THE MEDIATING EFFECT OF LEADERS' EMOTIONAL INTELLIGENCE ON THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND ACADEMICS PERFORMANCE IN MALAYSIAN PUBLIC RESEARCH UNIVERSITIES.

BY

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- (2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the FYP.
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For guiding us throughout the way of completion in this research project.

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LIST OF ABBREVIATIONS

AP	Academics Performance	
EI	Emotional Intelligence	
MOHE	Ministry of Higher Education	
RU	Research University	
SET	Social Exchange Theory	
SPSS	Statistical Package for Social Science	
THE	Times Higher Education World University Rankings	
TL	Transformational Leadership	
U21	Universitas 21	
UKM	Universiti Kebangsaan Malaysia	
UM	Universiti Malaya	
UPM	Universiti Putra Malaysia	
USM	Universiti Sains Malaysia	
UTM	Universiti Teknologi Malaysia	

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PREFACE

This research project is submitted in partial fulfilment of the requirements for the Bachelor of Business Administration (Hons) at Universiti Tunku Abdul Rahman (UTAR). The study, under the supervision of Dr. Gopalan a/l Raman, is titled "The Mediating Effect of Leaders' Emotional Intelligence on the Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities." This final year project is the independent work of the authors, utilizing various research studies and resources cited in the references. The primary objective of this study is to explore the impact of leaders' emotional intelligence and transformational leadership on academics performance in public research universities in Malaysia, with a specific focus on the mediating effect of emotional intelligence. This topic was chosen to contribute to the understanding of how leadership styles influence academics performance. The independent variable is transformational leadership, the mediating variable is emotional intelligence, and the dependent variable is academics performance. This study aims to provide significant insights to help enhance leadership practices in Malaysian public research universities, ultimately improving academic outcomes.

ABSTRACT

This research explores the mediating role of leaders' emotional intelligence (EI) in the relationship between transformational leadership (TL) and academics performance in Malaysian Public Research Universities. This study was conducted among 300 academics from five public research universities in Malaysia, namely Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia, (UPM), Universiti Sains Malaysia (USM) and Universiti Teknologi Malaysia (UTM). Grounded in social exchange theory and social learning theory, the study examines how EI influences leadership behavior and enhances academics performance. A total of 400 questionnaires were distributed, with 300 valid responses collected. The data were analyzed using SPSS, employing descriptive analysis, reliability testing, normality testing, Pearson Correlation Coefficient Analysis, and Multiple Linear Regression. The results indicate that leaders' emotional intelligence significantly mediates the relationship between transformational leadership and academics performance. These findings provide valuable insights into leadership development in higher education institutions, suggesting that enhancing leaders' emotional intelligence can improve academic outcomes. It is anticipated that the findings of this study will assist policymakers, the Ministry of Higher Education (MOHE), university management, and researchers in developing and enforcing policies and practices aimed at strengthening academic leadership and improving the performance of subordinates in Malaysian Public Research Universities.

Keywords: Transformational leadership, emotional intelligence, academics and performance

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

The purpose of this research project is to explore the mediating effect of a leader's emotional intelligence (EI) between the relationship transformational leadership (TL) and academics performance (AP), across five Malaysian public research universities. As the study's introduction, this chapter provides an overview of the context of the research as well as a thorough elaboration of the problem statement. This chapter outlines the research background, problem statement, research questions, objectives, hypothesis, and the significance of this study. The readers are able to obtain a comprehensive understanding of the study project from this chapter.

1.1 Research Background

Malaysia invests in training and education to meet the demands of a high-quality workforce, economic productivity, and global competitiveness. Therefore, to achieve these objectives, the country is willing to advance its human capital development to adapt to changes in the workplace of the 21st century (Nurul-Awanis, 2011). In Malaysia, the education sector has consistently received the highest provision, reflecting the country's leadership's awareness and seriousness about education (Radhi, 2023). The Malaysian government's commitment to developing talents and academic research is evidenced by its substantial budget allocation for the educational sector. They always set a higher budget in the educational sector. In Malaysia's 2024 budget, the federal education system has been allocated the largest portion; it is 19% of the national budget of RM 393.8 billion for 2024, with a total of RM75 billion (Online, 2023).

The Malaysian Higher Education System began with the formation of the Medical College in Singapore in 1905, which eventually became the origin of the University of Malaya in 1962 (Ahmad, 2017). Over the years, more than twenty universities have been built. Since then, developing strategic policies for human capital development has been the focus of university management and leadership (Ahmad, 2017). Additionally, the higher education system in Malaysia has over thirty years of experience with international education. Many opportunities exist for obtaining an international qualification at competitive rates because of the well-organized higher education system in Malaysia (Malaysia Higher Education in Brief - Education Malaysia Global Services, 2023).

Public institutions in Malaysia are higher education institutions funded by the government and overseen by the Ministry of Education. These institutions are classified into three main categories: public universities, polytechnics, and community and public colleges. Public universities offer undergraduate and postgraduate programs, along with pre-university foundation courses and diploma programs (Malaysia Higher Education in Brief - Education Malaysia Global Services, 2023). The Ministry of Higher Education has given RM16.3 billion in the Malaysian Budget 2024 for public institutions (All Eyes on Budget 2024, 2023). This indicates that public higher education institutions are of significant importance to the government.

The public universities in Malaysia are structured into three clusters, encompassing five research universities, eleven focus universities, and four comprehensive universities. Public universities provide diverse academic fields, each with a team of distinguished experts. Research universities promote research, competitive entries and academic orientation, while comprehensive universities provide various courses and fields of study. Besides, focus universities offer courses in a specific area (*MyGOV*, 2024).

The Malaysian government's sustained dedication and support of research universities seeks to advance the nation's economic growth by enhancing research excellence (Albelbisi & Yusop, 2020). Only a few Malaysian institutions have been

awarded the status of Research University (RU) to acknowledge their research, development, and commercialisation (R&D&C) activities. Kowang et al. (2015) stated that RUs must concentrate on management, performance and management for the country to achieve its goal of becoming an innovation country. 'The Ministry of Science, Technology and Innovation' and 'the Ministry of Higher Education' have allotted RM510 million to research and development '(*UNM Welcomes Budget 2024 Boost to R&D for Innovation and Development*, 2023)'. Furthermore, the government has agreed to provide RM12 million in matching grants under the Collaborative Research in 'Engineering, Science and Technology program', focusing on areas like Gallium Nitride for use in LEDs (light-emitting diodes) and electric vehicles (Natrah, 2021). This signifies the importance of research and the role played by Malaysian research universities in the nation's research and development goals.

In fact, research universities are significant accomplishments that the Ministry of Higher Education can rightfully view as symbolic of its success in augmenting the country's ability to compete on an international level. Thus, public research universities were chosen for this study because they contribute to the government's dedication and desire to transform Malaysia into a developed country. However, this requires visionary university leadership as well as developing and implementing a new image and organizational standards (Sheriff & Abdullah, 2017).

Nowadays, academic leaders are actively seeking ways to enhance the academic performance of their respective universities. According to Yee (2018), a university's success and excellence are reflected through students' excellence, which is heavily influenced by the academics' contributions. Academic leaders are tasked with addressing challenging issues, creating an engaging learning atmosphere, and leading diverse teams effectively (Manoharan & Ashtikar, 2024). Transformational leadership style and emotional intelligence are the essential tools that help academics adapt to their stressful emotions and cope with new university challenges and expectations. Cherniss (2021) stated that transformational

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities leadership combined with emotional intelligence development can improve subordinates' performance, satisfaction, and survivability.

Over the past 20 years, transformational leadership has gained popularity and importance in leadership philosophy (Sosik JJ & Jung D, 2018). It has drawn the attention of scholars in the current development and evolution (Udin U, 2020). Transformational leadership is closely related to the management issue as well (Udin U, 2020). It can improve the academics performance to act beyond their expectations. In the setting of academic institutions, transformational leadership has been associated with better academic outcomes (Mohamed et al., 2022). According to Moynihan et al. (2012), transformational leadership plays a crucial role in assisting subordinates in reaching the intended objective of an organisation. Lewis and Cunningham (2016) stated that leaders lead and motivate their subordinates by upholding their subordinates' own norms and beliefs.

Emotional intelligence has been related to job performance (O'Boyle et al., 2011). Hence, leaders with emotional intelligence may also have an advantage to inspire their followers due to their understanding of human nature and their ability to affect others' emotions (Miao et al., 2018). Emotional intelligence in academic leaders is therefore a crucial psychological component that has a significant impact on academics performance and ability. The performance of subordinates is evaluated not only based on their outstanding performance, but also their leadership abilities to develop relationships with others (Rumaropen et al., 2019).

In conclusion, Asians place great importance on their academic performance, which is considered one of several ways of upward mobility (Mohamed et al., 2021). Furthermore, due to the unpredictable expectations of parents, society and standards set by the government, Malaysian research universities have found themselves in a valley of high hopes and desires. The expanding nature of the new distressing phenomenon in Malaysia prompted the undertaking of this study. Leaders within higher education institutions must be able to recognize and comprehend their own emotions and those of others. Successful academic leaders have a constructive mindset, adept social interaction and significant influence. Therefore, it is essential The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities to ruminate on others' emotions in order to comprehend them. Similarly, it is critical to recognize and comprehend subordinates' work processes.

1.2 Problem Statement

One of the critical factors in the development and advancement of a country is the education system (Hanushek & Woessmann, 2020). It helps to improve a country's economy. Educational institutions are seen as centers of knowledge, providing training for the workforce and preparing individuals as inputs for various sectors of the economy (Grant, 2017).

The Ministry of Higher Education of Malaysia is considering a restructure and encouraging the adoption of institutional policies and strategies that improve their global ranking, especially in the Times Higher Education World University Rankings and the QS World University Rankings, which are presently regarded as the most significant university rankings (Azman & Kutty, 2016). In the Times Higher Education (THE), World University Rankings in 2024, Malaysian public research universities generally struggle to break into the top 300 globally. The University of Malaya (UM) ranks in the 251-300 range, while other public research universities such as Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM), and Universiti Teknologi Malaysia (UTM) are fall between the 401-500 range. Universiti Putra Malaysia (UPM) ranks even lower, in the 501-600 range.

Universitas 21 (U21) released a ranking of 50 countries based on their education budgets and resources, including research grants. The anticipated outcomes encompass publication rates, citation counts, the number of researchers, and the employability of university graduates. Surprisingly, Malaysia stood out in terms of resource investment, ranking 11th, 12th, 17th and 15th in 2017, 2018, 2019 and 2020. However, despite these outstanding resource allocations, Malaysia has seen

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities a declining trend in university outcomes. During the same period, the country's rankings declined, falling to 39th in 2017, 42nd in 2018, and 45th in 2019 and 2020. Despite large investments in higher education, this data highlights the difficulties Malaysian research universities face in competing with their international rivals. Therefore, Malaysian public research universities' standing does not fairly reflect their actual academics performance, as the output mentioned does not match the ranking.

Table 1.1:

Year	Numbers of Academics Staff in Public
	Research Universities
2020	9737
2021	9656
2022	9473

Number of academics in public research universities Malaysia

Source: Kementerian Pendidikan Tinggi

Of equal importance, Kementerian Pendidikan Tinggi (Ministry of Higher Education, Malaysia) declared that the number of academics in Malaysian public research universities decreasing from 9,737 in 2020 to 9,473 in 2022 may indicate underlying leadership challenges that could be contributing to both academics decline and low global rankings (KPT - 2022, 2023). This reduction in academics proves potential dissatisfaction and turnover, possibly linked to ineffective leadership styles that fail to inspire and engage academics (Yang & Islam, 2022). Jones & Oleksiyenko (2020) stated that the academics shortages may have strained the remaining academics, leading to reduced research output and teaching effectiveness, which are critical factors in academics performance that leads to lower global rankings.

This is particularly true considering the numerous challenges confronting higher education, including substantial reductions in public support, differing views on the role of higher education, the potential of new technologies for teaching and learning, and a fast-evolving, competitive global economy (Hazelkorn, 2021).

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities Given this turbulent climate, there is a compelling need for enhanced attention to leadership development in higher education institutions (Gigliotti, & Puber, 2017)

leadership development in higher education institutions (Gigliotti, & Ruben, 2017). Effective leadership that demonstrates high emotional intelligence may enhance motivation, collaboration, and overall performance among academics, potentially elevating the quality and reputation of universities. Transformational leadership and emotional intelligence share an emotional component and are frequently discussed in connection with each other (Potter et al., 2018). According to Bryant and Williams (2018), emotional intelligence is a must-have quality for a transformational leader. Research indicates that transformational leadership skills are associated with emotional intelligence.

As such, this study argued that issues with academics leadership styles in Malaysian public universities contribute to the observed outcomes. As Malaysia keeps focusing on becoming a hub for education and research, this problem will affect the competitiveness of the Malaysian higher educational sector in the global academic field.

A significant contribution to the current body of knowledge has been made by various studies conducted in Malaysia, which have significantly expanded the literature. However, there is a lack of research pertaining to the issues and measures that influence Malaysian higher education (Ghasemy et al., 2018; Ibrahim et al., 2018). Despite this, it is important to investigate not only the problems faced by the leaders but also higher education universities (Ghasemy et al., 2018). Therefore, leadership development must be emphasised in universities (Gigliotti, & Ruben, 2017). Without a doubt, it is necessary to determine and define leadership roles in higher educational institutions (Zain et al., 2017). Empowering human resources is considered crucial for success and achievement in universities, as well as in other organisations (Abdulrab et al., 2018).

A study of recent research shows a constant increase in the last 10 years in articles discussing emotions in higher education (Majeed et al., 2019). However, further research demonstrates that only a very few of these deal with universities as workplaces (Raman et al., 2020). Universities are not only educational and research

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities institutions, but also workplaces where people spend an important part of their working lives (Teichler & Cummings, 2015). Therefore, understanding emotions in the workplace is critical for enhancing employee well-being (Al-Ajlouni et al., 2022).

Recognising and controlling one's own and other people's emotions is a critical component of effective leadership. Leaders will be unable to communicate, understand and motivate their followers without understanding their feelings. It is also crucial to understand how emotions relate to one another (Peciuliauskiene, 2021). In addition, leaders who can recognize their own and others' emotions demonstrate transformational leadership (Hajnel et al., 2020; Sunindijo, 2012). Transformational leadership enhances emotional intelligence (Wang et al., 2018). Furthermore, a leader with strong EI changes, motivates and inspires followers. It also points out the right path and increases their self-confidence (Afzal et al., 2018). There are many researchers conducting studies to find out the relationship between leadership and EI (Peciuliauskiene, 2021). For example, Karasneh & Al-Momani (2019) explore the relationship between leadership style and EI at the Aqaba Special Economic Zone Authority (ASEZA), while Hajncl & Vučenović (2020) investigate the relationships between EI and leadership style in 16 organisations at Croatia. Rajesh et al. (2019) studied whether EI is a valuable predictor of transformational leadership that enhances outcomes in educational institutions.

However, there is a lack of research on leaders' transformational leadership and its links to EI in universities as a workplace in Malaysia. Research has shown that in the educational sector, the consideration of transformational leadership as an important leadership quality in developing future recruitment policies and designing training programs for the education sector (Waham et al, 2020). Therefore, there is a gap in the research concerning the specific relationship between transformational leadership and EI in university settings. Understanding how transformational leaders apply EI to inspire and motivate academics is critical for improving academics performance and promoting professional development in higher education institutions (Baba et al., 2019).

Besides, Namrata et al. (2019) investigated how leaders using transformational leadership affects team performance through the mediation of EI in the hospitality and tourism industry in their studies. It is important to recognise that academics performance is only an integral part of team performance. Therefore, the performance of a team cannot accurately reflect the performance of an individual employee. Besides, Buil et al. (2019) explores the relationship between transformational leadership and frontline academics performance, whereas Al-Amin (2017) investigates the relationship between transformational leadership and academics performance with the mediating effect of employee engagement. The research mentioned above provides some evidence of investigating transformational leadership and academics performance. However, these studies have not properly clarified the role of EI as a mediator in this relationship. As a result, there was a research gap concerning the mediation of EI between the relationship of transformational leadership and academics performance in the higher education institutions.

1.3 Research Objectives

1.3.1 General Objectives

The overall aim of this research is to investigate the relationship between transformational leadership, leader's emotional intelligence mediated with academics performance in five public research universities in Malaysia.

1.3.2 Specific Objectives

1. To investigate the relationship between transformational leadership and academics performance in public research universities.

2. To investigate the relationship between transformational leadership and a leader's emotional intelligence in public research universities.

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities 3. To investigate the relationship between a leader's emotional intelligence and academics performance in public research universities.

4. To investigate the mediating effect of a leader's emotional intelligence on the relationship between transformational leadership and academics performance in public research universities.

1.4 Research Questions

1. Does transformational leadership influence the academics performance in public research universities?

2. Does transformational leadership influence a leader's emotional intelligence in public research universities?

3. Does a leader's emotional intelligence influence academics performance in public research universities?

4. Does a leader's emotional intelligence mediate the relationship between transformational leadership and academics performance in public research universities?

1.5 Hypothesis of Study

H1: There is a significant relationship between transformational leadership and academics performance in public research universities.

H2: There is a significant relationship between transformational leadership and emotional intelligence in public research universities.

H3: There is a significant relationship between a leader's emotional intelligence and academics performance in public research universities.

H4: There is a mediating effect of a leader's emotional intelligence in the relationship between transformational leadership and academics performance in public research universities.

1.6 Significance of the Study

According to Ahamad and Saad (2020), the research mentioned that effective leadership is essential for the success of any organisation, including education. The significance of this study is to investigate the mediating effect of a leader's emotional intelligence (EI) between transformational leadership (TL) and academics performance (AP). From an operational point of view, this provides organisations with valuable insights that can be utilised to customise leadership development strategies that specifically target the improvement of emotional intelligence skills in leaders. As a result, these development strategies not only enhance leadership effectiveness but also directly contribute to improved academic performance.

The findings are particularly relevant for policymakers, such as the Ministry of Higher Education (MOHE), and for university administrators who are responsible for leadership development. When integrating EI into leadership training and development programs, these institutions can cultivate leaders who are better equipped to inspire and motivate their teams, navigate challenges, and foster a positive organizational culture. Thus, this can support the overall growth and success of academic institutions, ensuring they remain competitive and capable of achieving their academics performance and research objectives.

Moreover, the study offers practical guidance for human resource departments in refining their recruitment, training, and development processes to identify and nurture emotionally intelligent leaders. This not only benefits current leaders but also paves the way for future leadership, ensuring a sustainable pipeline of transformational leaders who can continue to drive academic excellence.

This study is also significant as it bridges theoretical concepts with practical applications in the context of leadership in higher education. The study introduces

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities EI as a mediator in the relationship between transformational leadership and academic performance, it enriches the transformational leadership framework, suggesting that EI is a foundational element that amplifies the impact of TL.

In summary, this study's significance extends beyond its immediate practical applications to contribute to theoretical contribution and organizational effectiveness. Through the investigation of and the mediated role of emotional intelligence, the research provides practical insights that have the potential to benefit organisational policy and leadership development, subsequently enhancing academics performance and overall success.

1.7 Chapter Layout

Chapter 1

Chapter 1 is introducing transformational leadership, emotional intelligence, and academics performance. It also presents an outline of the research background, which includes the five research universities in Malaysia, accompanied by a clear definition of the problem statement. It consists of the research objectives, research questions and hypothesis. Additionally, this chapter highlights the significance of the study, emphasising its importance and relevance. The chapter also outlines the overall layout of the research report. This chapter concludes with a summary of the chapter's main points.

