anxious, fearing they may judge my studying

		habits. Consequently, I struggle to be myself in social settings. It usually takes me around 3 to 4 months to adjust to new surroundings and acquaint myself with new people. Making new friends is exhausting because I need to explain myself more to them. Unfortunately, many university activities require us to socialise, which drains me more than studying.
6	31	I struggle with every little thing. Also, I hate being used, but I still help them because I am desperate to have friends.
7	32	It's just really hard to care about others' feelings, especially when it comes to friendships. I didn't realise how being overly friendly could be hurtful to someone else until they felt I had burdened the friendship between us. It's really stressful, and it's starting to affect my studies.
8	37	Solve the problem to ease our minds from thinking about others.
9	38	Always be kind to everyone
10	46	I'm okay with my exam results, but it was my friend who made me feel down, as if I didn't study much (even though my result was actually considered good by others). Maybe because my results are lower than hers, so I kind of feel humiliated by her. That's why I don't share my results with friends. For me, I see improvements, but for them, they're just comparing.
11	63	I think having good friends and roommates is what helped me study better during previous semester. ^_^
12	65	Not everyone is as kind as you expected.
13	67	Kind of stressed with our society.
14	100	It's hard when people only look for you when they need a favour, and then after they get what they need, you're lonely again.
15	101	I don't think that I have any mental illness, but there were times when I felt sad because of people's opinions, especially my parents'. I think they don't really see much of me, so they just do things that are necessary for a parent to do and then leave me to live by myself. In addition, they don't seem to have any interest in me at all.
16	102	I am an introvert. It's hard for me to be honest about what I feel, and I will care more about other people's feelings than my own, which I should not do because I should love myself more than others. I'm also more into taking care of other people's impressions. Sometimes, I always ask myself, 'If you do this, what will people say?' or 'If you wear this, what will people say?' This thing, I fear, will one day destroy me. I am afraid that one day I will be a fake person in front of the public.
17	103	Feeling overwhelmed, usually due to having a different status than my rich friends, makes me feel inferior.

Theme 2: Mental Well-Being Challenges

Theme 2a: Stress

No.	Student Code	Comment
1	3	I found the first semester of university very challenging. I struggled to accept my circumstances and found myself complaining frequently.
2	4	I usually get stressed out when I have so many things to do.
3	9	I am stressed out and overwhelmed.
4	11	I think my mental health is generally okay, but I notice that when I push myself too quickly into tasks outside of my comfort zone, I often feel overwhelmed and stressed. Therefore, I need to take some time to wind down and relax once in a while.
5	25	Despite our efforts to stay positive, the demands of university life, particularly the heavy workload in both studies and assessments, can leave us feeling exhausted. Is it truly necessary to study not only the core subjects of our major but also those of other universities and countries? Our accounting curriculum is already rigorous, and the additional burden of unrelated subjects seems unfair. The assessment criteria for these extra subjects often prove to be more challenging than those for accounting, yet we are expected to excel. While other courses may have a more relaxed approach to their assessments, we find ourselves grappling with difficult exams. Shouldn't the university recognise the intensity of our accounting programme and adjust accordingly?
6	27	I felt drained during the previous semester.
7	32	It's just really hard to care about others' feelings, especially when it comes to friendships. I didn't realise how being overly friendly could be hurtful to someone else until they felt I had burdened the friendship between us. It's really stressful, and it's starting to affect my studies.
8	35	I am so exhausted.
9	41	I feel exhausted being an accounting student, especially compared to those around me who seem more laid back. Carrying my family's expectations of me being one of the best adds to the pressure and wears me out.
10	42	Sometimes, overthinking about things unrelated to studying can mentally exhaust me, even when I'm not doing anything.
11	45	I am afraid of failure. I want to make my parents proud, especially my dad. Since this is my last semester, the pressure is real, and I am extremely anxious about my final exams.
12	48	I always feel stressed because of my family problems.
13	49	The pressure is not only in terms of the study environment but also from the current economy and job opportunities.
14	52	There are times when I think I want to fill out the form to stop or postpone my studies.
15	55	Exhausted.

16	62	I'm tired of being a student who needs to work part-time to make enough money to survive.
17	67	Kind of stressed with our society.
18	69	I am tired.
19	70	Studying in universities is so stressful and affects my mental health a lot. I feel unhappy a lot.
20	75	My body is numb from focusing too much on excelling in exams. I feel like I'm basically a walking dead. There's nothing interesting to attract anyone's attention because I'm drowning myself with too many responsibilities and burdens.
21	78	Tired of keeping everything to myself.
22	80	There are some lecturers who always ask students to present every chapter, and it's hard for me to understand because we are nervous to present, and of course, we don't pay attention to others.
23	96	If life gives you lemons, make lemonade. But right now, I think I want to crash it instead.
24	102	I am an introvert. It's hard for me to be honest about what I feel, and I will care more about other people's feelings than my own, which I should not do because I should love myself more than others. I'm also more into taking care of other people's impressions. Sometimes, I always ask myself, 'If you do this, what will people say?' or 'If you wear this, what will people say?' This thing, I fear, will one day destroy me. I am afraid that one day I will be a fake person in front of the public.
25	103	Feeling overwhelmed, usually due to having a different status than my rich friends, makes me feel inferior.
26	105	I think I'm a person who always overthinks about things that haven't happened yet, which gives me pressure and makes me scared.
27	110	Sometimes it is exhausting.
28	111	Since I'm taking the professional paper for CPA, it's kind of stressful at the moment. But once it's finished, I will feel relieved and happy.

Theme 2b: Anxiety

No.	Student Code	Comment
1	3	Gradually, I began to adapt to my surroundings. Whenever I felt down or sensed myself spiralling, I would go for a run.
2	13	I've been worrying about my final exam because it's my first time having a face-to-face exam since the pandemic, and I'm scared that I won't be able to score a higher grade or achieve a great CGPA.
3	19	When exams are around the corner, anxiety hits me until I can't hold it anymore, and I start crying non-stop.
4	24	I tend to panic over little things. For example, if the lecturer is too strict or has high expectations of us, I easily become overwhelmed. My heart rate increases, I feel scared, I get headaches, my hands shake, and I feel uneasy. Sometimes, it hurts so much when I'm afraid that I cannot meet their expectations.

5	39	Always nervous but not depressed.
6	45	I am afraid of failure. I want to make my parents proud, especially my dad. Since this is my last semester, the pressure is real, and I am extremely anxious about my final exams.
7	66	I cannot think well. I am scared of everything.
8	71	I have anxiety, but it's only at stage 2, maybe.
9	72	I am scared of my studies. I am afraid I might fail.
10	76	I will always seek my psychiatrist! I was diagnosed with MDD, then Anxiety, and now it's becoming bipolar disorder.
11	105	I think I'm a person who always overthinks about things that haven't happened yet, which gives me pressure and makes me scared.
13	107	I have high functioning autism spectrum disorder with mixed depressive anxiety disorder.

Theme 2c: Depression

No.	Student Code	Comment
1	1	I feel empty
2	3	I faced family issues that caused me to spiral into a meltdown until I sought help from a counsellor. Unfortunately, she couldn't provide much assistance, but I recognised the importance of addressing my mental health… It took me nearly a year to work through my mental and emotional struggles, particularly coming from a broken family background, although it might not have been evident to others.
3	7	I feel totally exhausted... I want to become a butterfly.
4	19	When exams are around the corner, anxiety hits me until I can't hold it anymore, and I start crying non-stop.
5	24	Sometimes, I just want to finish my degree so that I can show it to my parents and make them proud. It would be the end of my life, at least in the sense of fulfilling their wishes. Knowing that I could be a good and useful daughter for my parents would make me die happily.
6	44	No matter how hard I try, it will never be enough.
7	50	I felt useless.
8	57	No good, bro. I don't even have decision-making skills anymore, and I'm afraid I'm hurting people by making poor decisions. I actually made one, and it consumed me. I feel like I'm dying.
9	60	Down.
10	61	Tired of life.
11	68	I always think about my past mistakes and regret things.
12	70	Studying in universities is so stressful and affects my mental health a lot. I feel unhappy a lot.
13	75	My body is numb from focusing too much on excelling in exams. I feel like I'm basically a walking dead. There's nothing interesting to attract anyone's attention because I'm drowning myself with too many responsibilities and burdens. Thank you.

