

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**UNRAVELING THE RELATIONSHIP BETWEEN PERSONALITY TRAITS,
PERCEIVED ORGANIZATIONAL SUPPORT, AND WORK
ENGAGEMENT: A STUDY OF ACADEMIC STAFF IN MALAYSIA**

By

PUSPU NANTHINNI RAMASAMY (828261)



UUM
Universiti Utara Malaysia

**Research Paper Submitted to
School of Business Management, College of Business
Universiti Utara Malaysia,
in Partial Fulfillment of the Requirement for the
Master of Human Resource Management**



**Pusat Pengajian Pengurusan
Perniagaan**

SCHOOL OF BUSINESS MANAGEMENT

Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PENYELIDIKAN
(*Certification of Research Paper*)

Saya, mengaku bertandatangan, memperakukan bahawa
(*I, the undersigned, certified that*)

PUSPU NANTHINI RAMASAMY (828261)

Calon untuk Ijazah Sarjana
(*Candidate for the degree of*)

MASTER OF HUMAN RESOURCE MANAGEMENT

telah mengemukakan kertas penyelidikan yang bertajuk
(*has presented his/her research paper of the following title*)

**UNRAVELING THE RELATIONSHIP BETWEEN PERSONALITY TRAITS, PERCEIVED
ORGANIZATIONAL SUPPORT, AND WORK ENGAGEMENT:
A STUDY OF ACADEMIC STAFF IN MALAYSIA**

Universiti Utara Malaysia

Seperti yang tercatat di muka surat tajuk dan kulit kertas penyelidikan
(*as it appears on the title page and front cover of the research paper*)

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.

(*that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the research paper*).

Nama Penyelia : **DR. EDORA BT. ISMAIL**
(*Name of Supervisor*)

Tandatangan :
(*Signature*)

Tarikh : **7 OGOS 2023**
(*Date*)

PERMISSION TO USE

In presenting this research paper in partial fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the library of this university may make it freely available for inspection. I further agree that permission for copying this research paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Director of Postgraduate Studies Unit, College of Business where I did my research paper. It is understood that any copying or publication or use of this research paper parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my research paper.

Request for permission to copy or to make other use of materials in this research paper in whole or in part should be addressed to:

Director of Postgraduate Studies Unit, School of Business Management
College of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman



ABSTRACT

Academic staff constitutes the backbone of the academic institutions. The current worrying dwindling of work engagement among the academic staff has created the need for this study. The present study tried to determine the factors (resources) that might contribute to the work engagement of academic staff. The main objective of this study was to examine the relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff in Malaysia. Data was collected from 390 academic staff of higher education institutions in Malaysia using a convenience sampling method. This research was conducted by applying a quantitative correlational research design and a cross-sectional survey method. The Utrecht Work Engagement Scale (UWES), Big Five Inventory (BFI), and Survey of Perceived Organizational Support (SPOS) were used to measure work engagement, personality traits, and perceived organizational support respectively. Both descriptive and Multiple Regression analyses were used to examine the data. The results showed that the level of work engagement among academic staff was average, creating a cause for concern. This study also found that perceived organizational support was significantly and positively related to work engagement and its three dimensions. Of the five personality traits, only openness to experience was positively and significantly related to work engagement and its three dimensions. Agreeableness was not significantly related to work engagement. The personality traits conscientiousness, extraversion, and neuroticism demonstrated a significant relationship with only one of the dimensions of work engagement which is vigor. Moreover, the results also revealed that perceived organizational support and openness to experience were the strongest predictors of work engagement and its dimensions. The results of this study suggest that higher education institutions should focus on hiring candidates with certain personality traits and increasing organizational support to achieve a highly engaged academic workforce.

Keywords: work engagement, big five personality traits, perceived organizational support, academic staff

ABSTRAK

Kakitangan akademik merupakan tulang belakang institusi akademik. Penurunan yang mengimbangkan dalam penglibatan kerja dalam kalangan kakitangan akademik semasa telah mencetuskan keperluan untuk kajian ini. Kajian ini cuba menentukan faktor-faktor (sumber) yang mungkin menyumbang kepada penglibatan kerja kakitangan akademik. Objektif utama kajian ini adalah untuk mengkaji hubungan antara personaliti 'Big Five', persepsi terhadap sokongan organisasi, dan penglibatan kerja dalam kalangan kakitangan akademik di Malaysia. Data dikumpulkan daripada 390 kakitangan akademik institusi pengajian tinggi di Malaysia menggunakan kaedah persampelan mudah. Penyelidikan ini dilakukan dengan menggunakan reka bentuk penyelidikan kuantitatif korelasi dan kaedah tinjauan keratan rentas. 'The Utrecht Work Engagement Scale (UWES)', 'The Big Five Inventory (BFI)', dan 'The Survey of Perceived Organizational Support (SPOS)' telah digunakan untuk mengukur penglibatan kerja, personaliti 'Big Five', dan persepsi terhadap sokongan organisasi. Analisis deskriptif dan regresi berganda telah digunakan untuk mengkaji data. Keputusan menunjukkan bahawa tahap penglibatan kerja dalam kalangan kakitangan akademik adalah sederhana, maka menimbulkan kebimbangan. Keputusan kajian juga menunjukkan bahawa persepsi terhadap sokongan organisasi mempunyai hubungan positif yang signifikan dengan penglibatan kerja dan ketiga-tiga dimensinya. Daripada lima personaliti 'Big Five', hanya 'Openness to Experience' didapati mempunyai hubungan positif yang signifikan dengan penglibatan kerja dan ketiga-tiga dimensinya. 'Agreeableness' didapati tidak mempunyai hubungan signifikan dengan penglibatan kerja. Personaliti 'Big Five' yang lain, 'Conscientiousness', 'Extraversion', dan 'Neuroticism' didapati menunjukkan hubungan yang signifikan hanya dengan salah satu dimensi penglibatan kerja iaitu 'Vigor'. Selain itu, keputusan juga menunjukkan bahawa persepsi terhadap sokongan organisasi dan 'Openness to Experience' adalah penentu yang paling kuat bagi penglibatan kerja dan dimensinya. Hasil kajian ini mencadangkan bahawa institusi pengajian tinggi perlu memberi tumpuan kepada pengambilan calon dengan ciri-ciri personaliti tertentu dan meningkatkan sokongan organisasi untuk mencapai tenaga kerja akademik yang sangat terlibat.

Kata Kunci: penglibatan kerja, personaliti 'big five', persepsi terhadap sokongan organisasi, kakitangan akademik

ACKNOWLEDGEMENT

I would like to take this opportunity to express my heartfelt gratitude to all the individuals who have contributed to the successful completion of my research paper. First and foremost, I am deeply indebted to my supervisor, Dr. Edora Binti Ismail, for her exceptional guidance, unwavering support, and insightful feedback throughout this research endeavour. Her expertise and mentorship have been invaluable in shaping the direction and enhancing the quality of this work. I am grateful for her patience, encouragement, and dedication to my academic growth.

I extend my sincere appreciation to Dr. Houcine Meddour, the examiner, and Mr. Mohd Rasul bin Mohammad Noor, the chairperson of my Viva session, for their valuable time, expertise, and thoughtful suggestions. Following, my heartfelt thanks go to my friends who have been with me on this journey. Your camaraderie, stimulating discussions, and moral support have played a pivotal role in keeping me motivated and inspired during challenging times. I am also deeply grateful to the participants of this study, who generously shared their time, experiences, and insights. Their willingness to be part of this research has provided valuable data and enriched the findings of this research paper.

My appreciation extends to my family for their unwavering love, encouragement, and belief in my abilities. Their constant support and sacrifices have been a source of strength and motivation throughout my academic pursuit. I am forever grateful for their presence in my life. Lastly, I would like to acknowledge the countless unnamed individuals who, in various ways, have contributed to my academic and personal development. Whether through thought-provoking conversations, assistance with data collection, or moral support, your contributions have not gone unnoticed. Thank you for being part of my journey.

TABLE OF CONTENT

CERTIFICATION OF THESIS WORK.....	ii
PERMISSION TO USE.....	iii
ABSTRACT.....	iv
ABSTRAK.....	v
ACKNOWLEDGEMENT.....	vi
TABLE OF CONTENT.....	vii
LIST OF TABLES.....	xiii
LIST OF FIGURES.....	xv
LIST OF APPENDICES.....	xvi
LIST OF ABBREVIATION.....	xvii
CHAPTER ONE INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.2 Problem Statement.....	6
1.3 Research Questions.....	12
1.4 Research Objectives.....	12
1.5 Significance of the Study.....	13
1.6 Scope of the Study.....	15
1.7 Definition of Key Terms.....	15
1.7.1 Work Engagement.....	15
1.7.2 Conscientiousness.....	15
1.7.3 Extraversion.....	16
1.7.4 Agreeableness.....	16
1.7.5 Neuroticism.....	16

1.7.6 Openness to Experience.....	17
1.7.7 Perceive Organizational Support.....	17
1.8 Organization of the Study.....	17
CHAPTER TWO LITERATURE REVIEW.....	19
2.1 Introduction.....	19
2.2 Malaysian Higher Education Institutions: A Brief Overview.....	19
2.3 Work Engagement.....	21
2.3.1 Definition and Conceptualisation of Work Engagement.....	21
2.3.2 Measurement of Work Engagement.....	24
2.4 Factors Influencing Work Engagement.....	33
2.4.1 Personality Traits and Work Engagement.....	33
2.4.1.1 Personality Traits.....	33
2.4.1.1.1 Conscientiousness.....	36
2.4.1.1.2 Extraversion.....	37
2.4.1.1.3 Agreeableness.....	37
2.4.1.1.4 Neuroticism.....	37
2.4.1.1.5 Openness to Experience.....	38
2.4.1.2 Measurement of Personality Traits.....	39
2.4.1.2.1 Conscientiousness and Work Engagement.....	39
2.4.1.2.2 Extraversion and Work Engagement.....	43
2.4.1.2.3 Agreeableness and Work Engagement.....	45
2.4.1.2.4 Neuroticism and Work Engagement.....	48
2.4.1.2.5 Openness to Experience and Work Engagement.....	50
2.4.2 Perceived Organizational Support and Work Engagement.....	54

2.4.2.1 Perceived Organizational Support.....	54
2.4.2.2 Measurement of Perceived Organizational Support.....	56
2.4.2.2.1 Perceived Organizational Support and Work Engagement....	56
2.5 Gaps in the Literature.....	61
2.6 Underpinning Theory in the Study.....	64
2.7 Hypotheses of Study.....	67
2.7.1 Relationship Between Personality Traits and Work Engagement.....	67
2.7.2 Relationship Between Perceived Organizational Support and Work Engagement.....	68
2.8 Conceptual Framework.....	69
2.9 Chapter Summary.....	70
CHAPTER THREE METHODOLOGY.....	72
3.1 Introduction.....	72
3.2 Research Design.....	72
3.3 Unit of Analysis and Population of the Study.....	73
3.4 Sample Size and Sampling Techniques.....	74
3.5 Measurement of Variables.....	74
3.5.1 Measures of Dependent Variable.....	75
3.5.1.1 Work Engagement.....	75
3.5.2 Measures of Independent Variables.....	76
3.5.2.1 Personality Traits.....	76
3.5.2.2 Perceived Organizational Support.....	77
3.5.3 Demographic Profile.....	78
3.6 Questionnaire Design and Instrumentation.....	79

3.7 Pilot Test.....	80
3.7.1 Reliability Statistics.....	85
3.8 Data Collection Procedure.....	87
3.9 Data Analysis Method.....	88
3.10 Chapter Summary.....	90
CHAPTER FOUR RESULTS.....	92
4.1 Introduction.....	92
4.2 Response Rate.....	92
4.3 Preliminary Data Screening and Analyses.....	93
4.3.1 Accuracy of Data File and Detection of Missing Data.....	93
4.3.2 Detection of Univariate and Multivariate Outliers.....	94
4.3.3 Normality Test.....	95
4.3.4 Checking of the Major Assumptions of Multiple Regression.....	97
4.3.4.1 Sample Size.....	97
4.3.4.2 Multicollinearity.....	98
4.3.4.3 Normality, Linearity, and Homoscedasticity of Residuals.....	99
4.3.4.4 Independence of Errors.....	99
4.3.4.5 Conclusion on the Assumptions of Multiple Regression.....	100
4.4 Descriptive Analysis.....	100
4.4.1 Demographic Profile of The Study Participants.....	100
4.4.2 Descriptive Statistics of the Study Key Variables.....	105
4.4.2.1 Work Engagement and Its Three Dimensions.....	107
4.4.2.2 Personality Traits.....	109
4.4.2.3 Perceived Organizational Support.....	111

4.5 Reliability Statistics.....	112
4.6 Inferential Analysis.....	113
4.6.1 Correlation Analysis.....	113
4.6.2 Standard Multiple Regression Analysis.....	117
4.7 Overall Hypotheses Testing Results.....	122
4.8 Chapter Summary.....	122
CHAPTER FIVE DISCUSSION.....	124
5.1 Introduction.....	124
5.2 Summary of Study.....	124
5.3 Discussion of Results.....	126
5.3.1 The Level of Work Engagement.....	126
5.3.2 The Relationship Between Conscientiousness and Work Engagement..	128
5.3.3 The Relationship Between Openness to Experience and Work Engagement.....	129
5.3.4 The Relationship Between Extraversion and Work Engagement.....	131
5.3.5 The Relationship Between Agreeableness and Work Engagement.....	132
5.3.6 The Relationship Between Neuroticism and Work Engagement.....	133
5.3.7 The Relationship Between Perceived Organizational Support and Work Engagement.....	134
5.4 Implications of the Study.....	135
5.4.1 Theoretical Implications.....	135
5.4.2 Practical Implications.....	138
5.5 Limitations and Future Directions.....	140
5.6 Conclusion.....	142

REFERENCES.....	145
APPENDICES.....	191



LIST OF TABLES

Table 1.1	Level of Employee Engagement Across the World in 2022.....	2
Table 3.1	Research Constructs and Sources.....	79
Table 3.2	The Demographic Profile of The Pilot Study Respondents ($N = 30$)	82
Table 3.3	Summary of Cronbach's Alpha Coefficient Values of the Scales in the Pilot Study.....	86
Table 4.1	Summary of Multivariate Outliers.....	95
Table 4.2	Summary of Results of the Normality Test.....	97
Table 4.3	Summary of Tolerance and VIF Values for Each Variable.....	98
Table 4.4	Summary of Results of the Durbin-Watson Test.....	100
Table 4.5	The Demographic Profile of The Study Participants ($N = 390$).....	104
Table 4.6	The Descriptive Statistics of Work Engagement and Its Three Dimensions ($N = 390$).....	109
Table 4.7	The Descriptive Statistics of The Big Five Personality Traits ($N = 390$).....	111
Table 4.8	The Descriptive Statistics of Perceived Organizational Support ($N = 390$).....	112
Table 4.9	Summary of Cronbach's Alpha Coefficient Values of the Scales in the Actual Study.....	113
Table 4.10	Correlations among Conscientiousness, Openness to Experience, Extraversion, Agreeableness, Neuroticism, Perceived Organizational Support, Work Engagement, Vigor, Absorption, and Dedication ($N = 390$).....	116
Table 4.11	Results of the Standard Multiple Regression Models for Work Engagement and the Three dimensions ($N = 390$).....	121

Table 4.12 Summary of Findings.....	122
-------------------------------------	-----



LIST OF FIGURES

Figure 2.1 The Hypothesized Relationships Between Personality Traits, Perceived Organizational Support, and Work Engagement.....	70
---	----



LIST OF APPENDICES

Appendix 1	Questionnaire.....	191
Appendix 2	Descriptive Statistics of Demographic Variables (Pilot Test).....	198
Appendix 3	Results of Reliability Analysis (Pilot Test).....	200
Appendix 4	Univariate Outliers: Boxplot for Each Variable.....	212
Appendix 5	Multivariate Outliers: Mahalanobis Distance.....	222
Appendix 6	Normality Test: Kolmogorov-Smirnov Statistics for Each Variable.....	224
Appendix 7	Normality Test: Histogram for Each Variable.....	226
Appendix 8	Normality Test: Normal Q-Q Plot for Each Variable.....	231
Appendix 9	Multiple Regression Analysis.....	236
Appendix 10	Scatterplots.....	240
Appendix 11	Normal P-P Plots of the Regression Standardised Residual.....	242
Appendix 12	Pearson Correlation Analysis.....	244
Appendix 13	Descriptive Statistics of Demographic Variables (Actual Study)..	245
Appendix 14	Descriptive Statistics of Independent and Dependent Variables (Actual Study).....	247
Appendix 15	Results of Reliability Analysis (Actual Study)	252

LIST OF ABBREVIATION

JD-R	Job Demands–Resources
BFI	Big Five Inventory
UWES	Utrecht Work Engagement Scale
SPOS	Survey of Perceived Organizational Support
SPSS	Statistical Package for Social Sciences
MOHE	Ministry of Higher Education
HRD	Human Resource Development
SME	Small and Medium-Sized Companies
IV	Independent Variable
DV	Dependent Variable
UUM	Universiti Utara Malaysia
WOU	Wawasan Open University
OUM	Open University Malaysia
PSAS	Politeknik Sultan Azlan Shah
PhD	Doctor of Philosophy
DBA	Doctor of Business Administration
VIF	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the past few years, the concept of work engagement has gained unprecedented popularity and attention among organizational researchers (Amor, Vázquez & Faíña, 2020; Contreras, Abid, Govers & Saman Elahi, 2021) as well as corporate practitioners (Bailey, Madden, Alfes & Fletcher, 2017). Work engagement is often referred to as a positive, pleasing, job-related mental condition that is distinguished by absorption, vigor, and dedication (Schaufeli, Salanova, González-Romá & Bakker, 2002). Engagement has emerged as a vital part of comprehending and improving not only an employee's performance but also the company's overall performance (Singh, 2015). It is now an essential element in the management of organisations owing to its impact on organisations' competitiveness and effectiveness in addition to its connections to the elevated degree of both organisational and personal performances (Martinez, Salanova & Cruz-Ortiz, 2020; Lesener, Gusy, Jochmann & Wolter, 2020). Many have also stated that engagement is critical to an organization's success because the performance of an employee is not only determined based on his intellectual abilities but also based on his behaviour towards his job and the company (Ulrich, 2007).