Chapter 2

Chapter 2 starts with a description of its purpose and organisation. The chapter includes an exhaustive literature review, which employs reputable secondary sources to assess the study's independent and dependent variables. The literature review also examines important theoretical frameworks, providing the study's conceptual framework. This conceptual framework directly examines the connections between the variables under investigation. The chapter subsequently develops hypotheses based on the conceptual framework and literature review. In

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities conclusion, the chapter provides a concise overview of key ideas and lays the groundwork for subsequent chapters.

Chapter 3

The introduction provides a comprehensive outline of the research methodology, commencing with Chapter 3. The research design is delineated, accompanied by a justification for the decision to employ the design. The chapter then discusses data collection techniques, 'the target population, the sampling location and the sampling frame'. The sampling design also includes considerations for sampling elements, procedure, and size. Furthermore, research instruments and construct measurements will be utilized in this project. A crucial phase is data preparation or analysis, which includes descriptive, inferential and reliability analysis. The chapter's conclusion provides a synopsis of the data processing procedures.

1.8 Chapter Summary

In this chapter, we provided an overview of the research background focusing on the mediating effect of a leader's EI between transformational leadership and academics performance, within the context of five public research universities in Malaysia. Our study investigates the importance of comprehending the intricate relationship between EI and transformational leadership. The objective of this chapter was to establish an overview of the details related to enhancing academics performance and public university leadership by clarifying these relationships. Furthermore, the continued chapters will delve deeper into the specific variables and their interrelationships, offering a more comprehensive understanding of how these factors influence academics performance within the academic setting.

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2.0 Introduction

This chapter covers the theoretical models that are related to the research topic. Additionally, it will focus on previous studies on the mediating role of a leader's EI in the correlation between transformational leadership and academics performance. Furthermore, this chapter will formulate the research hypotheses.

2.1 Underlying Theories

2.1.1 Social Exchange Theory

According to Cropanzano and Mitchell (2005), 'Social Exchange Theory' (SET) is one of the most well-known ideas related to workplace behaviour. It means that interactions between two parties must have reciprocal interdependence (Blau, 1964). Institutions establish the social exchange process by placing importance on the contributions of their employees and showing concern for their well-being. Researchers examining leadermember relationships have utilized SET, which indicates that followers feel obligated to reciprocate high-quality relationships (Meira & Hancer, 2021). The SET utilizes three concepts, namely rationality, reciprocity and specificity, to explain the dynamics of the leader-member relationship (Ahmed et al., 2018). According to the first rationality principle, employees would seek a job with an organisation that can satisfy their needs and wants while also offering desirable incentives. The next reciprocity principle proposes that social interactions between leaders and subordinates are always reciprocal. The third specificity principle states that an exchange relationship between subordinates and an organisation can only be maintained by reciprocity (Ahmed et al., 2018).

Previous studies have provided solid empirical evidence supporting this perspective, as researchers have discovered significant and favourable impacts of the relationship between leader and academics performance (Ilies et al., 2007). According to SET in the field of management, employees are more likely to engage in actions outside their job requirements when they perceive that their company's leaders are making efforts to support them (Meira & Hancer, 2021). Employees feel motivated to provide their employer with improved behaviours and attitudes when they receive both financial and socioemotional resources at work (Hsu et al., 2022). Thus, in SET, subordinates receive various exchange sources from leaders, including tangible and intangible rewards, empowerment and psychological support. In turn, these exchange sources generate more effort from employees in exchange for high work performance. As a result, subordinates are more likely to exceed their works and participate in citizenship-type behaviours to have a fair social exchange with their leader (Ilies et al., 2007).

This study applies SET as its key framework to develop the study hypothesis of transformational leadership (TL) and academics performance (AP). According to a review of research, SET has been used to support the effect of TL on job satisfaction, academics performance, helping behaviour and job-related stress (Wang et al., 2011). This research has suggested that TL is effective in getting subordinates involved in social exchange processes that are built on mutual loyalty, strong identification, interpersonal trust and continuous reciprocity with their leaders. As a result, subordinates feel obligated to pay back their leaders and organizations (Walumbwa et al., 2009). Cropanzano & Mitchell (2005) highlight the importance of relationships between individuals and leaders, which is the reason TL is associated with the Social Exchange Theory (Wang et al., 2005). The leadership behaviour has caused a shift in employee beliefs and norms, resulting in improved efficiency among followers and increased organizational success (Ramen et al., 2020).

2.1.2 Social Learning Theory

Bandura's (1977) Social Learning Theory offers a framework for understanding how individuals develop emotional intelligence and transformational leadership skills through observation, imitation, and modelling within social contexts. According to Mayer and Salovey's (1990) ability model of emotional intelligence, these skills—such as perceiving, understanding, regulating, and managing emotions—are learned by observing emotionally intelligent behaviours in leaders.

In the context of transformational leadership, 'Social Learning Theory' highlights the role of modelling and observation in shaping leadership behaviour. Bass and Avolio (1994) describe transformational leaders as those who inspire and motivate followers to achieve extraordinary outcomes, serving as role models whose behaviours are emulated by subordinates.

'Social Learning Theory' outlines four stages of learning: attention (focusing on observed behaviour), retention (storing the behaviour in memory), reproduction (replicating the behaviour), and motivation (reinforcing the behaviour through rewards or recognition) (Saul McLeod, 2024). These stages illustrate how individuals learn and refine behaviours through observation, ultimately influencing their actions.

Reinforcement is crucial in this process, as individuals receive praise or recognition for demonstrating emotionally intelligent or transformational leadership behaviours, motivating them to continue exhibiting these behaviours (Raes et al., 2013). For instance, leaders who regulate their emotions effectively or foster positive work environments are often praised, reinforcing these behaviours in both leaders and followers.

Research supports the use of 'Social Learning Theory' in exploring how TL and EI enhance followers' performance. Studies by Ali et al. (2020) and Xie et al. (2019) demonstrate how leaders' behaviours influence team creativity and subordinates' performance through observational learning and role modelling. Social Learning Theory has been validated in various studies (Gary, 1979) and serves as a foundation for investigating the relationship between leadership, EI, and follower performance.

This research employs 'Social Learning Theory' to examine how followers learn and adopt TL and EI by observing their leaders. Previous studies have confirmed the connection between TL, enhanced EI in subordinates, and improved performance (Gurlek & Cemberci, 2020; Chuang, 2021; Akdere & Egan, 2020).

2.2 Review of the Literature

2.2.1 Academics Performance (Dependent Variable)

Academics performance in the context of university settings is referred to how effectively academics fulfil their educational roles and responsibilities. It includes different aspects such as lecture preparation, community service, and research contributions (Victor & Babatunde, 2014). According to Hashim and Shawkately (2017), academics performance is influenced by three variables: the abilities or expertise required to perform various tasks, the motivation to attempt these tasks, and the effort invested in completing them. Effective academics performance also involves detailed lecture planning, which includes selecting relevant topics that align with learning objectives and maintaining student engagement (Bennett et al., 2018). Furthermore, successful academics must manage their research responsibilities and participate in public knowledge networks to achieve an ideal performance profile (Ddungu, 2018). This approach emphasizes the The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities need for academics to reflect on their practices, engage students in

meaningful discussions, and continuously broaden their expertise (Su & Wood, 2012).

Academics performance can be effectively analyzed using the three dimensions: task performance, contextual performance, and adaptive performance. Each dimension provides insights into how academics fulfil their jobs and responsibilities.

Task performance dimension refers to the core activities that are directly related to employee's job responsibilities. In academia, task performance includes fulfilling teaching obligations, such as lecture preparation, delivering lectures, grading assignments, and mentoring research students (Igbojekwe et al., 2015). It involves the direct execution of teaching and research responsibilities that align with the educational outcomes expected by academics. Hashim and Shawkately (2017) define this dimension as impacted by the academic's skills, expertise, and effort. It also includes conducting and publishing research in prominent journals, which contributes to the academic's task-related responsibilities (Kakulu, 2016).

On the other hand, contextual performance involves behaviours that are not directly linked to specific job tasks but have a significant impact on the psychological organizational and social contexts (Luis et al., 2015). For academics, contextual performance includes interacting with students in discussions that build a learning-oriented environment, participating in community service, and contributing to scholarly networks (Ddungu, 2018). It also includes student mentorship programs, which improve the learning environment and contribute to the growth of students even if they are not necessarily related to the core teaching tasks (Ddungu, 2018). Contextual performance shows how an academic's is involved in creating a supportive environment for learning and contributing positively to the academic community, which enhances overall organizational effectiveness (Bain, 2004; Yousefi & Abdullah, 2019).

Adaptive performance is defined in general terms as an individual's ability to adapt to dynamic work situations (Charbonnier-Voirin & Roussel, 2012). In the academic context, adaptive performance is important in terms of how academics respond to evolving educational standards, integrate new teaching methods, and adapt to changes in research focus or institutional expectations (Hanappi-Egger, 2022). Academics must maintain a flexible and innovative way of teaching and research, adapting to new technologies, changes in academic goals, and emerging trends in their fields (McCarthy, 2015). This adaptability is critical for maintaining high levels of performance and achieving educational goals in the changing circumstances.

Higher education institutions can gain a comprehensive understanding of how effectively academics fulfil their roles and contribute to their institutions by analysing academics performance through these three dimensions: task performance, contextual performance and adaptive performance. This approach supports in recognizing not only the direct execution of job-related tasks but also the broader impact of academics on the educational environment and their ability to adapt to changing circumstances.

2.2.2 Transformational Leadership (Independent Variable)

James MacGregor Burns (1978) first developed the theory of transformational leadership (TL) to study outstanding leaders. It was further refined by Bass (1985, 1997) and Bass and Stogdill (1990). Although James MacGregor Burns (1978) first established the idea of TL in his descriptive study on political leaders, it is now used in psychological research (Bass & Riggio, 2006).

Burns (1978) stated that the leader-follower relationship can be transactional or transformational. He describes transactional leadership as

the ability of a leader to influence a follower by economic, political, or psychological motivations, with both parties understanding their roles. In contrast, Burns (1978) claims that TL necessitates the establishment of a deep relationship between the leader and the follower to generate higher motivation. On the other hand, Bass (1985) defines TL as a continuum process in which a leader and a follower mutually help and support one another in order to progress towards greater goals and motivation. This process leads to major changes in a person's life and organizations.

Bass and Avolio (1994) describe TL as a highly effective managerial approach in which leaders foster positive relationships with their subordinates and help them progress from lower to higher levels of performance. According to Bass's (1985) TL theory, this approach is made possible through four key dimensions: idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation.

Idealized influence refers to leaders' ability to exhibit self-confidence and authority while performing as role models for their followers. Inspirational motivation means leaders' ability to express a vision that appeals to and inspires their followers. Besides, individual consideration describes the extent to which the leader meets each follower's needs, serves as a mentor, and addresses the follower's problems and needs. Intellectual stimulation is the extent to which leaders inspire their followers to use creativity and innovation to develop fresh approaches to achieving goals and objectives.

Leaders can encourage their subordinates to create new leadership perspectives through intellectual stimulation through work support structures. Through this process, leaders can be viewed as individuals who care and support their subordinates (Bass, 1985).

2.2.3 Emotional Intelligence (Mediating Variable)

As described by Lopes (2016), emotional intelligence refers to a cluster of interconnected skills situated at the intersection of emotion and cognition. These abilities encompass the perception, comprehension, utilisation, and regulation of emotions, highlighting the importance of effectively navigating and leveraging emotional information in various contexts. Several researchers have proposed that EI could be a factor that explains previously unexplained differences in transformational leadership (Daus & Ashkanasy, 2020). Among the pioneering frameworks that have shaped our understanding of EI is the model proposed by Mayer and Salovey. This model, which initially emerged in the early 1990s and was refined over the years, delineates EI into four distinct dimensions: 'perceiving emotions', 'using emotions to facilitate thought', 'understanding emotions', and 'managing emotions.

The first dimension, 'perceiving emotions', entails precisely identifying and analysing emotions exhibited by oneself and others, a foundational aspect of EI. Emphasising an individual's capacity to identify and acknowledge both their own emotions and the emotions of others in the context of work is the foundation of EI (Raman et al., 2020).

The second dimension, 'using emotions to facilitate thought', highlights how emotions can guide effective decision-making and cognitive processes. The essential aspect of this ability is to employ critical thinking with emotions to focus on important information about the environment or other individuals. According to Bettis-Outland and Guillory (2018), the cognitive process can be influenced even by an individual's current action.

The third dimension, 'understanding emotions', encompasses comprehending emotional language and the complex interrelations between emotions (Grunes et al., 2014). Knowing emotion involves having knowledge, awareness, and sensitivity to one's own emotions, as well as the The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities ability to recognise and react appropriately to various emotions. Therefore, comprehension of emotion entails recognising the typical ways in which individuals express emotions and respond in various situations (Castro et al., 2015).

The fourth dimension, 'managing emotions', is regulating emotions to foster emotional and intellectual growth (Brackett & Salovey, 2006). Consequently, an individual's self-awareness, outcomes, socialisation and desires all influence emotion management (Mayer et al., 2004). By exercising emotional regulation, individuals can generate desirable affective states while expelling unfavourable ones (Ybarra et al., 2014).

The influence of EI on leadership is further explored in the work of Miao, Humphrey and Qian (2018), who conducted a meta-analysis to assess how EI impacts authentic leadership within the framework of Mayer and Salovey. Their research not only reinforces the model's relevance but also illustrates the profound effect of EI on leadership effectiveness and authenticity.

Furthermore, Mayer and Salovey's concept has wide-ranging consequences beyond academic discussions, impacting actions in areas such as organisational development, education, and clinical psychology. Through promoting a more profound comprehension of the complex characteristics of EI, their framework offers valuable perspectives for creating training programmes that aim to improve EI in different contexts. The academic consequences of EI are emphasised in a meta-analysis conducted by MacCann et al. (2020). The study establishes a substantial correlation between EI and academic achievement, as evaluated using Mayer and Salovey's conceptual framework. This correlation highlights the significance of EI in personal or clinical contexts and in achieving scholastic achievement and fostering growth. The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities Overall, Mayer and Salovey's concept of emotional intelligence provides a thorough framework for comprehending how individuals perceive, utilise, comprehend and control emotions. As research progresses, this model will continue to be essential in investigating emotional intelligence. It will guide future studies and applications that try to utilise emotions to promote the well-being of individuals and society.

2.3 Proposed Conceptual Framework

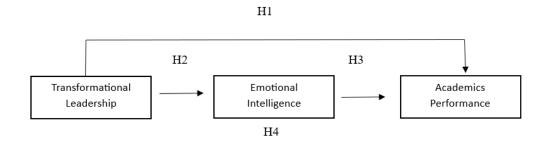


Figure 2.1. The Hypothesized Conceptual Model.

Figure 2.1 illustrates the conceptual framework which comprises five hypotheses on TL effects that will be evaluated on academics performance through the mediating roles of EI.

The conceptual model deals with the question of the effects of TL on academics performance as mediated by EI. The research conceptual presentation was explained by the social exchange theory of Gouldner (1960), social learning theory (Bandura, 1977). By integrating insights from SET, SLT and SRT into the research framework, we may acquire a thorough understanding of how TL and EI interact to influence academics performance in Malaysian public research universities. These theories provide useful conceptual frameworks for investigating the mediating and moderating effects described in the research topic, resulting in better understanding of leadership processes and organizational dynamics in the context of higher education. The conceptual framework for this research will be further explained based on the hypothesized relationships discussed in the following sections.

2.4 Hypothesis Development

2.4.1 Relationship between transformational leadership and academics performance

Transformational leadership is widely recognized as a critical factor in enhancing organizational performance, including in academic settings. Transformational leaders inspire, motivate, and challenge their followers to exceed their own expectations and achieve higher performance levels (Kotamena et al., 2020). This leadership style has been shown to positively affect educational organizational outcomes, including academics performance, job satisfaction, and commitment (Al-Amin, M, 2017).

Bass and Avolio (1994) state that transformational leaders enhance performance by fostering an environment that encourages innovation, intellectual stimulation, and individualized consideration. These leaders inspire academics to transcend their self-interests for the institution's sake, increasing their engagement and performance.

Recent studies have further supported this relationship within the academic context. For instance, a study by Ali and Yang (2020) found that TL positively affects academics performance by enhancing their intrinsic motivation and job satisfaction. Similarly, research by García-Morales et al. (2022) demonstrated that TL in universities is significantly associated with higher levels of academics productivity and creativity, which are key indicators of both task and adaptive performance in the education sector.

Academics performance refers to the output and achievements of faculty and academics, including the quality and quantity of research publications, teaching effectiveness, student satisfaction, and overall contributions to the academic community (Mishra & O'Neil, 2020). Hence, TL is particularly relevant in Malaysian public research universities due to the increasing The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities demands for academics excellence, research output, and global competitiveness. Leaders who adopt TL behaviors can effectively align academics goals with the university's broader strategic objectives, thereby driving higher levels of performance.

Therefore, based on the literature on theoretical and empirical evidence we gained, we proposed:

Hypothesis 1: There is a significant relationship between transformational leadership and academics performance in public research universities.

2.4.2 Relationship between transformational leadership and emotional intelligence

Transformational leadership is a leadership style that transforms and inspires followers to exceed their interests for the good of a group or an organization. Transformational leadership theory led to the development of the full-range leadership model, which has generated a significant amount of confirmatory research (Avolio et al., 1995).

Mayer and Salovey (1990) defined emotional intelligence as the subset of social intelligence that includes the ability to monitor one's and others' emotions and feelings, understand between them and utilise this information to guide one's actions and thinking. It refers to the ability of an individual to understand, evaluate and express emotion, and the potential to alter feelings to promote intellectual growth (Sharma & Sehrawat, 2014).

According to Zurita-Ortega et al. (2019), implementing EI to improve academics transformational leadership and well-being has been considered in almost all educational institutions worldwide. Hence, this proves that EI is highly related to transformational leadership. Osman (2020) stated that a positive and statistically significant correlation was found between EI and The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities the adoption of transformational leadership style among middle

management leaders.

Gardner and Stough's (2002) research stated that emotional intelligence and transactional leadership have no significant correlation. However, there is a strong association between transformational leadership and overall EI. George (2000) proposed that EI is crucial to transformational leadership effectiveness. According to George, through transformational leadership, EI enhances a leader's capacity to tackle, structure, and address challenges and opportunities that arise for themselves, their followers, and their organization.

Baba and Siddiqi (2020) found a significant relationship between a leader's EI and transformational leadership style as perceived by the academics. Mysirlaki and Pareskeva (2020) also found a direct beneficial relationship between EI and transformational leadership. However, Hajncl and Vučenović (2020) result shows that the ability model of EI by Mayer and Salovey has no relationship with transformational leadership style.

The current analysis has identified several areas for potential research. While many researchers have underscored the significance of EI in transformational leadership, there remains a gap, and few researchers have found no significant relationship between EI and transformational leadership.

Hence, the following hypothesis was proposed:

Hypothesis 2: There is a significant relationship between transformational leadership and emotional intelligence in public research universities.