14	76	I will always seek my psychiatrist! I was diagnosed with MDD, then Anxiety, and now it's becoming bipolar disorder.
15	88	I just don't feel anything, I guess. It's all just about getting through this.
16	93	I don't have anxiety; I'm just depressed and suicidal.
17	94	Sometimes not being here was better for everyone.
18	106	Lately, I've been feeling so moody and haven't been talking or interacting as much as I did in previous semesters. Sometimes, I feel like I want to give up on my studies, but when I think about my parents' feelings, I try my best to keep studying for them.
19	107	I have high functioning autism spectrum disorder with mixed depressive anxiety disorder.
20	109	Sometimes I am tired without doing anything.

Theme 3: Students' Engagement

No.	Student Code	Comment
1	13	Lately, I've been worrying about my final exam because it's my first time having a face-to-face exam since the pandemic, and I'm scared that I won't be able to score a higher grade or achieve a great CGPA. However, I try to remain optimistic and use the time I have now to focus on the topics where I lack understanding.
2	21	I don't like the club I'm in for my co-curricular class. That's what bothers me the most and contributes to my uneasiness.
3	26	Yes, I have experienced moments when I lack interest in studying and contemplate quitting. However, my family's constant encouragement motivates me to persist in my endeavours.
4	32	It's just really hard to care about others' feelings, especially when it comes to friendships. I didn't realise how being overly friendly could be hurtful to someone else until they felt I had burdened the friendship between us. It's really stressful, and it's starting to affect my studies.
5	52	There are times when I think I want to fill out the form to stop or postpone my studies.
6	63	I think having good friends and roommates is what helped me study better during previous semester. ^_^
7	73	After I finish my classes, I go to the gym almost every day. Also, I work during the weekend. I'm totally organised.
8	75	My body is numb from focusing too much on excelling in exams. I feel like I'm basically a walking dead. There's nothing interesting to attract anyone's attention because I'm drowning myself with too many responsibilities and burdens.
9	80	There are some lecturers who always ask students to present every chapter, and it's hard for me to understand because we are nervous to present, and of course, we don't pay attention to others.
10	89	I have an intense dislike of my accommodation surroundings during my studies, but I kind of miss the air quality where it is far away from the city.

		I am generally happy with good people, but the complacent surroundings can eat away at your motivation over time.
11	90	When I study something and find it hard to understand, I feel so stupid and blame myself for not studying enough to get a high mark, even though I've been struggling. I somehow feel like it's not enough.
12	91	I easily get distracted and can't focus to complete tasks.
13	92	To be productive, time management is crucial, and universities need to give more attention to solving students' problems.
14	97	I experienced failing 5 subjects in the previous semesters. I often think, 'Am I worth continuing in my accounting field?' No matter how much people try to persuade me, I still have doubts about my ability.
15	106	Lately, I've been feeling so moody and haven't been talking or interacting as much as I did in previous semesters. Sometimes, I feel like I want to give up on my studies, but when I think about my parents' feelings, I try my best to keep studying for them.
16	111	Since I'm taking the professional paper for CPA, it's kind of stressful at the moment. But once it's finished, I will feel relieved and happy.

Theme 4: Students' Satisfaction

No.	Student Code	Comment
1	3	Currently, I'm making an effort to take a greater interest in my studies, despite the less-than-satisfactory results from my previous semester. However, I've come to understand that life isn't solely about grades. While knowledge is undoubtedly important, I always prioritise my well-being.
2	6	I struggled to study alone because I had issues with my surroundings and my social circle. However, I am very happy because I have a really supportive family.
3	8	If I could turn back time, I wish I had gone to matriculation and continued with my degree immediately, instead of being stuck in diploma for a long time.
4	12	I hope the university will consider more efficient learning schedules, such as offering classes at times that don't conflict with work hours.
5	25	Despite our efforts to stay positive, the demands of university life, particularly the heavy workload in both studies and assessments, can leave us feeling exhausted. Is it truly necessary to study not only the core subjects of our major but also those of other universities and countries? Our accounting curriculum is already rigorous, and the additional burden of unrelated subjects seems unfair. The assessment criteria for these extra subjects often prove to be more challenging than those for accounting, yet we are expected to excel. While other courses may have a more relaxed approach to their assessments, we find ourselves grappling with difficult exams. Shouldn't the university recognise the intensity of our accounting programme and adjust accordingly?

6	52	There are times when I think I want to fill out the form to stop or postpone my studies.
7	62	I'm tired of being a student who needs to work part-time to make enough money to survive.
8	70	Studying in universities is so stressful and affects my mental health a lot. I feel unhappy a lot.
9	80	There are some lecturers who always ask students to present every chapter, and it's hard for me to understand because we are nervous to present, and of course, we don't pay attention to others.
10	89	I have an intense dislike of my accommodation surroundings during my studies, but I kind of miss the air quality where it is far away from the city. I am generally happy with good people, but the complacent surroundings can eat away at your motivation over time.
11	92	To be productive, time management is crucial, and universities need to give more attention to solving students' problems.

Appendix 7.1 *Ordinal Logistic Regression Analyses for GPA*

Model Fitting Information

	No demographic controls				With demographic controls			
Model	-2 LL	χ^2	*df*	*p*	-2 LL	χ^2	*df*	*p*
Intercept Only	1637.633				1642.603			
Final	1596.806	41.425	6	.000	1569.663	72.940	11	.000

Goodness-of-Fit

	No demographic controls			With demographic controls		
	χ^2	*df*	*p*	χ^2	*df*	*p*
Pearson	2015.144	1980	.286	2081.881	1987	.068
Deviance	1588.806	1980	1.000	1566.655	1987	1.000

Pseudo R-Square

	No demographic controls	With demographic controls
Cox and Snell	.060	.103
Nagelkerke	.066	.113
McFadden	.025	.044

Test of Parallel Lines

	No demographic controls				With demographic controls			
Model	-2 LL	χ^2	*df*	*p*	-2 LL	χ^2	*df*	*p*
Null Hypothesis	1596.208				1569.663			
General	1578.089	18.119	12	.112	1539.527	30.136	22	.115

Parameter Estimates (No demographic controls)

							95% CI	
	B	*SE*	Wald	*df*	*p*	*OR*	*LL*	*UL*
EWB	.020	.023	.804	1	.370	1.021	-.024	.065
PWB	.044	.015	9.094	1	.003	1.045	.015	.072
SWB	-.024	.014	3.106	1	.078	.976	-.051	.003
Stress	.013	.026	.243	1	.622	1.013	-.039	.065
Anxiety	.024	.022	1.212	1	.271	1.025	-.019	.067
Depression	-.066	.023	8.578	1	.003	.936	-.110	-.022

Parameter Estimates (With demographic controls)