Employees who are engaged within a firm have been proven to be increasingly proactive, to promote creativity, as well as strive to enhance organization's performance (Quandt, Silva, Ferraresi & Frega, 2019; Ruiz-Zorrilla, Hernández, De Roda, Antino & Rodríguez-Muñoz, 2020). They also generate significantly greater results, better utilise their personal resources, are more likely to retain in their

company, and are less inclined to quit (Ferreira, Gabriel, Faria, Rodrigues & Sousa Pereira, 2020; Bakker, 2011; Nguyen & Pham, 2020). Disengaged employees are often costly for the companies, and such individuals leave or move to other competitive companies (Naicker, 2013). Consequently, an organization with disengaged workers bears the risk of losing its competitive edge (Kweh, Yao, Darun, Juan & Ting, 2020). Therefore, work engagement needs to be prioritised as it is believed to be the catalyst to an organisation's success, effectiveness, and competitiveness (Saks & Gruman, 2014; Sanda & Awalusi, 2014).

Organizations today give additional interest and attention to factors improving work engagement in order to maximize employees' effectiveness and harness them toward the accomplishment of the company's goals. Efficient development of employee work engagement can boost workers' productivity in the phase of accomplishing the firm's business goals (Azmy, 2019). Despite the convincing positive outcomes of work engagement, organizations around the world continue to report significantly low levels of engagement.

Table 1.1
Level of Employee Engagement Across the World in 2022

Regions	% Engaged
The United States and Canada	31
The Middle East and North Africa	15
South Asia	33
Australia and New Zealand	23
Post-Soviet Eurasia	27
Europe	13
Latin America and the Caribbean	31
Sub-Saharan Africa	20
Southeast Asia	26
East Asia	17
Europe	13

Source: Gallup's State of the Global Workplace 2023 Report

According to Gallup's State of the Global Workplace 2023 Report, the average level of employee engagement across the world is only 23 percent in 2022. The report further revealed that although employee engagement has increased by 2 points from the last year, many world's employees are still 'not engaged' (59 percent) or 'actively disengaged' (18 percent) at work (Gallup, 2023). Table 1.1 shows the level of employee engagement across the region in 2022. Based on the table, it can be evidently seen that the engagement level of employees in certain regions is remarkably low and unsatisfactory. Achievers (2021) surveyed 2,000 employees from the United States of America and Canada in 2021. The results of the survey revealed that only 21 percent of the employees they surveyed were completely engaged, whereas another 24 percent were engaged, 31 percent were having an average engagement, 9 percent were disengaged and 15 percent were completely disengaged. A survey by Qualtrics on more than 28,808 full-time workers from 27 countries found the average level of employee engagement was 67 percent in 2022 (Qualtrics, 2023).

In the Malaysian context, Gallup's latest data on Malaysia's employee engagement trend (aggregated from 2020 to 2022) revealed that on average at least 21.77 percent of Malaysian employees were engaged, 66.64 percent were not engaged, and 11.59 percent were actively disengaged (Gallup, n.d.). Aon's Trends in Global Employee Engagement 2018 Report indicated workers in Singapore and Malaysia are the least engaged in Asia at 59 percent (Aon, 2018). Mercer (2022) claimed that at least one in every four Malaysian workers is disengaged at work. In another study by Qualtrics in 2019, it was found the average employee engagement level across Malaysia was 54 percent (Qualtrics, 2020). The above statistics indicate that many employees in Malaysia are still disengaged. Gallup's State of the Global Workplace 2021 Report stated that organizations, especially leaders will not be able to persistently attain their

goals and targets if 80 percent of their workforce is not engaged at work (Gallup, 2021). In fact, one of the most serious impacts of low levels of engagement is the economic consequence or financial loss (Young, Glerum, Wang & Joseph, 2018). According to Schwartz (2012), businesses with low levels of employee engagement ultimately lose 33 percent of their yearly operating income and 11 percent in yearly earnings growth. Hence, it is critical to remember, it is the individuals that work in the company that would bring the company towards significant positive outcomes both in terms of productivity and management.

Like any other industry, work engagement is also vital in higher education settings (Brew & Machiha, 2019). In institutions of higher education, faculty members or more commonly known as academic staff or personnel play a crucial role in the operation and functioning of the universities (Basarudin, Yeon, Yacoob & Rahman, 2016). The academic staff serves as a source of competitive excellence for the institutions, considering their skills, knowledge, and experiences are irreplaceable (Shrand & Ronnie, 2019). Indeed, in comparison to any other sector, the academic sector depends greatly on the commitment and engagement of its academic staff (Oshagbemi, 2000). The engagement of academic staff has an evidently positive influence on students' excellence as well as the accomplishment of educational goals (González-Rico, Carvalho, Chambel & Guerrero, 2018). Alzyoud, Othman and Isa (2015) propose that a strongly engaged academic staff reflects the enhancement in productivity as well as an improvement in the reputation of their individual academic institutions. Thus, it is vital for academic staff to be completely committed and engaged in their job in order to offer students a positive learning experience and to deliver research that aids in the enhancement of the community or society (Brew & Machiha, 2019).

While work engagement is considered critical in the higher educational institution, the teaching career is renowned for posing numerous work demands which could hinder academic staff from being completely engaged (Travers & Cooper, 1996). The past few years have witnessed a global rise of demands in higher education institutions resulting from the significant cutbacks by the government in public universities funding, rapid expansion in students' enrollments, enhanced emphasis on high-quality teaching and research, global and local competition as well as new technological advancements (Bell, Rajendran & Theiler, 2012). Most of the institutions also record a rise in student enrollment apart from a rise in administrative responsibilities among university staff (Naidoo-Chetty & Plessis, 2021). According to Gomes, Faria and Gonçalves (2013), the current academic work climate is described by elevated demands in terms of workloads, pressure to publish research, massive and frequent organizational change or restructuring, and reductions in government financing.

Furthermore, academic staff also have to deal with the strains of competing demands and requirements like balancing conventional workloads (e.g., teaching internationally) with emerging pressures (e.g., online method), attempting to balance teaching with research, and generating money for the institution via research grant or research publications (Churchman, 2006). Additionally, academic staff is anticipated to perform a variety of roles in the workplace, such as lecturing, doing research, consulting, and overseeing research or doctoral students (Cummins, Brown & Sayers, 2007). Azlan, Rosnah and Rizal (2017) claimed an escalation in academic staff's workload will impact their productivity which will then result in decreased work engagement. Amir and Fadhilah (2022) argued some of the demands and workloads will adversely impact academic staff's engagement with their work role. Hamzah, Nordin, Dwiyanti, Na'imah and Mawi (2021) further highlighted that academic staff's

well-being might be in danger due to their workloads as well as demands, which may have an impact on their work engagement. In light of the rise in pressure and demands, it is critical for academic staff to be equipped with sufficient resources to deal with these heavy demands and foster work engagement. It also becomes vital for organizations to understand and determine the factors that might contribute to work engagement among academic staff.

1.2 Problem Statement

Higher education institutions play an important function in fostering economic growth and advancement as well as fulfilling the social requirements of the 21st century (Inglesi-Lotz & Pouris, 2014). In recent times, stress has been placed on both Malaysian public and private higher education institutions to develop and produce graduates with the essential skill sets, knowledge, and capabilities in order for them to thrive and effectively handle the difficulties of the working world (Hassan, Jani, Som, Hamid & Azizam, 2015). Grapragasem, Krishnan and Mansor (2014) claimed that this is consistent with the Malaysian Education Blueprint (2015–2025), that seeks to make sure that all Malaysian higher education institutions achieve world-class standards in terms of education and eventually transform Malaysia into an educational establishment or hub in Southeast Asia. Thereby, the plans or strategies of this blueprint typically involve enhancing the current educational system, fostering higher-order-thinking skills among university students as well as increasing the quality of academicians (Nagalingam, Kadir & Hoesni, 2019).

Subsequently, academic staff at Malaysian higher education institutions are currently experiencing expansion in their roles and responsibilities in an attempt to accelerate the growth of graduates who are competent and balanced in all aspects including

emotional, physical, and intellectual (Nagalingam et al., 2019). The expansion in current duties and responsibilities necessitates academic staff to handle a variety of roles that include educator, researcher, consultant, counsellor, and administrator in comparison with the previous role whereby academicians placed a higher emphasis on teaching students (Sidek, Dora, Kudus & Hassan, 2012). Academic staff is anticipated to adopt innovative approaches in teaching, including incorporating technology into the teaching setting. As a result of the broader job responsibilities, teaching has evolved into a career that requires a greater degree of dedication and commitment, considering academic staff is mainly accountable for educating and shaping higher education institutions students with the necessary skills, abilities, and knowledge (Nazari, Pihie, Basri & Idris, 2012).

Nagalingam et al. (2019) reported an average level of engagement among lecturers in Malaysia in their studies. Idris (2009) argues that the Malaysian academic staff is demotivated toward their work due to workloads. Jameel and Ahmad (2020) claimed that academicians recognise that their work satisfaction level has declined as their workloads and strains have risen, which has led to demotivation and unsatisfactory performance outcomes (Kenny, 2018). It should be asserted that the academicians, who comprise the majority of higher education institutions' workforce, are under a great deal of strain due to the pressure to meet the institution's targets in addition to their excessive workloads. Academic staff who are dissatisfied with their profession exhibit minimal commitment, low engagement, and poor performance (Tengah, 2022).

In fact, the average yearly turnover rate of Malaysian academic staff is above 26 percent for private universities and 11 percent for public universities (Orpina, Abdul Jalil & Ting, 2022). The increased turnover intentions among Malaysian academic

staff reflects their diminished level of engagement as Gallup (2017) claimed that engaged workers are more inclined to stay in their organizations. Othman, Asri, Alias, Jahya and Krishnan (2021) posited that the level of work engagement among academic staff in Malaysia has been greatly affected as numerous re-structuring events and changes have been recently introduced into the institutions of higher learning via transformation programmes by the government (Azman, Jantan & Sirat 2011). Because of these challenges, Malaysian academic staff needs to have a strong level of work engagement in order to enhance their skill sets, maintain a harmonious working relationship, regulate workload, and enhance their work quality (Ali, 2014).

For academic staff to be fully engaged in their work, certain antecedents or resources need to be present. Researchers have investigated a wide variety of potential causes of engagement (Halbesleben, 2010). The majority of these researches have concentrated on the function of work-related resources in determining engagement, consistent with a wide variety of theoretical concepts such as broaden-and-build theory (Fredrickson, 2001), job characteristics theory (Hackman & Oldham, 1980), conservation of resources theory (Hobfoll & Shirom, 2000; Gorgievski & Hobfoll, 2008), self-determination theory (Ryan & Deci, 2000), job demands-resources (JD-R) theory (Bakker & Demerouti, 2008), and social cognitive theory (Bandura, 1997). In fact, all of the aforementioned theories propose that resources should enhance engagement (Halbesleben, 2010). According to Schaufeli (2014), resources energise workers and promote engagement, which as a result produces beneficial outcomes like increased well-being, efficiency as well as performance. The JD-R theory categorizes resources in the form of personal resources and job-related resources (Bakker & Demerouti, 2016). In the JD-R theory or model, individual factors are regarded as personal

resources (Fukuzaki & Iwata, 2022) and organizational factors are considered job-related resources, that relate to workplace resources.

Personality trait is one of the important individual factors that affect the engagement of employees. Many studies have proposed that an employee's personality traits or disposition affect work engagement (Blatný et al., 2018; Luta, Powell & Spence, 2019; Hau & Bing, 2018; Janssens, De Zutter, Geens, Vogt & Braeckman, 2019; Fukuzaki & Iwata, 2022). The personality traits of an individual play an important role in the way he or she functions as well as the enthusiasm and effectiveness with which he or she carries out his or her work (Deniz & Satıcı, 2017; Mirbaha, Kashani, Arhami Dolatabadi, Amini, Meschi & Baratloo, 2017). Ansari (2020) further highlighted that personality traits can influence how individuals perceive antagonistic circumstances as well as their physiological effects. For example, two individuals working in a similar setting might have a distinct level of engagement. This distinction can arise due to their unique and different personality characteristics (Ongore, 2014).

Additionally, it has been asserted that some personality traits represent a tendency for engagement because of their unique and distinct behavioural traits (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009). Preliminary findings propose that low levels of neuroticism as well as high levels of conscientiousness, extraversion, openness to experience, and agreeableness, were associated with an enhanced level of work engagement (Akhtar, Boustani, Tsivrikos & Chamorro-Premuzic, 2015). Other research in this area also discovered a significant connection between the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) and engagement (Mhlanga, Mjoli, Chamisa &

Marange, 2021; Mat, Jansriboot & Mat, 2019; Pérez-Fuentes, Molero Jurado, Martos Martínez & Gázquez Linares, 2019; Mhlanga, Mjoli & Chamisa, 2019).

Despite the strong link between personality traits and engagement, a review of the antecedent variables show that numerous studies have investigated the influence of different organizational factors on engagement (Meskelis & Whittington, 2020; Lee, Shin, Park, Kim & Cho, 2017) and individual factors like personality traits were inadequately examined with regard to engagement (Saks & Gruman, 2014; Mhlanga et al., 2019; Borah & Barua, 2018). Thus, the present study incorporates the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) for study purposes and to investigate the effect of each dimension in the big five personality traits on work engagement. This study believes that this is a beneficial area for an investigation that enriches the understanding of academic staff's work engagement.

In addition, perceived organizational support has also been found to be a significant factor contributing to work engagement in the work environment (Xu, Zhang, Bu & He, 2021; Li, Mohamed, Mahomed & Khan, 2022; Stefanidis & Strogilos, 2021; Imran, Elahi, Abid, Ashfaq & Ilyas, 2020; Jangsiriwattana, 2021; Arokiasamy, 2021). According to the organizational support theory, workers are likely to display enhanced positive outcomes when they acknowledge that they are being cared for and valued by their firms (Eisenberger, Rhoades Shanock & Wen, 2020). An individual who perceives organisational support from his firm is likely to be extra enthusiastic, highly motivated, have optimistic behaviours at the worksite, and become increasingly engaged in his job (Khajuria & Khan, 2022).

Nevertheless, based on the reviewed literature in chapter three, it was found that a significant number of engagement, personality traits, and perceived organizational support studies were done locally, internationally, and in various sectors, however, it remains under researched within the higher education sector and among academic staff in Malaysia. Also, there is no known study being carried out on the effect of the big five personality traits and perceived organizational support on academic staff's work engagement in one study within the Malaysian setting. Besides that, most of the studies that have investigated the link between the big five personality traits or perceived organizational support and engagement, measured engagement as a one-dimensional construct rather than a three-dimensional construct (e.g., vigor, dedication, and absorption).

Past studies on personality traits, perceived organizational support, and engagement have also reported several other limitations, lacks, and gaps, such as: (1) limited literature on engagement in developing countries, public and non-profit organizations, a specific industry, and specific type of occupations; (2) the findings on the link between the big five personality traits and work engagement seem to be mixed and unsettled; (3) the usage of the short version of the Big Five Inventory (BFI-10) in the study has caused some losses in assessing personality traits adequately due to its brief nature; (4) the usage of a 9-item version of the Utrecht Work Engagement Scale (UWES-9) instead of UWES-15 or UWES-17 was less appropriate to measure the different dimensions of work engagement.

The above-mentioned unexplored areas, dimensions, and issues appear to be important and worthy of investigation as they could enrich the existing body of knowledge in the area of work engagement. The present study incorporates the limitations, lacks, and

gaps reported in previous studies and therefore tries to examine the relationship between the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness), perceived organizational support, and work engagement (including its three dimensions) among academic staff in Malaysia.

1.3 Research Questions

Drawing from the above problem, six research questions were developed, which are:

1. Is there any relationship between conscientiousness and work engagement among academic staff in Malaysia?
2. Is there any relationship between openness to experience and work engagement among academic staff in Malaysia?
3. Is there any relationship between extraversion and work engagement among academic staff in Malaysia?
4. Is there any relationship between agreeableness and work engagement among academic staff in Malaysia?
5. Is there any relationship between neuroticism and work engagement among academic staff in Malaysia?
6. Is there any relationship between perceived organizational support and work engagement among academic staff in Malaysia?

1.4 Research Objectives

The six proposed objectives are:

1. To examine the relationship between conscientiousness and work engagement among academic staff in Malaysia.

2. To determine the relationship between openness to experience and work engagement among academic staff in Malaysia.
3. To identify the relationship between extraversion and work engagement among academic staff in Malaysia.
4. To analyze the relationship between agreeableness and work engagement among academic staff in Malaysia.
5. To investigate the relationship between neuroticism and work engagement among academic staff in Malaysia.
6. To examine the relationship between perceived organizational support and work engagement among academic staff in Malaysia.

1.5 Significance of the Study

As for theoretically, this study significantly enriches the existing body of knowledge. The result of conducting this research and its findings is very important in providing some insights into the individual and organizational factors (resources) that are needed to encourage work engagement among academic staff in Malaysia. Despite the increasing significance and interest in work engagement, the impact of individual factors, especially personality traits on engagement remains under-researched (Saks & Gruman, 2014; Mhlana et al., 2019; Borah & Barua, 2018). This research is particularly significant for scholars as it provides a deeper understanding of the role of the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) in predicting work engagement among academic staff in Malaysia.

Besides, a significant number of engagement, personality traits, and perceived organizational support studies were done in local, abroad, and various sectors,

however, it remains under-researched within the higher education sector and among academic staff in Malaysia. This research takes a holistic approach in understanding work engagement and investigates the effect of both the big five personality traits and perceived organizational support on academic staff's work engagement within the Malaysian setting, which no known researchers have explored. Also, this study explores the different dimensions of work engagement (vigor, absorption, and dedication) and measures work engagement as a three-dimensional construct. Thus, the findings of this research could enrich the existing body of knowledge in the area of work engagement from the perspective of human resource management as well as organisational psychology.

In the practical aspects, this study is significant as it helps the management of higher education institutions in addressing the factors that contribute to academic staff work engagement. The findings also provide leaders, policymakers, practitioners, and the management of higher education institutions in three significant ways. First, the findings offer leaders, policymakers, practitioners, and the management of higher education institutions relevant information on how employees' personality affects work engagement in the working environment. If the finding of the study is valid, then it could inform them of the necessity to take into account personality in the academic staff selection procedure, rewards and benefits, performance management, training and development as well as other human resource management initiatives. Secondly, this study also informs on the need for employers to provide the necessary support to the employees in order to get them more involved, committed, and engaged in their work. Finally, this study offers useful awareness that some of the human resource practices such as rewards, training and development, performance management, and others should be looked into more critically.