2.4.3 Relationship between emotional intelligence and academics performance

Performance and efficiency have an impact on each organisation, including the education sector. Academic achievements serve as key indicators of academic performance in these settings (Salovey & Grewal, 2021). Emotional intelligence (EI) has gained recognition as a significant influence on academic performance, affecting faculty well-being, job satisfaction, and overall effectiveness (Maamari & Shouweiry, 2016). EI, which encompasses the ability to understand and manage one's own emotions as well as those of others, can profoundly affect academic staff's performance and their interaction with students and colleagues.

From a theoretical standpoint, a more feasible approach to investigate the effect of EI on academics performance is to consider academics performance as an important organizational goal, and EI as an important key factor in maintaining competitive advantages and high performance (Lee et al., 2022). Leaders with high EI can enhance academic performance by equipping their subordinates with the skills to manage stress, foster positive relationships, and engage meaningfully in their roles (Sanchez-Alvarez et al., 2020).

Research indicates that EI is positively related to academic performance. Leaders who exhibit high levels of EI can motivate their subordinates by fostering a positive emotional climate. This motivation translates into higher engagement and enthusiasm for teaching and research, as faculty members feel supported and valued (San Lam & O'Higgins, 2012). Kupers and Weibler (2006) highlighted the necessity of leaders' ability to understand and express their emotions. It enables them to prioritise demands and solve problems more efficiently to improve organisational performance (Yukl, & Mahsud, 2021). For example, leaders with strong EI can manage their own emotions and respond empathetically to the needs of their staff, which in turn enhances staff morale and performance (Dewaele & Alfawaz, 2022).

Key components of EI include emotional appraisal, the use of emotions, the appraisal of others' emotions, and emotion regulation (Maamari & Shouweiry, 2016). These factors are crucial in the workplace, particularly in educational settings. Shipley et al. (2010) investigated the relationship between EI and work experience, including academic performance as measured by students' GPAs, and found a positive correlation between EI and academic outcomes. Saklofske & Austin (2019) also support the notion that EI can significantly enhance overall performance, though this effect may vary among individuals and should be empirically tested across different educational contexts (Deweale et al., 2022; Maamari & Shouweiry, 2016).

Thus, the following hypothesis is proposed:

Hypothesis 3: There is a significant relationship between a leader's emotional intelligence and academics performance in public research universities.

2.4.4 Mediating role of emotional intelligence on the relationship between transformational leadership and academics performance

Emotional intelligence (EI) is proposed as a key mediator in the relationship between transformational leadership and academics performance. EI is vital in leadership as it enhances effectiveness and decision-making (Mishra et al., 2020). This ability is particularly important for transformational leaders, who are known for their capacity to inspire and engage their followers, driving them to achieve higher levels of performance (Alwali & Alwali, 2022). Both positive and negative emotions can play a beneficial role in enhancing employee performance. Positive emotions, such as enthusiasm and excitement, can motivate employees to complete tasks and contribute to The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities the organization's success (Alhamam & Othman, 2020). Conversely, negative emotions like anxiety can sharpen acdemics' focus and improve their concentration on tasks (Alwali & Alwali, 2022).

The connection between transformational leadership and EI is well established in the literature. EI is considered an essential component of transformational leadership, as it significantly influences followers' emotions at work, especially for leaders who can effectively regulate their emotions (Alhamam et al., 2020). Moreover, transformational leadership shapes an organization's vision and mission (Gelaidan, 2011).

In the context of public research universities, leaders with high EI can profoundly impact the academic environment by inspiring faculty to engage in cutting-edge research, innovate in teaching methods, and contribute positively to the institution's mission (Yuki et al., 2021). Alhamam et al (2020) stated that transformational leadership style employed can lead to significant changes within an education organization. The research indicates that transformational leadership, when coupled with EI, enhances team academic performance and overall effectiveness within educational organizations (Alhamam et al., 2020). Thus, the dynamic interplay between transformational leadership and EI has a significant impact on academic performance.

The high expectations for research excellence and teaching quality characterize public research universities. Thus, the role of leadership and EI in these institutions is critical (Alhamam et al., 2020). Additionally, higher education institutes need to consider ways to nurture leaders who can handle stressful circumstances. Therefore, more research is necessary to ascertain how EI and effective leadership, primarily transformational leadership, are related (Harms & Credé, 2010).

Based on the previous discussion, our study proposes the following hypothesis:

Hypothesis 4: There is a mediating effect of a leader's emotional intelligence in the relationship between transformational leadership and academics performance in public research universities.

2.5 Chapter Summary

The independent variable in this chapter was transformational leadership; the mediating variable was emotional intelligence; and the dependent variable was academic performance. We did a thorough literature review for this chapter. Furthermore, we outlined the conceptual framework and developed a hypothesis grounded in both theoretical and empirical evidence. For the next chapter, we will detail the research methodology used for data analysis and hypothesis testing, providing a thorough theoretical and empirical justification for the proposed conceptual model.

3.0 Introduction

In order to gather data to support research questions and hypotheses, this chapter demonstrates how to set up the research process. In addition, this chapter will briefly summarize the methodology of our study, data gathering techniques, sample size requirements, and data processing procedures. The following sections will cover each of these topics, including 'research design', 'data collection method', 'sampling design', 'measurement scales', 'constructs measurement', and 'data analysis methods.

3.1 Research Design

The research design will guide procedures for targeted respondents, the steps involved in collecting data from the respondents and its justifications. This study will employ quantitative research to examine transformational leadership, emotional intelligence, and academics performance in public research universities in Malaysia. Data collection and analysis are ways of quantitative research (Winston-Salem State University, 2023).

A correlational research design was used. Correlation research is a nonexperimental research method primarily used to determine whether there is a relationship between two or more variables and to describe the direction and strength of this relationship (Alam, 2023). Hence, unlike experimental research, correlation research does not involve the manipulation of variables; instead, it observes variables as they naturally occur. In addition, the personal information and identity of the respondents are not revealed; as such, respondents felt at ease in responding to the questionnaires.

3.2 Data Collection Method

Data collected by researchers from targeted respondents are primary data and were collected through questionnaires (Appendix A). This methodology allows researchers to collect data once the questionnaires have been validated and tested for reliability (Bihu R., 2021). Data was collected across five Malaysian public research universities, as detailed in Appendix B. For this study, the questionnaires were created using 'Google Forms' and distributed to the intended respondents through various communication platforms, including email, WhatsApp, Microsoft Teams, and other channels.

Secondary data is sourced from various materials, including journal articles, statistical reports, and publications. The journal articles accessed for this research were compiled from multiple repositories, including the UTAR database library, ResearchGate, Emerald Insight, Academia, and Google Scholar. Utilizing these diverse sources ensured that the secondary data collected was comprehensive and diverse in terms of viewpoints and methodologies. This variety significantly enhanced the depth and breadth of the research, enriching both the process and the results.

3.3 Sampling Design

3.3.1 Target Population

Population stated that there is a group of individuals with certain traits, while a sample is a smaller group taken from a population (Thomas & Thomas, 2023). Demographics and temporals are population characteristics. Sample data are used to generalize about a wider population with similar features in research. This study targets the higher education industry academics population of Malaysian public universities. Academics have consciously The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities acknowledged roles in higher education institutions' three-in-one functions of teaching, research, and services/ administrator (Ismail et al., 2005). As of 2022, a statistical report from Statistik Pendidikan Tinggi Malaysia (National Higher Education Statistics) stated that there are 31,392 academics in Malaysian public universities. This research has focused only on Malaysian Research Universities, including "Universiti Malaya, Universiti Sains Malaysia, Universiti Kebangsaan Malaysia, Universiti Putra Malaysia, and Universiti Teknologi Malaysia".

3.3.2 Sampling Frame and Sampling Location

A sample frame refers to any table, record, or technique that organizes, identifies, and makes the components of the survey population accessible. It allows for assessing selection likelihood and can be used as a foundation for sampling (Villegas, 2023). The respondents of this study are the academics of five public research universities in Malaysia. This is because the Malaysian government is focusing more on research universities, which can be proved by the Budget 2024.

The research for this study is being conducted across five public research universities in Malaysia, collectively serving as the sampling locations. These institutions include Universiti Malaya (UM), situated in Kuala Lumpur, and Universiti Kebangsaan Malaysia (UKM), located in Bandar Baru Bangi, within the Hulu Langat District of Selangor. Universiti Sains Malaysia (USM) operates across three campuses: the main campus on Penang Island, a health campus in Kelantan, and an engineering campus in Nibong Tebal. Universiti Putra Malaysia (UPM) is based in Serdang, Selangor. Lastly, Universiti Teknologi Malaysia (UTM) has three campuses: the main campus in Skudai, Johor Bahru; a campus in Kuala Lumpur on Jalan Sultan Yahya Petra; and a new campus in Pagoh. These diverse locations provide a comprehensive representation of Malaysia's higher education landscape.

3.3.3 Sampling Elements

Due to constraints in quantitative research, a sample was drawn from a population of academics in five Malaysian Research universities. The population of Malaysian Research University academics in 2022 is 9,473, which includes all academicians such as deans, deputy deans, directors, deputy directors and department heads (Appendix B), excluding the university presidents who do not have a supervisor. An online questionnaire survey is a very effective tool that can provide results equivalent to paper-based surveys, yet it offers distinct advantages such as cheaper costs and faster distribution (Regmi et al., 2016).

3.3.4 Sampling Technique

The present research project using convenience sampling as the primary sampling technique to select participants from the five Malaysian public research universities. Convenience sampling was chosen due to the constraints of time and resources, which necessitated a more practical and accessible method of data collection (Etika et al, 2016).

Respondents were chosen according to their availability and willingness to participate in the study. This method involved reaching out to the academics who were readily accessible through professional networks, institutional contacts, and responses to invitations distributed via email. The sample included individuals who were known to have worked in the academic environment of Malaysian public research universities.

3.3.5 Sampling Size

The sample size, according to Omniconvert (2022), is the quantity of observations utilised to compute estimates for a particular population. In addition, accuracy in the total sample size will determine that the research objectives are achieved without any redundancies. According to Lakens (2022), when accomplishing research objectives, it is crucial to justify the sample size by considering the level of information that the data would provide for inferential purposes, such as calculating effect size. Therefore, it is crucial to select several methods to find the appropriate sample size and accurately estimate the actual parameter values for interaction and single effects. Hence, the study model has the potential to forecast rather than experimentally verify the hypothesis.

Sample size determination is important to generalize research findings. In this study, the sample size was determined using the guidelines from Krejcie and Morgan (1970). Based on the table, the sample size for a population of 9,473 is 370 respondents (refer to Appendix C). For pre-testing purposes, 30 members of academics in public research universities in Malaysia will serve as the pilot test population for the questionnaires' pre-test.

3.4 Research Instrument

The research objective of this study will be achieved by gathering and analyzing data using a questionnaire. Questionnaires are considered the most effective tool for collecting data from many of the respondents. Therefore, well designed questionnaires will be used to assure accuracy and clarity in the data collected.

3.4.1 Questionnaire Design

The questionnaire is used as the primary research instrument. The information needed for this project will be gathered through questionnaires. The main factors in adopting this instrument are ease of use and time savings in data collection. The questionnaires have fixed-alternative questions, providing the respondents with limited options. The questionnaire is divided into four sections. Section A considers the demographic profile of the respondents. It includes questions about their university, designation, administration position, gender, age, and other defining characteristics. Section B represents the dependent variable (Transformational Leadership), which consists of 4 dimensions and 16 questions. Then, section C is the mediating variable (Emotional Intelligence), which also consists of 4 dimensions and 16 questions and 12 questions.

3.4.2 Pilot Study

A 'pilot study' is a small-scale study that takes place before the main study begins. The objectives include testing the study design to ensure it can accurately address the research questions and is practical to execute. A pilot study is carried out to prevent the possibility of fatal deficiencies in a timeand money-consuming research project (Polit & Beck, 2017). It identifies logistics and assesses variability, which is needed to calculate the comprehensive study's sample size. For a pilot study to have sufficient statistical power to identify a relatively common issue, at least 30 respondents are required (Sekaran & Bougie, 2016). In this study, 30 sets of questionnaires were distributed to academics of Malaysia Public Research Universities for a pilot study. After that, SPSS was used to run reliability tests on the collected data.

3.4.3 Survey Administration and Data Collection

The survey administration and data collection process for this study were meticulously planned before the distribution and collection of data. The primary data collection tool was an online questionnaire survey, selected for its efficiency in reaching a broad audience across the five public research universities in Malaysia. The online format provided significant advantages, such as quick distribution, ease of response, and cost-effectiveness, making it ideal given the constraints of time and resources (Regmi et al., 2016).

First, verbal consent was secured from the faculties of the respective research universities following the presentation of the Ethical Approval for the Research Project. A cover letter accompanying the questionnaire outlined the purpose of the research and assured respondents that their information would be securely protected, with the data being used exclusively for research purposes. Then, to initiate the survey, invitations were sent via email to academics at the five research universities. The email not only explained the purpose of the study but also emphasized the importance of their participation while assuring the confidentiality of their responses. The email distribution list was compiled through universities' official website, the contact information like email address and contact no. are available through the websites. The questionnaires were sent to their official email.

Additionally, to enhance response rates, follow-up emails were sent to nonrespondents again after two weeks, ensuring that a sufficient number of responses were collected to meet the required sample size. The survey administration processes begin in the first week of June 2024 and continue until the first week of August 2024. In total, the survey administration process took 11 weeks to complete.

3.5 Constructs Measurement

3.5.1 Measurement of study constructs

Table 3.1:

Measurement Constructs Sources

Section B: Tr	Section B: Transformational Leadership (Independent Variable)				
Dimensions	Items	Sources			
Idealized influence	My immediate superior acts in a way that strengthens respect from subordinates. My immediate superior is someone that subordinates are	Adapted from De Jong, S. B., & Bruch, H. (2013). The Importance of a Homogeneous Transformational			
	proud to be associated with. My immediate superior does not display honesty.	Leadership Climate for Organizational Performance. <i>International</i>			
	My immediate superior models' behaviours that other subordinates are asked to perform.	Journal of Leadership Studies, 8(1), 1–18.			
Intellectual stimulation	My immediate superior providing freedom of opinion for subordinates regarding policies in higher education.				
	My immediate superior carrying out task accordance with the vision and mission.				
	My immediate superior reminding subordinates to respect each other. My immediate superior involving subordinates in assessing the activities in higher education.				

			Public Research Universities
Individual	My immediate superior gi	ving	
Consideration	praise and appreciation to	-	
	results or achievements		
	subordinates.		
	My immediate superior accepting		
	suggestions for the subordina	-	
	My immediate superior rout		
	giving special time	to	
	subordinates in delivering e		
	5	very	
	opinion.	1	
	My immediate superior guild		
	train the subordinates person	nally	
	if they have problem.		
Inspirational	My immediate superior influ		
motivation	subordinates to be optimist	c in	
	facing the future.		
	My immediate superior gi	ving	
	recognition for the works	s of	
	subordinates in the form	of	
	personal praise.		
	My immediate sup	erior	
	encouraging subordinates	to	
	practice new approaches		
	implementing teaching		
	learning activities.	and	
	My immediate superior gi	ving	
	enthusiasm to subordinates		
	finding other methods	of	
	5		
		-	
	teaching and learning activiti	es.	
Section C: Em	otional Intelligence (Mediati	ng Va	vriable)
Dimensions	Items	Sour	rces
Self-	My immediate superior has		pted from Raman, G., Lee
Emotional	a good sense of why he/she	-	g, N., & I-Chi, C. (2020,
Intelligence	has certain feelings most of	-	ch 19). The Mediating Effect
of Immediate	the time.		eaders' Idealized Influence
Superior	My immediate superior has		ne Relationship between
(SEL)	good understanding of		lers' Emotional Intelligence
(SEE)	his/her own emotions.		Intention to Perform among
	My immediate superior		demics in Malaysian
			earch Universities: Gender as
	really understands what		
	he/she feels.		oderator. Journal of
	My immediate superior		temporary Issues and
	always knows whether	1 101	ught, 10, 1–16.
	he/she is happy.		
Others	My immediate superior is		
Emotional	sensitive to the feelings and		
	emotions of subordinates.		

4		
Appraisal	My immediate superior	
(OEA)	always knows his/her	
	subordinates' emotions	
	from their behaviour.	
	My immediate superior is a	
	good observer of the	
	subordinates' emotions.	
	My immediate superior has	
	good understanding of the	ľ
	emotions of people around	
	him/her.	
Individual	My immediate superior	
Consideration	always sets goals for	
	himself/herself and then	
	tries his/her best to achieve	
	them.	
	My immediate superior	
	always tells him/her that	
	he/she is a competent	
	person.	
	My immediate superior is a	
	self-motivated person.	
	My immediate superior	
	would always encourage	
	himself/herself to try his/her	
	best.	
Regulation of	My immediate superior is	
Emotion	able to control his/her	
(ROE)	temper and handle	
	difficulties rationally.	
	My immediate superior is	
	quite capable of controlling	
	his/her own emotions.	
	My immediate superior can	
	always calm down quickly	
	when he/she is very angry.	
	My immediate superior has	
	good control of his/her	
	emotions.	
Section D: Ac	ademics Performance (Deper	ndent Variable)
Dimensions	Items	Sources
Task	I used to maintain high	
Performance	standard of work.	Jena, L. K. (2017). Employee
	I can handle my assignments	Performance at Workplace

Task	I used to maintain high	Adapted from Pradhan, R. K., &
Performance	standard of work.	Jena, L. K. (2017). Employee
	I can handle my assignments	Performance at Workplace:
	without much supervision.	Conceptual Model and Empirical
	I am very passionate about	Validation. Business
	my work.	

	-	Perspectives and Research, 5(1),
	assignments for achieving organizational goals.	69-85.
Adaptive	I used to perform well to	
Performance	mobilize collective	
	intelligence for effective	
	teamwork.	
	I could manage change in	
	my job very well whenever	
	the situation demands.	
	I can effectively handle my	
	work team in the face of	
	change.	
	I always believe that mutual	
	understanding can lead to a	
	viable solution in	
	organization.	
Contextual	I used to extend help to my	
Performance	co-workers when asked or	
	needed.	
	I love to handle extra	
	responsibilities.	
	I extend my sympathy and	
	empathy to my co-workers	
	when they are in trouble.	
	I actively participate in	
	group discussions and work	
	meetings.	

Note. The constructed items are obtained to test the hypothesized model. The questions are extracted from De Jong & Bruch (2013) for transformational leadership, Raman et al. (2020) for emotional intelligence and items for academics performance from Pradhan & Jena (2017).

3.5.2 Scale of Measurement

3.5.2.1 Nominal Scale

According to Admin (2020), the 'nominal scale' represents the 1st level of measurement scales, often used for categorizing nonnumeric variables. In our questionnaire Demographic Profile (Section A), questions 1, 4, 6, 7, and 12 utilize nominal scales. Variables such as university, faculty, and respondent gender fall The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities under this scale, meaning they cannot be directly compared, as they lack measurable distances. Consequently, there are no comparison points for university, faculty, and gender.

3.5.2.2 Ordinal Scale

The 'ordinal scale' is the 2nd level of measurement that assigns rankings to data, where the order of the values is meaningful, but the gaps between the values may not be necessarily consistent or known (Admin, 2020). Based on the Demographic Profile (Section A) in our questionnaire, questions 2, 3, 5, 8, 9, 10 and 11 are ordinal scales. These questions include ranking scales or comparative degrees but do not show the length of the gap between ranks.