							95% CI	
	B	*SE*	Wald	*df*	*p*	*OR*	*LL*	*UP*
EWB	.019	.023	.682	1	.409	1.019	-.026	.064
PWB	.044	.015	8.842	1	.003	1.045	.015	.073
SWB	-.023	.014	2.719	1	.099	.978	-.050	.004
Stress	.011	.027	.185	1	.667	1.011	-.041	.063
Anxiety	.017	.022	.601	1	.438	1.018	-.027	.061
Depression	-.064	.023	7.937	1	.005	.938	-.108	-.019
Gender (Male)	-.407	.188	4.710	1	.030	.666	-.775	-.039
Age (18 to 21)	-.173	.198	.765	1	.382	.841	-.561	.215
Semester (2 to 4)	.528	.181	8.548	1	.003	1.695	.174	.882
Programme (Diploma)	.514	.202	6.458	1	.011	1.671	.117	.910
University (Public)	-1.120	.308	13.239	1	.000	.326	-1.723	-.517

Appendix 7.2 *Ordinal Logistic Regression Analyses for CGPA*

Model Fitting Information

	No demographic controls				With demographic controls			
Model	-2 LL	χ^2	*df*	*p*	-2 LL	χ^2	*df*	*p*
Intercept Only	1530.325				1535.295			
Final	1489.438	40.887	6	.000	1461.767	73.528	11	.000

Goodness-of-Fit

	No demographic controls			With demographic controls		
	χ^2	*df*	*p*	χ^2	*df*	*p*
Pearson	1909.159	1980	.871	1917.535	1987	.865
Deviance	1482.035	1980	1.000	1458.759	1987	1.000

Pseudo R-Square

	No demographic controls	With demographic controls
Cox and Snell	.059	.104
Nagelkerke	.066	.116
McFadden	.027	.048

Test of Parallel Lines

	No demographic controls				With demographic controls			
Model	-2 LL	χ^2	*df*	*p*	-2 LL	χ^2	*df*	*p*
Null Hypothesis	1489.438				1461.767			
General	1481.002	8.436	12	.750	1429.623	32.144	22	.075

Parameter Estimates (No demographic controls)

							95% CI	
	B	*SE*	Wald	*df*	*p*	*OR*	*LL*	*UL*
EWB	.022	.023	.906	1	.341	1.022	-.023	.067
PWB	.050	.015	11.181	1	.001	1.051	.020	.079
SWB	-.034	.014	5.906	1	.015	.967	-.061	-.007
Stress	.026	.027	.962	1	.327	1.027	-.026	.079
Anxiety	.006	.022	.072	1	.789	1.006	-.038	.050
Depression	-.063	.023	7.466	1	.006	.939	-.108	-.018

Parameter Estimates (With demographic controls)

							95% CI	
	B	*SE*	Wald	*df*	*p*	*OR*	*LL*	*UL*
EWB	.023	.023	.967	1	.325	1.023	-.023	.069
PWB	.051	.015	11.469	1	.001	1.052	.022	.081
SWB	-.033	.014	5.352	1	.021	.968	-.060	-.005
Stress	.023	.027	.741	1	.389	1.024	-.030	.076
Anxiety	-.004	.023	.038	1	.846	.996	-.049	.040
Depression	-.056	.023	5.892	1	.015	.945	-.101	-.011
Gender (Male)	-.597	.191	9.732	1	.002	.551	-.971	-.222
Age (18 to 21)	-.097	.201	.234	1	.629	.907	-.491	.297
Semester (2 to 4)	.435	.183	5.616	1	.018	1.544	.075	.794
Programme (Diploma)	.520	.206	6.362	1	.012	1.682	.116	.924
University (Public)	-.990	.311	10.109	1	.001	.372	-1.601	-.380

Appendix 7.3 *Multiple Linear Regression Analyses for Engagement*

Appendix 7.3.1: No demographic controls

Model Summary[b]

Model	*R*	R^2	Adjusted R^2	*SE*
1	.643[a]	.413	.408	6.712

a. Predictors: (Constant), Depression, Emotional, Social, Anxiety, Psychological, Stress
b. Dependent Variable: Engagement

ANOVA

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	21020.270	6	3503.378	77.755	.000
	Residual	29827.482	662	45.057		
	Total	50847.752	668			

Casewise Diagnostics

Case Number	Std. Residual	Engagement	Predicted Value	Residual
45	-3.362	26.00	48.5670	-22.56701
66	-4.062	42.00	69.2681	-27.26809
513	-3.302	38.00	60.1639	-22.16391

Residuals Statistics

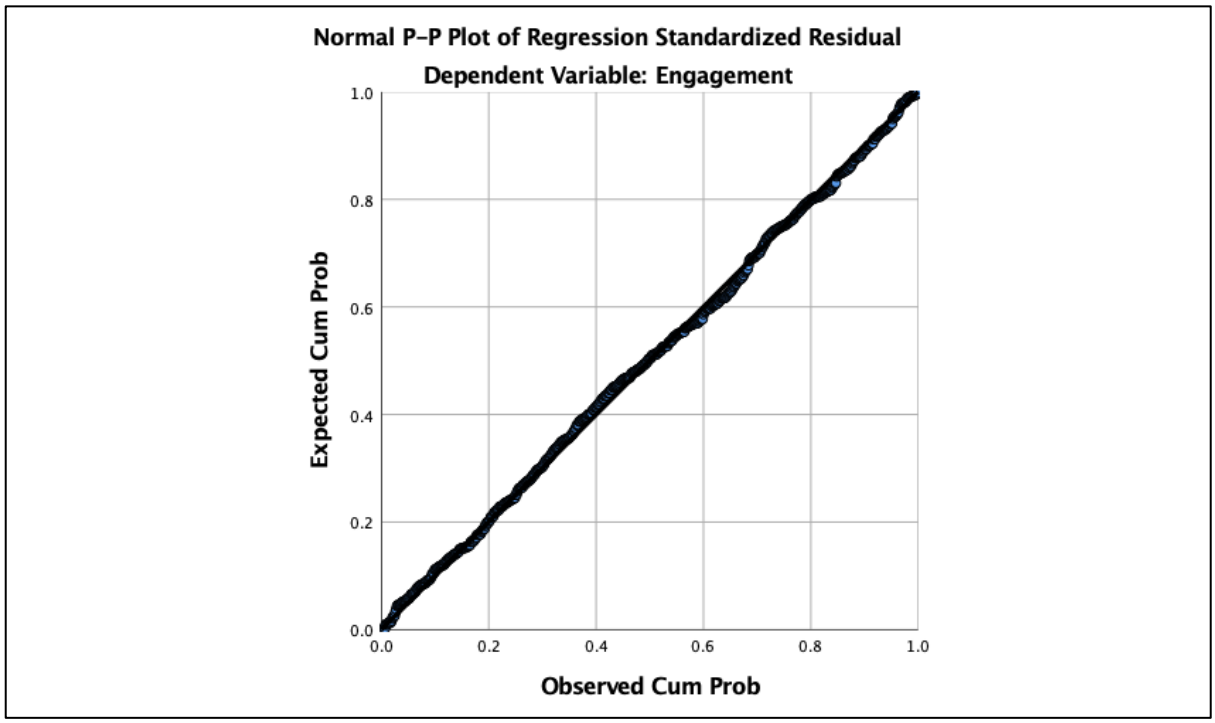
	Minimum	Maximum	*M*	*SD*	*N*
Predicted Value	33.8604	77.3618	57.8490	5.60959	669
Std. Predicted Value	-4.276	3.478	.000	1.000	669
SE of Predicted Value	.269	1.835	.652	.214	669
Adjusted Predicted Value	34.3231	77.2769	57.8457	5.60900	669
Residual	-27.26809	19.74007	.00000	6.68221	669
Std. Residual	-4.062	2.941	.000	.995	669
Stud. Residual	-4.111	2.950	.000	1.002	669
Deleted Residual	-27.92196	19.86720	.00328	6.77244	669
Stud. Deleted Residual	-4.161	2.968	.000	1.004	669
Mahal. Distance	.075	48.913	5.991	5.014	669
Cook's Distance	.000	.058	.002	.005	669
Centred Leverage Value	.000	.073	.009	.008	669