1.6 Scope of the Study

The major focus of this study is to examine the relationship between the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness), perceived organizational support, and work engagement among academic staff. The examination of these variables will shed light on the organisational and individual factors (resources) required to promote work engagement among academic staff. The respondents of this study were academic staff of higher education institutions (both public and private institutions) from all six regions of Malaysia, namely the Southern region, Northern region, East Coast, Central region, Sabah, and Sarawak. This study used a quantitative correlational research design where data were collected using questionnaires via an online survey method.

1.7 Definition of Key Terms

The variables utilised in this study are defined as follows:

1.7.1 Work Engagement

Work engagement is defined as a “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002).

1.7.2 Conscientiousness

Conscientiousness illustrates socially prescribed impulse control which fosters task as well as goal-directed behaviour, like thinking before acting, adhering to rules and norms, delaying gratification, and also planning, organising, and prioritising duties or tasks (John & Srivastava, 1999). Individuals who are high in conscientiousness are usually coordinated, responsible, reliable, and persistent. Low scorers on this

dimension are undependable, uncoordinated, and easily distracted (Robbins & Judge, 2016).

1.7.3 Extraversion

Extraversion reflects an energetic approach toward the material as well as the social world and encompasses traits like positive emotionality, sociability, assertiveness, and activity (John & Srivastava, 1999; John, Naumann & Soto, 2008). Individuals who are high in extraversion would be friendly, assertive, happier, ambitious, positive, and sociable. Whereas introverts (low in extraversion) are likely to be more restrained, unconfident, silent, and more thoughtful (Robbins & Judge, 2016).

1.7.4 Agreeableness

Agreeableness contrasts a communal orientation and prosocial towards individuals with antagonism and encompasses traits like modesty, altruism, trust, and tender-mindedness (John & Srivastava, 1999). Individuals who are high in agreeableness are usually trustworthy, friendly, and cooperative. On the other hand, individuals who score low on agreeableness are usually antagonistic and cold-hearted (Robbins & Judge, 2016).

1.7.5 Neuroticism

Neuroticism contrasts even-temperedness and emotional stability with negative emotions, like feeling tense, anxious, sad, and nervous (John & Srivastava, 1999). Individuals who are high in neuroticism tend to be vulnerable to stress and experience distressing feelings such as nervousness, worry, and depression. Those with a low level of neuroticism are likely to be optimistic, positive, experience fewer distressing feelings, and are usually happier compared to high scorers (Robbins & Judge, 2016).

1.7.6 Openness to Experience

Openness to experience illustrates the complexity, breadth, originality, and depth of a person's mental as well as experiential life (John & Srivastava, 1999). Individuals who are high in openness to experience are innovative, inquisitive, and artistically sensitive. Those with a low level of openness are likely to be conventional and seek comfort (Robbins & Judge, 2016).

1.7.7 Perceive Organizational Support

Perceived organizational support refers to the degree to which an employee believes that his organization appreciates or values his contribution and cares about his overall well-being (Eisenberger, Huntington, Hutchison & Sowa, 1986).

1.8 Organization of the Study

This study aims to examine the relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff in Malaysia. Overall, this study consists of five chapters. The first chapter discusses the background of the study, the problem statement, the research questions, and the research objectives. In addition, it also covers the scope of the research, the significance of the research as well as the definition of key variables or terms.

Chapter two presents literature reviews on personality traits, perceived organizational support, and work engagement. The chapter begins by defining the concept of work engagement and is then followed by empirical evidence from past research on work engagement. Then, it reviews how the big five personality traits and perceived organizational support are related to work engagement. Finally, this chapter concludes

by discussing the research gap, research hypotheses, conceptual framework, and underpinning theory of the study.

Chapter three discusses the research method employed in the present study. In this chapter, the research design, population, sample, sampling method, unit of analysis, location of the study, questionnaire design, instruments, results of the pilot study, procedures of data collection, and method of data analysis, have been described thoroughly.

Chapter four reports the results and findings of the study. It presents the complete statistical results of the study in the form of percentages, frequency, tables, charts, and text. There are also reports of preliminary data screening, descriptive statistical analysis, reliability analysis, bivariate analysis, and Standard Multiple Regression analysis. The data were tested by utilising Statistical Package for Social Sciences (SPSS) version 27 software.

Chapter five generally offers a comprehensive summarization of the study. It interprets the overall research findings and describes the general attained results. Not only that, this chapter also highlights the limitation of the study, some suggestions for future research, and the conclusion of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two reviews prior studies and relevant literature on the relationship between the independent variables (Personality Traits and Perceived Organizational Support) and the dependent variable (Work Engagement). The chapter begins by providing an overview of Malaysian higher education institutions, defining the concept of work engagement, and then followed by empirical evidence from past research on work engagement. This chapter then reviews how the big five personality traits and perceived organizational support are related to work engagement. Finally, this chapter concludes by discussing the research gap, research hypotheses, conceptual framework, and underpinning theory of the study.

2.2 Malaysian Higher Education Institutions: A Brief Overview

The Malaysian higher education sector is accountable for the operation and management of the higher education institutions in Malaysia under the purview of the Ministry of Higher Education (MOHE). This sector has been thriving and expanding rapidly over the past few decades (Tapsir, 2019). Following the establishment of the University of Malaya in 1949, the higher education system in Malaysia has developed through a combination of government-funded public institutions and private higher educational institutions. The government-funded public institutions consist of public universities, community colleges, and polytechnics. On the other hand, private higher educational institutions are the ones that are not financially supported by the Malaysian government and consist of private universities, private colleges, private university

colleges, and foreign branch campus universities. The availability of both public and private higher education has greatly enhanced Malaysian access to tertiary education (Tapsir, 2019). Currently, Malaysia is home to 20 public universities, 36 polytechnics, 105 community colleges, 54 private universities, 331 private colleges, 39 private university colleges, and 10 foreign branch campus universities (Policy Planning and Research Division, Ministry of Higher Education Malaysia, 2022). These higher education institutions are the primary elements in the national education ecosystem and training which aims to produce scholars, first-rate intellectuals, masters, as well as skilled and semi-skilled human resources in line with their relevant roles (MOHE, 2015).

Apart from that, a number of higher education institutions from the United Kingdom, Germany, New Zealand, Canada, Australia, the United States of America, and France also provide twinning graduate programs via collaboration with private higher educational institutions in Malaysia (Muthu & Chelliah, 2020). Several prestigious universities like the Royal College of Surgeons of Ireland, Royal Melbourne Institute of Technology University, and Johns Hopkins University School of Medicine have developed their partnerships with regional or local private higher educational institutions. Right now, five of the Malaysian public universities are designated with a research institution status with extra financial assistance for Research & development activities. The remaining fifteen public universities are classified as either focused or comprehensive universities (Muthu & Chelliah, 2020).

The Malaysian higher education landscape is basically driven by the Malaysian Education Blueprint (2015–2025). This blueprint seeks to transform the higher education system of Malaysia and strives to produce learned, value-driven talents who

will aid in the advancement of the country (Ministry of Education Malaysia, 2015). In terms of quality assurance, the Malaysian Qualifications Agency is mainly responsible for ensuring the quality of higher education for both the public and private sectors in Malaysia through the development and establishment of the Malaysian Qualification Framework. This entity generally monitors and oversees the quality assurance practices along with the accreditation of Malaysian higher educational institutions (Malaysian Qualifications Agency, 2019). The provisions of Malaysian higher education are also closely and effectively regulated. In fact, various acts and legislations have been established, revised, and reviewed in order to regulate the higher education landscape (Khairani & Abdul Razak, 2013). Some of the applicable legislations which govern the Malaysian higher education landscape are the National Higher Education Fund Corporation Act 1997, the Education Act 1996, the Universities and University Colleges Act 1996, the Private Higher Educational Institutions Act 1996, the Malaysian Qualifications Agency Act 2007, and the National Council of Higher Education Act 1996.

2.3 Work Engagement

2.3.1 Definition and Conceptualisation of Work Engagement

Over the last twenty years, the number of studies on the concept of work engagement has surged rapidly (Bakker & Albrecht, 2018). Engagement has developed into a truly popular and well-used concept first in the business and consultancy areas, and lately in the academic world. However, the term work engagement and employee engagement are often utilised interchangeably in research (Schaufeli & Bakker, 2010). Zahari and Kaliannan (2022) claimed that there are slight differences between these two key concepts. Work engagement represents a psychological state in which an

employee devotes his concentration, time, affection, mentality, enthusiasm, intelligence, and energy into his work role. It is a narrow concept that reflects a part of an employee's work experience and concentrates on his work activities and performances while excluding the organizational aspects (Kossyva, Theriou, Aggelidis & Sarigiannidis, 2023). In other words, work engagement refers particularly to an individual's engagement with his job or work role (Schaufeli & Bakker, 2010). On the other hand, employee engagement represents a broader concept whereby an employee is not only engaged in his work roles but also in his work teams as well as his organization. It reflects the entire part of an employee's work experience and incorporates the relationship of an employee with his work, work team, and organization (Kossyva et al., 2023). This study prefers the term 'work engagement' because it is rather more precise and specific compared to the term 'employee engagement'.

The concept of engagement was very first introduced by a distinguished psychologist named William A. Kahn. He defined engagement as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (Kahn, 1990). In lay terms, an engaged worker exerts an enormous amount of effort because he or she identifies with it (Schaufeli & Bakker, 2010). Rothbard (2001), who was inspired by Kahn's (1990) and Kahn's (1992) work, conceptualised engagement as the attention dedicated to and the absorption in the job. The author also highlighted that attention is the time devoted to thinking about and focusing on the work role whereas absorption refers to having lost sense of time and getting immersed in work roles.

Nevertheless, it is the studies on burnout that have triggered the majority of the recent studies on work engagement (Bakker, Demerouti & Sanz-Vergel, 2022). Contrarily to those individuals who experience burnout, an engaged employee has an affective and energetic relationship with his work role and is likely to view his work as challenging rather than as demanding or stressful (Schaufeli & Bakker, 2010). Burnout scholars, Maslach and Leiter (2016), conceptualised work engagement as the opposite of burnout. According to Maslach and Leiter (2016), engagement is distinguished by efficacy, energy, and involvement, the exact opposites of the three burnout aspects which are known as inefficiency, cynicism, and exhaustion. A study on burnout and engagement by González-Romá, Schaufeli, Bakker and Lloret (2006) discovered that the key aspects of burnout (inefficiency, cynicism, and exhaustion) and engagement (dedication and vigor) are indeed the opposites of one another. Thus, an individual's work engagement is evaluated based on the opposite patterns of scores on burnout dimensions (e.g., inefficiency, cynicism, exhaustion).

According to Schaufeli et al. (2002), work engagement is a “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption”. Vigor is described as having a high degree of mental resistance and energy at the time of working and willingness to put in one's efforts in the work, as well as being persistent when encountering obstacles or difficulties. Vigor also denotes an individual's feeling that he possesses emotional energy, cognitive liveliness, and physical strength, an array of interconnected affective states undergone at work (Shirom, 2010). According to González-Romá et al. (2006), the continuum that is connected by emotional exhaustion and vigor was identified as ‘energy’. Dedication is characterised as strong psychological involvement in one's work and also having to experience a sense of pride, importance, challenge, enthusiasm, and inspiration (Schaufeli et al., 2002).

The continuum that is connected by cynicism and dedication was identified as ‘identification’ (González-Romá et al., 2006). Absorption is regarded as being completely focused and joyfully immersed at the time of working, by which time goes fast and one finds it impossible to disconnect from the work (Schaufeli et al., 2002). Absorption relates to being deeply engrossed in work and the magnitude of one’s focus on the work (Spreitzer, Lam & Fritz, 2010). It denotes a mental state that is more persistent and pervasive (Schaufeli & Bakker, 2010).

Overall, based on the different conceptualisations of work engagement, this research will utilise Schaufeli et al. (2002) conceptualisation of work engagement which is defined as a “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption”.

2.3.2 Measurement of Work Engagement

Engagement has surfaced as the most popular positive organisational term, specifically among organisational researchers as well as practitioners (Listau, Christensen & Innstrand, 2017). Numerous studies on the factors that influence engagement are present both locally (Abdullahi, Adeiza, Abdelfattah, Fatma, Fawehinmi & Aigbogun, 2022; Nagalingam et al., 2019; Arokiasamy & Tat, 2020; Chan, 2021; Tengah, 2022; Ibrahim, 2021; Hau & Bing, 2018; Nordin & Hamzah, 2021) and internationally (Mhlanga et al., 2021; Shi, Evans, Pan & Shan, 2022; Meskelis & Whittington, 2020; Mat et al., 2019; Ansari, 2020; Thavakumar, 2018; Janssens et al., 2019; Blatný et al., 2018; Fukuzaki & Iwata, 2022; Luta et al., 2019). And, varying types of factors have been examined with the concept of engagement both empirically and conceptually.

One of the studies that have examined the identified antecedents of engagement is a study by Wollard and Shuck (2011). Wollard and Shuck (2011) outlined 42

antecedents, consisting of 21 individual factors and 21 organizational factors, linked to engagement via a systematic review of the literature. This structured literature review revealed that only eleven individual antecedents (e.g., involvement in meaningful work, value congruence, absorption, core self-evaluation, dedication, work-life balance, higher levels of corporate citizenship, vigor, perceived organizational support, and link individual and organizational goals) and thirteen organizational antecedents (e.g., use of strengths, authentic corporate culture, supportive organizational culture, clear expectations, rewards, corporate social responsibility, positive workplace climate, job characteristics, perception of workplace safety, job fit, manager self-efficacy, level of task challenge, and manager expectations) were presented with empirical evidence.

In Chandani, Mehta, Mall and Khokhar's (2016) structured literature review of 30 research articles, numerous antecedents of engagement have been addressed at both organizational and individual levels. The study highlighted factors such as career development, effective management of talent, leadership, clarity of company values, policies and practices, respectful treatment of employees, company's standards of ethics, empowerment, fair treatment, performance appraisal, pay and benefits, health and safety, satisfaction, family friendliness, talent recognition, communication, nature of the job, organization politics, emotional factors, productivity factors, and personality are the key antecedents of engagement.

In a similar manner, Lee et al. (2017) also conducted a literature review of 24 empirical studies to analyse how engagement has been covered or discussed in four prominent human resource development (HRD) journals. The findings of the literature review revealed that meaningful work, training perception, supervisor or co-worker incivility,

servant leadership, perceived support, transformational leadership, and job resources were some of the antecedents of engagement that have been addressed in HRD empirical studies. Lee et al. (2017) further highlighted that transformational leadership is the antecedent of engagement that has been examined the most consistently in HRD research.

Further, Borah and Barua (2018) also conducted a structured literature review of 56 articles and argued that studies have primarily utilised organizational and job-associated variables as drivers of engagement. It was found job crafting, job characteristics, job fit, goal setting, job resources, and autonomy are among the most frequently analysed job-related antecedents by scholars. On the other hand, service climate, organizational support, social support, organizational justice, feedback, communication, learning opportunity, organizational culture, work-life balance, organizational identification, organizational resources, and teamwork are some of the most commonly assessed organizational-related antecedents by researchers.

In recent times, Kossyva et al. (2023) have also investigated the main antecedents of work engagement through a systematic literature review of 110 articles that were published between the years 2000 and 2021. Given the many antecedents that have been studied, Kossyva et al. (2023) organized the identified antecedents of work engagement into two categories as suggested by Wollard and Shuck (2011): 44 individual-related antecedents and 34 organizational-related antecedents. Based on the systematic literature review conducted and identified antecedents, the researchers called for further examination of a number of antecedents of engagement like objective job demand, personal resources, workaholism, intended and perceived high

commitment human resource management, emotional intelligence of a direct leader, objective job resources, and spiritual practices.

They also suggested that every identified antecedent of engagement should be studied in a different context (e.g., across different countries, industries or sectors, and type of organizations) as there are limited literature on engagement present particularly in developing countries, public (Zahari & Kaliannan, 2022) and non-profit organizations, specific industry, and specific type of occupations. Again, Bakker and Albrecht (2018), who studied the current trends in work engagement research, also made this point in their study. Bakker and Albrecht (2018) claimed that continuous research is required in order to refine and expand current knowledge in engagement. Future research should focus on to methodically understand what impacts engagement across specific industries (e.g., private, public, and non-profit organizations), in particular types of demographic groups (e.g., older employees, those with physical or mental conditions, and millennials), and in various occupations.

Generally, it can be clearly seen that studies on engagement have discovered that various antecedents predict engagement. Most of these identified factors of engagement have also been found to be either positively or negatively related to engagement. Proof of this is a study by Sarti (2014) which discovered that greater learning opportunities directly impact the level of work engagement of healthcare workers. Malik and Garg (2020) highlighted in their study that an organizational environment that offers a learning culture and opportunities for continuous learning fosters work engagement. Similar findings have also been found in studies by Rothmann and Rothmann (2010) and Newman, Joseph, Sparkman and Carpenter

(2011) which found learning opportunities as one of the strongest drivers of employee engagement or work passion.

Further, a study on employee voice and work engagement by Kwon, Farndale and Park (2016) found, in accordance with the JD-R model, direct employee voice serves as a significant antecedent, enhancing work engagement. Similarly, Conway, Fu, Monks, Alfes and Bailey (2016) also pointed out that employee experiences of voice were positively associated with engagement. Besides that, a cross-sectional study investigating the link between ethical leadership as well as work engagement, focusing on the moderating and mediating effects of job meaningfulness by Mostafa and El-Motalib (2020), revealed that work meaningfulness positively impacts work engagement. Likewise, Han, Sung and Suh (2021) also discovered a positive relationship between work meaningfulness and work engagement.

Several researchers have also proposed individual traits like conscientiousness, emotional intelligence, agreeableness, extraversion, openness to experience (Akhtar et al., 2015), proactiveness (Caniëls, Semeijn & Renders, 2018), and resilience (Ojo, Fawehinmi & Yusliza, 2021), as the prevalent factors determining work engagement as well as to be positively related to work engagement. Also, a cross-sectional study by Roof (2015) on 124 working adults from various industries in Canada and the United States of America discovered that spirituality was associated with work engagement and its two dimensions (dedication and vigor), however not with absorption. Along with this, Saks (2011) presented a workplace spirituality model and employee engagement, whereby the significance of workplace spirituality was emphasised for building and sustaining employee engagement as well as for meaningfulness at the job.