3.5.3 Interval Scale

According to Admin (2020), the 'interval scale' represents the 3rd level of 'measurement scales', indicating a 'quantitative scale' that assesses meaningful differences between two variables. Unlike 'ordinal scales', the measurements are exact rather than relative, and the zero point is arbitrary. All the questions under Section B, C and D are interval scales since these questions have distance. These questions exhibit the characteristics of both 'nominal scales' and 'ordinal scales. However, the distance does not represent the true zero point. Thereby, these questions are on interval scales. Although the scale applied in this case does not accurately represent any phenomena, it does capture relative amounts in the form of the observational gaps. For example, Sections B, C and D have the questions with the options of strongly disagree, disagree, neutral, agree and strongly agree options.

3.6 Data Processing

After the researcher has collected data from the respondents, the next procedure is to analyse the data before conducting any reliability tests. A detailed description of the data preparation procedures, such as data checking, editing, coding, and transcription, is included in data processing (Chitanand, 2024). These measures are required to ensure that the data collected is consistent, reliable and accurate. Consequently, data processing is a vital step in the research process, allowing the investigator to effectively analyze the collected data and draw reliable conclusions.

3.6.1 Data checking

In order to guarantee the reliability of test outcomes, thorough data verification must be carried out. Following the respondents' completion of the questionnaire, a thorough assessment must be conducted to ensure that it is accurate, complete, and free of errors, without invalid codes, omissions, and inconsistent responses (Si-Prince, 2024). This step improves the overall quality and reliability of the collected data. Hence, it is important to ensure that the questionnaires distributed to the respondents are filled out properly. This is to reduce the mistakes.

3.6.2 Data editing

The process of data editing involves identifying and correcting errors in data that contain inconsistency, incomplete and ambiguous information submitted by respondents (Si-Prince, 2024). This step ensures the reliability and validity of the data. Any unreasonable or incomplete data will be excluded from the analysis. After editing, scholars can encode the data and prepare for further analysis.

3.6.3 Data coding

Data coding is the process of converting the collected responses into numerical values or codes to facilitate categorization and labelling (Si-Prince, 2024). As part of the data coding process, the collected response for each question is given a number. With the help of the number provided, the researchers can quickly and easily input their data into the designated database.

Table 3.2:

Data Coding for Questions in Section A

Q1 University 1= Universiti Kebangsaan Malaysia 2= Universiti Malaya 3= Universiti Malaya 3= Universiti Teknologi Malaysia 4= Universiti Teknologi Malaysia 5= Universiti Putra Malaysia Q2 Respondent designation 1= Lecturer 2= Senior Lecturer 3= Assistant Professor 4= Associate Professor Q3 Administrative position 1= Deputy Dean 3= Head of Department 4= Head of Program 5= Cluster Head 6= Unit Head 7= Others 8= Not applicable Q4 Faculty 1=Science 2=Business/Management 3=Social Science 4=Information Technology/Computer S=Engineering 6=Others Q5 Immediate superior position 1= Senior Management 2= Dean 3= Deputy Dean 4= Head of Department 5=Engineering 6=Others Q6 Gender 1= Male 2= Permale Q7 Employment status 1= Permanent 2= Permale Q8 Age 1= Sci oy quars 2= 2 to 5 years 3= 41 to 50 years 4= >50 years 4= >50 years 3= 41 to 50 years 4= >50 years 3= 6 to 10 years 4= >50 years 3= 6 to 10 years 4= >10 years Q10 Length of serving in High Education Institution 4=Si years 3= 6 to 10 years 4= >10 years Q11 Most recent job performance (GPD) 1= Meet expectation 2= Abov expectation	Questions	Items	Coding
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3= Universiti, Sains Malaysia 4= Universiti, Sains Malaysia 5= Universiti, Putra Malaysia 92 Respondent designation 1= Lecturer 2= Senior Lecturer 3= Administrative position 1= Dean 2= Deputy Dean 2= Deputy Dean 2= Deputy Dean 2= Deputy Dean 3= Head of Department 4= Head of Program 5= Cluster Head 6= Unit Head 7= Others 8= Not applicable Q4 Faculty 1=Science 2=Business/Management 3=Social Science 4=Information Technology/Computer 5=Engineering 6=Others Q5 Immediate superior position 1= Senior Management 2= Deputy Dean 4= Head of Program 7= Cluster Head 8< Not applicable	`	2	
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Education Institution 2= 2 to 5 years 3= 6 to 10 years 4=>10 years 4=>10 years 4=>10 years	010	Longth of comping in Ti-t-	
3= 6 to 10 years 4= >10 years Q11 Most recent job performance 1= Meet expectation	Q10		
Q11 Most recent job performance 1= Meet expectation		Education institution	
Q11 Most recent job performance 1= Meet expectation			
	011	Most recent job performance	
	211	(KPI)	2= Above expectation
3= Below expectation		(111)	

Note. The coding for the response of each question in Section A (Demographic Profile)

Table 3.3:

Data Coding for Interval Scale Questions

Likert Scale	Coding
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

Note. The coding for the response of each question in Section B (Transformational Leadership), Section C (Emotional Intelligence) and Section D (Academics Performance).

3.6.4 Data Transcribing

After completing data coding, the next step is data transcription. This involves entering all the coded data into the Statistical Package for Social Sciences (SPSS) software. It is also necessary to review any negatively worded questions to determine if reverse coding is needed. This process is crucial for ensuring that the data entered into the software is accurate, which is essential for subsequent data analysis (Si-Prince, 2024).

3.7 Data Analysis

Data analysis plays a crucial role in research as it transforms raw data into organized information that can be used to answer research questions or test hypotheses. In this study, the data gathered from the questionnaires was analyzed using SPSS software. Through SPSS, the researchers were able to uncover 'relationships, patterns, and trends' in the data, allowing them to draw meaningful conclusions.

3.7.1 Descriptive Analysis

Descriptive analysis is a statistic that provides information about a population or sample (Bhandari, 2023). This study employed frequency and percentage analysis to analyse a set of data. The demographic data of respondents from Section A of the questionnaire is analysed using frequency and percentage analysis.

We can use either a bar chart or a pie chart to demonstrate the outcomes of the questions using ordinal and nominal scales. A bar chart is useful for comparing the frequency or count of categories against each other. On the other hand, a pie chart is useful for displaying the proportion or percentage distribution of categories within a whole. Pie charts function well with a small number of categories (typically no more than six). Too many slices might make the chart difficult to read and interpret.

In our study, we also compute the mean and standard deviation of the dependent and independent variables. The mean is used to determine the central value or average of a dataset. It is sensitive to outliers, which means that extreme values can significantly impact the mean. The standard deviation gives information about the variability or dispersion of data. Calculating the mean and standard deviation allows us to comprehend the central tendency and variability within the sample.

3.7.2 Reliability Analysis

Reliability is a measurement that examines the extent to which a questionnaire is free of random error and capable of assessing the consistency of its results (Aithal & Aithal, 2020). When multiple attempts to measure something provide the same results, the data become more

reliable (Aithal & Aithal, 2020). Cronbach's alpha coefficient is one of the most often employed reliability measures in scientific research. The coefficient alpha (α) represents the direction and intensity of the linear relationship between the dependent and independent variables. The higher the coefficient alpha value, the better the questionnaire's reliability, and vice versa. The alpha coefficient value ranges from 0 to 1. The value "0" indicates the presence of internal inconsistencies in the responses provided by the respondents, whereas the value "1" indicates complete consistency in the responses obtained.

Table 3.4:

Cronbach's Alpha	Internal Consistency
$\alpha \ge 0.9$	Excellent
$0.9 > \alpha \ge 0.8$	Good
$0.8 > \alpha \ge 0.7$	Acceptable
$0.7 > \alpha \ge 0.6$	Questionable
$0.6 > \alpha \ge 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Range of Reliability and its Coefficient of Cronbach's Alpha

Notes. Adopted from George & Mallery (2003)

3.7.3 Inferential Analysis

A statistical indicator of the relationship or reliance between two variables is the Pearson Correlation, sometimes referred to as the correlation coefficient. Both the independent and dependent variables are regarded as metrics as the interval scale is a particular kind of metric. Consequently, to ascertain the relationship between two variables, we employ the 'Pearson Correlation Coefficient'.

The Pearson Correlation examines the influence of a single independent variable on a single dependent variable, whereas Multiple Regression

Analysis is a statistical technique that examines the influence of multiple variables on a single dependent variable (Slinker & Glantz, 2008). In this study, multiple regression will help to determine how transformational leadership (independent variable) affects academics performance (dependent variable) through the mediator of emotional intelligence. This method is particularly beneficial in this study since it involves mediation analyses. It enables the investigation of how emotional intelligence may mediate the relationship between transformational leadership and academics performance.

Moreover, multiple regression offers robust analytical capabilities, allowing for the control of confounding variables, thereby ensuring the reliability of the relationships examined and not caused by external factors. The flexibility in managing different types of variables and their relationships enhances the overall applicability of the findings. The detailed output generated by SPSS, which includes coefficients, significance levels and the explained variance (R-squared), provides deep insights into the underlying patterns of the data. This helps to validate precise validation of the research hypothesis.

3.8 Chapter Summary

Chapter 3 has discussed the methods used to test the proposed conceptual model. The first part of this chapter stated the data obtained through the questionnaire survey method, included a 'pilot study' to examine the reliability and validity of the questionnaire. This research was conducted in Malaysian Public Research Universities and correlation data will be collected from academics at an individual level using non-probability sampling, quota sampling. The following part of the chapter will used 'multiple regression analysis' to analyse the data collected. The consequences of our data collection and implementation will be discussed in Chapter 4.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

The previous section discussed the process of administering 30 sets of questionnaires to participants at the 'Malaysian public research institution'. The pilot study was carried out using the data obtained from these questions. In this chapter, we will thoroughly examine the outcomes of the 300 survey responses collected from our target respondents at public research universities in Malaysia. We will evaluate, interpret, and summarise the survey data using the SPSS software. This chapter discusses the findings from the questionnaire, which were analysed and summarised in the descriptive, scale measurement, and inferential analyses.

4.1 Descriptive Analysis

4.1.1 Respondent Demographic Profile

This section displayed the demographic profile collected from the questionnaire.

Table 4.1:

Demographic Profile	Categories	Frequency	Percentage	Cumulative Percentage
	Universiti Kebangsaan Malaysia	84	28.00%	28.00%
	Universiti Malaya	52	17.33%	45.33%
University	Universiti Putra Malaysia	45	15.00%	60.33%
Oniversity	Universiti Sains Malaysia	60	20.00%	80.33%
	Universiti Teknologi Malaysia	59	19.67%	100.00%
	Total	300	100.00%	
	Female	124	41.33%	41.33%
Gender	Male	176	58.67%	100.00%
	Total	300	219.67%	
	< 30 years	211	70.33%	70.33%
	30 to 40 years	73	24.33%	94.67%
Age	41 to 50 years	5	1.67%	96.33%
	> 50 years	11	3.67%	100.00%
	Total	300	100.00%	
	Lecturer	251	83.67%	83.67%
	Senior Lecturer	44	14.67%	98.33%
Your	Assistant Professor	5	1.67%	100.00%
designation	Associate Professor	0	0.00%	100.00%
	Professor	0	0.00%	100.00%
	Total	300	100.00%	
	Science	163	54.33%	54.33%
Faculty	Business/Management	22	7.33%	61.67%
	Social Science	6	2.00%	63.67%

The Summarized Respondent Demographic Profile

<u> </u>				
	Information Technology/Computer	26	8.67%	72.33%
	Engineering	20 49	8.67%	88.67%
	Mathematic	49	3.33%	92.00%
	Education	8	3.33% 2.67%	94.67%
	Law	2	0.67%	95.33%
	Medicine	5	1.67%	97.00%
	Agriculture	9	3.00%	100.00%
	Total	300	100.00%	100.00%
	Permanent	210	70.00%	70.00%
Academics	Contract	90	30.00%	100.00%
Job Status	Part time	90	0.00%	100.00%
000 510103	Total	300	100.00%	100.00%
	Dean	0	0.00%	0.00%
	Deputy Dean	2	0.00%	0.67%
		29		10.33%
Administrative	Head of Department Head of Program	29	9.67% 0.00%	10.33%
position	Cluster Head	0	0.00%	10.33%
position		-		29.00%
	Unit Head	56	18.67%	100.00%
	No position	213	71.00%	100.00%
	Total Senior Management	300	100.00%	0.00%
	Dean	0 5	0.00%	1.67%
			1.67%	5.67%
Position of	Deputy Dean	12	4.00%	5.07% 14.33%
your immediate	Head of Department	26	8.67%	
superior	Head of Program	45	15.00%	29.33%
Superior	Cluster Head	56	18.67%	48.00%
	Unit Head	156	52.00%	100.00%
	Total	300	100.00%	40.070/
Year of	< 2 years	140	46.67%	46.67%
attachment in	2 to 5 years	145	48.33%	95.00%
current	6 to 10 years	15	5.00%	100.00%
university.	> 10 years	0	0.00%	100.00%
	Total	300	100.00%	54 000/
How long	< 2 years	154	51.33%	51.33%
serving in the	2 to 5 years	54	18.00%	69.33%
High	6 to 10 years	34	11.33%	80.67%
Education Institution.	> 10 years	58	19.33%	100.00%
msutution.	Total	300	100.00%	
Most recent	Meet Expectation	195	65.00%	65.00%
job	Above Expectation	93	31.00%	96.00%
performance	Below expectation	12	4.00%	100.00%
	Total	300	100.00%	

4.1.1.1 University

Table 4.2:

Frequency Table for Respondents' University

University	Frequency	Percentage	Cummulative Percentage
Universiti Kebangsaan Malaysia	84	28.00%	28.00%
Universiti Malaya	52	17.33%	45.33%
Universiti Putra Malaysia	45	15.00%	60.33%
Universiti Sains Malaysia	60	20.00%	80.33%
Universiti Teknologi Malaysia	59	19.67%	100.00%
Total	300	100.00%	

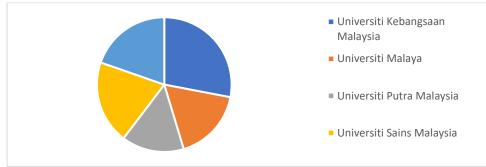


Figure 4.1 Statistics of Respondents' University

Universiti Kebangsaan Malaysia (UKM), Universiti Malaya (UM), Universiti Putra Malaysia (UPM), Universiti Sains Malaysia (USM), and Universiti Teknologi Malaysia (UTM) are the five research universities in Malaysia that our group focuses on researching. According to Table 4.2, there were 84 respondents who identified as UKM, 52 respondents who identified as UM, 45 respondents who identified as UPM, 60 respondents who identified as USM, and 59 respondents who identified as UTM.

4.1.1.2 Gender

Table 4.3:

Frequency Table for Respondents' Gender

Gender	Frequency	Percentage	Cumulative Percentage
Female	124	41.33%	41.33%
Male	176	58.67%	100.00%
Total	300	219.67%	

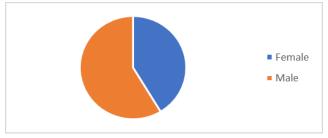


Figure 4.2. Statistics of Respondents' Gender

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities The respondents' genders were examined in this study. The results are shown in Table 4.3, which indicates that 41.33% (n=124) of the respondents were women and 58.67% (n=176) of the respondents were men.

4.1.1.3 Age

Table 4.4:

Frequency Table for Respondents' Age Group

Age	Frequency	Percentage	Cummulative Percentage
< 30 years	21	1 70.33%	70.33%
31 to 40 years	7:	3 24.33%	94.67%
41 to 50 years		5 1.67%	96.33%
> 50 years	1	1 3.67%	100.00%
Total	30	100.00%	

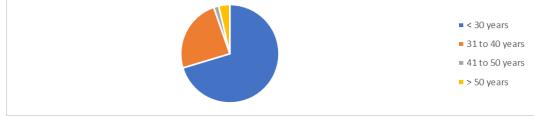


Figure 4.3 Statistics of Respondents' Age Group

The age range of the respondents is divided into five categories: under 30, between 30 and 40, between 41 and 50, and over 50. As can be seen in Table 4.4, 70.33% (n=211) of respondents were under 30, 24.33% (n=73) were between 31 and 40, 1.67% (n=5) were between 41 and 50, and 3.67% (n=11) were over 50.

4.1.1.4 Designation

Table 4.5:

Frequency Table for Respondents' Designation

Designation	Frequency	Percentage	Cummulative Percentage
Lecturer	251	83.67%	83.67%
Senior Lecturer	44	14.67%	98.33%
Assistant Professor	5	1.67%	100.00%
Associate Professor	0	0.00%	100.00%
Professor	0	0.00%	100.00%
Total	300	100.00%	

Figure 4.4. Statistics of Respondents' Designation

Five categories—lecturer, senior lecturer, assistant professor, associate professor, and professor—are used to group the designations of the respondents. Table 4.5 shows that only lecturer, senior lecturer, and assistant professor designation are included in the respondents. 83.67% (n=251) of respondents were lecturers, 14.67% (n=44) of respondents were senior lecturers and only 1.67% (n=5) were assistant professors.

4.1.1.5 Faculty

Table 4.6:

Frequency Table for Respondents' Designation

Faculty	Frequency	Percentage	Cummulative Percentage
Science	163	54.33%	54.33%
Business/Management	22	7.33%	61.67%
Social Science	6	2.00%	63.67%
Information Technology/Computer	26	8.67%	72.33%
Engineering	49	16.33%	88.67%
Mathematic	10	3.33%	92.00%
Education	8	2.67%	94.67%
Law	2	0.67%	95.33%
Medicine	5	1.67%	97.00%
Agriculture	9	3.00%	100.00%
Total	300	100.00%	

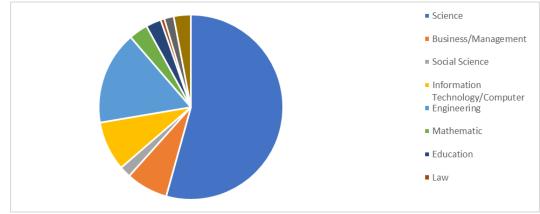


Figure 4.5 Statistics of Respondents' Faculty

The respondents' faculties are Science, Business Management, Social Science, Information Technology Computer, Engineering, Mathematic, Education, Law, Medicine, and Agriculture. Table 4.6 shows that Science is 54.33% (n=163), Business Management is 7.33% (n=22), Social Science is 2% (n=6), Information Technology Computer is 8.67% (n=26), Engineering is 16.33% (n=49), Mathematic is 3.33% (n=10), Education is 2.67% (n=8), Law is 0.67% (n=2) , Medicine is 1.67% (n=5) and Agriculture is 3% (n=9).

4.1.1.6 Academics Job Status

Table 4.7:

Frequency Table for Respondents' Academics Job Status

Frequency	Percentage	Cummulative Percentage
210	70.00%	70.00%
90	30.00%	100.00%
0	0.00%	100.00%
300	100.00%	
		Permanent
		Contract
	210 90 0	210 70.00% 90 30.00%

Figure 4.6 Statistics of Respondents' Academics Job Status

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities There are only two kinds of academics job status in the respondents which are permanent and contract. Table 4.7 shows that permanent respondents have 70% (n=210) and 30% (n=90) were contract respondents.