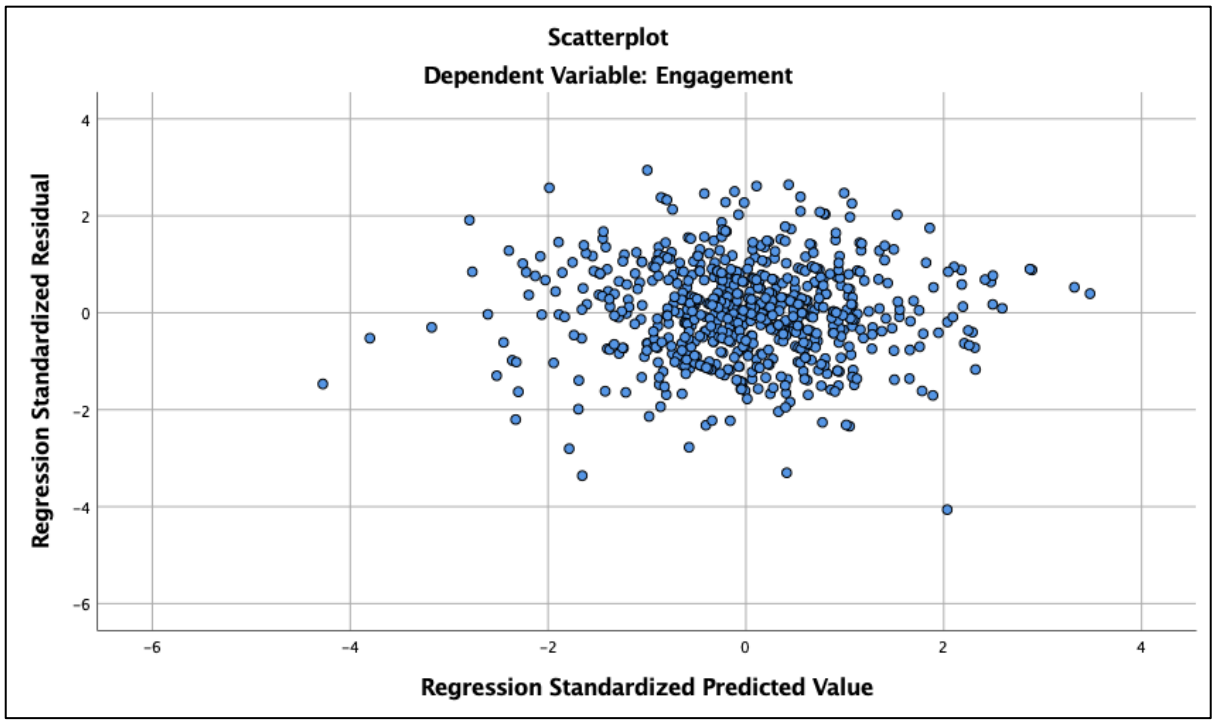
Coefficients

Model	Unstandardized Coefficients					95.0% CI for B		Correlations			Collinearity Statistics	
	B	*SE*	β	*t*	*p*	*LL*	*UL*	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	14.049	3.947		3.560	.000	6.299	21.799					
EWB	.334	.082	.151	4.067	.000	.173	.495	.444	.156	.121	.645	1.551
PWB	.383	.052	.321	7.347	.000	.281	.486	.579	.275	.219	.466	2.148
SWB	.278	.049	.247	5.625	.000	.181	.375	.551	.214	.167	.460	2.175
Stress	.196	.095	.119	2.055	.040	.009	.383	-.288	.080	.061	.263	3.801
Anxiety	.125	.080	.084	1.567	.117	-.032	.282	-.251	.061	.047	.309	3.238
Depression	-.243	.081	-.173	-3.015	.003	-.402	-.085	-.464	-.116	-.090	.269	3.711

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	EWB	PWB	SWB	Stress	Anxiety	Depression
1	1	6.741	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.194	5.889	.00	.03	.00	.01	.01	.02	.03
	3	.023	17.129	.00	.41	.01	.05	.03	.16	.36
	4	.020	18.164	.02	.52	.02	.06	.01	.27	.17
	5	.011	25.034	.00	.01	.00	.06	.85	.52	.11
	6	.007	30.944	.05	.02	.38	.80	.09	.04	.02
	7	.003	46.054	.93	.01	.58	.03	.01	.00	.30


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Engagement
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Engagement
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4
-6

Appendix 7.3.2: With demographic controls

Model Summary[b]

Model	*R*	R^2	Adjusted R^2	*SE*
1	.650[a]	.422	.413	6.686

a. Predictors: (Constant), University (Public), Psychological, Age (18 to 21), Gender (Male), Anxiety, Programme (Diploma), Emotional, Semester (2 to 4), Social, Depression, Stress.
b. Dependent Variable: Engagement

ANOVA

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	21474.658	11	1952.242	43.667	.000[b]
	Residual	29373.094	657	44.708		
	Total	50847.752	668			

Casewise Diagnostics

Case Number	Std. Residual	Engagement	Predicted Value	Residual
45	-3.295	26.00	48.031	-22.031
66	-4.141	42.00	69.687	-27.687
513	-3.202	38.00	59.411	-21.411

Residuals Statistics

	Minimum	Maximum	*M*	*SD*	*N*
Predicted Value	33.300	77.312	57.849	5.669	669
Std. Predicted Value	-4.330	3.433	.000	1.000	669
SE of Predicted Value	.497	1.861	.867	.223	669
Adjusted Predicted Value	33.773	77.210	57.845	5.670	669
Residual	-27.687	18.503	.000	6.631	669
Std. Residual	-4.141	2.767	.000	.992	669
Stud. Residual	-4.201	2.803	.000	1.002	669
Deleted Residual	-28.490	18.981	.003	6.775	669
Stud. Deleted Residual	-4.255	2.818	.000	1.004	669
Mahal. Distance	2.687	50.768	10.984	6.478	669
Cook's Distance	.000	.043	.002	.004	669
Centred Leverage Value	.004	.076	.016	.010	669