Lately, studies have also reported a positive association between positive psychological states (e.g., psychological ownership, motivation, perceived meaningfulness, and positive emotions) and engagement (Chai, Song & You, 2020; Meng, Wang, Xu, Ye, Peng & Gao, 2020; Malik & Khan, 2019; Hamzah & Nordin, 2022). Correspondingly, Miranda, Scotta, Méndez, Serra and Soria (2020) and Pirzada, Mirani, Phulpoto, Dogar and Mahar (2020) found a significantly negative association between the outcomes of negative psychological states (e.g., perceived stress, and employee silence) with work engagement. Up against the previous studies, in a study by Jiang, Lee and Xu (2020), challenge stressors which is another type of negative psychological state demonstrated a positive impact on work engagement. Jiang et al. (2020) further explained that the finding appears to oppose the JD-R model that proposes job demands to have a potentially negative effect on individual work engagement. Despite this contradictory finding, there are also various studies that have discovered findings in agreement with the JD-R theory (Idike, Egwu, Ugwu, Okorie & Akwara, 2020; Ugwu & Onyishi, 2020; Borst, Kruijen & Lako, 2019; Shaheen, Zulfiqar, Saleem & Shehazadi, 2020). These studies revealed that antecedents such as organizational cronyism, red tape, abusive supervisors, and perceived heavy workload (which are regarded as job demands) are to be negatively associated with work engagement.

Studies have also discovered that work engagement is significantly and positively impacted by organizational justice and its three dimensions (interactional justice, distributive justice, and procedural justice) (Pirzada et al., 2020; Lamprakis, Alamani, Malliari & Grivas, 2018). More specifically, it was discovered that all three facets of organizational justice are to be positively associated with organizational engagement, however only interactional and distributive justice are to be positively associated with

work engagement (Ghosh, Rai & Sinha, 2014). Saks (2006) conducted a study to investigate a framework of the consequences and antecedents of organisation and job engagements under social exchange theory among 102 workers working in different jobs and companies, and he found both job and organizational engagement were predicted by perceived organizational support. Jin and McDonald (2016) also found that work engagement was positively related to perceived organizational support. A similar finding has also been found in a study by Agarwal (2014) which investigated the influence of engagement, perceived organizational support, and leader-member exchange on workers' work behaviours among 510 managers from two western Indian-based service firms. The study highlighted that work engagement was positively related to perceived organizational support and leader-member exchange.

Studies have also shown that the antecedents, shared culture, corporate social responsibility, and transformational leadership, play a positive role in fostering engagement. A study by Reis, Trullen and Story (2016) on 208 professionals working in different Brazilian industries found cultures highlighting control, stability, and order (e.g., market culture & hierarchy) were negatively associated with work authenticity and the study also discovered that authenticity was positively related with work engagement. In terms of corporate social responsibility, Gupta and Sharma (2016) found that internal corporate social responsibility has a greater impact in engaging workers in comparison to external corporate social responsibility. Likewise, Mostafa and Shen (2020) also claimed that worker perceptions of internal corporate social responsibility were positively associated with engagement. In addition, several studies from various domains have examined transformational leadership as the antecedent of engagement and all discovered that transformational leadership positively impacted engagement (Gyensare, Kumedzro, Sanda & Boso, 2017;

Obuobisa-Darko, 2020; Ancarani, Arcidiacono, Mauro & Giammanco, 2020; Mauno, Ruokolainen, Kinnunen & De Bloom, 2016).

Following that, Sivapragasam and Raya (2017) claimed that human resource management practices play a vital role in fostering employee well-being, consequently employee performance, and engagement. Both Tensay and Singh (2020) and Pradhan, Dash and Jena (2019) also discovered a positive association between human resource management practices and engagement. Saks and Gruman (2018) explored how new recruits' work engagement can vary or go up and down during their first year of joining a firm, and the important role of organisational socialisation in fostering and sustaining new recruits' work engagement. Saks and Gruman's study highlighted that socialization resources like feedback, recognition, and supervisor support might be vital in this regard. A quantitative study by Alessandri, Consiglio, Luthans and Borgogni (2018) on 420 white-collar workers, revealed both the absolute levels as well as rises in psychological capital predicted subsequent escalation in work engagement which consequently, predicted job performance escalation.

Further, Akingbola and Van Den Berg (2017), Karatepe (2013), Wushe and Shenje (2019), and Almotawa and Shaari (2020) highlighted antecedents such as incentive programs, rewards, compensation, and recognition in their studies. According to Wushe and Shenje (2019), there is a positive link between incentive programmes, compensation, and employee engagement. Studies also found rewards (Akingbola & Van Den Berg, 2017; Karatepe, 2013) and recognitions (Akingbola & Van Den Berg, 2017) to be positively associated with work or organizational engagement. Nonetheless, a study by Almotawa and Shaari (2020) found a significantly negative relationship between recognition, incentive, and employee engagement, where the

finding contradicts the social exchange theory. Additionally, studies have also found psychosocial safety climate (Idris, Dollard & Winefield, 2011), psychological climate (Mahon, Taylor & Boyatzis, 2014), and learning climate (Eldor & Harpaz, 2016) to be positively related to work engagement or employee engagement. In studies by Christian, Garza and Slaughter (2011) and Rai and Maheshwari (2021), job characteristic (e.g., autonomy, feedback, task variety, and task significance) has positively predicted work engagement.

There is a plethora of research to support the antecedents of engagement. Not only engagement shares a positive relationship with a number of antecedents but it also has become increasingly apparent through the accomplishment of various positive results or consequences for both employees and companies. There are numerous positive outcomes of engagement. Some of the major positive outcomes of engagement include increased quality performance (Wickramasinghe & Perera, 2014), enhanced team or work performance (Costa, Passos & Bakker, 2015; Tims, Bakker, Derks & Van Rhenen, 2013; Idris et al., 2011), innovativeness (Huhtala & Parzefall, 2007; Orth & Volmer, 2017), increased discretionary effort (Shuck, Reio & Rocco, 2011; Anjali Daisy et al., 2017), reduced turnover intention (Saks, 2006; Burke, Koyuncu & Fiksenbaum, 2013; Shuck et al., 2011; Harter, Schmidt & Hayes, 2002), increased organizational citizenship behaviour (Kataria, Garg & Rastogi, 2012; Wickramasinghe & Perera, 2014; George, 2015; Saks, 2006), lower levels of work-family conflict (Burke et al., 2013), enhanced psychological capital (C. Barnes, E. Collier & Robinson, 2014), increased job satisfaction (Saks, 2006; Orgambidez-Ramos & de Almeida, 2017), increased career commitment (C. Barnes & E. Collier, 2013), and many others.

In summary, it is discovered that the concept of engagement is being broadened with growing literature. Engagement clearly shares a relationship with a variety of positive antecedents and outcomes. However, numerous studies have investigated the influence of different organizational factors on engagement (Meskelis & Whittington, 2020; Lee et al., 2017), and individual factors like personality traits were inadequately examined with regard to engagement (Saks & Gruman, 2014; Mhlanga et al., 2019; Borah & Barua, 2018). In addition, there are limited literature on engagement present particularly in developing countries, public (Zahari & Kaliannan, 2022) and non-profit organizations, specific industry, and specific type of occupations (Kossyva et al., 2023). In fact, although a significant number of engagement studies were done both locally and internationally in various industries, it remains under-researched within the higher education sector and among academic staff in Malaysia. Hence, this research was conducted to fill these gaps.

2.4 Factors Influencing Work Engagement

In this study, two important independent variables were studied. The first independent variable was personality traits. The big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) were analyzed. The second independent variable was perceived organizational support. These two independent variables have been predicted to have effects on work engagement.

2.4.1 Personality Traits and Work Engagement

2.4.1.1 Personality Traits

Research on personality has greatly increased in the last few decades across different domains. Over the years, countless distinct definitions and conceptualizations were

proposed for the term 'personality'. Mischel, Shoda and Ayduk (2007) claimed that although the term 'personality' has numerous different definitions, there is no single definition that is accepted universally. Despite this disagreement, most of the personality theorists concur that the term 'personality' was derived from a Latin word called 'persona' which denotes the theatrical masks worn by actresses and actors while performing a role in Greek dramas. A theatrical mask is worn by Roman actors to portray a character or false appearance (Feist & Feist, 2008). Feist and Feist (2008) stated that this shallow view of personality is certainly an unacceptable definition of the term 'personality'.

In reality, when psychologists utilise the concept of 'personality', they are specifying something broader than the role individuals play. There are two classic definitions of personality that are often used within psychology which are by Allport (1961) and Child (1968). According to Allport (1961), personality refers to a dynamic organization, within a person, of those psychophysical systems or processes that identify the person's thoughts as well as characteristic behaviour. Child (1968) illustrated personality as internal factors, which are more or less stable, that make an individual's behaviours constant over time, as well as distinctive from the behaviours other individuals would exhibit in similar circumstances.

Other theorists have also approached this global concept from different perspectives and definitions. According to Funder (2004), personality is an individual's characteristic patterns of cognition, behaviour, and emotions along with the psychological mechanism. Similarly, Pervin, Cervone and John (2005) described personality as a person's attributes that explain consistent patterns of thoughts, emotions, and behaviour. Askarian and Golkariee (2014) claimed personality is an

attribute with fairly consistent behavioural patterns which every individual exhibits either knowingly or unknowingly. Robbins and Judge (2016) defined personality as the overall ways in which a person reacts to and engages or interacts with others. According to the American Psychological Association (n.d.), the term ‘personality’ denotes the enduring behaviour and characteristics that encompass an individual’s unique or distinct adjustment to life, which include emotional patterns, major traits, abilities, interests, self-concept, drives, and also values.

Speaking about the definition of the concept of ‘personality traits’, earlier past studies on personality have attempted to determine and classify enduring characteristics that illustrate a person’s behaviour, using words such as timid, shy, loyal, aggressive, ambitious, submissive, and lazy. When a person demonstrates these characteristics in a significant number of circumstances and he is to some extent enduring over time, then it is regarded as ‘personality traits’ (James & Mazerolle, 2002; Roberts & Mroczek, 2008). In fact, McCrae and Costa (2003) conceptualised personality traits as “dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions”.

Over the years, people have also attempted to comprehend what makes individuals behave in different manners. As most of our behaviours are a result of our personalities, comprehending the elements of personality allow us to predict behaviour. Important assessment tools and theoretical frameworks enable us to classify and understand the dimensions of personality. The Myers-Briggs Type Indicator and the Big Five Personality Model are the most extensively utilised and well-known personality frameworks. Both frameworks outline an individual’s overall personality through an analysis of the dimensions of personality (Robbins & Judge, 2016).

Nevertheless, the Big Five Personality Model is supported by a remarkable body of research (Robbins & Judge, 2016) and it predominates in the field of personality traits.

The Big Five Personality Model is currently the most popular personality theory as it offers a thorough taxonomy and classification of personalities (Yin, Zhang & Liu, 2020; Baumgartner, 2002; Azagra-Caro & Llopis, 2017). The test scores of the Big Five personality traits demonstrate an exceptionally excellent role in predicting how individuals behave or act in a number of actual circumstances (Fleeson & Gallagher, 2009) and stay generally stable for a person in the long run, with some daily changes (Judge, Simon, Hurst & Kelley, 2014). These traits have been identified and explained by a number of scholars during several research eras and were utilised to comprehend the connection between personality and a range of behaviours (Shukla, Aggarwal, Adhikari & Singh, 2014). Thus, this study is based on the Big Five Personality Model. The Big Five Personality Model is composed of five basic facets, namely neuroticism, conscientiousness, openness to experience, agreeableness, and extraversion (Robbins & Judge, 2016).

2.4.1.1.1 Conscientiousness

This dimension illustrates socially prescribed impulse control which fosters task as well as goal-directed behaviour, like thinking before acting, adhering to rules and norms, delaying gratification, and also planning, organising, and prioritising duties or tasks (John & Srivastava, 1999). Jain and Ansari (2018) defined conscientiousness as the extent to which an individual is structured, methodical, timely, goal-oriented, and reliable. Taylor and De Bruin (2006) referred to conscientiousness as the effectiveness and efficiency at arranging, organizing, and carrying out activities. Costa

and McCrae (1992) described conscientiousness using a range of traits such as deliberation, competence, self-discipline, order, achievement striving, and dutifulness.

2.4.1.1.2 Extraversion

This dimension reflects an energetic approach toward the material as well as the social world and encompasses traits like positive emotionality, sociability, assertiveness, and activity (John & Srivastava, 1999; John et al., 2008). Similarly, Costa and McCrae (1992) outlined extraversion with a range of traits like positive emotions, warmth, excitement seeking, gregariousness, activity, and assertiveness. Taylor and De Bruin (2006) illustrated extraversion individuals as someone who are more confident when pursuing social connections and enjoy positive feelings. According to DeYoung, Quilty and Peterson (2007), extraversion refers to affiliation (a strong need for social connection) as well as social potency (a proactive approach of persuading others).

2.4.1.1.3 Agreeableness

This dimension contrasts a communal orientation and prosocial towards individuals with antagonism and encompasses traits like modesty, altruism, trust, and tender-mindedness (John & Srivastava, 1999). Wildermuth (2008) defined agreeableness as an attribute associated with deference to others, service orientation, as well as peace-seeking. According to Costa and McCrae (1992), agreeableness relates to a range of traits like tender-mindedness, modesty, straightforwardness, compliance, trust, and altruism.

2.4.1.1.4 Neuroticism

This dimension contrasts even-temperedness and emotional stability with negative emotions, like feeling tense, anxious, sad, and nervous (John & Srivastava, 1999).

According to McCrae and Costa (1987), neuroticism is conceptualised in terms of temper, worry, self-consciousness, and insecurity. It is expressed as a wide range of negative emotions like unhappiness, rage, anxiety, embarrassment, as well as anxious thoughts and actions that reflect ongoing affective concern. Taylor and De Bruin (2006) claimed neuroticism relates to a person's emotional stability and the tendency to consistently feel the negative consequences of their surroundings. Teng (2008) defined neuroticism as the extent to which an individual is stressed and worried, grumpy, temperamental, as well as gloomy.

2.4.1.1.5 Openness to Experience

This dimension illustrates the complexity, breadth, originality, and depth of a person's mental as well as experiential life (John & Srivastava, 1999). According to Mat et al. (2019), openness to experience relates to political liberalism, artistic and scientific innovation, and different thinking. Salgado (2002) defined openness to experience as the extent to which a person views experience level and creativity. The author also further explained that openness to experience reflects a person's overall scope of preferences, interest in creativity and innovations as well as tolerance of change. Costa and McCrae (1992) illustrated openness to experience with a range of traits like values, fantasy, ideas, aesthetics, actions, and feelings.

In short, the majority of definitions and conceptualisations that have been proposed for personality indicate a mental system, which is a cluster of psychological elements like thoughts, emotions, and motives. The conceptualisations differ slightly as to what those elements might be, but they all stem from the concept that personality entails a pattern of mental systems or the overall activity of the mind (Thavakumar, 2018). Therefore, for the purpose of this research, the conceptualization of McCrae and Costa

(2003) will be utilised which defined personality traits as “dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions”. This study will examine personality traits using the big five personality dimensions which include openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness (Robbins & Judge, 2016).

2.4.1.2 Measurement of Personality Trait

Previous studies have demonstrated that personality traits or the big five dimensions were associated with both job attitudes and behaviours. The big five dimensions were discovered to have an influence on job attitudes and behaviours such as counterproductive work behaviour (Kahya & Sahin, 2018; Smith & DeNunzio, 2019), organizational citizenship behaviour (Smith & DeNunzio, 2019; Doan, Kanjanakan, Zhu & Kim, 2021), individual or job performance (Kahya & Sahin, 2018; Mahmoud, Ahmad & Poespowidjojo, 2020; Bhatti, Alshagawi & Syah Juhari, 2018), risk-taking behaviour (Rashid & Boussabiane, 2019), innovative work behaviour (Woods, Mustafa, Anderson & Sayer, 2018; Chang, Sun & Wu, 2022), job satisfaction (Blatný et al., 2018; Doan et al., 2021), organizational commitment (Noermijati, Firdaus & Baltimurik, 2021), employee engagement (Mat et al., 2019; Ansari, 2020) and many more.

2.4.1.2.1 Conscientiousness and Work Engagement

Studies have looked into the link between conscientiousness and engagement. An exploratory study by Ansari (2020) on 383 middle-level workers working in IT firms found that the dimension ‘conscientiousness’ is the strongest predictor of employee engagement. The finding was also consistent with research done by Mostert and Rothman (2006) to assess the job-related well-being of 1794 South African police

officials, which revealed that conscientiousness best-predicted work engagement and its two dimensions (vigor and dedication). Mostert and Rothman (2006) explained that conscientious individuals are determined, purposeful, and strong-willed, thus such trait fosters engagement inclination. In addition, Young et al. (2018), Akhtar et al. (2015), and Brew and Machiha (2019) also claimed that conscientiousness is a strong predictor of employee or work engagement. Akhtar et al. (2015) explained that since engagement relates to internal drives to accomplish specific goals, conscientiousness influences work engagement through an internal motivational process. This implies that individuals with a great amount of conscientiousness tend to be more achievement-oriented during work and are less likely to be impacted by external factors (e.g., family) and therefore show more energy at their work. Besides, they are also illustrated to be dedicated towards their work, to be completely absorbed in work, and actively striving to accomplish their work goals (Janssens et al., 2019).

Another research by Jain and Ansari (2018) on 388 workers of private organizations in India has revealed conscientiousness is the most beneficial personality facet compared to other dimensions and has an impact on both work and organizational engagement. The authors claimed that the willingness to accomplish a duty effectively without seeking external rewards and benefits, eagerness to challenging jobs, and commitment towards the organization could be the explanations for conscientiousness being the most favourable attribute. Similar findings have also been found in a study by Mat et al. (2019), which revealed that conscientiousness has the strongest effect on employee engagement. Mat et al. (2019) highlighted that conscientious individuals are often hardworking, organized, careful, and responsible. These characteristics are crucial for completing work tasks. Besides, a highly conscientious person is likely to have a high level of aspiration and often work hard to accomplish their work goals.

Maslow's theory states that if an individual has managerial responsibility, mastery, a sense of accomplishment, and self-esteem, he or she will have a positive job attitude toward the company.