4.1.1.7 Administrative Position

Table 4.8:

Frequency Table for Respondents' Administration Position
--

Administrative position	Frequency	Percentage	Cummulative Percentage
Dean	0	0.00%	0.00%
Deputy Dean	2	0.67%	0.67%
Head of Department	29	9.67%	10.33%
Head of Program	0	0.00%	10.33%
Cluster Head	0	0.00%	10.33%
Unit Head	56	18.67%	29.00%
No position	213	71.00%	100.00%
Total	300	100.00%	

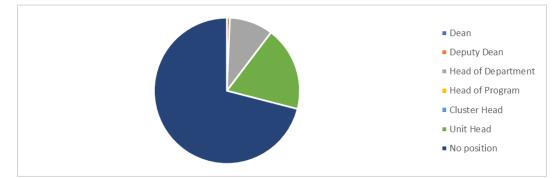


Figure 4.7 Statistics of Respondents' Administration Position

Table 4.8 demonstrates that 71% (n=213) of respondents had no academic

post, 18.67% (n=56) were unit heads, 9.67% (n=29) were department heads,

and 0.67% (n=2) of respondents were deputy deans.

4.1.1.8 Position of Immediate Superior

Table 4.9:

Frequency Table for Respondents' Immediate Superior

Position of Immediate Superior	Frequency	Percentage	Cummulative Percentage
Senior Management	0	0.00%	0.00%
Dean	5	1.67%	1.67%
Deputy Dean	12	4.00%	5.67%
Head of Department	26	8.67%	14.33%
Head of Program	45	15.00%	29.33%
Cluster Head	56	18.67%	48.00%
Unit Head	156	52.00%	100.00%
Total	300	100.00%	

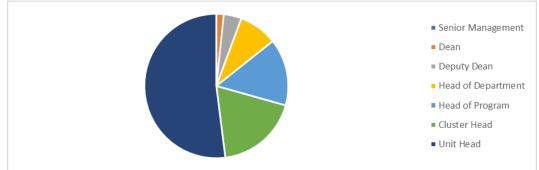


Figure 4.8 Statistics of Respondents' Immediate Superior

Position of immediate superior is one of the demographic profiles. Table 4.9 shows that 52% (n=156) of respondents' immediate superiors are unit head, 18.67% (n=56) are cluster head, 15% (n=45) are Head of Program, 8.67% (n=26) are Head of Department, 4% (n=12) are Deputy Dean and 1.67% (n=5) of respondents' immediate superiors are Dean.

4.1.1.9 Year of Attachment and Year of Serving

Table 4.10:

Year of attachment in current university.	Frequency	Dorcontago	Cummulative Percentage
real of allaciment in current university.	Frequency	reicentage	Currinulative Fercentage
< 2 years	140	46.67%	46.67%
2 to 5 years	145	48.33%	95.00%
6 to 10 years	15	5.00%	100.00%
> 10 years	0	0.00%	100.00%
Total	300	100.00%	

Frequency Table for Respondents' Year of Attachment

Table 4.11:

Frequency Table for Respondents' Year of Serving

Year of serving in the High Education Institution.	Frequency	Percentage	Cummulative Percentage
< 2 years	154	51.33%	51.33%
2 to 5 years	54	18.00%	69.33%
6 to 10 years	34	11.33%	80.67%
> 10 years	58	19.33%	100.00%
Total	300	100.00%	



Figure 4.9 Statistics of Respondents'Figure 4.10 Statistics of Respondents'Year of AttachmentYear of Serving

Table 4.10 shows that 46.67% (n=140) of respondents were attached to current university below 2 years, 48.33% (n=145) of respondents were attached to current university between 2 to 5 years and 5% (n=15) of respondents were attached to current university between 6 to 10 years. Table 4.11 shows that 51.33% (n=154) of respondents' year of serving in the High Education Institution were below 2 years, 18% (n=54) of respondents were between 2 to 5 years, there are 11.33% (n=34) of respondents serving the High Education Institution between 6 to 10 years and 19.33% (n=58) of respondents serving the High Education Institution that above 10 years.

4.1.1.10 Most Recent Job Performance

Table 4.12

Most recent job performance	Frequency	Percentage	Cummulative Percentage
Meet Expectation	195	65.00%	65.00%
Above Expectation	93	31.00%	96.00%
Below expectation	12	4.00%	100.00%
Total	300	100.00%	

Frequency Table for Respondents' Most Recent Job Performance

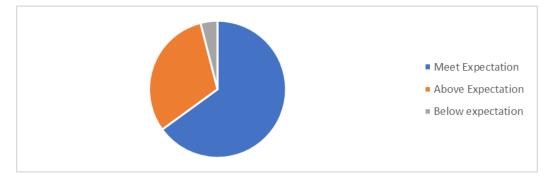


Figure 4.11 Statistics of Respondents' Most Recent Job Performance

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities Table 4.12 shows that 65% (n=195) of respondents feel that their recent job performance was meet their expectations, 31% (n=93) of respondents feel that their recent job performance was meet above their expectations and only 4% (n=12) of respondents feel that their recent job performance was below of their expectations.

4.1.2 Central Tendencies Measurement of Constructs

Table 4.13:	
-------------	--

Statistics of Variables

Statistics								
	AVE_TL AVE_EI AVE_AP							
N Valid		300	300	300				
	Missing	0	0	0				
Mean		70.4633	72.3733	54.2600				
Std. Deviation		4.10343	4.62803	4.61629				

The data in this section is based on three variables: academics performance is the dependent variable, the mediator variable is the leader's emotional intelligence, and the independent variable is the transformational leader. The mean and standard deviation for each variable is displayed in Table 4.13. The emotional intelligence of the leaders is characterised by the greatest mean (72.37) and standard deviation (4.62). Additionally, academics performance has the lowest mean variable (54.26), while transformational leadership has the lowest standard deviation (4.10).

4.2 Scale Measurement

Table 4.14:

Cronbach's Alpha Reliability Test

Type of Variables	Variables	Items	Alpha Value	Reliability
Independent	Transformational	ansformational 16		Very good
Variable	Leadership	10	.892	reliability
Mediating Variable	Emotional Intelligence	16	.883	Very good
Wednung vuruble	Emotional intempence		.005	reliability
Dependent Variable	Academics Performance	12	.865	Very good
Dependent Variable	/ cudemies i erformunee	12	.005	reliability

Note. Develop for the research

This research employs 'IBM SPSS software' for reliability analysis to assess the dependent and independent variables. A total of 30 respondents are included in this reliability analysis for the study.

The independent variable, transformational leadership produced a reliability test result with 'Cronbach's Alpha value' of 0.892, falling between 0.80-0.95. The 16 measurement items have very good reliability.

The mediating variable, emotional intelligence, produced a reliability test result with 'Cronbach's Alpha value' of 0.883, falling between 0.80-0.95. The 16 measurement items have very good reliability.

The dependent variable, academic performance, produced a reliability test result with a 'Cronbach's Alpha value' of 0.865, falling between 0.80-0.95. The measurement's twelve items have very good reliability.

4.3 Inferential Analyses

Estimating is the focus of inferential analysis, which involves analysing a set of sample data. Both 'Pearson Correlation Coefficient Analysis' and 'Multiple Regression Analysis' were performed in this investigation.

4.3.1 Pearson Correlation Coefficient

Table 4.15:

Pearson Correlation Coefficient

Coefficient range	Strength of association
±0.91 to ±1.00	Very strong
±0.71 to ±0.90	High
±0.41 to ±0.70	Moderate
±0.21 to ±0.40	Small but definite relationship
±0.01 to ±0.20	Slight, almost negligible

Note. Jnr, Money, Samouel & Page (2007). Research Methods for Business, UK Edition.

H1: There is a significant relationship between transformational leadership and academics performance in public research universities.

From the hypothesis above, we aim to determine the correlations between transformational leadership and academics performance in public research universities. The confidence level of the research is 99% and the alpha value is 0.01.

Table 4.16:

Correlation between Transformational Leadership and Academics Performance

	Correlations								
		AVE_TL	AVE_AP						
AVE_TL	Pearson Correlation	1	.856**						
	Sig. (2-tailed)		<.001						
	N	300	300						
AVE_AP	Pearson Correlation	.856**	1						
	Sig. (2-tailed)	<.001							
	N	300	300						

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

Direction

Based on table 4.14's data, academics performance in Malaysian public research universities is positively correlated with transformational leadership, as indicated by the positive correlation coefficient value. The academics performance indicator exhibits a correlation coefficient of 0.856 with transformational leadership. Accordingly, academics performance in Malaysian public research universities will increase when there is an increase in transformational leadership.

Strength

For a value of 0.856, the correlation coefficient is within the range of ± 0.71 to ± 0.90 . Thus, there is a strong correlation between 'academics

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities performance in Malaysian public research universities and the transformational leadership of their leaders.

Significant

There exists a significant correlation between the academics performance of Malaysian public research universities and the transformational leadership of their leaders. This is because the result of the p-value is less than 0.001 compared to the alpha value of 0.01.

H2: There is a significant relationship between transformational leadership and emotional intelligence in public research universities.

Table 4.17:

Correlation between Transformational Leadership and Emotional Intelligence

Correlations			
		AVE_TL	AVE_EI
AVE_TL	Pearson Correlation	1	.547**
	Sig. (2-tailed)		<.001
	N	300	300
AVE_EI	Pearson Correlation	.547**	1
	Sig. (2-tailed)	<.001	
	N	300	300
**. Correlation is s	significant at the 0.01 lev	vel (2-tailed).	

Direction

The results from table 4.15 shows that there is a positive value of the correlation coefficient, which means a positive relationship between transformational leadership and a leader's emotional intelligence. There is a correlation of 0.547 between transformational leadership and a leader's emotional intelligence. Thus, when leadership's transformational leadership is perceived to be high, leadership's emotional intelligence will also be high.

<u>Strength</u>

This 'correlation coefficient's value' of 0.547 falls within the coefficient range of ± 0.410 to ± 0.700 Therefore, the relationship between transformational leadership and a leader's emotional intelligence is moderate.

Significance

The relationship between transformational leadership and a leader's emotional intelligence is significant. This is because the p-value <0.001 is smaller than the alpha value of 0.01.

H3: There is a significant relationship between a leader's emotional intelligence and academics performance in public research universities. Table 4.18:

Correlations			
		AVE_EI	AVE_AP
AVE_EI	Pearson Correlation	1	.654**
	Sig. (2-tailed)		<.001
	Ν	300	300
AVE_AP	Pearson Correlation	.654**	1
	Sig. (2-tailed)	<.001	
	N	300	300

Correlation between Emotional Intelligence and Academics Performance

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

Direction

Academics performance and emotional intelligence in leadership are positively correlated, as indicated by the positive correlation coefficient value. The relationship between academics performance and emotional intelligence in leadership is 0.654. Academics performance is therefore good when emotional intelligence in leadership is deemed to be high.

Strength

This correlation coefficient's value of 0.654 falls within the coefficient range of ± 0.410 to ± 0.700 . Therefore, the relationship between a leader's emotional intelligence and academics performance is moderate.

Significance

The relationship between a leader's emotional intelligence and academics performance is significant. This is because the p-value <0.001 is smaller than the alpha value of 0.01.

4.3.2 Multiple Linear Regression Analysis

It is a statistical technique that combines one or more independent variables to predict the result of a dependent variable. It can also be applied to identify a mediated variable. In the 'multiple linear regression analysis', a number of significant parameters should be assessed, such as R value, R square value, significance (p-value), and beta value under standardised coefficient.

H4: There is a mediating effect of a leader's emotional intelligence in the relationship between transformational leadership and academics performance in public research universities.

Table 4.19:

Model Summary									
Std. Error of the									
Model	R	R Square	Adjusted R Square	Estimate					
1	.856ª	.732	.731	2.39238					
2	.884 ^b	.782	.780	2.16283					
a. Predictors: (Constant), AVE_TL									
b. Predictors: (Constant), AVE_TL, AVE_EI									

Multiple Linear Regression Analysis (Model Summary)

R value

The correlation coefficient between the independent variable and the dependent variable is represented by the R value. This study's correlation coefficient (R value) is 0.856 when academics performance (AP) is the dependent variable, and transformational leadership (TL) is the independent variable. These two variables have a strong and positive link. The R value rises to 0.884 upon the addition of the mediated variable (emotional intelligence). This indicates that there is a strong positive connection between the dependent variable (AP) and independent variable (TL) when emotional intelligence is added as a mediated variable.

R square

The percentage or extent the independent variable can explain the variations in the dependent variable is represented by R square. In this study, 73.2% of the variations in the dependent variable (AP) can be explained by the independent variables (TL). In this study, there are still 26.8% unknown elements that cannot be explained. The R square value rises to 78.2% when the mediated variable EI is introduced into the study between the TL and AP, and the percentage of remaining unknown components falls to 21.8%. In other words, the additional mediated variable is the factor that is considered in this study which is significant in explaining academics performance.

Table 4.20:

		ANC	VA ^a					
		Sum of						
Model		Squares	df	Mean Square	F	Sig.		
1	Regression	Regression 4666.124		4666.124	815.260	<.00		
						1 ^b		
	Residual	1705.596	298	5.723				
	Total	6371.720	299					
2	Regression	4982.405	2	2491.202	532.555	<.00		
						1°		
	Residual	1389.315	297	4.678				
	Total	6371.720	299					
a. Dependent Variable: AVE_AP								
b. Predict	ors: (Constant),	AVE_TL						
c. Predict	ors: (Constant),	AVE_TL, AVE_H	EI					

Multiple Linear Regression Analysis (ANOVA)

Based on the ANOVA table, p-value (Sig. <0.001) is less than alpha value 0.01. The model for this study accurately describes the mediated variable (EI) between the relationship of independent variable (TL) and dependent variable (AP). Therefore, the mediated variable (EI) significantly explains the variance in academics performance attributable to the independent variables (TL). The alternate hypothesis is supported by the data.

Table 4.21:

Multiple Linear Regression Analysis (Coefficients)

Hypothesis	Beta value	Std Error	t-value	p-value	R	R square	Decision
TL -> AP	.856	.034	28.553	.000	.856ª	.732	Supported
TL -> EI	.547	.055	11.275	.000	.547ª	.299	Supported
EI -> AP	.654	.044	14.944	.000	.654ª	.428	Supported

H1: There is a significant relationship between transformational leadership and academics performance in public research universities. According to this study, academics performance at Malaysian public research universities is significantly correlated with transformational leadership. This is because transformational leadership has a p-value of 0.000, which is lower than the alpha value of 0.01.

H2: There is a significant relationship between transformational leadership and emotional intelligence in public research universities.

According to this study, transformational leadership and a leader's emotional intelligence at Malaysian public research universities are significantly correlated. This is because transformational leadership has a p-value of 0.000, which is lower than a leader's emotional intelligence's alpha value of 0.01.

H3: There is a significant relationship between a leader's emotional intelligence and academics performance in public research universities. The emotional intelligence of a leader and academics performance in Malaysian public research universities was found to be significantly correlated in this study. This is due to the fact that the emotional intelligence of a leader has a p-value of 0.000, which is lower than the alpha value of 0.01.

Table 4.22:
Multiple Linear Regression Analysis (Coefficients)

				Coefficien	ts <u>a</u>			
		Unstandardized Coefficients		Standardized Coefficients			95% Confidenc	e Interval for B
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	-13.576	2.380		-5.705	.000	-18.259	-8.892
	AVE TL	.963	.034	.856	28.553	.000	.896	1.029
2	(Constant)	-21.251	2.345		-9.061	.000	-25.866	-16.635
	AVE_TL	.799	.036	.710	21.946	.000	.727	.871
	AVE EI	.265	.032	.266	8.223	.000	.202	.329

a. Dependent Variable: AVE_AP

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities H4: There is a mediating effect of a leader's emotional intelligence in the relationship between transformational leadership and academics performance in public research universities.

Table 4.20 presents the SPSS findings for the mediation hypothesis test. The data clearly shows that there is a considerable relationship between transformational leadership and academics performance, and a leader's emotional intelligence plays a mediating role in that relationship. This is due to the fact that the p-value for a transformational leadership when using emotional intelligence as a mediated variable is 0.000, which is lower than the alpha value of 0.01. This finding provides support to Hypothesis H4.

4.4 Conclusion

The sample size and respondent percentages were analyzed using tables and pie charts. SPSS was employed to calculate and report the mean and standard deviation for the independent variable, mediating variable, and dependent variable. To assess the significant impact of the independent variable on the dependent variable, with the mediating variable playing a role, we used the Pearson Correlation Coefficient and Multiple Regression Analysis in SPSS. Reliability tests were conducted on the independent variable, mediating variable, and dependent variable to ensure consistency and reliability of the data. Chapter 5 provides a discussion and conclusion of these study findings.

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities CHAPTER 5 DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

The chapter discusses the findings of the study in relation to past research literature. In addition, this chapter justifies the significant relationship findings in Chapter 4. This chapter continues to address the study's shortcomings, theoretical contributions and implications, practical consequences, and recommendations for further research. In future studies on this topic, we expect that our study will help researchers avoid the same restrictions and difficulties.

5.1 Summary of Statistical Analyses

5.1.1 Summary of Descriptive Analysis

Table	5.1:	

Summary of Demographic Analysis

Demographic Profile	Majority	Least
University	UKM (84)	UPM (45)
Gender	Male (176)	Female (124)
Age	<30 years (211)	41 to 50 years (5)
Your designation	Lecture (251)	Assistant Professor (5)
Faculty	Science (163)	Law (2)
Academics Job Status	Permanent (210)	Contract (90)
Administrative position	No position (213)	Deputy Dean (2)
Position of your immediate superior	Unit Head (156)	Dean (5)
Year of attachment in current university.	2 to 5 years (145)	6 to 10 years (15)
How long serving in the High Education Institution.	< 2 years (154)	6 to 10 years (34)
Most recent job performance	Meet Expectation (195)	Below expectation (12)

Based on the table above, the study was collected from the 5 research universities, which are UKM, UM, UPM, USM and UTM, with the majority

from UKM (84 respondents) and the least from UPM (45 respondents). The sample included more males (176) than females (124), making the gender distribution 58.7% male and 41.3% female. Most respondents were younger than 30 years old, totaling 211 individuals, while the smallest age group was 41 to 50 years, with only 5 respondents. In terms of job roles, most respondents were lecturers (251), while the least were assistant professors (5). The faculty distribution was heavily weighted towards the Faculty of Science (163), with only 2 respondents from the Faculty of Law. Regarding employment status, a significant portion held permanent positions (210), while 90 were on contract. Most respondents did not hold an administrative position (213), with the fewest being deputy deans (2). The most common position for respondents' immediate superiors was unit head (156), while the least common was dean (5). Regarding tenure, most respondents had been attached to their current university for 2 to 5 years (145), with the fewest having served 6 to 10 years (15). In higher education institutions, the majority had less than 2 years of service (154), and the least had 6 to 10 years (34). Finally, when assessing job performance, most respondents were rated as meeting expectations (195), while the fewest were rated as below expectations (12).

5.1.2 Summary of Scale Measurement

Table 5.2:

Type of Variables	Variables	Items	Alpha Value	Reliability
Independent Variable	Transformational Leadership	16	.892	Very good reliability
Mediating Variable	Emotional Intelligence	16	.883	Very good reliability
Dependent Variable	Academics Performance	12	.865	Very good reliability

In order to evaluate the dependability and consistency of the independent, mediating, and dependent variables implemented in this study, a reliability test was performed. 'Cronbach's alpha reliability coefficient' was employed The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities to reduce measurement error and ensure the reliability of data collection for each variable. All variables demonstrated a 'Cronbach's alpha value' between 0.80 and 0.95, indicating very good reliability.