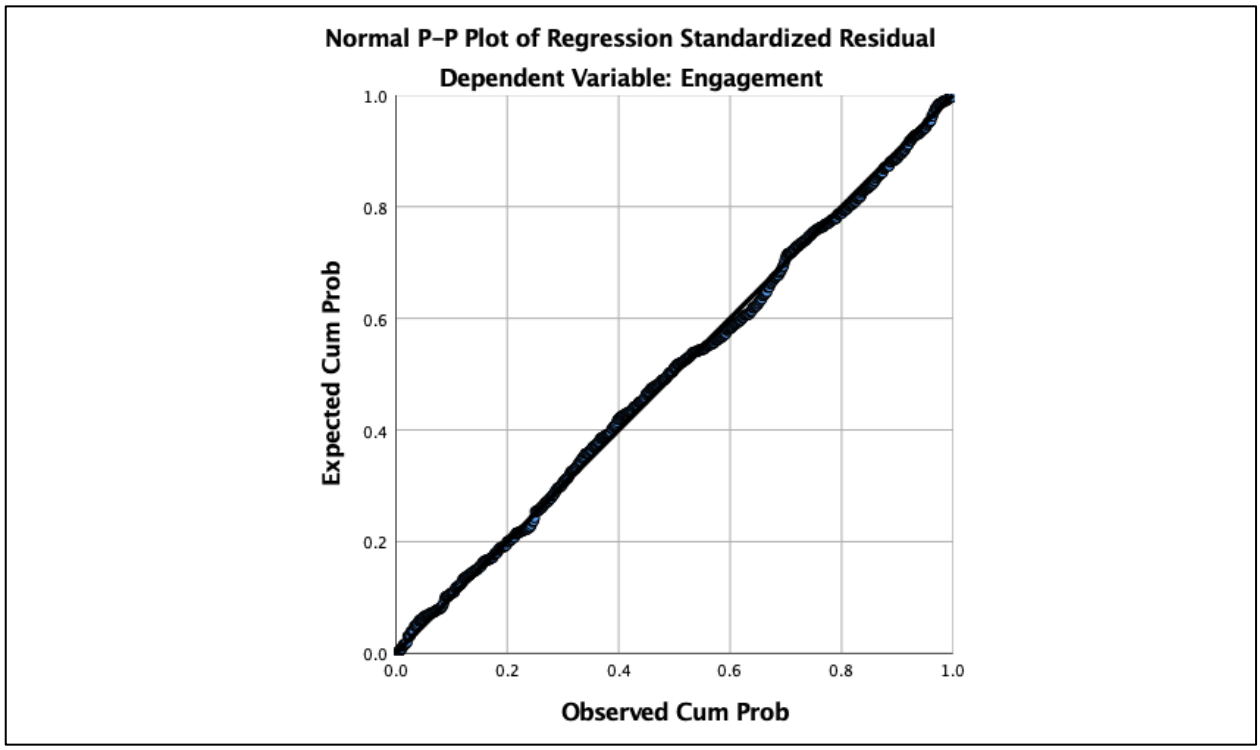
Coefficients

Model	Unstandardized Coefficients					95.0% CI for B		Correlations			Collinearity Statistics	
	B	*SE*	β	*t*	*p*	*LL*	*UL*	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	15.367	4.110		3.739	.000	7.297	23.437					
EWB	.317	.082	.143	3.852	.000	.155	.478	.444	.149	.114	.638	1.568
PWB	.391	.052	.327	7.454	.000	.288	.494	.579	.279	.221	.457	2.189
SWB	.279	.049	.248	5.661	.000	.182	.376	.551	.216	.168	.459	2.180
Stress	.189	.095	.115	1.983	.048	.002	.376	-.288	.077	.059	.261	3.835
Anxiety	.126	.080	.085	1.569	.117	-.032	.284	-.251	.061	.047	.302	3.310
Depression	-.237	.081	-.169	-2.939	.003	-.396	-.079	-.464	-.114	-.087	.267	3.750
Gender (Male)	-.448	.675	-.020	-.663	.507	-1.774	.878	.052	-.026	-.020	.947	1.056
Age (18 to 21)	-.560	.711	-.032	-.788	.431	-1.955	.835	.006	-.031	-.023	.544	1.837
Semester (2 to 4)	1.563	.645	.089	2.424	.016	.297	2.830	.083	.094	.072	.660	1.516
Programme (Diploma)	-.176	.717	-.008	-.245	.807	-1.584	1.233	.004	-.010	-.007	.754	1.326
University (Public)	-2.112	1.048	-.061	-2.014	.044	-4.170	-.053	-.049	-.078	-.060	.969	1.032

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions											
				(Constant)	EWB	PWB	SWB	STR	ANX	DEP	MALE	≤21	≤4	DIP	PUB
1	1	9.400	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.849	3.326	.00	.00	.00	.00	.00	.00	.00	.00	.04	.01	.49	.00
	3	.808	3.411	.00	.00	.00	.00	.00	.00	.00	.91	.00	.00	.00	.00
	4	.477	4.438	.00	.00	.00	.00	.00	.00	.00	.01	.08	.31	.23	.00
	5	.192	7.002	.00	.03	.00	.01	.01	.01	.03	.04	.14	.03	.06	.01
	6	.149	7.937	.00	.01	.00	.00	.00	.00	.01	.02	.71	.61	.19	.00
	7	.062	12.312	.00	.04	.00	.01	.00	.00	.00	.00	.01	.03	.00	.87
	8	.022	20.452	.00	.52	.01	.06	.03	.12	.32	.01	.00	.00	.01	.00
	9	.019	21.990	.01	.38	.02	.06	.01	.32	.24	.01	.00	.00	.00	.05
	10	.011	29.672	.00	.01	.00	.07	.84	.50	.12	.00	.00	.00	.00	.00
	11	.007	36.827	.04	.02	.40	.77	.10	.04	.01	.00	.00	.00	.00	.01
	12	.003	56.037	.94	.01	.55	.02	.01	.00	.27	.00	.00	.00	.00	.05

Note. EWB = Emotional, PWB = Psychological, SWB = Social, STR = Stress, ANX = Anxiety, DEP = Depression, MALE = Gender (Male), ≤21 = Age (18 to 21), ≤4 = Semester (2 to 4), DIP = Programme (Diploma), PUB = University (Public).


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Engagement
Expected Cum Prob
Observed Cum Prob
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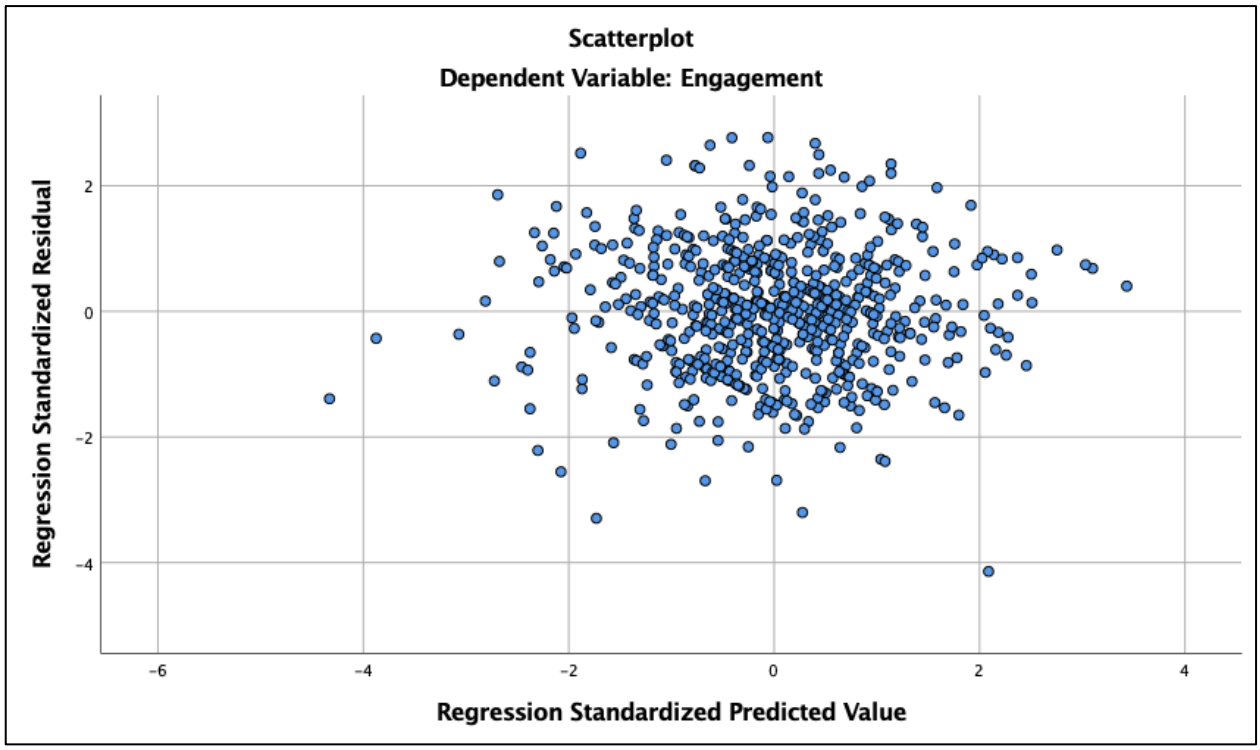
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Engagement
Regression Standardized Residual
Regression Standardized Predicted Value
2
0
-2
-4
-6
-4
-2
0
2
4