Additionally, Fukuzaki and Iwata's (2022) study revealed that conscientiousness had the strongest relationship with work engagement in comparison to other dimensions. Christian et al. (2011) claimed that conscientiousness is supposed to be positively related to engagement because conscientious individuals have a high sense of responsibility and hence, are more inclined to be better involved in their work roles. Similarly, Meskelis and Whittington's (2020) cross-sectional study on 100 participants discovered conscientiousness has the strongest association with engagement, thenceforward honest humility as well as extraversion. Meskelis and Whittington (2020) emphasised that personality is important when comes to engagement. This is mainly because some individuals have an intrinsic or inborn tendency to be engaged with their work role. These individuals bring engagement with them to the workplace and they will remain engaged and motivated in their work regardless of the situation.

Shi et al. (2022) also found the dimension 'conscientiousness' has a significant positive relationship with the solver's cognitive, physical as well as emotional engagement. In addition, a study by Rich (2006) and Bhatti et al. (2018) also revealed that conscientiousness has a positive association with engagement. Rich (2006) asserted that the finding is something expected, provided that previous studies on this domain have reported people with high conscientiousness often have a high level of confidence and generally display a tendency to be involved in work. Bhatti et al. (2018) proposed that conscientious people are regarded to be dependable, organized, and hardworking. Hence, the positive association between conscientiousness and

engagement in their study clearly explains that when an individual is increased organized and hardworking, his dedication towards work and efforts to accomplish his work task also increase. An individual who is dependable and organised handles challenging circumstances more effectively, which eventually leads to an increased level of enthusiasm and subsequently better performance. Other previous studies have also demonstrated either a positive association or effect between conscientiousness and engagement (Blatný et al., 2018; Janssens et al., 2019; Ongore, 2014; Shukla et al., 2014; Gulamali, 2017; Hau & Bing, 2018; Bansal, Bhushan & Gupta, 2020; Pérez-Fuentes et al., 2019; Mhlanga et al., 2021; Mhlanga et al., 2019; Wildermuth, 2008; Handa & Gulati, 2014; Zaidi, Wajid, Zaidi & Zaidi, 2013; Borst & Knies, 2023).

Nevertheless, unlike previous studies, Borst and Knies's (2023) findings and views on the relationship between conscientiousness and work engagement were considerably different. Borst and Knies (2023) studied the roles of job demands and the big five personality traits in public servants' health-impairment process. The researchers found that conscientiousness had a strong and positive relationship with both work engagement as well as burnout (negative antithesis of engagement), which is contradictory to the previous research findings whereby conscientiousness was consistently found to be negatively related to burnout. In this study, it seems conscientiousness is a strong personality trait that not only drives work engagement but intriguingly also increases burnout among public servants.

To clarify, Bakker and Demerouti (2016) proposed that certain personality traits could amount to be relevant personal demands that elevate perceived job demands and consequently diminish well-being. Personal demands refer to the standards that an individual sets for his personal performances and behaviours that force him to devote

efforts to his task or work and thus are connected with mental or physical costs. For instance, when the level of conscientiousness is extreme in an employee, his strong sense of cautiousness, competence, self-discipline, orderliness, dutifulness, and achievement motivation might turn into an obsession with perfection, cleanliness, order, and achievements, as well as a tendency to be extremely determined and to overthink unwanted problems, which therefore results in decreased well-being (psychological costs) (Carter, Guan, Maples, Williamson & Miller, 2015). As such, Borst and Knies's (2023) study illustrates that personality traits can be resources, demands, or even both at the same time, subject to which aspects of well-being are highlighted.

2.4.1.2.2 Extraversion and Work Engagement

Kumar and Bakhshi (2010) illustrated extraversion as the tendency to experience positive emotions. Schaufeli and Salanova (2007) argued extraversion is one of the most studied dimensions among the big five dimensions in relation to work engagement. In fact, Young et al. (2018), Ansari (2020), Mostert and Rothman (2006), and Akhtar et al. (2015) proposed that extraversion is a strong predictor of engagement. Studies by Meskelis and Whittington (2020) and Ongore (2014) further revealed that extraversion was strongly associated with engagement. The finding of these studies is coherent with another study conducted by Wildermuth (2008) on 480 human services professionals and paraprofessionals in the Midwest of the United States. Wildermuth (2008) found that the trait 'extraversion' was positively associated with engagement.

In addition, Janssens et al. (2019) also reported that a significant positive connection was found between extraversion and work engagement and its three dimensions,

namely absorption, dedication, and vigor. Janssens et al. (2019) argued that extraversion is a trait that is characterised as being more sociable and active, and it includes an element of energy and activity. Considering that engagement is described by increased levels of energy, one could anticipate a relationship with extraversion. Similarly, Shi et al.'s (2022) study on 215 solvers from a famous Chinese crowdsourcing community, discovered the dimension 'extraversion' has a significant positive relationship with the solver's cognitive, physical as well as emotional engagement. This trait was also shown to have a strong or positive link with engagement in numerous other previous studies (Pérez-Fuentes et al., 2019; Gulamali, 2017; Bansal et al., 2020; Zaidi et al., 2013; Bhatti et al., 2018; Fukuzaki & Iwata, 2022; Mhlanga et al., 2021; Mhlanga et al., 2019; Handa & Gulati, 2014).

Further, Mat et al. (2019) and Blatný et al. (2018) found that extraversion had a positive impact on employee or work engagement. Mat et al. (2019) explained that individuals with 'extraversion' trait are often described as friendly, sociable, assertive, cheerful, excitement-seeking, active (McCrae & Costa 1983), outgoing, talkative, energetic, and enthusiastic (McCrae & John, 1992). They are also likely to demonstrate positive emotions and have a wide range of friends in the company (Watson & Clark, 1997, as cited in Mat et al., 2019). Therefore, individuals with this trait can seamlessly be joyful and engaged in the company. Besides, the authors also claimed that as the subjects in their study were workers from private organizations, they were required to highly communicate with their subordinates, superiors, clients, and customers in order to fulfill their job. As a result, extrovert workers could receive guidance, assistance, and motivation from their subordinates, superiors, clients, and customers, resulting in them being engaged in job roles.

Meanwhile, an inconsistent finding was reported in a study done by Shukla et al. (2014) on 90 workers of an Indian web-based e-commerce organization, which revealed that extraversion is to be not related to employee engagement. Borst and Knies (2023) reported that extraversion had barely any significant association with either work engagement or burnout in their study. Likewise, Arora and Adhikari (2013) also asserted that extraversion did not impact the dedication (which is one of the significant dimensions of work engagement) level of the IT sector workers.

2.4.1.2.3 Agreeableness and Work Engagement

Agreeableness is often described using adjectives such as appreciative, trusting, forgiving, sympathetic, generous, and kind (McCrae & John, 1992). Past studies had investigated the relationship between agreeableness and work engagement. A study by Zaidi et al. (2013) on public-sector university teachers discovered that agreeableness had a significant positive relationship with work engagement and its three dimensions (vigor, absorption, and dedication). Similarly, Meskelis and Whittington (2020) and Fukuzaki and Iwata (2022) also reported that agreeableness was significantly associated with engagement. A quantitative cross-sectional study conducted by Mhlanga et al. (2021) among 403 district Municipal employees, also revealed that agreeableness has a positive relationship with engagement. Mhlanga et al. (2021) claimed that their finding is in accordance with the social exchange theory, which states that workers who perceive their personalities suit their occupations are more engaged at work than those who perceive the opposite. Identical findings have also been found in several other studies (Shukla et al., 2014; Bhatti et al., 2018; Pérez-Fuentes et al., 2019; Mhlanga et al., 2019; Bansal et al., 2020). Bhatti et al. (2008) proposed that agreeableness has a positive relationship with engagement because

highly agreeable employees mobilise their social support as well as resources in order to engage more actively in their work.

Following, this dimension has been also discovered to be a significant predictor of engagement (Ongore, 2014) and to have the strongest influence on engagement compared to other dimensions (Thavakumar, 2018). Ongore (2014) proposed that agreeableness is required in an organization in order to work in harmony and deal with conflicts. An agreeable employee is usually more positive and motivated to solve or end problems and conflicts. Hence, an agreeable employee can be more engaged in his work role as he can conserve his energy and direct it to his work (Mhlanga et al., 2019). Likewise, Teng, Samah, Naiemah, Rashid and Shamsuddin (2020) also discovered that agreeableness influenced engagement. Teng et al. (2020) highlighted that when workers exhibit agreeableness traits, they are likely to agree with others, trust people, and forgive mistakes. And these can help to yield a positive mood for workers to be engaged and connect joyfully with people around them. The researchers also asserted that the attractive characteristics of agreeableness have a significant positive influence on extraversion. This is because agreeableness can impact an individual's ability to socialize and connect with others. Teng et al. (2020) also found that the dimension 'agreeableness' acts as a mediator in the relationship between conscientiousness and workers' engagement. In simple terms, the trait 'agreeableness' (agree with others) makes a worker better and easier into following rules or orders (conscientiousness) and resulting in engagement in their job.

In addition, another study by Hau and Bing (2018) on 102 Malaysian academic staff, also discovered that agreeableness positively influenced work engagement. Hau and Bing (2018) claimed that agreeable individuals were proven to be more engaged in

their work roles, in addition to being more inclined to promote teamwork at work. The authors also highlighted that this was particularly true for professions that required direct, verbal, or face-to-face interaction with customers or clients. In fact, the duties of academic staff entailed lecturing, doing research, consulting, and overseeing research students, which requires verbal or face-to-face contact with students, thus making agreeableness a strong predictor of academic staff's work engagement.

Conversely, inconsistent results were reported in several other studies. A cross-sectional quantitative study by Janssens et al. (2019) reported that no significant connection was discovered between agreeableness and work engagement as well as its three dimensions (vigor, absorption, and dedication). Similar findings have also been found elsewhere (Mat et al., 2019; Brew & Machiha, 2019; Wildermuth, 2008). Some studies even claimed that agreeableness is one of the least significant predictors of engagement (Young et al., 2018) and had barely any significant association with work engagement (Borst & Knies, 2023). Further, a study by Ansari (2020) discovered that agreeableness negatively affected the level of worker engagement. The fact that agreeable employees were found to have some drawbacks. An employee who is highly agreeable is likely to be more bothered about sustaining a good relationship with others, has poor self-esteem, and is more prone to remain silent and not express his opinions. This might cause a company to be not able to offer satisfaction to fulfill the employee's needs. When the needs of this employee are not fulfilled, he would be less engaged in his work. Besides, he would also frequently undermine his own abilities and professionalism, resulting in less engagement in his job (Mat et al., 2019).

2.4.1.2.4 Neuroticism and Work Engagement

Neuroticism is a dimension that is often described as being unstable, anxious, touchy, self-pitying, and tensed (McCrae & John, 1992). This dimension has been discovered to be a significant predictor of engagement (Ansari, 2020). Studies have also investigated the link between neuroticism and burnout. These studies revealed that highly neurotic individuals are likely to exhibit more emotional exhaustion (Zellars, Perrewé & Hochwarter, 2000; Bühler & Land, 2003) and depersonalization (Bühler & Land, 2003), which are the two components of burnout. In fact, neuroticism was found to predict burnout (Hills & Norvell, 1991). Maslach and Leiter (2016) explained that burnout is the opposite of engagement and it is linked to the deterioration of an individual's work engagement (Maslach, Schaufeli & Leiter, 2001).

In a similar manner, past studies have also reported a negative association between neuroticism and work engagement. Pérez-Fuentes et al. (2019) investigated the differences in engagement and burnout based on personality profiles, and the study revealed that engagement is negatively related to neuroticism. Highly neurotic individuals are more sensitive towards stress (Suls, 2001). They are also likely to perceive an ordinary circumstance as threatening (Widiger & Oltmanns, 2017) and have a tendency to be less committed as well as to exhibit less favourable attitudes towards their job. Thus, they do not have positive values for both work and organizational engagement (Jain & Ansari, 2018). Pérez-Fuentes et al.'s (2019) finding was also consistent with research done by Mhlanga et al. (2021), which also discovered a significant negative association between neuroticism and engagement. Mhlanga et al. (2021) explained that such a finding could be because those with high neuroticism have the tendency to get distracted and spend more time or energy stressing about personal issues that are unrelated to the work to be done.

Following, another study by Luta et al. (2019) examined whether work engagement has a consistent pattern across the work week and how personality traits affect this pattern. The study revealed that work engagement adhered to an inverted U-shaped pattern across the work week (Monday to Friday), peaking at the mid-week. The results also revealed that neuroticism has moderated the transition pattern of work engagement across the work week, whereby highly neurotic individuals experienced lower and less consistent degrees of work engagement during the work week in comparison to those lowly neurotics. Several other studies have also reported a negative relationship between neuroticism and engagement (Zaidi et al., 2013; Ongore, 2014; Wildermuth, 2008; Shukla et al., 2014; Bansal et al., 2020; Shi et al., 2022; Mhlanga et al., 2019; Fukuzaki & Iwata, 2022; Gulamali, 2017).

Nevertheless, surprisingly, inconsistent findings were reported in a study conducted by Bhatti et al. (2018), which found a significant positive association between neuroticism and engagement. Bhatti et al. (2018) conducted quantitative research among 364 nurses and investigated the impact of personal resources on job performance. The researchers claimed that neuroticism was positively associated with engagement mainly because self-conscious and nervous workers are more inclined to regard their workplace as a setting to showcase their skills as well as be safe. In other words, highly neurotic individuals strive to be more mentally resilient or strong and put more energy into their work in order to establish a safer working environment and acquire the chance to showcase their skills professionally. In addition, their self-conscious behaviour encourages them to perform better and become more engaged, which eventually results in greater organizational outcomes (e.g., task and contextual performance). Another inconsistent finding is by Janssens et al. (2019), which revealed

neuroticism was not linked with engagement. Likewise, Young et al. (2018) proposed that neuroticism is the least significant predictor of engagement.

2.4.1.2.5 Openness to Experience and Work Engagement

Openness to experience is illustrated as being artistic, curious, imaginative, original, and showing wide interest (McCrae & John, 1992). This dimension may only be significant in certain work contexts and types of jobs, for instance, those distinguished by complexities and novelties (Griffin & Hesketh, 2004). In a study conducted among 118 academic and administrative university personnel, openness to experience was discovered as one of the personality traits to be the only significant predictor of job engagement (Ongore, 2014). Ongore (2014) and Mhlanga et al. (2019) asserted that openness to experience has become an important predictor of job engagement due to the rapidly evolving and changing nature of present working life. Individuals who adjust and adapt to the changes are likely to be better engaged in their work. Akhtar et al. (2015) also identified openness to experience as the strongest predictor of work engagement in their study.

Akhtar et al. (2015) proposed that this relationship can be explained through the link between openness to experience and resiliency which is a type of personal resource. Resiliency is the primary driver of work engagement because individuals who are resilient have a better ability to control their environment, which provides them with intrinsic motivation to attain their goals. Considering the connection between openness to experience and resiliency, it is not surprising that highly open workers gain the energy and intrinsic motivation to be engaged in their work role. Following that, a similar result was also reported by Gulamali (2017), who conducted a survey on 203 Portuguese citizens consisting of 137 workers and 46 students. The study found that

openness to experience significantly predicted work engagement. In addition, the study also found that openness to experience had positively influenced vigor and dedication in workers' samples. Gulamali (2017) asserted that given that vigor is conceptualized as the willingness to put in one's efforts in the work, as well as being persistent when encountering obstacles or difficulties (Schaufeli et al., 2002), it is intriguing and fascinating that a high level of openness to experience, which implies flexible thinking, greater sensitivity to emotions, and creativity can affect the way an individual face challenges, demonstrate resilience, and exert his effort on tasks.

Besides that, a quantitative survey-based study by Hau and Bing (2018) on 102 academic staff discovered that openness to experience had a significant positive influence on work engagement. This was similar to the results reported by Mat et al. (2019) and Ansari (2020), who also discovered that engagement was significantly influenced by openness to experience. Further, Mhlanga et al. (2019) conducted a survey on 403 district Municipal employees and found that openness to experience was positively associated with overall job engagement (physical, emotional, and cognitive). Several studies from various domains have also examined the association between openness to experience and engagement (Shukla et al., 2014; Bansal et al., 2020; Pérez-Fuentes et al., 2019; Bhatti et al., 2018; Fukuzaki & Iwata, 2022; Zaidi et al., 2013; Borst & Knies, 2023). All researchers discovered a significant or positive relationship between openness to experience and engagement.

One explanation for this relationship is that openness to experience entails intellectual curiosity, preferences for varieties, and active imagination. Therefore, with such qualities, highly open individuals are more prone to perceive happiness in their daily work roles and may be more likely to experience a sense of inspiration, significance,

challenge, and enthusiasm (Fukuzaki & Iwata, 2022). This is also supported by McCrae and Costa (1997), who stated that those who score high on this trait are predicted to be highly engaged in their job or work roles. Along with this, another potential explanation could be that openness to experience is a personal resource that appears to improve individuals' perceptions of job demands. Individuals who score highly on openness to experience are likely to have more positive perceptions on job demands, resulting in the job demands being less hindering, which subsequently and indirectly improves their work engagement (Borst & Knies, 2023).

Nonetheless, Brew and Machiha (2019) found that openness to experience was a weak and non-significant predictor of work engagement. The researchers claimed that one would expect academic staff to acquire some form of engagement by being open to experience, given that academic work is described by the need for imagination and intellectual curiosity in order to generate novel or innovative research and teaching methodologies. Surprisingly, Brew and Machiha's (2019) finding was totally contradictory. Likewise, Wildermuth (2008) also discovered no significant link between originality (openness to experience) and engagement. Another meta-analysis study by Young et al. (2018) revealed that openness to experience is the least important predictor of engagement. Janssens et al. (2019) also revealed that openness to experience has a weak association with work engagement. Borst and Knies (2023) also reported a contradictory finding in their study in relation to openness to experience. They claimed that openness to experience had a strong and positive relationship with burnout (negative antithesis of engagement). They also highlighted that openness to experience is a type of personality trait that might amount up to be a personal demand that elevates perceived job demands and consequently diminishes well-being.