According to the results from Chapter 4, the highest Cronbach's alpha value was for the variable TL, with a value of 0.892. This high alpha value suggests that the 16 items measuring TL exhibit very good reliability. The mediating variable, EI, had a 'Cronbach's alpha value' of 0.883, reflecting a strong level of reliability for its 16 items. Lastly, the dependent variable, AP, showed a 'Cronbach's alpha value' of 0.865, indicating that the 12 items assessing AP also possess very good reliability.

In conclusion, all variables in the study demonstrate a high degree of reliability, as evidenced by their Cronbach's alpha values falling within the range of 0.80 to 0.95. This indicates that the measurement scales used in the questionnaire have a strong and reliable foundation, ensuring that the data collected is dependable for analysis and interpretation.

5.1.3 Summary of Inferential Analysis

Table 5.3:

Summary of the Result of Hypothesis Testing

Hypothesis	P-value	Decision
TL -> AP	< 0.001	Supported
TL -> EI	< 0.001	Supported
EI -> AP	< 0.001	Supported
TL->EI -> AP	0.000	Supported

A favourable and significant association between TL and AP is demonstrated by the 'Pearson Correlation Coefficient'. This is due to the fact that the TL variable has a 0.856 coefficient of correlation with AP and

a 0.001 p-value, which is lower than the alpha value. Additionally, a leader's EI and TL have a strong and beneficial association. The reason for this is that a leader's EI and the TL variable have a correlation with a coefficient value of 0.547, and the p-value (<0.001) is lower than the alpha value (0.01). Additionally, there is a positive and significant relationship between a leader's EI and AP. It is because a leader's EI variable correlates with AP with a coefficient value of 0.654 while the p-value (<0.001) is less than alpha value (0.01). As a result, the dependent variable (AP), independent variable (TL) and mediated variable (EI) had both positive and significant relationships. The TL has a high correlation (0.856) with AP which falls under coefficient ranges from \pm 0.710 to \pm 0.900. Besides, the TL has a moderate correlation (0.547) with a leader's EI also has a moderate correlation (0.654) with AP which falls under coefficient ranges from \pm 0.700. A leader's EI also has a moderate correlation (0.654) with AP which falls under coefficient ranges from \pm 0.700.

The Multiple Regression Analysis shows that a leader's EI significantly mediates the relationship between TL and AP. The p-value for the relationship between TL and AP, with EI as a mediator, is 0.000, which is less than the alpha value of 0.01. Additionally, the ANOVA table shows the R value increases from 0.856 to 0.884, showing a stronger positive correlation.

5.2 Discussion of Major Finding

5.2.1 Transformational leadership and academics

performance

H1: There is a significant relationship between transformational leadership and academics performance in public research universities.

According to Chapter 4's findings, the results from the Pearson Correlation analyses and Multiple Regression significantly indicate a positive relationship between the leader's TL and AP, which supports hypothesis 1 in this study. These findings further indicate that the greater leaders' TL, the greater the AP. The relationship between the leader's TL and AP found in this study is significantly positive and can be explained in several ways.

Firstly, Cropanzano and Mitchell's (2005) theory, social exchange theory, stated transformational leaders build trust and a sense of obligation within their teams, creating a reciprocal relationship where academics feel compelled to enhance their engagement and output in response to the positive work climate and the personal attention they receive. This reciprocity, as outlined by Virgiawan et al. (2021), transformational leaders are assumed to positively influence followers' creativity because they provide intellectual stimulation to the academics and become role models for unconventional behaviour and original thinking styles, to increase their performance.

Besides, Purwanto (2022) emphasizes that such TL strategies have a positive effect on AP, and competency has a positive effect on lecturers' performance. Leaders are encouraged to engage actively in all activities and group work, serving as role models and motivators for the subordinate's academics. This active participation provides essential encouragement and guidance in group tasks. Additionally, transformational leaders with exceptional leadership qualities have been found remarkably effective in managing and leading their subordinates (Salim, 2021). The subordinates are affected by their leaders significantly on their academic and managerial activities.

Furthermore, Waham et al. (2020) reported that such TL components play an essential role in promoting long-term relationships and positively affect AP enhance staff loyalty to their university, which will reflect on their productivity at work. Therefore, TL in academic settings effectively The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities leverages the principles of social exchange theory to boost AP, ensuring a mutually beneficial relationship where both leaders and staff thrive.

5.2.2 Transformational leadership and emotional intelligence

H2: There is a significant relationship between transformational leadership and emotional intelligence in public research universities.

This study's second hypothesis is supported by the SPSS analysis results, which show a substantial positive correlation between academic leaders' EI and TL. These results also suggest that academic leaders have higher levels of EI in proportion to their TL. This study's results indicate a strong positive correlation between academic leaders' EI and TL, which can be interpreted in a number of ways.

First, social learning theory explains the positive relationship between transformational leadership and academic leaders' EI by placing emphasis on social observation, imitation, and modeling (Bandura, 1977). Transformational leaders with high EI serve as role models, providing academic leaders with opportunities to observe and learn their emotionally intelligent behaviors. By reinforcing this process with positive feedback and a supportive environment, TL further encourages the development of EI in academic leaders (Avolio & Bass, 2002). Hence, the greater the TL, the greater the EI of academic leaders, as they learn and adopt these behaviors through social learning mechanisms (Mert, 2020).

Besides, TL involves providing individualized consideration, which helps in identifying and solving each academic leader's emotional needs. This personalized approach generates an environment where academic leaders feel respected and understood, allowing them to develop higher emotional self-awareness and empathy, the critical components of EI (Hoch et al., 2018).

Furthermore, transformational leaders often inspire and encourage their followers to achieve their highest potential as well. This encouragement and inspiration can motivate academic leaders to pursue personal improvement and growth, including the development of their EI. By setting high goals and giving the necessary support, TL creates a culture of continuous improvement, leading academic leaders to enhance their emotional capabilities (Ng, 2017).

5.2.3 Emotional intelligence and academics performance

H3: There is a significant relationship between a leader's emotional intelligence and academics performance in public research universities.

The SPSS analysis's findings showed a positive correlation between AP and their EI. The findings indicated that the AP at the five public research universities in Malaysia was higher when the leader's EI is higher. While there are few studies on the association between leaders' EI and AP, the positive relationship between leaders' EI and AP in this research is consistent with theory and similar past empirical findings. Therefore, this study established the basic assumption of this relationship that an academic leader's EI influences AP based on values and emotions.

First, the finding is supported by comprehensive meta-analysis examining the impact of EI on AP as stated by MacCann et al. (2020). Their studies demonstrated that EI is a strong predictor of academic performance, accounting for approximately 20% of variance. According to the study, those with higher EI are more capable of managing their emotions, which leads to improved cognitive processes and AP. EI helps with stress management, motivation, and remaining focused on academic work, all of which contribute to improved performance.

Similarly, Chong et al. (2020) conducted a study on the relationship between a leader's EI and AP among academicians in Malaysia. According to their findings, EI improves job performance in academic environments. Leaders with high EI are able to manage their own emotions better and understand those of their subordinates, resulting in more effective communication, conflict resolution, and overall AP. The research emphasized that EI leads to building a healthy work atmosphere where academics feel respected and understood. This encouraging environment promotes increased collaboration and productivity, which are important for achieving high performance in academic roles. Additionally, the research found that EI helps academics manage the stress and pressures associated with their roles, which contributes to better AP.

Furthermore, Wolle (2022) conducted a thorough investigation of the impact of EI on leadership effectiveness in Ethiopia's first-generation universities. The study found a significant positive relationship between leaders' EI and their ability to improve academics performance. Specifically, the study discovered that leaders with high levels of EI are better at fostering a friendly and productive work atmosphere, which improves employee performance. Several major elements of EI can be used to understand the mechanisms that determine leadership effectiveness. Leaders with high EI can create a work environment that is conducive to high performance, characterized by trust, motivation, and collaboration.

There is a positive relationship between EI and AP in Malaysian public research universities aligns with these recent studies, which indicate that EI is an important factor in academic achievement. Academic leaders with higher EI are better at dealing with the complexities of their roles, managing their own emotions, and understanding the emotional states of others. With this EI, they can inspire and motivate their colleagues, resulting in improved overall performance. Thus, developing EI in academic leaders can be a strategic way to improve AP in the educational industry.

5.2.4 Mediating role of emotional intelligence on the relationship between transformational leadership and academics performance

H4: There is a mediating effect of a leader's emotional intelligence in the relationship between transformational leadership and academics performance in public research universities.

Hypothesis 4 proposed that a leader's EI would mediate the relationship between a leader's TL and AP. The mediation analysis findings revealed that the leader's EI mediated this hypothesized relationship. The mediating role of a leader's EI in enhancing the relationship between TL and AP is substantiated by recent findings. This relationship is mediated by the leader's ability to understand and respond to the emotional dynamics within their teams, suggesting that EI is not just a complementary trait but a core component of effective leadership in academic settings.

Ezzeddine et al. (2023) contributes significantly to understanding how integrating EI into TL practices can enhance organizational performance, specifically within the academic context of universities. This study stated that the synergy between leadership style and EI highlights a comprehensive approach to leadership that goes beyond traditional methods, focusing on the emotional and relational aspects crucial in today's dynamic work environments.

Furthermore, Rahman et al. (2020) study highlights the imperative for organizations to enhance the EI competencies of managers aiming to be transformational leaders, emphasizing EI's significant role in creativity and AP. Transformational leaders with high EI are better equipped to inspire, motivate, and support their teams, leading to superior organizational outcomes.

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities Additionally, studies have shown that EI can significantly mediate the impact of TL on AP. For instance, research by Mysirlaki and Paraskeva (2021) demonstrated that leaders with high EI are more effective in promoting team effectiveness and member satisfaction through TL behaviors. This relationship suggests that EI allows leaders to understand better and respond to the emotional needs of their team, thereby enhancing overall performance.

5.3 Implications of the Study

This research has demonstrated that a leader's EI significantly mediates the relationship between a leader's TL and AP. This study has some potential implications for the higher education industry or universities.

5.3.1 Managerial Implication

The findings of this study highlight the critical role of emotional intelligence (EI) in enhancing the effectiveness of transformational leadership, which in turn improves academics performance. For academic institutions, this underscores the importance of investing in the development of EI competencies among academic's leaders who aspire to be transformational leaders. Hence, the academic institution can ensure that these leaders are equipped to inspire, motivate, and effectively manage their teams, thereby enhancing overall performance and fostering a positive organizational culture.

In the beginning, the 'Ministry of Higher Education (MOHE)' should establish new programmes and policies to build academic leaders with high transformational leadership and emotional intelligence. They might offer training in leadership or any relevant fields to public research universities including deans, department heads, and program directors. For example, the Human Resources (HR) and Human Resource Development (HRD) departments of public research universities should incorporate EI The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities assessments and training into their leadership development programs. As suggested by research findings, including those of Mysirlaki and Paraskeva (2020), training programs that focus on developing EI can significantly enhance the effectiveness of transformational leadership and nurture leaders with the ability to deal with future challenges. This supports the growth of universities and expands opportunities for leadership positions, providing current academics with the chance to advance their careers within existing institutions.

Moreover, leadership training and mentoring programs encourage academics to enhance their leadership abilities. These initiatives allow leaders to prioritize professional development training based on current needs and help identify and nurture potential future leaders in Malaysian public research universities (Da Wan et al., 2020).

Besides, cultivating a supportive organizational culture that values emotional intelligence can enhance communication, collaboration, and overall academic performance. Leaders with high EI are better equipped to build strong, empathetic relationships with faculty and students, creating a positive work environment that fosters academic success (Daus & Ashkanasy, 2020). The study by Lee et al. (2022) found that leader EI positively affects trust in supervisors and transformational leadership, which in turn enhances academics performance. The combination of trust and organizational commitment fostered by emotionally intelligent transformational leaders can lead to significantly improved academic outcomes. Effective communication, including sharing ideas, tolerance, and understanding emotions, is crucial for promoting emotional intelligence in leaders (Serrat, 2017). This includes both positive and negative news. Academics tend to trust leaders who communicate openly. Therefore, leaders can enhance transformational leadership and emotional intelligence if they take into consideration the critical role of communication in supportive working culture and developing trust perceptions while interacting with their subordinates.

Furthermore, whether positions are filled through internal rotations or external hiring, it is essential to optimize the selection process using effective interviews. Institutions should employ robust tools to assess the EI of candidates, utilizing the Mayer and Salovey model, which emphasizes the abilities to perceive, understand, manage, and utilize emotions effectively. During the selection process, integrity tests and personality assessments can evaluate key traits such as competency, reliability, empathy, and benevolence, which are indicative of a leader's idealized influence (Klotz et al., 2013).

5.3.2 Theoretical Implication

The theoretical implications of this study on the mediating effect of leaders' EI on the relationship between TL and academics performance (AP) in Malaysian public research universities extend beyond practical applications, offering significant contributions to existing leadership theories. This study enriches the transformational leadership framework by introducing emotional intelligence as an important mediator that can enhance the effectiveness of transformational leadership in achieving desirable organizational outcomes, such as improved academics performance (Bass & Riggio, 2006).

Additionally, this integration challenges and expands current leadership models, suggesting that emotional intelligence is not merely an additional skill but a foundational element that can amplify the impact of transformational leadership practices (Gómez-Leal et al., 2021). Consequently, the study offers a more holistic understanding of leadership dynamics, emphasizing the interconnectedness of emotional, cognitive, and behavioral competencies in effective leadership (Salovey & Mayer, 1990). Furthermore, this research contributes with 'Social Exchange Theory', which posits that relationships within organizations are built on reciprocal The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities exchanges that generate trust, loyalty, and mutual commitment (Blau, 1964). The findings underscore the importance of considering emotional intelligence in leadership studies, potentially prompting future research to explore its role in other leadership styles and organizational contexts (Mysirlaki & Paraskeva, 2020; Daus & Ashkanasy, 2020).

Moreover, 'Social Learning Theory' (Bandura, 1977) supports the notion that individuals learn behaviors and attitudes by observing and modeling the actions of others, particularly those in leadership positions. Leaders who exhibit high levels of emotional intelligence serve as role models, demonstrating how to effectively manage emotions and interactions within the workplace (Caemeli & Josman, 2006).

Finally, the theoretical implications of this study lie in its potential to reshape existing leadership theories by highlighting the mediating role of emotional intelligence. It encourages a reevaluation of leadership development models to include emotional intelligence as a critical component, thus offering a more comprehensive approach to understanding and developing effective leadership within academic institutions and beyond (Klotz et al., 2013; Serrat, 2017).

5.4 Limitations of the study

The researchers faced several challenges while conducting this study. Firstly, the theory explored was tested specifically on academics from five public research universities in Malaysia. As a result, the study's findings may not be generalizable to other public or private universities, or to samples from different occupational groups.

Secondly, the absence of gender as a moderated variable in this study significantly limits the depth of analysis and may have an impact on the generalizability of findings. By failing to consider how gender affects leadership styles, behaviors, and The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities perceptions, researchers overlook critical dynamics that could improve understanding of effective leadership strategies. This oversight not only limits the interpretation of outcomes, but also hinders the development of inclusive organizational practices that recognize and leverage the unique contributions of different genders.

The third limitation in this study is response bias and other personal issues. Response bias occurs when respondents provide answers of what they believe to be socially acceptable or desirable rather than their true feelings, ideas or beliefs. Some respondents answer the questionnaire regardless of the content without providing thoughtful responses that can influence results. Furthermore, respondents may decline to answer specific questions if they are uncomfortable or if the questions address sensitive or personal issues. This can lead to missing data. Other than response bias, personal issues can also influence the study in many ways. Cultural norms and beliefs may influence individual responses to surveys. It is possible that some cultures place a higher importance on group harmony, which discourages people from speaking out about their problems or disagreements.

Another limitation of this study is the shortfall in the number of respondents. Although the research aimed to collect data from 370 respondents due to the Krejcie and Morgan (1970) table, only 300 responses were obtained. This lower response rate may impact the statistical power of the study and limit the generalizability of the findings. A higher sample size could have provided more robust insights and increased the reliability of the results (Baruch & Holtom, 2008). Consequently, the findings may be less representative of the broader population of academics in Malaysian public research universities, and the reduced sample size could introduce biases or inaccuracies in the interpretation of the data.

Moreover, this study primarily utilizes the EI ability model, which conceptualizes emotional intelligence as perceiving, understanding, managing, and using emotions effectively (Mayer, Caruso, & Salovey, 2016). While this model is widely accepted and provides a solid foundation for analyzing the role of EI, the exclusive focus on this model may limit the study's comprehensiveness.

Additionally, the study examines transformational leadership as a holistic construct, which could oversimplify its impact on academics performance. Idealised influence, inspiring motivation, intellectual stimulation, and individualised consideration are the components of transformational leadership. Each component may interact with emotional intelligence in a different way and have a varied impact on academic performance (Bass & Riggio, 2006).

5.5 Recommendations for Future Research

Future research is recommended to obtain respondents from both private and public universities in Malaysia by collecting data across different times. This will increase the external validity of the current study by broadening the outcomes of this study to the overall Malaysian public universities. For further evidence of generalization of the findings of this study, it would be interesting to understand in what way emotional intelligence and transformational leadership within the leaderssubordinate relationship in a different entity other than higher education.

Besides, future research should include gender as a moderating variable to better understand its impact on leadership styles, behaviors, and perceptions. Additionally, considering intersectionality by investigating how ethnicity, age, and socio-economic factors interact with gender would provide a more comprehensive view. Cross-cultural comparisons could show gender and leadership variations across different contexts, while longitudinal studies could track how these dynamics change over time (Dastane, 2020). Hence, examining the impact of organizational policies on the gender-leadership relationship could provide practical insights for creating inclusive and effective leadership environments.

Third, guarantee respondents that their responses will remain anonymous and confidential. This allows for more accurate responses (Agley et al., 2021). Additionally, multiple methods of data collection are used to cross-validate responses and reduce response bias. For example, conduct an interview after

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities collecting data using a questionnaire. Conducting interviews can be an effective way to gather qualitative data and gain deeper insights.

Fourth, to address the limitation of a lower response rate, future research should focus on increasing the sample size to enhance the finding's reliability and generalizability. This can be achieved by providing incentives to encourage participation in answering the questionnaire. For example, charitable presents, promotional items, and cash are among the most effective incentives. Money incentives, such as gift cards and coupons, can help future researchers encourage more respondents to participate in the survey. Consequently, it can yield more accurate results and outcomes in this study.

Fifth, future research is recommended to incorporate alternative models of emotional intelligence, such as Goleman's (1995) model or the mixed model, to provide a more comprehensive understanding of how EI influences transformational leadership. Goleman's model, which encompasses broader competencies, including 'self-awareness', 'self-regulation', 'motivation', 'empathy', and 'social skills', offers a holistic view that may reveal more profound insights into the impact of EI on leadership effectiveness (Goleman, 2018). Additionally, the mixed model, which integrates elements of ability and personality traits, could further illuminate the complex nature of emotional intelligence within leadership contexts (Bar-On, 2018).

Furthermore, future research should consider conducting a more granular analysis of the individual components of transformational leadership. Such an approach could uncover more nuanced relationships between specific aspects of transformational leadership, emotional intelligence, and academic outcomes (Northouse, 2021). For example, intellectual stimulation may be more closely associated with academic innovation, while individualized consideration could have a more significant impact on academics and students' well-being (Wang et al., 2019).