Appendix 7.4 *Multiple Linear Regression Analyses for Satisfaction*

Appendix 7.4.1: No demographic controls

Model Summary[b]

Model	*R*	R^2	Adjusted R^2	*SE*
1	.614[a]	.377	.371	3.650

a. Predictors: (Constant), Depression, Emotional, Psychological, Anxiety, Social, Stress
b. Dependent Variable: Satisfaction

ANOVA

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	5338.724	6	889.787	66.772	.000
	Residual	8821.629	662	13.326		
	Total	14160.353	668			

Casewise Diagnostics

Case Number	Std. Residual	Satisfaction	Predicted Value	Residual
424	-3.011	14.00	24.992	-10.992
578	3.549	33.00	20.043	12.956
579	-3.280	17.00	28.973	-11.973

Residuals Statistics

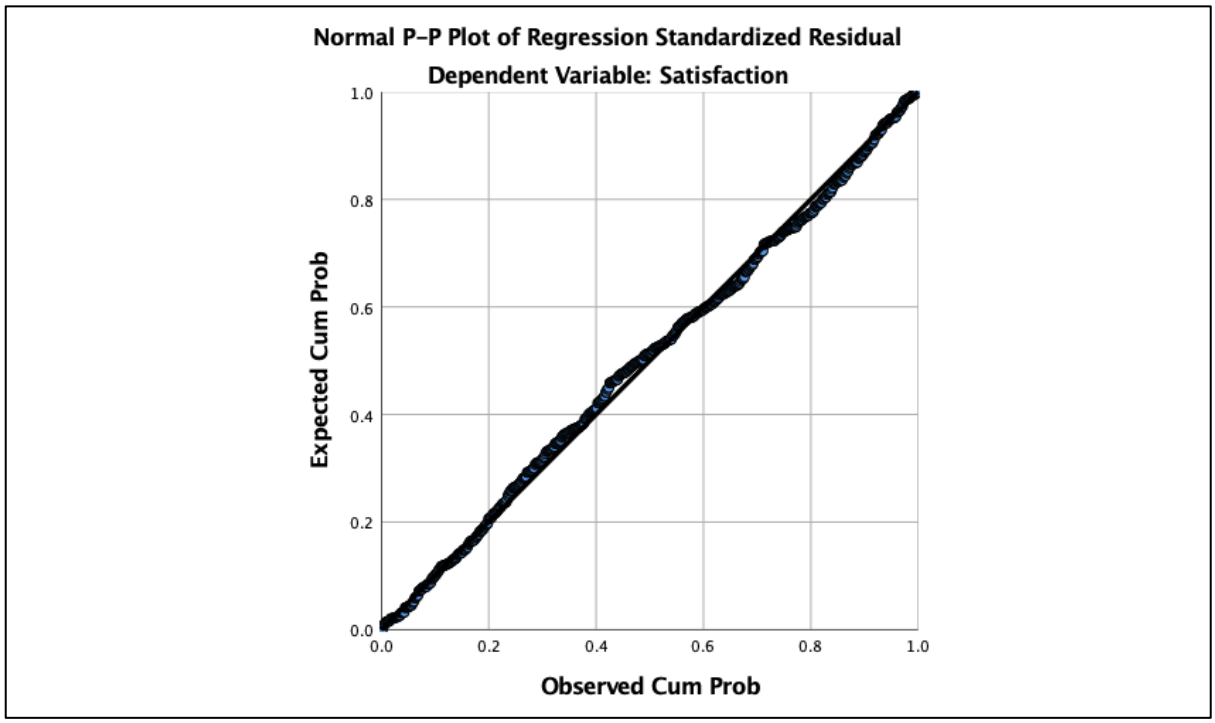
	Minimum	Maximum	*M*	*SD*	*N*
Predicted Value	16.175	35.725	25.463	2.827	669
Std. Predicted Value	-3.285	3.630	.000	1.000	669
SE of Predicted Value	.146	.998	.355	.117	669
Adjusted Predicted Value	16.199	35.688	25.465	2.827	669
Residual	-11.973	12.956	.000	3.634	669
Std. Residual	-3.280	3.549	.000	.995	669
Stud. Residual	-3.301	3.616	.000	1.002	669
Deleted Residual	-12.127	13.444	-.001	3.680	669
Stud. Deleted Residual	-3.326	3.649	.000	1.004	669
Mahal. Distance	.075	48.913	5.991	5.014	669
Cook's Distance	.000	.070	.002	.004	669
Centred Leverage Value	.000	.073	.009	.008	669

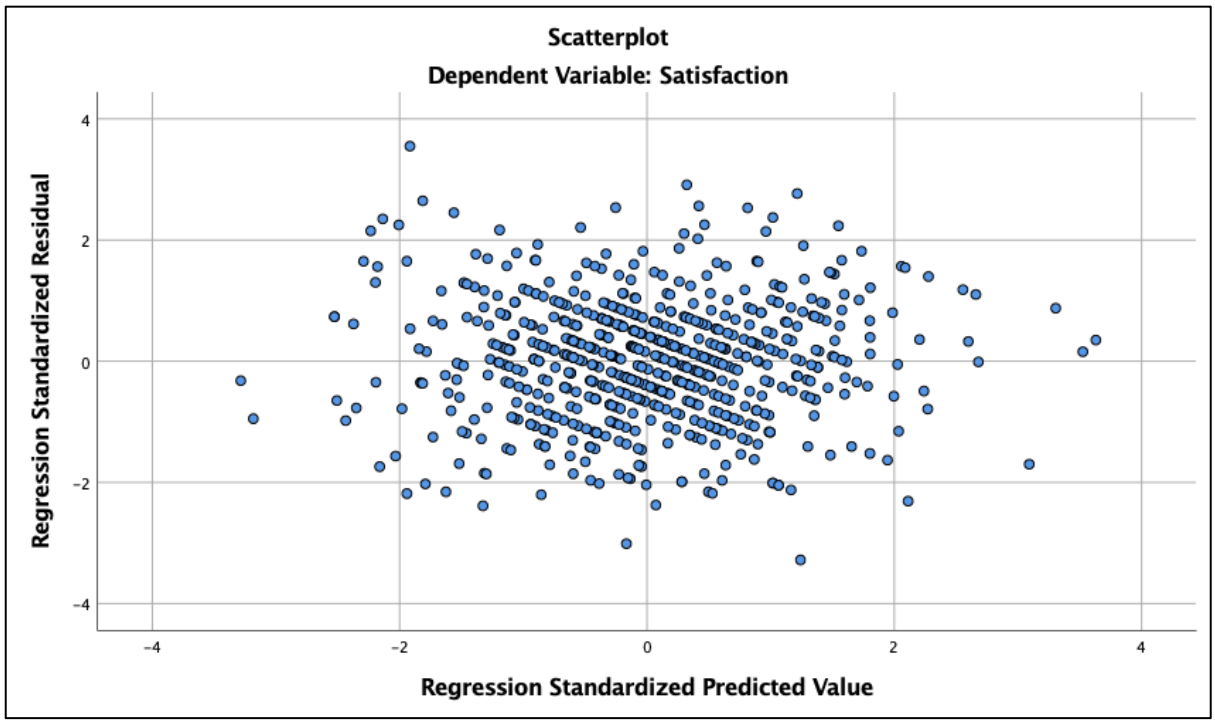
Coefficients

Model	Unstandardized Coefficients					95.0% CI for B		Correlations			Collinearity Statistics	
	B	*SE*	β	*t*	*p*	*LL*	*UL*	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	17.440	2.146		8.125	.000	13.225	21.654					
EWB	.307	.045	.262	6.869	.000	.219	.394	.510	.258	.211	.645	1.551
PWB	.079	.028	.126	2.800	.005	.024	.135	.471	.108	.086	.466	2.148
SWBW	.060	.027	.101	2.227	.026	.007	.113	.472	.086	.068	.460	2.175
Stress	-.144	.052	-.166	-2.781	.006	-.246	-.042	-.483	-.107	-.085	.263	3.801
Anxiety	-.017	.043	-.022	-.392	.695	-.102	.068	-.427	-.015	-.012	.309	3.238
Depression	-.067	.044	-.091	-1.533	.126	-.153	.019	-.516	-.059	-.047	.269	3.711