Summarising, findings are generally consistent for the dimension ‘conscientiousness’ and ‘extraversion’. The majority of the studies have identified these two dimensions as important determinants that have a positive relationship with work engagement (Brew & Machiha, 2019; Jain & Ansari, 2018; Fukuzaki & Iwata, 2022; Bhatti et al., 2018; Blatný et al., 2018; Janssens et al., 2019; Hau & Bing, 2018; Bansal et al., 2020; Pérez-Fuentes et al., 2019). Further, a number of studies found a significant negative association between neuroticism and work engagement (Pérez-Fuentes et al., 2019; Bansal et al., 2020; Fukuzaki & Iwata, 2022) while others did not support this finding (Bhatti et al., 2018; Janssens et al., 2019). Also, for agreeableness and openness to experience, the researchers reported inconsistent findings. These dimensions were found to have a weak or non-significant relationship with work engagement (Janssens et al., 2019; Brew & Machiha, 2019; Wildermuth, 2008) in comparison to other researchers who claimed these dimensions as important determinants that have a positive relationship with work engagement (Zaidi et al., 2013; Fukuzaki & Iwata, 2022; Bhatti et al., 2018; Pérez-Fuentes et al., 2019; Bansal et al., 2020; Akhtar et al., 2015; Gulamali, 2017).

Based on the reviewed literature, it can be clearly seen that the evidence on the effect of the big five personality traits on work engagement seemed to be inconsistent and mixed. More research or studies is required to comprehend the relationship between these two variables. Besides, up to the present, the relationship between the big five personality traits and work engagement has been scarcely investigated (Janssens et al., 2019). Also, most of the studies that investigated the relationship between these two variables, measured engagement as a one-dimensional construct rather than a three-dimensional construct (e.g., vigor, dedication, and absorption). In addition, in the literature, there was a lack of studies being carried out on the effect of the big five

personality traits on engagement within the higher education sector and among academic staff in Malaysia. Some studies reported limitations in relation to the survey instruments used. Pérez-Fuentes et al. (2019) and Blatný et al. (2018) claimed that the usage of the short version of the Big Five Inventory (BFI-10) in their study could have potentially caused some losses in assessing personality traits adequately due to its brief nature. Janssens et al. (2019) argued that their usage of UWES-9 instead of UWES-15 or UWES-17 might be less appropriate to measure the different dimensions of work engagement. Hence, this research was conducted to fill these gaps and limitations.

2.4.2 Perceived Organizational Support and Work Engagement

2.4.2.1 Perceived Organizational Support

The term ‘perceived organizational support’ has several different definitions. The definition of this concept was first introduced by Robert Eisenberger, Robin Huntington, Steven Hutchison, and Debora Sowa in the year 1986 in an article in the journal of applied psychology (Hakkak, Gashti & Nawaser, 2014). They defined Perceived organizational support as the degree to which an employee believes that his organization appreciates or values his contribution and cares about his overall well-being (Eisenberger et al., 1986).

Indeed, the concept of perceived organizational support can be better understood by looking at it from the organizational support theory. According to the organizational support theory, an employee personifies the organization, infers the degree to which the organization values his contribution and cares about his overall well-being and returns that perceived support with improved performance, loyalty, and commitment. As an employee personifies the organization, he would perceive his favorable or unfavorable treatment as a sign that the company favours or disfavors him (Rhoades

& Eisenberger, 2002). There are three major types of perceived favourable treatment that can enhance perceived organizational support in an employee, namely organizational rewards, job conditions, supervisor support, and fairness (Rhoades & Eisenberger, 2002). An employee perceives his organization as supportive when he views his supervisors as being supportive, when the reward is considered fair, and also when he has a voice in decision makings (Robbins & Judge, 2016), whereby in turn, he reciprocates such favourable treatment with enhanced performance and organizational commitment (Rhoades, Eisenberger & Armeli, 2001).

Perceived organizational support is also regarded as the assurance that resources or help would be provided by the company when an employee requires them to do his tasks effectively and cope with stressful circumstances (Rhoades & Eisenberger, 2002). Makanjee, Hartzer and Uys (2006) interpreted perceived organizational support as a measure of a company's commitment to its workers. The authors explained that workers' view of organizational commitment to them contributes to the level of commitment by them to the company. In addition, Makenjee et al. (2006) also referred to perceived organizational support as the assurance that needs to be available from the firm when it is required to perform one's task efficiently. According to Allen, Armstrong, Reid and Riemenschneider (2008), perceived organizational support illustrates an employee's perceptions of how much the company values or appreciates his contribution and truly cares about him.

In sum, based on the different definitions of perceived organizational support, this research will utilise Eisenberger et al. (1986) definition of perceived organizational support whereby is conceptualized as the degree to which an employee believes that

his organization appreciates or values his contribution and cares about his overall well-being.

2.4.2.2 Measurement of Perceived Organizational Support

The significance of support from the organisation has drawn the interest of many scholars (Jangsiriwattana, 2021). Research into perceived organizational support has found a high level of perceived organisational support is related to several constructive, behavioural, and attitudinal outcomes for both workers and organizations. Some of the major positive outcomes of perceived organizational support include increased organisational commitment (Aggarwal, Jaisinghani & Nobi, 2022; To & Huang, 2022; Jehanzeb, 2020), enhanced employee or work performance (Sabir, Majid, Sabir, Mehmood, Rehman, & Nawaz, 2022; Kim, Moon & Shin, 2018), improved job satisfaction (Kurtessis, Eisenberger, Ford, Buffardi, Stewart & Adis, 2017), reduced turnover intention (Aggarwal et al., 2022; Huang, Du, Wu, Achyldurdyeva, Wu & Lin, 2021; James & Azungah, 2020), increased innovative behaviour (Nazir, Qun, Hui & Shafi, 2018; Nazir, Shafi, Atif, Qun & Abdullah, 2019), high level of customer-oriented behaviours (Bizri & Hamieh, 2020), enhanced subjective well-being (Ilyas, Abid & Ashfaq, 2022), increased engagement (Gupta, Agarwal & Khatri, 2016; Sihag, 2021; Bonaiuto, Fantinelli, Milani, Cortini, Vitiello, & Bonaiuto, 2022; Musenze, Mayende, Kalenzi & Namono, 2022) and many others.

2.4.2.2.1 Perceived Organizational Support and Work Engagement

Generally, many researchers have studied the relation between perceived organizational support and engagement, and many have considered it an important determinant of engagement. Proof of this is research by Dabke and Patole (2014) and Musenze et al. (2022), which found that perceived organizational support was a strong

positive predictor of work or employee engagement. Dabke and Patole (2014) substantiated their finding by referring to the social exchange theory. The core fundamental principle of social exchange theory states that the relationships between two parties develop gradually toward trusting, devoted, and mutual obligations, provided the parties follow the 'rules' of exchange (Cropanzano & Mitchell, 2005). For instance, when an organization offers financial and socio-emotional resources to an employee, he will feel obliged to act in a nice way and pay back the organization. One method for an employee to pay back his company is through his degree of engagement with work. It means an individual will decide to engage himself in different levels of engagement and in regard to the financial and socio-emotional resources given by his employer. Thus, this leads perceived organizational support to become an important antecedent for engagement (Dabke & Patole, 2014). Other studies have also identified perceived organizational support as the major contributor to employee or work engagement (Imran et al., 2020; Meintjes & Hofmeyr, 2018).

Apart from that, a study by Hidayat et al. (2023) on 119 news reporters in Indonesia discovered that perceived organizational support had positively and significantly influenced work engagement. The study revealed that the higher the perceived organizational support, the higher the work engagement will be. Hidayat et al. (2023) finding is also supported by Xu et al. (2021), who conducted research on the impact of perceived organizational support on work engagement among 689 Chinese nurses. Xu et al. (2021) proposed that perceived organizational support has direct positive effects on Chinese nurses' work engagement. The authors claimed that perceived organizational support as a 'positive environmental determinant' can generate a variety of positive and beneficial work-related behaviours and attitudes. In this phase, employees will become more focused on their individual tasks, meaning that they can

enhance their level of work engagement. Another study by Nguyen and Tran (2021) on 216 corporate officers discovered that perceived organizational support has a more significant positive impact on work engagement compared to perceived family support during the covid-19 pandemic. This implies that although having family support is beneficial and good, the greatest concern of employees is organizational support. Thus, Nguyen and Tran (2021) suggested that organizations should give serious consideration onto organizational support particularly considering the rapid spread of covid-19 pandemic.

A similar point was also made in a study carried out by Alshaabani, Naz, Magda and Rudnak (2021) which studied the effect of perceived organizational support on employee engagement during the Covid-19 pandemic. The study revealed that perceived organizational support is an important influencer of employee engagement. The study also highlighted workers who displayed enhanced engagement at work during the covid-19 crisis, had recognized the financial and non-financial support from their company. Thus, the study proposed that extra organizational support in times of crisis will lead to increased employee engagement at the workplace. Likewise, Li et al.'s (2022) cross-sectional study on 448 medical workers also found that perceived organizational support had a positive influence on work engagement in the post-pandemic era. Similar findings have also been found elsewhere (Shams, Niazi & Asim, 2020; Djatmiko, Prasetio & Azis, 2020; Alvi, Abbasi & Haider, 2014; Bas & Çınar, 2021; Inam, Ho, Zafar, Khan, Sheikh, & Najam, 2021; Aggarwal et al., 2022; Stefanidis & Strogilos, 2021; Ivani, Muchtar & Rasyid, 2019).

In terms of the relationship between perceived organizational support and engagement, a quantitative study by Rasool, Wang, Tang, Saeed and Iqbal (2021) on 301 small and

medium-sized companies (SME) workers, revealed that there is a positive association between perceived organizational support and employee engagement. Rasool et al. (2021) explained that their finding was supported by the organizational support theory. Organizational support theory states that an individual is likely to spend his time and energy at the workplace for valued outcomes. Hence, the study suggests that if SME companies offer market-driven remuneration packages and benefits, then the employees will likely be pleased and engaged with the company's goals. Further, a study by Jangsiriwattana (2021) on 592 workers in aviation companies, also discovered a significant association between perceived organizational support and work engagement. According to Jangsiriwattana (2021), the behavioural outcomes of workers, such as work engagement, are perceived organizational support's potential consequence. His study shows that kind and compassionate treatment from the firms assists the workers to sustain their involvement in society and stimulate them to foster a positive relationship with the firm.

Al-Hamdan and Bani Issa (2021) conducted a study to investigate the possible association between work engagement, perceived organizational support, and self-efficacy among 186 Jordanian registered nurses. This research finding revealed that perceived organizational support was positively associated with work engagement and its three dimensions. The authors argued that their finding is consistent with the JD-R model and what has been discovered in past studies. Mphahlele, Els, De Beer and Mostert (2018) and Tian et al. (2023) also made this point in their study. Mphahlele et al. (2018) highlighted that their finding which is, a positive relationship between perceived organizational support for strength use and perceived organizational support for deficit use (both are a type of job resources) with work engagement, can be supported by referring to the JD-R model, in which job resources have been discovered

to be the primary determinants of work engagement. Sufficient job resources like organizational support, will stimulate an employee's motivation and contribute to work engagement (Tian et al., 2023). All in all, other past studies have also reported a positive association between perceived organizational support and engagement (Al-Omar, Arafah, Barakat, Almutairi, Khurshid & Alsultan, 2019; Musenze, Mayende, Wampande, Kasango & Emojong, 2021; Arokiasamy, 2021; Jin & Tang, 2021; Jankelová, Joniaková & Skorková, 2021; Kordsmeyer, Efimov, Harth & Mache, 2022; Gillet, Huart, Colombat & Fouquereau, 2013).

In short, perceived organizational support has been proven to significantly impact engagement. Nonetheless, based on the reviewed literature, a significant number of perceived organizational support and engagement studies were done both locally and internationally in various sectors, however, it remains under-researched within the tertiary education sector as well as among academic staff in Malaysia. Most of the past studies that studied perceived organizational support and engagement suggested that future research should be done in different contexts, settings, or environments (e.g., across different countries, organizations, cultures, sectors, types of samples, and occupations) (Imran et al., 2020; Musenze et al., 2021; Musenze et al., 2022; Stefanidis & Strogilos, 2021; Inam et al., 2021; Mphahlele et al., 2018; Rasool et al., 2021; Meintjes & Hofmeyr, 2018; Bas & Çınar, 2021). Additional empirical evidence is required to support the link between perceived organizational support and its outcomes (Kurtessis et al., 2017). Besides that, most of the studies that have investigated the link between perceived organizational support and engagement, measured engagement as a one-dimensional construct rather than a three-dimensional construct (e.g., vigor, dedication, and absorption). Therefore, this research was conducted to fill these gaps.

2.5 Gaps in the Literature

Based on the literature review, several literature gaps were discovered in relation to work engagement. Firstly, numerous studies have investigated the influence of different organizational factors on engagement (Meskelis & Whittington, 2020; Lee et al., 2017). However, individual factors like personality traits were inadequately examined with regard to engagement (Saks & Gruman, 2014; Mhlanga et al., 2019; Borah & Barua, 2018). Lee et al. (2017) suggested that firms should consider both the viewpoints at the individual as well as organisational levels in order to take a holistic approach to understand engagement. Noesgaard (2016) also persuaded individual differences should be discussed more in the literature on engagement and therefore should not be disregarded. Thus, this study intends to address this gap by including both individual factors (e.g., personality traits) and organizational factors (e.g., perceived organizational support) as the independent variables.

Secondly, there are limited literature on engagement present particularly in developing countries (Kossyva et al., 2023), public and non-profit organizations (Kossyva et al., 2023; Bakker & Albrecht, 2018) as well as specific industries or job types (Kossyva et al., 2023; Bakker & Albrecht, 2018). It should be noted that Malaysia is also a successful developing country that is striving to become a developed nation. Further, Zahari and Kaliannan (2022) highlighted that both Web of Science and Scopus online database searches featured limited literature on the determinants of public sector work engagement in spite of the relevance of public sector performances in the growth of the economy. Following, based on the reviewed literature, it was discovered that a significant number of engagement, the big five personality traits, and perceived organizational support studies were done in local, abroad, and various sectors, however, it remains under-researched within the higher education sector and among

academic staff in Malaysia. Also, there is no known study being carried out on the effect of the big five personality traits and perceived organizational support on academic staff's work engagement in one study within the Malaysian setting. Bakker and Albrecht (2018) highlighted that the identification of the most significant job resources and job demands specific to a particular type of job, industry, sector, and demographic group is crucial as it will enable the establishment of the most valid interventions that are likely to be effective and yield successful outcomes (Bakker & Albrecht, 2018). Bakker and Albrecht (2018) also proposed that continuous research is required in order to refine and expand current knowledge in engagement. Thus, more research or studies on engagement, the big five personality traits, and perceived organizational support are required to be conducted in Malaysia, especially in the higher education sector (including both public and private institutions) and among academic staff.

Thirdly, mixed findings have been reported on the impact of each dimension of the big five personality traits on work engagement and the results seem to be inconclusive and unsettled. Most of the literature on personality traits and engagement has suggested that studies should be conducted with different samples or populations in order to compare the findings (Hale, 2016, as cited in Mhlanga et al., 2021). Fourthly, the majority of the studies that have investigated the link between the big five personality traits or perceived organizational support and engagement, measured engagement as a one-dimensional construct using UWES (Borst & Knies, 2023; Pérez-Fuentes et al., 2019; Blatný et al., 2018; Akhtar et al., 2015; Stefanidis & Strogilos, 2021; Imran et al., 2020; Xu et al., 2021; Jangsiriwattana, 2021; Shukla et al., 2014; Meintjes & Hofmeyr, 2018; Nguyen & Tran, 2021; Jankelová et al., 2021; Jin & Tang, 2021; Jain & Ansari, 2018; Al-Omar et al., 2019; Arokiasamy, 2021; Bas & Çınar, 2021; Inam et

al., 2021; Shams et al., 2020; Djatmiko et al., 2020; Alshaabani et al., 2021). Only a few studies have empirically explored the relationship between the big five personality traits (Janssens et al., 2019; Bhatti et al., 2018; Bansal et al., 2020; Zaidi et al., 2013; Gulamali, 2017) or perceived organizational support (Gillet et al., 2013; Musenze et al., 2022; Al-Hamdan & Bani Issa, 2021; Tian et al., 2023) with the three dimensions of engagement (vigor, absorption, and dedication). Akhtar et al. (2015) have suggested that future analyses should also explore the relationship between personality traits and the different dimensions (vigor, absorption, and dedication) of work engagement, in order to identify the potential differences. Fifthly, several researchers reported limitations in relation to their survey instruments (e.g., potential limitations in assessing personality traits adequately using BFI-10 due to its brief nature and UWES-9 might be less appropriate to measure the three dimensions of work engagement).

Therefore, the current study aims to fulfill both the theoretical and empirical gaps by examining and comprehending the relationship between the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness), perceived organizational support, and work engagement (vigor, absorption, and dedication) among academic staff (including those from both public and private higher education institutions) in Malaysia. The bigger scale of this study can help to visualize the work engagement of Malaysian academicians more accurately. This study also counters previous studies' limitations in relation to the survey instruments by using BFI-44 and UWES-17 in measuring both personality traits and work engagement respectively.

2.6 Underpinning Theory in the Study

This study is guided by the Job Demands-Resources (JD-R) theory. JD-R theory is the most recent research by Bakker and Demerouti (2016) and is considered to be one of the most popularly used frameworks for explaining engagement (Kossyva et al., 2023). In fact, it is a broadened continuation of the JD-R model by Demerouti, Bakker, Nachreiner and Schaufeli (2001). JD-R model is a type of occupational stress model that claims that strain results from inequality or imbalance between an individual's demands and his available resources for meeting those demands (Bakker & Demerouti, 2007; Demerouti et al., 2001). This model was initially utilised to illustrate the concept of burnout and it is currently used to explain various types of workers' well-being (Bakker & Demerouti, 2016). Indeed, there are numerous research, novel propositions, meta-analyses, and reviews on the JD-R model that the model has now developed into a prominent theory (Bakker & Demerouti, 2014).

The JD-R theory isn't only a broadened continuation of the JD-R model but is also inspired by the earlier theories of job stress and work motivation, namely the effort-reward imbalance model (Siegrist, 1996), the job demand-control model (Karasek, 1979), the two-factor theory (Herzberg, 1966), and the job characteristics theory (Hackman & Oldham, 1980). The earlier theories or models of job stress and motivation have generally neglected each other's studies and are critiqued for their simplicity, one-sidedness, static character, as well as ignorance of the dynamic nature of jobs. JD-R theory synthesizes the principles and knowledge from the different models of work stress and motivation and addresses the major critiques of the earlier models (Bakker & Demerouti, 2014). The JD-R theory enables us to understand, explain, and form predictions about workers' job performance and well-being (e.g.,

motivation, burnout, health, and work engagement) (Bakker & Demerouti, 2014). It illustrates how the working environment affects an individual employee's well-being and performances.