5.6 Conclusion

The findings of this study conclude that leaders' EI acts as a crucial mediator in the TL style, positively influencing AP in Malaysian public research universities. This suggests that leaders with high EI are better equipped to motivate and support their subordinates and teams, leading to enhanced performance in the higher education industry. Understanding the impact of EI as a mediator in TL provides valuable insights for educational institutions, by emphasizing the need to select and develop academic leaders with strong EI. Such leaders are better equipped to manage emotions, understand others, and guide interactions effectively, which positively influences AP. For human resource management (HRM), this underscores the importance of integrating EI into leadership development programs and recruitment strategies, fostering academic leaders who are empathetic, adaptive, and capable of inspiring and motivating their subordinates.

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APPENDICES



Appendix 1: Research Questionnaire

2024

QUESTIONNAIRE

Mediating effect of leader's emotional intelligence between transformational leadership and employee performance in Malaysian Public Research Universities. Moderated by gender.

Dear respondents,

<u>Survey on my mediating effect of leader's emotional intelligence between</u> <u>transformational leadership and employee performance. Moderating by</u> <u>gender.</u>

We are student of Bachelor of Business Administration (Honors) from Faculty of Business and Finance (FBF) in University Tunku Abdul Rahman (UTAR). This study investigates on the relationship between transformational leadership, leader's emotional intelligence and employee performance, while considering the moderating influence of gender in five research universities in Malaysia.

In achieving the survey objectives, the respondents identified are the employees (subordinates) whom we wish to gauge whether they can perceive whether their immediate superiors have the emotional intelligence abilities and transformational leadership towards the employee performance. This survey seeks to support the immediate superior's abilities towards subordinate's emotion and will unveil some motivating prospects of employee to perform.

Academics from Malaysian Research Universities have been selected to participate in this survey. Therefore, your feedback represents that of in five research universities in Malaysia. As your knowledge and experience towards academic excellence have significant contributions towards the academic field, we hope that you will spend some of your valuable time to complete the survey.

There are FOUR (4) sections in the questionnaire. Section A is on Demographic Profile. Section B, C and D cover all the variable's study in this study. Please read the instructions carefully before answering the questions. Please answer ALL questions.

The information collected from you will be kept strictly confidential and private. All responses and findings will be used solely for academic purposes. For your convenience, I have left a special box at your faculty for your good self to leave your completed questionnaires in. We would appreciate it much if you could return the completed questionnaire within 14 days from the date of this letter.

Thank you for taking the time to complete this questionnaire. Should you have any questions or suggestions, we are willing to correspond to enhance the value of your feedback, you may contact us at sheng0123@1utar.my. Once again, your support is invaluable to this study.

Your sincerely, Yong Min Sheng Chai Seik Xin

PERSONAL DATA PROTECTION NOTICE

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

- 1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:
 - a) Name
 - b) Identity card
 - c) Place of Birth
 - d) Address
 - e) Education History
 - f) Employment History
 - g) Medical History
 - h) Blood type
 - i) Race
 - j) Religion
 - k) Photo
 - 1) Personal Information and Associated Research Data
- 2. The purposes for which your personal data may be used are inclusive but not limited to:
 - a) For assessment of any application to UTAR
 - b) For processing any benefits and services
 - c) For communication purposes
 - d) For advertorial and news
 - e) For general administration and record purposes
 - f) For enhancing the value of education
 - g) For educational and related purposes consequential to UTAR
 - h) For replying any responds to complaints and enquiries
 - i) For the purpose of our corporate governance
 - j) For the purposes of conducting research/ collaboration
- 3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.
- 4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

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

Consent:

- 6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.
- 7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.
- 8. You may access and update your personal data by writing to us at ______.

Acknowledgment of Notice

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

[] I disagree, my personal data will not be processed.

.....

Name:

Date:

Please answer the following questions by checking in the appropriate box or completing the space provided.

- 1. University:
 - o Universiti Kebangsaan Malaysia
 - o Universiti Malaya
 - University Sains Malaysia
 - Universiti Teknologi Malaysia
 - Universiti Putra Malaysia

2. Your designation (Respondents can tick one or more designations)

- o Lecturer
- Senior Lecturer
- Assistant Professor
- Associate Professor
- o Professor

3. If you hold an administrative position, please indicate.

- o Dean
- Deputy Dean
- Head of Department
- Head of Program
- Cluster Head
- Unit Head
- Others: _
- Not applicable

4. Faculty

- Science
- Business/Management
- Social Science
- Information Technology/Computer
- Engineering
- Others

5. Position of your immediate superior

- Senior Management
- o Dean
- o Deputy Dean
- Head of Department
- Head of Program
- Cluster Head
- Unit Head
- 6. Gender
 - o Male
 - o Female

- 7. Employment status
 - Permanent
 - Part time
 - Contract
- 8. Age
 - \circ < 30 years
 - \circ 30 to 40 years
 - \circ 41 to 50 years
 - \circ > 50 years

9. Year of attachment in current university.

- \circ < 2 years
- \circ 2 to 5 years
- \circ 6 to 10 years
- \circ > 10 years

10. How long serving in the High Education Institution.

- \circ < 2 years
- \circ 2 to 5 years
- \circ 6 to 10 years
- \circ > 10 years

11. Most recent job performance

- Meet Expectation
- Above Expectation
- Below expectation

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities *Following are several statements about how you feel about your immediate*

superior.

Using the response scale below, indicate your agreement or disagreement with each statement by circling the appropriate number.

Transformational Leadership

Idealized influence

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior acts in a way that strengthens respect from subordinates.	1	2	3	4	5
2.	My immediate superior is someone that subordinates are proud to be associated with.	1	2	3	4	5
3.	My immediate superior does not display honesty.	1	2	3	4	5
4.	My immediate superior models' behaviours that other subordinates are asked to perform.	1	2	3	4	5

Intellectual stimulation

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior providing freedom of opinion for subordinates regarding policies in higher education.	1	2	3	4	5
2.	My immediate superior carrying out task accordance with the vision and mission.	1	2	3	4	5
3.	My immediate superior reminding subordinates to respect each other.	1	2	3	4	5
4.	My immediate superior involving subordinates in assessing the activities in higher education.	1	2	3	4	5

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior giving praise and appreciation to work results or achievements of subordinates.	1	2	3	4	5
2.	My immediate superior accepting suggestions for the subordinates.	1	2	3	4	5
3.	My immediate superior routinely giving special time to subordinates in delivering every opinion.	1	2	3	4	5
4.	My immediate superior guild and train the subordinates personally if they have problem.	1	2	3	4	5

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior influence subordinates to be optimistic in facing the future.	1	2	3	4	5
2.	My immediate superior giving recognition for the works of subordinates in the form of personal praise.	1	2	3	4	5
3.	My immediate superior encouraging subordinates to practice new approaches in implementing teaching and learning activities.	1	2	3	4	5
4.	My immediate superior giving enthusiasm to subordinates for finding other methods of problem- solving regarding teaching and learning activities.	1	2	3	4	5

Inspirational motivation

Following are several statements about how you feel about your immediate superior.

Using the response scale below, indicate your agreement or disagreement with each statement by circling the appropriate number.

Emotional intelligence

Self-Emotional Intelligence of Immediate Superior (SEL)

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior has a good sense of why he/she has certain feelings most of the time.	1	2	3	4	5
2.	My immediate superior has good understanding of his/her own emotions.	1	2	3	4	5
3.	My immediate superior really understands what he/she feels.	1	2	3	4	5
4.	My immediate superior always knows whether he/she is happy.	1	2	3	4	5

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior is sensitive to the feelings and emotions of subordinates.	1	2	3	4	5
2.	My immediate superior always knows his/her subordinates' emotions from their behaviour.	1	2	3	4	5
3.	My immediate superior is a good observer of the subordinates' emotions.	1	2	3	4	5
4.	My immediate superior has good understanding of the emotions of people around him/her.	1	2	3	4	5

Others Emotional Appraisal (OEA)

Use of Emotion (UOE)

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior always sets goals for himself/herself and then tries his/her best to achieve them.	1	2	3	4	5
2.	My immediate superior always tells him/her that he/she is a competent person.	1	2	3	4	5
3.	My immediate superior is a self- motivated person.	1	2	3	4	5
4.	My immediate superior would always encourage himself/herself to try his/her best.	1	2	3	4	5

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My immediate superior is able to control his/her temper and handle difficulties rationally.	1	2	3	4	5
2.	My immediate superior is quite capable of controlling his/her own emotions.	1	2	3	4	5
3.	My immediate superior can always calm down quickly when he/she is very angry.	1	2	3	4	5
4.	My immediate superior has good control of his/her emotions.	1	2	3	4	5

Regulation of Emotion (ROE)

The Mediating Effect of Leaders' Emotional Intelligence on The Relationship between Transformational Leadership and Academics Performance in Malaysian Public Research Universities Following are several statements that best reflect about you. Using the response scale below, indicate your agreement or disagreement with each statement by circling the appropriate number.

Academics	Performance
	1 01 101 11001100

	lask Performance	1				
	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	I used to maintain high standard of work.	1	2	3	4	5
2.	I can handle my assignments without much supervision.	1	2	3	4	5
3.	I am very passionate about my work.	1	2	3	4	5
4.	I know I can handle multiple assignments for achieving organizational goals.	1	2	3	4	5

Task Performance

Adaptive Performance

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	I used to perform well to mobilize collective intelligence for effective teamwork.	1	2	3	4	5
2.	I could manage change in my job very well whenever the situation demands.	1	2	3	4	5
3.	I can handle effectively my work team in the face of change.	1	2	3	4	5
4.	I always believe that mutual understanding can lead to a viable solution in organization.	1	2	3	4	5

Contextual Performance

	Level of agreement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	I used to extend help to my co-workers when asked or needed.	1	2	3	4	5
2.	I love to handle extra responsibilities.	1	2	3	4	5
3.	I extend my sympathy and empathy to my co-workers when they are in trouble.	1	2	3	4	5
4.	I actively participate in group discussions and work meetings.	1	2	3	4	5

Appendix 2: Number of Academics Staff by Citizenship and Gender in Public Universities (2021-2022)

Statistik Pendidikan Tinggi 2022 : Kementerian Pendidikan Tinggi | 39

Bilangan Staf Akademik mengikut Taraf Warganegara dan Jantina berdasarkan Universiti Awam (UA), 2021-2022 Number of Academic Staffs by Citizenship and Gender in Public Universities 2021-2022					Jadual Table 2.9						
BIL. Vo.	UA Public	Tahun Year	Warga	inegara / Mi	loysian		n Wargane m-Malaysia		Jumlah / Total		
	Universities		L/M	PIF	JIT	L/M	P/F	JIT	L/M	PIF	- J/7
	UM	2022	792	1,051	1,843	130	64	194	922	1,115	2,037
<u> </u>		2021	805	1,086	1,891	137	60	197	942	1,146	2,088
	USM	2022	859	1,084	1,943	56	13	69	915	1,097	2,012
		2021	879	1,093	1,972	52	12	64	931	1,105	2,036
	UKM	2022	827	1,127	1,954	41	4	45	868	1,131	1,999
		2021	846	1,136	1,982	49	10	50	895	1,146	2,041
	UPM	2022	711	1,048	1,759	27	6	33	738	1,054	1,792
		2021	747	1,052	1,799	26	5	31	773	1,057	1,830
	UTM	2022	795	792	1,587	35	11	46	830	803	1,633
		2021	835	772	1,607	43	11	54	878	783	1,661
	UUM	2022	449	670	1,119	51	9	60	500	679	1,179
		2021	477	697	1,174	51	10 38	61	528	707	1,235
	UIAM	2022	692	1,081	1,773	198		236	890	1,119	2,009
		2021	675	1,063	1,738	188	34	222	863	1,097	1,960
	UNMAS	2022	357	434	791	26	16	42	383	450	833
		2021	351	419	770	31	21	52	382	440	822
	UMS	2022	477	531	1,008	46	14	60	523	545	1,068
	2021	475	520	995	46	21	67	521	541	1,062	
	UPSI	2022	356	455	811	31	10	41	387	465	852
		2021	371	465	836	31	9	40	402	474	876
	итм	2022	2,914	5,950	8,864	34	14	48	2,948	5,964	8,912
		2021	2,957	5,951	8,908	36	13	49	2,993	5,964	8,957
	UniSZA	2022	303	382	685	44	14	58	347	396	743
		2021	288	372	660	41	14	55	329	386	715
	UMT	2022	254	387	641	42	12	54	296	399	695
		2021	250	379	629	33	9	42	283	388	671
	USIM	2022	300	494	794	42	3	45	342	497	839
		2021	290	468	758	43	3	46	333	471	804
	UTHM	2022	557	536	1,093	35	5	40	592	541	1,133
		2021	550	530	1,080	36	5	41	586	535	1,121
	UTeM	2022	507	336	843	12	1	13	519	337	856
		2021	504	335	839	16	1	17	520	336	856
	UMP	2022	367	374	741	17	1	18	384	375	759
		2021	363	366	729	31	- 4	35	394	370	764
	UNIMAP	2022	558	546	1,104	9	3	12	567	549	1,116
		2021	573	537	1,110	9	4	13	582	541	1,123
	UMK	2022	203	296	499	28	7	35	231	303	534
		2021	209	302	511	28	6	34	237	308	545
	UPNM	2022	180	206	386	5		5	185	206	391
		2021	184	208	392	7	2	9	191	210	401
Jur	niah / Total	2022	12,458	17,780	30,238	909	245	1,154	13,367	18,025	31,39
Jun	The second second	2021	12,629	17,751	30,380	934	254	1,188	13,563	18,005	31,568

Data sehingga 31 Disember 2022 / Data as of 31 December 2022

Appendix 3: Krejcie and Morgan table

Krejcie and Morgan table

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

TABLE 1 Table for Determining Sample Size from a Given Population

Note .- N is population size.

S is sample size.

Appendix 4: Questionnaire Questions Adapted and Adopted

Appendix 4.1: Emotional Intelligence

SECTION B-

Following are a number of statements about how you feel about your immediate superior.

Using the response scale below, indicate your agreement or disagreement with each statement

by circling the appropriate number.

Emotional intelligence

Self-Emotional Intelligence of Immediate Superior (SEL)

		Totally disagree	Disagree	Neutral	Agree	Totally agree
1	My immediate superior has a good sense of why he/she has certain feelings most of the time.	1	2	3	4	5
2	My immediate superior has good understanding of his/her own emotions.	1	2	3	4	5
3	My immediate superior really understands what he/she feels.	1	2	3	4	5
4	My immediate superior always knows whether or not he/she is happy.	1	2	3	4	5

Others Emotional Appraisal (OEA)

		Totally disagree	Disagree	Neutral	Agree	Totally agree
5	My immediate superior is sensitive to the feelings and emotions of subordinates.	1	2	3	4	5
6	My immediate superior always knows his/her subordinates' emotions from their behaviour.	1	2	3	4	5
7	My immediate superior is a good observer of the subordinates' emotions.	1	2	3	4	5

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	My immediate superior has good understanding of the emotions of people around him/her.	1	2	3	4	5
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Use of Emotion (UOE)

		Totally disagree	Disagree	Neutral	Agree	Totally agree
9	My immediate superior always sets goals for himself/herself and then tries his/her best to achieve them.	1	2	3	4	5
10	My immediate superior always tells him/her that he/she is a competent person.	1	2	3	4	5
11	My immediate superior is a self-motivated person.	1	2	3	4	5
12	My immediate superior would always encourage himself/herself to try his/her best.	1	2	3	4	5

Regulation of Emotion (ROE)

		Totally disagree	Disagree	Neutral	Agree	Totally agree
13	My immediate superior is able to control his/her temper and handle difficulties rationally.	1	2	3	4	5
14	My immediate superior is quite capable of controlling his/her own emotions.	1	2	3	4	5
15	My immediate superior can always calm down quickly when he/she is very angry.	1	2	3	4	5
16	My immediate superior has good control of his/her emotions.	1	2	3	4	5

Appendix 4.2: Transformational Leadership

Table 1. Research Instrument								
Variable	Dimension	Indicator	Sub-Indicator					
Transformational	Idealized influence	Providing insight and	 Carrying out tasks 					
Leadership	(Charismatic)	awareness of the	in accordance					
		vision and mission	with the vision					

[43]

Cucun Sunaengsih et al., Transformational Leadership Survey

Variable	Dimension	Indicator	Sub-Indicator
			and mission
			 Formulating the
			vision and mission
			of the study
			program
			concurrently to
			develop the
			insight of
			ecturers/staffs
		Evoking pride	Reminding
			lecturers/staffs to
			respect each
			other with fellow
			ecturers/staff

IntellectualIntellectualIncreasingIncreasingIntellectualIncreasingIncreasingSiving books or other references		Evoking pride	•	Reminding
IntellectualIncreasingRespect each other with fellow lectures/staffIntellectualIncreasingSiving trust to subordinatesSiving freedom to lectures/staffIntellectualIncreasing stimulationSiving freedom intelligenceSiving books or other references		evoking pride	•	-
Other with fellow lecturers/staffGrowing an attitude of respectProviding examples of good behavior in the university environmentInstilling a high commitment to the lecturers/staffInstilling a high commitment to the lecturers/staff towards the vision of the study programGiving trust to subordinatesReducing penalty towards any mistakes as a professional effort of Giving freedom to lecturers/staff in carrying out the tasks givenIntellectual stimulationIncreasing intelligenceGiving books or other references				· · · · · · · · · · · · · · · · · · ·
Growing an attitude of respect Providing examples of good behavior in the university environment Instilling a high commitment to the lecturers/staff Giving trust to subordinates Reducing penalty towards any mistakes as a professional effort Giving frust to subordinates Reducing penalty towards any mistakes as a professional effort Intellectual stimulation Increasing in carrying out the tasks given				respect each
Growing an attitude of respectProviding examples of good behavior in the university environmentInstilling a high commitment to the lecturers/staff towards the vision of the study programInstilling a high commitment to the lecturers/staff towards any mistakes as a professional effortIntellectual stimulationIncreasing intelligenceGiving books or other references				other with fellow
of respectexamples of good behavior in the university environmentInstilling a high commitment to the lecturers/staff towards the vision of the study programGiving trust to subordinates• Reducing penalty towards any mistakes as a professional effort • Giving freedom to lecturers/staff in carrying out the tasks givenIntellectual stimulationIncreasing intelligence• Giving books or other references				ecturers/staff
good behavior in the university environmentInstilling a high commitment to the lecturers/staff towards the vision of the study programGiving trust to subordinates• Reducing penalty towards any mistakes as a professional effort • Giving freedom to lecturers/staff in carrying out the tasks givenIntellectual stimulationIncreasing intelligence• Giving books or other references		Growing an attitude	•	Providing
Intellectual Increasing • Giving books or other references Intellectual Increasing • Giving books or other references		of respect		examp l es of
environmentInstilling a high commitment to the lecturers/staff towards the vision of the study programGiving trust to subordinates• Reducing penalty towards any mistakes as a professional effort • Giving freedom to lecturers/staff in carrying out the tasks givenIntellectual stimulationIncreasing intelligence• Giving books or other references				good behavior in
 Instilling a high commitment to the lecturers/staff towards the vision of the study program Giving trust to subordinates Reducing penalty towards any mistakes as a professional effort Giving freedom to lecturers/staff in carrying out the tasks given Intellectual stimulation intelligence Giving books or other references 				the university
Image: stimulation Intellectual Increasing • Giving back or other references Image: stimulation Intelligence • Giving back or other references				environment
Image: stimulation Intellectual Increasing • Giving books or other references Image: stimulation Intelligence • Giving books or other references			•	Instilling a high
Image: stimulation Intellectual Increasing • Giving books or other references				commitment to
Intellectual Increasing of the study Intellectual Increasing • Giving books or Stimulation intelligence • Giving books or				the lecturers/staff
Image: stimulation Image: stimulation Program Giving trust to • Reducing penalty subordinates • Reducing penalty towards any mistakes as a professional effort • Giving freedom • to lecturers/staff in carrying out the tasks given • stimulation intelligence				towards the vision
Giving trust to subordinates Giving trust to subordinates Giving trust to subordinates Giving trust to subordinates Giving freedom to lecturers/staff in carrying out the tasks given Giving books or other references				of the study
subordinates subordinates for towards any mistakes as a professional effort Giving freedom to lecturers/staff in carrying out the tasks given Intellectual stimulation intelligence for towards any mistakes as a professional effort Giving freedom to lecturers/staff in carrying out the tasks given other references				program
Intellectual Increasing • Giving books or stimulation intelligence • Other references		Giving trust to	•	Reducing penalty
Intellectual Increasing other references		subordinates		towards any
Giving freedom to lecturers/staff in carrying out the tasks given Intellectual Increasing stimulation intelligence other references				mistakes as a
Intellectual Increasing other references				professional effort
in carrying out the tasks given Intellectual Increasing • Giving books or stimulation intelligence other references			•	Giving freedom
Intellectual Increasing Giving books or stimulation intelligence other references				to lecturers/staff
Intellectual Increasing • Giving books or stimulation intelligence other references				in carrying out
stimulation intelligence other references				the tasks given
	Intellectual	Increasing	•	Giving books or
	stimulation	intelligence		other references
to lecturers/statt				to lecturers/staff