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	EWB	PWB	SWB	Stress	Anxiety	Depression
1	1	6.741	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.194	5.889	.00	.03	.00	.01	.01	.02	.03
	3	.023	17.129	.00	.41	.01	.05	.03	.16	.36
	4	.020	18.164	.02	.52	.02	.06	.01	.27	.17
	5	.011	25.034	.00	.01	.00	.06	.85	.52	.11
	6	.007	30.944	.05	.02	.38	.80	.09	.04	.02
	7	.003	46.054	.93	.01	.58	.03	.01	.00	.30


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Satisfaction
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Satisfaction
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4

Appendix 7.4.2: With demographic controls

Model Summary[b]

Model	*R*	R^2	Adjusted R^2	*SE*
1	.617[a]	.380	.370	3.655

a. Predictors: (Constant), University (Public), Psychological, Age (18 to 21), Gender (Male), Anxiety, Programme (Diploma), Emotional, Semester (2 to 4), Social, Depression, Stress.
b. Dependent Variable: Satisfaction

ANOVA

Model		*SS*	*df*	*MS*	*F*	*p*
1	Regression	5383.141	11	489.376	36.631	.000
	Residual	8777.212	657	13.360		
	Total	14160.353	668			

Casewise Diagnostics

Case Number	Std. Residual	Satisfaction	Predicted Value	Residual
578	3.567	33.00	19.960	13.039
579	-3.264	17.00	28.929	-11.929

Residuals Statistics

	Minimum	Maximum	*M*	*SD*	*N*
Predicted Value	16.210	35.818	25.463	2.838	669
Std. Predicted Value	-3.260	3.648	.000	1.000	669
SE of Predicted Value	.271	1.017	.474	.122	669
Adjusted Predicted Value	16.238	35.776	25.464	2.840	669
Residual	-11.929	13.039	.000	3.624	669
Std. Residual	-3.264	3.567	.000	.992	669
Stud. Residual	-3.292	3.649	.000	1.002	669
Deleted Residual	-12.135	13.640	-.001	3.701	669
Stud. Deleted Residual	-3.317	3.683	.000	1.004	669
Mahal. Distance	2.687	50.768	10.984	6.478	669
Cook's Distance	.000	.051	.002	.004	669
Centred Leverage Value	.004	.076	.016	.010	669