One significant proposition in JD-R theory is that all the organizational environment or job characteristics could be arranged into two groups, that is job demands and job resources (Bakker & Demerouti, 2014). Job demands refer to the mental, organizational, physiological, or social elements of the work that necessitate maintained mental or physiological effort and thus are linked with some physical and psychological costs (Demerouti et al., 2001). Some examples of job demands are having increased work stress and psychologically demanding communication with customers (Bakker & Demerouti, 2016). Job resources are the mental, organizational, physiological, or social elements of the work which are useful in accomplishing work objectives, minimizing work demands and the associated costs as well as encouraging self-improvement, advancement, and learning (Demerouti et al., 2001). Some examples of job resources are an opportunity for advancement, autonomy, performance feedback, and skill diversity (Bakker & Demerouti, 2016).

As mentioned previously, the JD-R theory has matured and developed a lot ever since the release of the article entitled "The job demands-resources model of burnout" by Demerouti et al. (2001). One major development was the inclusion of personal resources into the theory (Bakker & Demerouti, 2014). Personal resources are defined as an individual's perception of how much control he has over his own surroundings (Bakker & Demerouti, 2016). They are positive self-evaluations that are typically connected to resiliency and relate to an individual's sense of his or her abilities to effectively regulate, control as well as impact his or her environments (Bakker &

Demerouti, 2014). Some examples of personal resources are optimism and self-efficacy (Bakker & Demerouti, 2016). The big five personality traits are also one of the most frequently used taxonomies of personal resources in the JD-R framework (Borst & Knies, 2023).

According to the JD-R theory, ‘resources’, which can be either in the form of personal resources or job-related resources, and ‘job demands’ trigger two distinct processes, known as a motivational process and a health-impairment process. Resources generally lead to a motivational process. Having high job resources (e.g., feedback, social support, skill variety) fulfills an employee’s basic psychological needs and leads to more motivation, and consequently fosters work engagement (Bakker et al., 2022). And having higher personal resources leads to greater positive self-evaluation and consequently greater experience of goal self-concordance. An individual with goal self-concordance is often motivated in an intrinsic manner to attain his objectives or goals, and therefore these stimulate greater performance and satisfaction (Bakker & Demerouti, 2014).

On the contrary, job demands trigger a health-impairment process. Having demanding elements of work, for instance, extreme job demands, contribute to persistent overtaxing, and finally results in exhaustion (Demerouti et al., 2001). Further, Schaufeli (2014) claimed that resources energise workers and promote engagement, which as a result produces beneficial outcomes like increased well-being, efficiency as well as performance. On the other hand, job demands necessitate workers to devote extra effort which gradually can lead to exhaustion and negative results. Hence, the JD-R theory illustrates engagement on the grounds that an individual is more inclined

to be engaged with his work when he possesses a high degree of personal or/and job-related resources.

This theory can be used to support this study as it offers a link to the connection between personality traits (personal resources), perceived organizational support (job resources), and work engagement. Academic staffs are more engaged in their work when they possess sufficient job resources like perceived organizational support and personal resources like certain big five personality traits in order to handle the challenges or demands of their work. Adequate resources like certain personality traits and perceived organizational support, will stimulate academic staff's motivation and lead to work engagement.

2.7 Hypotheses of Study

2.7.1 Relationship Between Personality Traits and Work Engagement

There is extensive and significant evidence on the relationship between the big five personality traits and work engagement (Fukuzaki & Iwata, 2022; Bhatti et al., 2018; Janssens et al., 2019; Hau & Bing, 2018; Bansal et al., 2020; Blatný et al., 2018; Pérez-Fuentes et al., 2019; Zaidi et al., 2013; Borst & Knies, 2023; Gulamali, 2017; Luta et al., 2019; Brew & Machiha, 2019).

A study by Fukuzaki and Iwata (2022) discovered that conscientiousness had the strongest relationship with work engagement in comparison to the other big five dimensions. Janssens et al. (2019) claimed that both the big five dimensions 'conscientiousness' and 'extraversion' were strongly related to work engagement and its three dimensions, namely vigor, dedication, and absorption. Another research by Pérez-Fuentes et al. (2019) on 1236 nurses claimed that extraversion had a relationship

with work engagement. Bhatti et al. (2018) reported that agreeableness and neuroticism were associated with work engagement and its two dimensions (vigor and dedication). Borst and Knies (2023) examined the association between openness to experience and work engagement. They identified that openness to experience is strongly related to work engagement. Openness to experience was also found to have a significant relationship with the three dimensions of work engagement (vigor, dedication, and absorption) (Bansal et al., 2020). Based on the above discussion, the following research hypotheses are proposed:

H1: Conscientiousness will have a positive effect on work engagement among academic staff in Malaysia

H2: Openness to experience will have a positive effect on work engagement among academic staff in Malaysia

H3: Extraversion will have a positive effect on work engagement among academic staff in Malaysia

H4: Agreeableness will have a positive effect on work engagement among academic staff in Malaysia

H5: Neuroticism will have a negative effect on work engagement among academic staff in Malaysia

2.7.2 Relationship Between Perceived Organizational Support and Work Engagement

Past research found that perceived organizational support has a positive relationship with work engagement (Jangsiriwattana, 2021; Al-Hamdan & Bani Issa, 2021; Tian et

al., 2023; Musenze et al., 2021; Arokiasamy, 2021; Jin & Tang, 2021; Jankelová et al., 2021; Kordsmeyer et al., 2022; Gillet et al., 2013; Musenze et al., 2022). Research done by Al-Hamdan and Bani Issa (2021) on 186 Jordanian registered nurses, revealed that perceived organizational support was positively associated with work engagement and its three dimensions (vigor, dedication, and absorption). This is also supported by Musenze et al. (2022) who conducted a study on 298 primary school teachers and found that there is a positive and significant relationship between perceived organizational support and all three work engagement dimensions. In addition, Tian et al. (2023) also found a positive relationship between perceived organizational support and work engagement. Based on the above discussion, the following research hypothesis is proposed:

H6: Perceived organizational support will have a positive effect on work engagement among academic staff in Malaysia

2.8 Conceptual Framework

The main objective of this study is to examine the relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff in Malaysia. The independent variables (IV) are personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) and perceived organizational support. The dependent variable (DV) is work engagement and its three dimensions. This study is aimed to investigate how both the independent variables contribute to the dependent variable. The conceptual framework was guided by the Job Demands-Resources (JD-R) theory. Figure 2.1 demonstrated the link between the big five personality traits, perceived organization support, and work engagement among academic staff.

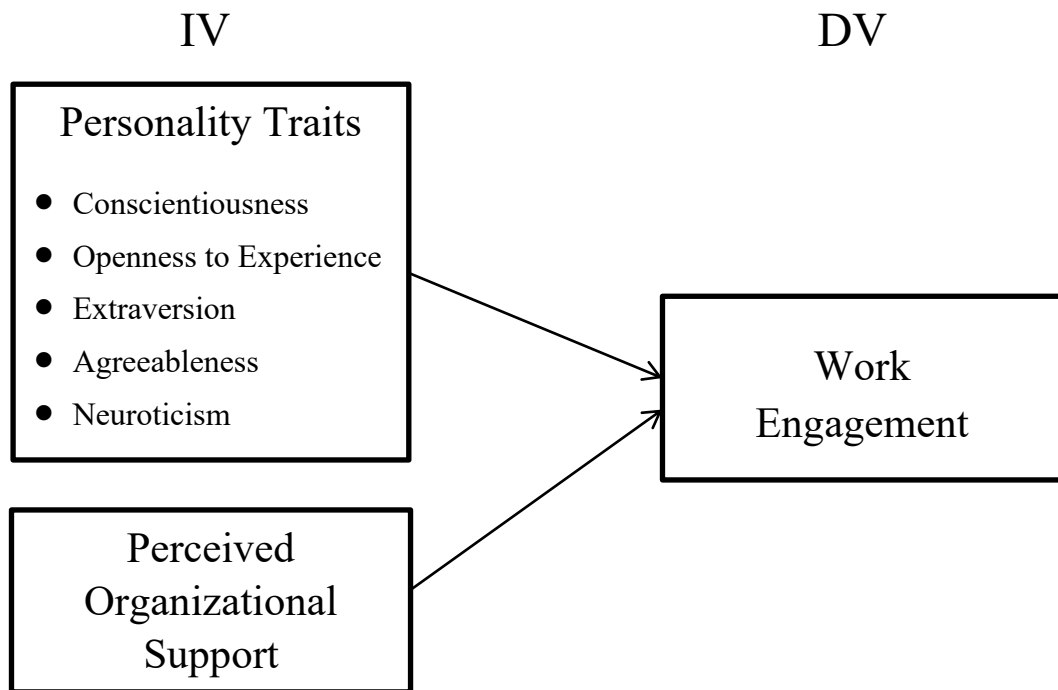


Figure 2.1

The Hypothesized Relationships Between Personality Traits, Perceived Organizational Support, and Work Engagement

2.9 Chapter Summary

This chapter discussed and reviewed relevant literature on the big five personality traits, perceived organizational support, and work engagement. Based on the review, it is found that the concept of engagement is being broadened with growing literature. Work engagement clearly shares a relationship with a variety of individual and organizational factors. In addition, this study uncovers the gap by investigating the link between personality traits, perceived organizational support, and work engagement. Following that, it was found that: (1) individual factors like personality traits were inadequately examined with regard to engagement; (2) the findings on the link between the big five personality traits and work engagement seem to be mixed; (3) studies on engagement, the big five personality traits, and perceived organizational support remains under-researched within the higher education sector and among academic staff

in Malaysia; and (4) most of the studies that have investigated the link between the big five personality traits or perceived organizational support and engagement, measured engagement as a one-dimensional construct rather than a three-dimensional construct. All these have led to the requirement for new and further investigations in this domain. This chapter has also presented the proposed hypotheses, conceptual framework, and underlying theory of the study. The following chapter which is 'Chapter Three' discusses the details of the research methodology.



CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter explains the research method that was employed in the present study. The chapter begins with a brief discussion of the research design selected by the researcher and then followed by explanations of the population and sampling. The next section illustrates the measurement of variables utilised in this study. The further section reports the results of the pilot study and discusses the reliability of the survey instruments. Then, the subsequent section elaborates on the data collection method, questionnaire design, and the procedure for data analysis. Finally, the chapter ends with a short summary.

3.2 Research Design

According to Creswell (2012), research designs refer to the specific procedures associated with the research process, like data analysis, data collection, and report writing. Zikmund, Babin, Griffin and Carr (2010) further defined a research design as a comprehensive strategy that outlines the methods and steps to be taken in order to gather and analyse the required data. It offers a framework or tactical approach for the study. In general, there are two main types of research approaches, namely qualitative and quantitative. This research employed a quantitative correlational research design. As the purpose of this study is mainly to determine the key factors contributing to work engagement and intends to determine the relationship between the variables, it is wise and appropriate to utilise this research design.

Apart from that, this study also adopted a cross-sectional survey method. In a cross-sectional survey method, the data are collected at a single point in time. This method offers information in a short period of time and enables the researchers to identify variations among the variables investigated in a relatively easy and inexpensive way (Creswell, 2012). According to a number of researchers, utilizing such techniques may result in the collection of valid and less biased data (Creswell, 2012; Sekaran, 2003). Therefore, considering that no funds were provided for the study and the time constraints involved, this study was conducted quantitatively using a cross-sectional survey method to examine the relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff in Malaysia.

3.3 Unit of Analysis and Population of the Study

The unit of analysis in the present study is at the individual level and the target population is the academic staff of higher education institutions from all six regions of Malaysia, namely the Southern region, Northern region, East Coast, Central region, Sabah, and Sarawak. This group of participants is anticipated to deliver an exact or accurate perspective of the content asked. The Malaysian higher education institution consists of public higher education institutions (e.g., public universities, community colleges, and polytechnics), and private higher education institutions (e.g., private universities, private colleges, private university colleges, and foreign branch campus universities). There are a total of 595 higher education institutions in Malaysia, of which 161 are public higher education institutions and 434 are private higher education institutions (Policy Planning and Research Division, Ministry of Higher Education Malaysia, 2022). According to the Statistics of Higher Education 2022, the total

number of academic staff in all the higher education institutions in Malaysia amounts up to 71,476 (data as of 2022), of which 42,063 academic staff are from public higher education institutions and 29,413 academic staff are from the private higher education institutions (MOHE, 2022). Hence, the study population consists of 71,476 respondents.

3.4 Sample Size and Sampling Techniques

According to the sampling size determination table by Krejcie and Morgan (1970), the sample size for a population size of around 71,476, the appropriate sample size is 382. Thus, the identified minimum sample for the present study was 382. In this study, the convenience sampling method was used in the selection of the participants. Convenience sampling is a type of sampling method of getting those individuals who are readily and conveniently available (Zikmund et al., 2010) as well as willing to be studied (Creswell, 2012). In comparison to other sampling techniques, convenience sampling does not adhere to any particular standards or guidelines when selecting samples. Scholars often utilise convenience samples in order to collect a significant number of completed survey forms quickly and inexpensively, or when getting the relevant sample using other ways seems to be not possible (Zikmund et al., 2010). In the present study, convenience sampling was employed mainly due to the time constraints involved. Also, it is cost-effective given that no funding was provided for this study.

3.5 Measurement of Variables

This part explains how each of the variables of the current study were measured.

3.5.1 Measures of Dependent Variable

3.5.1.1 Work Engagement

Work engagement, as well as its three dimensions, is the dependent variable of this study. Participant's work engagement, vigor, absorption, and dedication were measured by using a 17-item version of the Utrecht Work Engagement Scale (UWES-17), originally developed by Schaufeli, Bakker and Salanova (2006) and adapted by Musenze et al. (2021). The Utrecht Work Engagement Scale (UWES-17) is a short questionnaire that is designed to measure work engagement, which is explained as a positive job-related feeling of fulfillment that is described by dedication, vigor, and absorption (Schaufeli et al., 2006). Originally, UWES-17 was a seven-point Likert-type scale. Musenze et al. (2021) adapted the original scale and redesigned it with a five-point Likert-type scale (1= strongly disagree to 5 = strongly agree). The instrument is composed of three subscales which are called absorption (6 items), vigor (6 items), and dedication (5 items), where the mean score of each subscale is determined. According to the original author of the measure, a higher mean subscale score and/or total score exhibits a high level of work engagement, vigor, absorption, or dedication. Examples of items in each subscale are "At my job, I am very resilient, mentally" for vigor, "I am proud on the work that I do" for dedication, and "It is difficult to detach myself from my job" for absorption. The adapted scale has a Cronbach alpha of 0.89 (Musenze et al., 2021).

There are three major reasons for using UWES-17 in the present study. Firstly, the UWES is claimed to be one of the most prominent scales used by researchers in measuring work engagement (Kossyva et al., 2023; Lee et al., 2017; Zahari & Kaliannan, 2022). Secondly, a review of the literature revealed that numerous studies

that have investigated the link between personality traits or perceived organizational support and work engagement, used UWES in measuring work engagement (Borst & Knies, 2023; Pérez-Fuentes et al., 2019; Blatný et al., 2018; Akhtar et al., 2015; Stefanidis & Strogilos, 2021; Imran et al., 2020; Xu et al., 2021; Jangsiriwattana, 2021; Jankelová et al., 2021; Jin & Tang, 2021; Arokiasamy, 2021; Bas & Çınar, 2021; Inam et al., 2021; Janssens et al., 2019; Bhatti et al., 2018; Bansal et al., 2020; Musenze et al., 2022; Al-Hamdan & Bani Issa, 2021; Tian et al., 2023). Thirdly, Schaufeli and Bakker (2004) suggested that UWES-15 or UWES-17 should be used if one is interested in examining the three dimensions of work engagement.

3.5.2 Measures of Independent Variables

3.5.2.1 Personality Traits

Personality traits, which include the five dimensions, is the independent variable of this study and it was measured by using the Big Five Inventory (BFI). BFI is a 44-item, self-report scale developed by John, Donahue and Kentle (1991). The instrument is composed of five subscales which are called openness to experience (10 items), extraversion (8 items), conscientiousness (9 items), neuroticism (8 items), and agreeableness (9 items). Examples of items in each subscale are “I am someone who is talkative” for extraversion, “I am someone who likes to cooperate with others” for agreeableness, “I am someone who perseveres until the task is finished” for conscientiousness, “I am someone who worries a lot” for neuroticism, and “I am someone who is curious about many different things” for openness to experience. All 44 items in this instrument are scored on a five-point Likert scale ranging from 1 (disagree strongly) to 5 (agree strongly). Then, the mean score of each subscale is determined. A higher mean score indicates that an individual is higher on that

personality trait. There are sixteen reversed score items in this scale which are items numbered 6, 21, 31, 2, 12, 27, 37, 8, 18, 23, 43, 9, 24, 34, 35, and 41. This scale's coefficient alpha reliabilities were also impressive. It has a Cronbach alpha value of 0.82 for conscientiousness, 0.83 for openness to experience, 0.86 for extraversion, 0.87 for neuroticism, and 0.79 for agreeableness (John et al., 1991).

This scale was chosen due to several reasons. Firstly, in comparison to certain instruments like trait descriptive adjectives and NEO Five-Factor Inventory, BFI-44 is well-known for its efficiency because it requires a relatively shorter administration time. Secondly, the items in BFI-44 are shorter and easily comprehensible (John & Srivastava, 1999) and past studies have used this scale in examining the relationship between the big five personality traits and engagement (Bhatti et al., 2018; Shukla et al., 2014). Thirdly, the participants of this study are academic staff and their time is at a premium, thus making it wiser and appropriate to use this instrument in measuring personality traits.