Variable	Dimension	Indicator	Sub-Indicator
			as a reference in self-development of lecturers/staff • Providing opportunities for lecturers/staff to conduct education and training
		Rationality	 Providing freedom of opinion for lecturers/staff regarding policies in higher education Involving lecturers/staff in assessing the activities in higher education
		Innovating for problem-solving	 The head of the study program has a way of solving complex problems
	Individual consideration	Giving attention	 Giving praise and appreciation to the work results or achievements of lecturers/staff Accepting suggestions for their improvements
		Developing	 Routinely giving

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Variable	Dimension	Indicator		Sub-Indicator
				special time t
				lecturers/staff
				delivering eve
				opinion
			•	Asking for the
				opinion regar
				the leadershi
				higher educc
			•	Carrying out
				following up
				the suggestic
				submitted
		Guiding	•	Telling
				lectures/staff
				check the real
				of the evalue
				to make up f
				any shortcon
			•	Carrying out
				informal
				approach
			•	Guiding and
				training
				lecturers/staf
				personally if t
				have probler

Training each

lecturer/staff

personally

specifically and

Knowing the skills

or expertise of

lecturers/staffs

lecturers/staff for the flow of the teaching and learning activities in the classroom

Knowing the needs of

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Variable	Dimension	Indicator	Sub-Indicator
			Giving attention
			by listening to the
			complaints of
			lecturers/staff for
			mutual comfort
	Inspirational	Growing	 Influencing
	motivation	expectations	lecturers/staff to
			be optimistic in
			facing the future
			Giving
			recognition for
			the works of
			lecturers/staff in
			the form of
			personal praise
			Giving
			enthusiasm to
			lecturers/staffs to
			carry out their
			tasks property
			 Supporting
			lecturers/staffs to
			get good results
			in teaching in the
			classroom
		Focusing on efforts	Telling the
		-	success stories of
			colleagues to
			motivate
			lecturers/staff to
			be successful
			 Encouraging
			lecturers/staff to
			work hard
			professionally
			Giving

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Variable	Dimension	Indicator	Sub-Indicator
			enthusiasm to
			lecturers/staff for
			finding other
			methods of
			solving-problems
			regarding
			teaching and
			learning activities
			in the classroom
			 Encouraging
			lecturers/staff to
			practice new
			approaches in
			implementing
			teaching and
			learning activities
		Communicating	Communicating
		important goals	the goals that
			must be
			achieved by
			lecturers/staff
			clearly
			Giving
			appreciation/pro
			se to
			lecturers/staff for
			completing their
			work well
			Providing special
			time for
			lecturers/staff to
			discuss how to
			complete
			assignments
			properly

Appendix 4.3: Academics Performance

Table 4. Results of Principal Component Analysis with Varimax Rotation (N = 361): Exploratory Factor Analysis

Factors (KMO = .87	6) Factor loadings
1	2	3
.774		
.734		
.731		
.707		
.648		
.619		
	.857	
		(Table 4 Continued
	1 .774 .734 .731 .707 .648	.774 .734 .731 .707 .648 .619

Appendix 5: Result of Data Analysis

Appendix 5.1: Result of Descriptive Analysis

Appendix 5.1.1: Respondent Demographic Profile

University	Frequency	Percentage	Cumulative Percentage
Universiti Kebangsaan Malaysia	84	28.00%	28.00%
Universiti Malaya	52	17.33%	45.33%
Universiti Putra Malaysia	45	15.00%	60.33%
Universiti Sains Malaysia	60	20.00%	80.33%
Universiti Teknologi Malaysia	59	19.67%	100.00%
Total	300	100.00%	

Gender	Frequency	Percentage	Cumulative Percentage
Female	124	41.33%	41.33%
Male	176	58.67%	100.00%
Total	300	219.67%	

Age	Frequency	Percentage	Cumulative Percentage
< 30 years	211	70.33%	70.33%
31 to 40 years	73	24.33%	94.67%
41 to 50 years	5	1.67%	96.33%
> 50 years	11	3.67%	100.00%
Total	300	100.00%	

Designation	Frequency	Percentage	Cumulative Percentage
Lecturer	251	83.67%	83.67%
Senior Lecturer	44	14.67%	98.33%
Assistant Professor	5	1.67%	100.00%
Associate Professor	0	0.00%	100.00%
Professor	0	0.00%	100.00%
Total	300	100.00%	

Faculty	Frequency	Percentage	Cumulative Percentage
Science	163	54.33%	54.33%
Business/Management	22	7.33%	61.67%
Social Science	6	2.00%	63.67%
Information Technology/Computer	26	8.67%	72.33%
Engineering	49	16.33%	88.67%
Mathematic	10	3.33%	92.00%
Education	8	2.67%	94.67%
Law	2	0.67%	95.33%
Medicine	5	1.67%	97.00%
Agriculture	9	3.00%	100.00%
Total	300	100.00%	

Academics Job Status	Frequency	Percentage	Cumulative Percentage
Permanent	210	70.00%	70.00%
Contract	90	30.00%	100.00%
Part time	0	0.00%	100.00%
Total	300	100.00%	

Administrative position	Frequency	Percentage	Cumulative Percentage
Dean	0	0.00%	0.00%
Deputy Dean	2	0.67%	0.67%
Head of Department	29	9.67%	10.33%
Head of Program	0	0.00%	10.33%
Cluster Head	0	0.00%	10.33%
Unit Head	56	18.67%	29.00%
No position	213	71.00%	100.00%
Total	300	100.00%	

Position of Immediate Superior	Frequency	Percentage	Cumulative Percentage
Senior Management	0	0.00%	0.00%
Dean	5	1.67%	1.67%
Deputy Dean	12	4.00%	5.67%
Head of Department	26	8.67%	14.33%

Head of Program	45	15.00%	29.33%
Cluster Head	56	18.67%	48.00%
Unit Head	156	52.00%	100.00%
Total	300	100.00%	

Year of attachment in current university.	Frequency	Percentage	Cumulative Percentage
< 2 years	140	46.67%	46.67%
2 to 5 years	145	48.33%	95.00%
6 to 10 years	15	5.00%	100.00%
> 10 years	0	0.00%	100.00%
Total	300	100.00%	

Year of serving in the High Education Institution.	Frequency	Percentage	Cumulative Percentage
< 2 years	154	51.33%	51.33%
2 to 5 years	54	18.00%	69.33%
6 to 10 years	34	11.33%	80.67%
> 10 years	58	19.33%	100.00%
Total	300	100.00%	

Most recent job performance	Frequency	Percentage	Cumulative Percentage
Meet Expectation	195	65.00%	65.00%
Above Expectation	93	31.00%	96.00%
Below expectation	12	4.00%	100.00%
Total	300	100.00%	

Appendix 5.1.2: Central Tendencies Measurement of Constructs

Statistics						
	AVE_TL AVE_EI AVE_AP					
Ν	Valid	300	300	300		
	Missing	0	0	0		
Mean		70.4633	72.3733	54.2600		
Std. Dev	/iation	4.10343	4.62803	4.61629		

Appendix 5.2: Result of Scale Measurement

Appendix 5.2.1: Reliability Analysis (30 Respondents)

Scale: Transformational Leadership Case Processing Summary

		Ν	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's	
Alpha	N of Items
.892	16

Item Statistics

	Mean	Std. Deviation	Ν
TL1	3.8667	.77608	30
TL2	3.8667	.77608	30
TL3	3.8667	.77608	30
TL4	3.9333	.86834	30
TL5	3.8667	.77608	30
TL6	4.0333	.80872	30
TL7	3.8667	.77608	30
TL8	4.0000	.83045	30
TL9	4.1333	.86037	30
TL10	3.8667	.77608	30
TL11	4.1000	.80301	30
TL12	3.8667	.77608	30
TL13	4.0333	.80872	30
TL14	4.0333	.80872	30
TL15	3.8667	.77608	30
TL16	4.0333	.80872	30

Scale: Emotional Intelligence

Case Processing Summary

		Ν	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha N of Items

.883 16

Item Statistics

	Mean	Std. Deviation	Ν
EI1	4.0000	.87099	30
EI2	3.8667	.77608	30
EI3	3.9333	.86834	30
EI4	3.8667	.77608	30
EI5	3.9000	.80301	30
EI6	4.1000	.80301	30
EI7	3.9333	.78492	30
EI8	4.0667	.86834	30
EI9	4.1000	.80301	30
EI10	4.0000	.69481	30
EI11	3.9333	.73968	30
EI12	4.0000	.83045	30
EI13	3.9667	.71840	30
EI14	4.0000	.74278	30
EI15	3.8667	.77608	30
EI16	4.0333	.85029	30

Scale: Academics Performance

Case Processing Summary

		Ν	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's	
Alpha	N of Items
.865	12

Item Statistics

	Mean	Std. Deviation	Ν
AP1	4.0667	.78492	30
AP2	3.8667	.77608	30
AP3	3.9667	.85029	30

Public Research Universities

AP4	4.0333	.80872	30
AP5	3.8667	.77608	30
AP6	4.0000	.87099	30
AP7	3.8667	.77608	30
AP8	3.9333	.86834	30
AP9	3.8667	.77608	30
AP10	4.0333	.80872	30
AP11	3.8667	.77608	30
AP12	4.0000	.87099	30

Appendix 5.3: Result of Inferential Analysis

Appendix 5.3.1: Pearson Correlation Coefficient Analysis

		AVE_TL	AVE_EI	AVE_AP		
AVE_TL	Pearson Correlation	1	.547**	.856**		
	Sig. (2-tailed)		<.001	<.001		
	Ν	300	300	300		
AVE_EI	Pearson Correlation	.547**	1	.654**		
	Sig. (2-tailed)	<.001		<.001		
	Ν	300	300	300		
AVE_AP	Pearson Correlation	.856**	.654**	1		
	Sig. (2-tailed)	<.001	<.001			
	Ν	300	300	300		
** 0	an is significant states 0.04 louis /					

Correlations

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

Appendix 5.3.2: Multiple Linear Regression Analysis

Appendix 5.3.2.1: H1: There is a significant relationship between transformational leadership and academics performance in public research universities.

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.856ª	.732	.731	2.39238			
a. Predictors: (Constant), AVE_TL							

	ANOVA					
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4666.124	1	4666.124	815.260	<.001 ^b

	Public Research Universities						
	Residual	1705.596	298	5.723			
	Total	6371.720	299				
a. Dependent Variable: AVE_AP							
b. Predic	b. Predictors: (Constant), AVE_TL						

	Coefficients ^a							
							Collinearit	
95.0% Confidence Interval for B		Correlations			y Statistics			
		Lower	Upper	Zero-				
Model		Bound	Bound	order	Partial	Part	Tolerance	
1	(Constan	-18.259	-8.892					
	t)							
	AVE_TL	.896	1.029	.856	.856	.856	1.000	

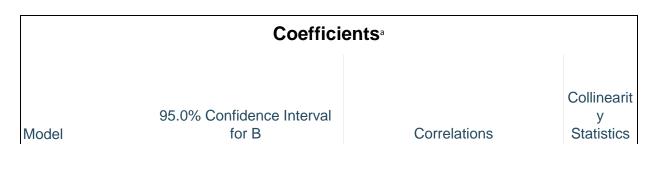
Appendix 5.3.2.2: H2: There is a significant relationship between transformational

leadership and emotional intelligence in public	research universities.
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Model Summary							
			Adjusted R	Std. Error of the			
Model	R	R Square	Square	Estimate			
1	.654ª	.428	.426	3.49606			
a. Predictors: (Constant), AVE_EI							

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2729.427	1	2729.427	223.312	<.001 ^k
	Residual	3642.293	298	12.222		
	Total	6371.720	299			

b. Predictors: (Constant), AVE_EI



					-			010100
			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance
-	1	(Constant)	.777	13.247				
		AVE_EI	.567	.739	.654	.654	.654	1.000

Appendix 5.3.2.3: H3: There is a significant relationship between a leader's emotional intelligence and academics performance in public research universities.

Model Summary									
			Adjusted R	Std. Error of the					
Model	R	R Square	Square	Estimate					
1	.547ª	.299	.297	3.88125					
a. Predictors: (Constant), AVE_TL									

ANOVA ^a										
Model		Sum of Squares	df	Mean Square	F	Sig.				
1	Regression	1915.086	1	1915.086	127.129	<.001 ^b				
	Residual	4489.100	298	15.064						
	Total	6404.187	299							
a. Depe	endent Variable	: AVE_EI								
b. Pred	ictors: (Constai	nt), AVE_TL								

	Coefficients ^a										
95.0% Confidence Interval for B Correlations						6	Collinearit y Statistics				
Model		Lower Bound	Upper Bound	Zero- order	Partial	Part	Toleranc e				
1	(Constant)	21.317	36.513								
	AVE_TL	.509	.724	.547	.547	.547	1.000				

Appendix 5.3.2.4: H4: There is a mediating effect of a leader's emotional intelligence in the relationship between transformational leadership and academics performance in public research universities

	Mean	Mean Std. Deviation	
AVE_AP	54.2600	4.61629	300
AVE_TL	70.4633	4.10343	300
AVE_EI	72.3733	4.62803	300

Descriptive Statistics

Correlations

	-	AVE_AP	AVE_TL	AVE_EI
Pearson Correlation	AVE_AP	1.000	.856	.654
	AVE_TL	.856	1.000	.547
	AVE_EI	.654	.547	1.000
Sig. (1-tailed)	AVE_AP		.000	.000
	AVE_TL	.000		.000
	AVE_EI	.000	.000	
N	AVE_AP	300	300	300
	AVE_TL	300	300	300
	AVE_EI	300	300	300

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	AVE_TL ^a		Enter
2	AVE_EIª		Enter

a. All requested variables entered.

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	AVE_TL ^a		Enter
2	AVE_EIª		Enter

b. Dependent Variable: AVE_AP

Model Summary^c

			Adjusted R	Std. Error of the		Change Statistics				Durbin- Watson
Model	R	R Square	Square		R Square Change	F Change	df1	df2	Sig. F Change	
1	.856ª	.732	.731	2.39238	.732	815.260	1	298	.000	
2	.884 ^b	.782	.780	2.16283	.050	67.613	1	297	.000	2.058

a. Predictors: (Constant), AVE_TL

b. Predictors: (Constant), AVE_TL, AVE_EI

c. Dependent Variable: AVE_AP

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4666.124	1	4666.124	815.260	.000 ^a
	Residual	1705.596	298	5.723		
	Total	6371.720	299			
2	Regression	4982.405	2	2491.202	532.555	.000 ^b
	Residual	1389.315	297	4.678		
	Total	6371.720	299			

ANOVA^c

a. Predictors: (Constant), AVE_TL

b. Predictors: (Constant), AVE_TL, AVE_EI

		Unstand Coeffi	lardized cients	Standardized Coefficients			95% Confide for	ence Interval B
Мос	lel	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	-13.576	2.380		-5.705	.000	-18.259	-8.892
	AVE_TL	.963	.034	.856	28.553	.000	.896	1.029
2	(Constant)	-21.251	2.345		-9.061	.000	-25.866	-16.635
	AVE_TL	.799	.036	.710	21.946	.000	.727	.871
	AVE_EI	.265	.032	.266	8.223	.000	.202	.329

Coefficients^a

a. Dependent Variable: AVE_AP

ANOVAc

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4666.124	1	4666.124	815.260	.000 ^a
	Residual	1705.596	298	5.723		
	Total	6371.720	299			
2	Regression	4982.405	2	2491.202	532.555	.000 ^b
	Residual	1389.315	297	4.678		
	Total	6371.720	299			

a. Predictors: (Constant), AVE_TL

c. Dependent Variable: AVE_AP

						Collinearity Statistics		
Model		Beta In	t	Sig.	Partial Correlation	Tolerance	VIF	Minimum Tolerance
1	AVE_EI	.266ª	8.223	.000	.431	.701	1.427	.701

a. Predictors in the Model: (Constant), AVE_TL

b. Dependent Variable: AVE_AP

	Dimensio			Variance Proportions				
Model	n	Eigenvalue	Condition Index	(Constant)	AVE_TL	AVE_EI		
1	1	1.998	1.000	.00	.00			
	2	.002	34.430	1.00	1.00			
2	1	2.996	1.000	.00	.00	.00		
	2	.002	38.404	.69	.00	.71		
	3	.002	43.625	.31	1.00	.29		

Collinearity Diagnostics^a

a. Dependent Variable: AVE_AP

Casewise Diagnostics^a

Case Number	Std. Residual	AVE_AP	Predicted Value	Residual
15	3.516	59.00	51.3964	7.60361
20	-4.063	49.00	57.7884	-8.78842
299	3.079	53.00	46.3396	6.66036

a. Dependent Variable: AVE_AP

Residuals Statistics^a

Minimum Maximum	Mean	Std. Deviation	N
-----------------	------	----------------	---

\square							Collinearity Statistics			
Mode	əl	Beta In	t	Sig.		artial elation	Tole	erance	VIF	Minimum Tolerance
1	AVE_EI	.266	^a 8.223	.000		.431		.701	1.427	.701
Pred	Predicted Value		46.339	96 59	9.1102	54.2	2600		4.08210	300
Resid	dual		-8.7884	12 7.	60361	.00	0000		2.15558	300
Std. Predicted Value			-1.94	40	1.188		.000		1.000	300
Std. Residual			-4.06	63	3.516		.000		.997	300

Excluded Variables^b

a. Dependent Variable: AVE_AP