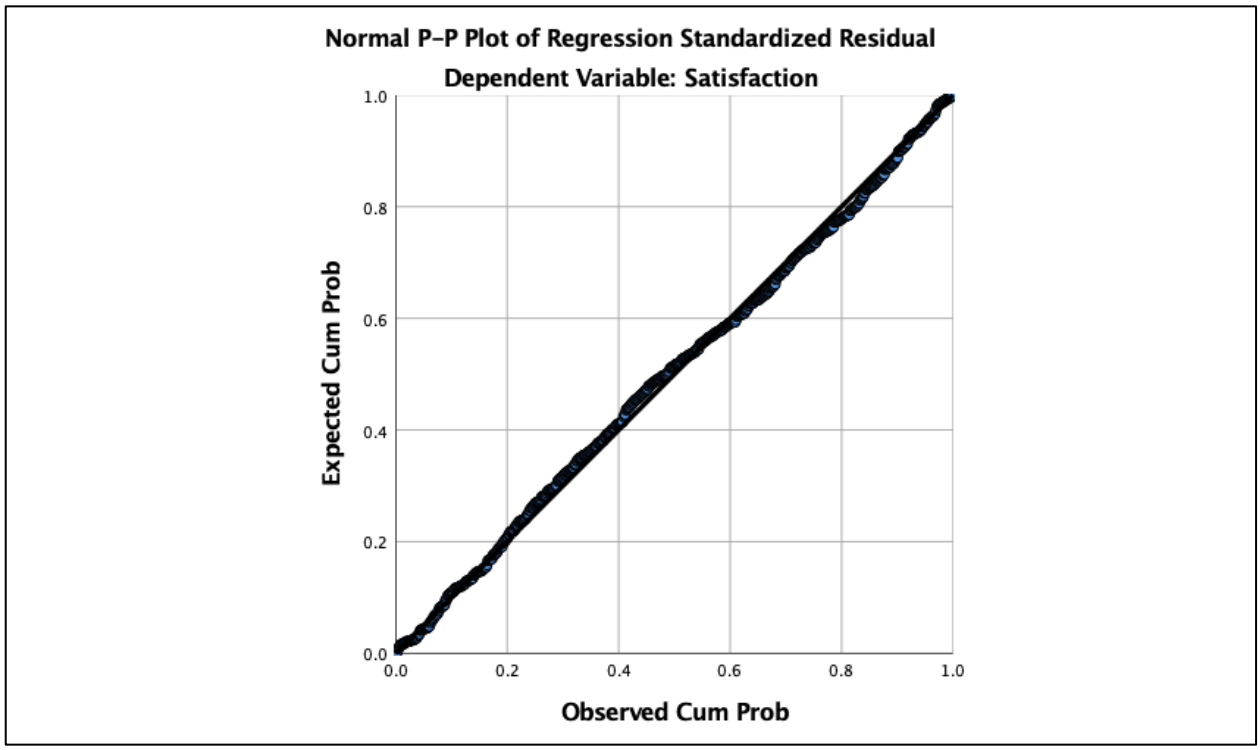
Coefficients

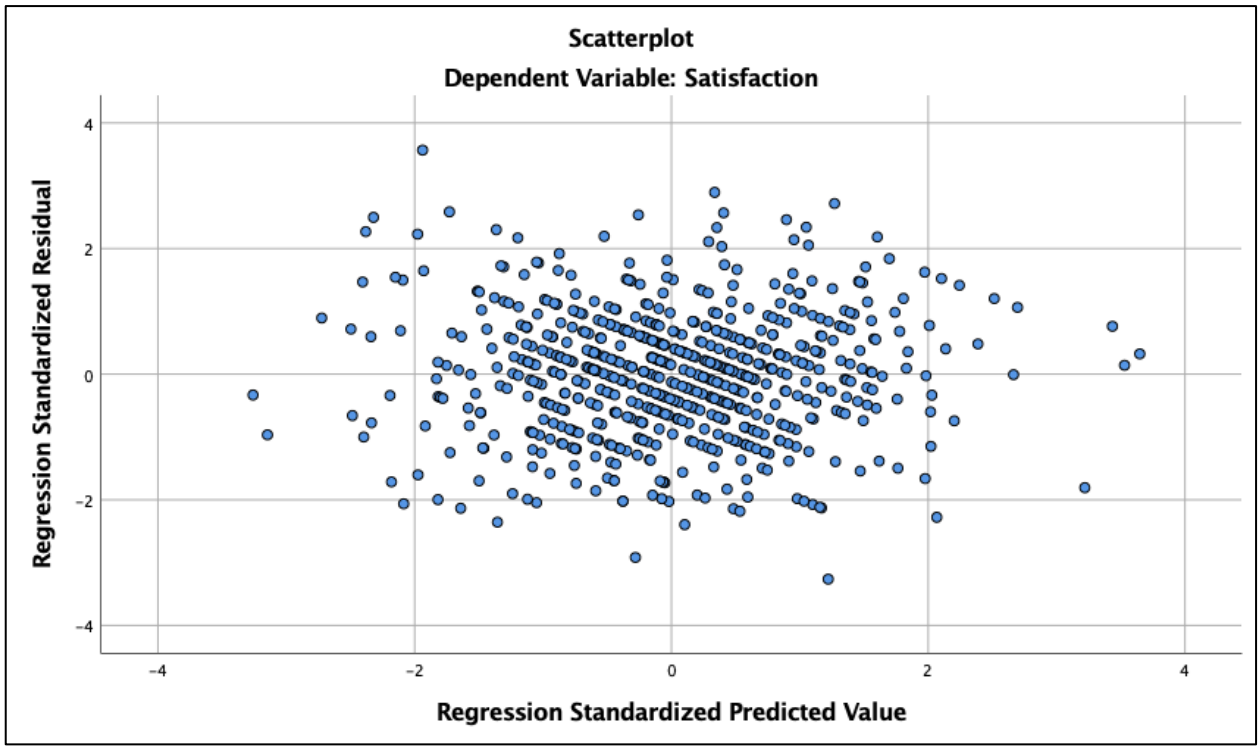
Model	Unstandardized Coefficients					95.0% CI for B		Correlations			Collinearity Statistics	
	B	*SE*	β	*t*	*p*	*LL*	*UL*	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	17.551	2.247		7.812	.000	13.140	21.962					
EWB	.302	.045	.258	6.716	.000	.214	.390	.510	.253	.206	.638	1.568
PWB	.082	.029	.131	2.875	.004	.026	.139	.471	.111	.088	.457	2.189
SWB	.059	.027	.099	2.178	.030	.006	.112	.472	.085	.067	.459	2.180
Stress	-.146	.052	-.169	-2.807	.005	-.248	-.044	-.483	-.109	-.086	.261	3.835
Anxiety	-.012	.044	-.015	-.276	.783	-.098	.074	-.427	-.011	-.008	.302	3.310
Depression	-.066	.044	-.088	-1.484	.138	-.152	.021	-.516	-.058	-.046	.267	3.750
Gender (Male)	.169	.369	.014	.458	.647	-.556	.894	.108	.018	.014	.947	1.056
Age (18 to 21)	-.512	.388	-.055	-1.318	.188	-1.274	.251	-.027	-.051	-.040	.544	1.837
Semester (2 to 4)	.470	.353	.050	1.334	.183	-.222	1.163	.067	.052	.041	.660	1.516
Programme (Diploma)	-.108	.392	-.010	-.276	.783	-.878	.662	-.035	-.011	-.008	.754	1.326
University (Public)	-.240	.573	-.013	-.419	.676	-1.365	.885	.014	-.016	-.013	.969	1.032

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions											
				(Constant)	EWB	PWB	SWB	STR	ANX	DEP	MALE	≤21	≤4	DIP	PUB
1	1	9.400	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	.849	3.326	.00	.00	.00	.00	.00	.00	.00	.00	.04	.01	.49	.00
	3	.808	3.411	.00	.00	.00	.00	.00	.00	.00	.91	.00	.00	.00	.00
	4	.477	4.438	.00	.00	.00	.00	.00	.00	.00	.01	.08	.31	.23	.00
	5	.192	7.002	.00	.03	.00	.01	.01	.01	.03	.04	.14	.03	.06	.01
	6	.149	7.937	.00	.01	.00	.00	.00	.00	.01	.02	.71	.61	.19	.00
	7	.062	12.312	.00	.04	.00	.01	.00	.00	.00	.00	.01	.03	.00	.87
	8	.022	20.452	.00	.52	.01	.06	.03	.12	.32	.01	.00	.00	.01	.00
	9	.019	21.990	.01	.38	.02	.06	.01	.32	.24	.01	.00	.00	.00	.05
	10	.011	29.672	.00	.01	.00	.07	.84	.50	.12	.00	.00	.00	.00	.00
	11	.007	36.827	.04	.02	.40	.77	.10	.04	.01	.00	.00	.00	.00	.01
	12	.003	56.037	.94	.01	.55	.02	.01	.00	.27	.00	.00	.00	.00	.05

Note. EWB = Emotional, PWB = Psychological, SWB = Social, STR = Stress, ANX = Anxiety, DEP = Depression, MALE = Gender (Male), ≤21 = Age (18 to 21), ≤4 = Semester (2 to 4), DIP = Programme (Diploma), PUB = University (Public).


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Satisfaction
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Satisfaction
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4

Appendix 7.5 *MANOVA Analysis of Mental Well-Being Groups*

Box's Test of Equality of Covariance Matrices

Box's M	*F*	*df*1	*df*2	*p*
57.795	1.401	40	58927	.048

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

Levene's Test of Equality of Error Variances

	Levene Statistic	*df*1	*df*2	*p*
GPA	.890	4	664	.470
CGPA	1.240	4	664	.292
Engagement	.992	4	664	.411
Satisfaction	3.609	4	664	.006

Descriptive Statistics

Dependent Variable	Groups	*M*	*SD*	*SE*	95% CI *LL*	95% CI *UL*
GPA	Flourishing without challenges	3.30	.805	.105	3.095	3.505
	Moderately well without challenges	3.18	.867	.085	3.012	3.344
	Flourishing with challenges	3.11	.983	.128	2.856	3.357
	Moderately well with challenges	2.92	.878	.043	2.837	3.005
	Languishing with challenges	2.61	.832	.165	2.283	2.932
CGPA	Flourishing without challenges	3.40	.646	.096	3.211	3.589
	Moderately well without challenges	3.25	.778	.078	3.099	3.405
	Flourishing with challenges	3.21	.883	.117	2.982	3.443
	Moderately well with challenges	3.07	.824	.039	2.990	3.145
	Languishing with challenges	2.71	.854	.152	2.415	3.013
Engagement	Flourishing without challenges	66.04	7.828	.890	64.295	67.791
	Moderately well without challenges	59.81	7.339	.720	58.399	61.227
	Flourishing with challenges	65.19	7.323	1.087	63.058	67.325
	Moderately well with challenges	56.03	7.341	.365	55.322	56.755
	Languishing with challenges	44.50	8.643	1.408	41.736	47.264
Satisfaction	Flourishing without challenges	30.88	4.244	.473	29.957	31.815
	Moderately well without challenges	26.85	3.474	.383	26.099	27.602
	Flourishing with challenges	27.85	5.034	.577	26.717	28.985
	Moderately well with challenges	24.23	3.819	.194	23.857	24.618
	Languishing with challenges	20.85	4.911	.748	19.388	22.326

Multivariate Tests

	Value	*F*	H. *df*	Error *df*	*p*	η_p^2
Pillai's Trace	.399	18.398	16	2656	.000	.100
Wilks' Lambda	.612	22.013	16	2020	.000	.116
Hotelling's Trace	.616	25.386	16	2638	.000	.133
Roy's Largest Root	.585	97.161	4	664	.000	.369

Note. H. *df* = Hypothesis degrees of freedom

Tests of Between-Subjects Effects

Source	Type III *SS*	*df*	*MS*	*F*	*p*	η_p^2
Groups						
GPA	17.137	4	4.284	5.601	.000	.033
CGPA	13.507	4	3.377	5.206	.000	.030
Engagement	14002.956	4	3500.739	63.089	.000	.275
Satisfaction	3752.777	4	938.194	59.856	.000	.265