3.5.2.2 Perceived Organizational Support

Perceived organizational support is another independent variable of this study. An 8-item short version of the survey of perceived organizational support (SPOS) adapted by Baranik, Roling and Eby (2010) from the scale developed by Eisenberger, Cummings, Armeli and Lynch (1997) was used to measure perceived organizational support. Originally, the short version of the SPOS scale by Eisenberger et al. (1997) was created by choosing high-loading items from the instrument of perceived organizational support by Eisenberger et al. (1986). And, all 8 items in the survey are scored on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) (Eisenberger et al., 1997). Then, Baranik et al. (2010) adapted the original scale

and redesigned it with a five-point Likert-type scale (1= strongly disagree to 5 = strongly agree) in their study. This adapted measure has a Cronbach alpha value of 0.91 (Baranik et al., 2010). Examples of items include “My organization strongly considers my goals and values” and “My organization shows very little concern for me”. Each of the item’s scores ranges from 1 to 5, while the scores for the overall scale range from 8 to 40. There were no specific or particular values were given by the original author of the scale, however, a higher score is a reflection that there is more perceived organizational support (Al-Hamdan & Bani Issa, 2021). Also, there are two reversed score items in this scale which are items numbered 3 and 6. SPOS was selected because it has been used in previous studies (Imran et al., 2020; Canboy, Tullou, Barzantny, Güçlü & Benichoux, 2023) in examining the link between perceived organizational support and engagement. Besides, it can reflect the degree to which an employee believes that his organization appreciates or values his contribution and cares about his overall well-being.

3.5.3 Demographic Profile

In this part, there were nine questions that participants need to answer, which are gender, age, marital status, highest educational level, total years of work experience in the academic field, monthly income, current position in the institution, type of institution, and finally the name of the institution in which they are currently employed to. Each participant was requested to select the relevant option among the classified response alternatives that are suitable to his or her circumstances. Overall, there were three questions utilising a nominal scale which are gender, marital status, and type of institution. And there were five questions utilising an ordinal scale which are position, total years of work experience, age, monthly income, and educational background.

Additionally, there was also one open-ended question which was on the name of the institution to which the academic staff is currently attached to. However, this open-ended question was made optional or non-mandatory in order to respect the participant's right to confidentiality. Thus, the question on the name of the institution was included and used mainly to monitor and identify the participating institutions in the research.

3.6 Questionnaire Design and Instrumentation

This part of the chapter explains the instruments that were utilised to measure the variables of the current study. Following that, the major components of the questionnaire of this study were also illustrated and addressed under this section. Table 3.1 shows a summary of the research instruments and sources.

Table 3.1
Research Constructs and Sources

Variables	No. of Items	Scales	Source
Work Engagement	17	5-point Likert scale	Musenze, Mayende, Wampande, Kasango and Emojong (2021)
Personality Traits	44	5-point Likert scale	John, Donahue and Kentle (1991)
Perceived Organizational Support	8	5-point Likert scale	Baranik, Roling and Eby (2010)
Demographic Profile	9		Author
Total	78		

The questionnaire for this research was established based on the literature review, research objective, hypotheses, and conceptual framework. This research utilised well-established and validated instruments to measure personality traits, perceived organizational support, and work engagement among the academic staff of Malaysia.

Also, as illustrated in Table 3.1, the questionnaire for this study was a combination of questions which was adopted from the previous studies.

The questionnaire consisted of four sections as depicted in Table 3.1, and each section was labelled as section A, section B, section C, and section D respectively. In this questionnaire, there were a total of 78 items, whereby 77 items were regarded as closed-ended questions and one item was regarded as an open-ended question. Section A included questions relevant to the participant's background or general information which was referred to as the demographic profile. Following that is section B which consisted of items related to work engagement and its three dimensions (vigor, dedication, and absorption). And then, section C consisted of questions pertaining to personality traits and the five dimensions (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness). Finally, section D consisted of questions relevant to perceived organizational support. Babakus and Mangold (1992) claimed that a five-point scale appeared to enhance response rate and response quality, as well as to reduce participants' 'frustration levels'. For this reason, all the items in sections B, C, and D were measured using a five-point Likert scale measurement.

3.7 Pilot Test

Zikmund et al. (2010) proposed that the term 'pilot study' refers to a small-scale study that gathers information from participants identical to those to be utilised in full-scale research. According to Van Teijlingen and Hundley (2002), pilot studies are the mini versions of full-scale researches or commonly known as 'feasibility studies'. It also refers to the pre-testing of particular research instruments like an interview, or a survey questionnaire. Creswell (2012) described a pilot test of a questionnaire as a process where the researcher modifies an instrument based on responses or feedback from a

small pool of respondents who complete and assess the survey instruments. A pilot test is often administered to identify flaws in design and instrumentation, as well as to offer proxy data or information for the selection of probability samples (Cooper & Schindler, 2014).

In the present study, after the development of good questions, a pilot test of the questionnaire was conducted by selecting a few participants from the academic sector. This pilot test was mainly administered to test the reliability and suitability of the questionnaire as well as to detect weaknesses in the instrumentation. Pilot study for this research was administered in March 2023, among 30 academic staff from Universiti Utara Malaysia (UUM), Wawasan Open University (WOU), Open University Malaysia (OUM), and Politeknik Sultan Azlan Shah (PSAS). It is to be noted that the participants who were selected in the pilot test were excluded from the final sample for the study.

The data for the pilot test was gathered from the participants using exactly the same way as it was administered in the main study. Firstly, a survey form consisting of items relevant to participants' background information, work engagement, personality traits, and perceived organizational support, was created using Google Forms. Then, an invitation to participate in the survey, together with a link to the Google form and a brief introductory message containing the purpose of the study, the identity of the researcher, eligibility criteria, assurance of confidentiality, and a polite thank you note, was shared randomly with 100 academic staff from UUM, WOU, OUM, and PSAS through email. Upon agreement with the terms of the survey, the participants proceeded and answered the survey. Of the 100 distributed survey forms, 30 responses were retrieved and subsequently utilised in the pilot study data analysis. The data

analysis for the pilot test was conducted using SPSS version 27 software. Table 3.2 depicts the demographic profile of the pilot study respondents.

Table 3.2
The Demographic Profile of The Pilot Study Respondents (N = 30)

Variable	Frequency (n)	Percentage (%)
Gender		
Male	11	36.7
Female	19	63.3
Total	30	100.0
Age		
Below 30	0	0.0
30-39	5	16.7
40-49	7	23.3
50-59	17	56.7
59 and above	1	3.3
Total	30	100.0
Highest Education		
Degree	2	6.7
Master	8	26.7
PhD/DBA	20	66.7
Others	0	0.0
Total	30	100.0
Marital Status		
Single	1	3.3
Married	27	90.0
Divorced	2	6.7
Total	30	100.0
Total Years of Work Experience in This Field		
5 years and below	1	3.3
6-10 years	0	0.0
11-15 years	6	20.0
16-20 years	3	10.0
21-25 years	12	40.0
26 years and above	8	26.7
Total	30	100.0
Monthly Salary		
RM5000 and below	1	3.3
RM5001-RM9000	9	30.0
RM9001-RM13000	19	63.3
RM13001 and above	1	3.3
Total	30	100.0

Table 3.2 (Continued)

Variable	Frequency (<i>n</i>)	Percentage (%)
Current Position in the Institution		
Professor	0	0.0
Associate Professor	11	36.7
Senior Lecturer	11	36.7
Lecturer	8	26.7
Others	0	0.0
Total	30	100.0
Type of Institution		
Public University	18	60.0
Community College	0	0.0
Polytechnic	6	20.0
Private University	6	20.0
Private College	0	0.0
Private University College	0	0.0
Foreign Branch Campus	0	0.0
University	0	0.0
Others	0	0.0
Total	30	100.0
Name of the Institution Currently Attached to		
UUM	19	63.3
WOU	1	3.3
OUN	4	13.3
PSAS	6	20.0
Total	30	100.0

As shown in Table 3.2, of the total 30 pilot test participants, 36.7 percent ($n = 11$) were male and 63.3 percent ($n = 19$) were female, therefore females make up the majority of participants. Besides, there was generally an unequal distribution of age groups within the pilot test participants, with 16.7 percent ($n = 5$) of the participants in the 30 to 39 age group, followed by 23.3 percent ($n = 7$) of the participants in the 40 to 49 age group, then 56.7 percent ($n = 17$) of the participants in the 50 to 59 age group and 3.3 percent ($n = 1$) of the participants in the 59 and above age group. Hence, it can be concluded that the greatest number of participants were from the age group between 50 to 59.

With regard to the highest educational achievement, 66.7 percent ($n = 20$) of the pilot test participants had obtained a Doctor of Philosophy (PhD) or Doctor of Business Administration (DBA), with the remainder of the participants being in possession of either a Master's degree (26.7 percent; $n = 8$) or degree (6.7 percent; $n = 2$). The analyses of the pilot test participants' marital status showed that the majority of them were married (90.0 percent; $n = 27$). The remaining 3.3 percent ($n = 1$) of the participants were single and another 6.7 percent ($n = 2$) of the participants were divorced. In terms of the pilot test participants' total years of work experience in the academic field, the majority of the participants (40.0 percent; $n = 12$) had 21 to 25 years of work experience. Following that, 26.7 percent ($n = 8$) of the participants had 26 years and above of work experience and 20.0 percent ($n = 6$) of the participants had 11 to 15 years of work experience. Another 10.0 percent ($n = 3$) of the participants had 16 to 20 years of work experience. The least number of participants (3.3 percent; $n = 1$) had 5 years and below work experience.

The frequency results on monthly salary show that most of the pilot test participants (63.3 percent; $n = 19$) receive a salary between RM9001 to RM13000. Following that, 30.0 percent ($n = 9$) of the participants receive a salary between RM5001 to RM9000. The remaining 3.3 percent ($n = 1$) of the participants receive a salary of RM5000 and below, and another 3.3 percent ($n = 1$) receive a salary of RM13001 and above. When comes to the current position in the institution, 36.7 percent ($n = 11$) of the pilot test participants are associate professors. Another 36.7 percent ($n = 11$) of the participants are senior lecturers. The remaining number of participants (26.7 percent; $n = 8$) are lecturers.

The frequency result also depicts that the majority of pilot test participants (63.6 percent; $n = 19$) were from UUM. Following that, participants from PSAS are the second largest, consisting of 6 (20.0 percent) participants. The participants from OUM represent 13.3 percent ($n = 4$) of the pilot test sample. The remaining 1 (3.3 percent) participant is from WOU.

3.7.1 Reliability Statistics

The reliability of a construct or measure refers to the degree to which an instrument is error-free or in other words, bias-free, which thereby guarantees consistent measurement over time and throughout the numerous items in the survey instrument. The reliability of a measure or scale is normally determined by assessing both the consistency and stability (Sekaran, 2003). Zikmund et al. (2010) claimed that reliability is an indicator of an instrument's internal consistency. The internal consistency of the scales or measures of this study was evaluated by carrying out an inter-item consistency reliability test using Cronbach's alpha.

According to Sekaran (2003), Cronbach's alpha is a reliability coefficient that illustrates how well the items in a scale or questionnaire are positively correlated to one another. In Cronbach's alpha reliability analysis, the value of Cronbach's alpha coefficient often ranges from 0 to 1. The closer the Cronbach's alpha coefficient is to 1, the higher is the internal consistency reliability. The author also claimed that scales with reliabilities above 0.80 are considered good. Scales with reliabilities in the 0.70 range are considered acceptable. And, scales with reliabilities below 0.60 are considered poor. Zikmund et al. (2010) highlighted that scales should have at least a coefficient alpha value of 0.6 in order to be considered as acceptable and reliable.

Table 3.3 shows a summary of Cronbach's alpha coefficient values of the scales in the pilot study. Generally, the Cronbach's alpha coefficient values of all the variables and dimensions ranged from 0.64 to 0.94. The Cronbach's alpha coefficient value of work engagement is 0.94 (good), vigor is 0.85 (good), absorption is 0.85 (good), dedication is 0.91 (good), personality traits is 0.64 (acceptable), conscientiousness is 0.83 (good), openness to experience is 0.75 (acceptable), extraversion is 0.73 (acceptable), agreeableness is 0.81 (good), neuroticism is 0.70 (acceptable), and for perceived organizational support is 0.84 (good). Hence, it can be concluded that the internal consistency of the scales utilised in this pilot test can be considered to be good and acceptable. In other words, the developed questionnaire is reliable and can be utilised in the actual research.

Table 3.3
Summary of Cronbach's Alpha Coefficient Values of the Scales in the Pilot Study

Variables	No. of Items	Cronbach Alpha (N = 30)	M	Remarks
Work Engagement	17	0.94	66.93	Good
Vigor	6	0.85	22.67	Good
Absorption	6	0.85	22.83	Good
Dedication	5	0.91	21.43	Good
Personality Traits	44	0.64	151.60	Acceptable
Conscientiousness	9	0.83	33.97	Good
Openness to Experience	10	0.75	35.47	Acceptable
Extraversion	8	0.73	25.53	Acceptable
Agreeableness	9	0.81	37.07	Good
Neuroticism	8	0.70	19.57	Acceptable
Perceived Organizational Support	8	0.84	25.80	Good

3.8 Data Collection Procedure

The target participants for this study were academic staff of higher education institutions from all six regions in Malaysia, namely the Southern region, Northern region, East Coast, Central region, Sabah, and Sarawak. Hence, the inclusion criteria for participating in this study were as follows: (1) respondents were required to be an academic staff currently working in a higher education institution in Malaysia; (2) their primary roles were required to be teaching, conducting research, or offering public service. The data was gathered from these participants through an online survey method. An online survey method was more practical to be utilised as the respondents were scattered all around Malaysia. Several steps were involved in the data collection process.

First, an online survey form was created using Google Forms. Then, an invitation to participate in the survey, together with a direct link to the Google form, was shared randomly with academic staff from various higher education institutions through emails and via the social media platforms such as Facebook, LinkedIn, Instagram, WhatsApp, Telegram, WeChat, etc. Along with the invitation, a brief introductory message was also included, containing the purpose of the study, eligibility criteria, the identity of the researcher, assurance of confidentiality, and a polite thank you note. The consent of these online samples was gained by asking them to click the 'I agree' button prior to proceeding to the survey questions or items. Follow-ups or reminders were also sent to the participants after the delivery of the survey form via emails or messages. These follow-up emails or messages were merely a reminder to the participants to return the original survey form. Once the respondents have submitted their survey forms, the forms were viewed and carefully monitored by keeping track

of the summaries of responses in the Google Drive app. The data collection process started at the beginning of April 2023 and ended in mid-May 2023.

3.9 Data Analysis Method

Based on the research objectives, various techniques were utilised to examine the hypotheses. Both descriptive and inferential statistical techniques were applied in analysing the data and research hypotheses, in order to generate the results. The data analyses were performed by utilising SPSS version 27 software. Generally, there were several steps involved in the data analysis process. Firstly, after the data was obtained via the online survey, every survey form returned by the participants was carefully examined to ensure that the participants met the inclusion criteria of the study. Then, the data was coded and entered into the SPSS system. Secondly, preliminary data screening and analyses were executed prior to the main data analysis, such as (i) an analysis of univariate descriptive statistics of all the variables in order to ensure the accuracy of data input; (ii) an evaluation of missing data; (iii) identification of univariate and multivariate outliers; (iv) normality test; and (v) checking of the major assumptions of Multiple Regression.

Thirdly, the reliability of the instruments was tested using Cronbach's alpha. Alpha coefficients between 0.70 to 0.80 are considered to represent good reliability (Zikmund et al., 2010), which also means that the questions developed and utilised for this research have high internal consistency. Fourthly, descriptive analysis was carried out to examine the demographic and main variables of the study. The respondents' demographic information and the key variables were examined through descriptive statistics like frequency, percentage, mean, minimum, maximum, median, and standard deviation. Following that, a bivariate analysis was also done to analyse the

potential relationships among variables. Finally, after conducting analysis at a bivariate level, Standard Multiple Regression analysis was also performed to examine the relationship between the dependent variable and several independent variables of the study.

The first, second, third, fourth, and fifth hypotheses aimed at examining the effect of the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) on work engagement among academic staff. The sixth hypothesis was to examine the effect of perceived organizational support on work engagement among academic staff. Both Pearson Correlation, as well as Standard Multiple Regression analysis techniques, were employed to test all these six hypotheses. As a preliminary step, the Pearson Correlation technique was applied to analyse the strength, significance, and direction of the relationship between the variables (e.g., openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, perceived organizational support, vigor, dedication, absorption, and work engagement) in the study.

The strength and direction of the relationship between the study variables were identified by referring to the Pearson correlation coefficient (r) value. In general, the r values often range from -1.0 to +1.0. The positive and negative sign in front of the r values signifies the direction of the correlation. A negative sign denotes a negative correlation whereas a positive sign indicates a positive correlation (Pallant, 2016). The strength of the correlation between the study variables was interpreted by following Cohen's (1988) suggestions. According to Cohen (1988), an r value of between 0.10 to 0.29 ($.10 \leq r \leq .29$) indicates weak correlation whereas an r value from 0.30 to 0.49 ($.30 \leq r \leq .49$) represents moderate correlation. A strong correlation, on the other hand,

is when the r value is between 0.50 to 1.00 ($.50 \leq r \leq 1.00$). It should be also noted that the r value of 0 signifies no correlation between the variables (Pallant, 2016).

Following Pearson Correlation analysis, Standard Multiple Regression analysis was executed to further analyse the relationship between the dependent variable (work engagement and its three dimensions) and independent variables (openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support) of the study. The F statistics, R square values, significant values, standardised coefficients (the beta values), were referred to analyze the results of the Multiple Regression analysis. F statistics were used to determine the statistical significance of the whole Multiple Regression model. R square value was evaluated to identify how much variance in the dependent variable (work engagement and its three dimensions) is explained by the model (which includes openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support). Significant value was referred to evaluate the result's statistical significance. Standardised coefficients or the beta values, were looked into to determine the relative contribution of each independent variable. The independent variable that produces the largest beta value is the strongest predictor of work engagement (Pallant, 2016).

3.10 Chapter Summary

This chapter discusses the research method and strategy for the study. This research was conducted by applying a quantitative correlational research design as well as a cross-sectional survey method. This study was administered among academic staff of higher education institutions in Malaysia. A total of 382 respondents were chosen as samples for this study. The convenience sampling method was used in the selection of

the participants. The inclusion criteria for participating in this study were being an academic staff of higher education institutions in Malaysia and the primary roles were required to be teaching, conducting research, or offering public service. The data collection was conducted by means of an online survey. Three instruments were utilised, BFI to assess personality traits, SPOS to examine perceived organizational support, and UWES to measure work engagement. Both descriptive analysis and inferential statistical techniques were utilised in evaluating the data.



CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter reports the results and findings of the present study. Both descriptive and inferential statistical techniques were used in analysing the data and research hypotheses. The chapter begins with a thorough discussion of the study's preliminary data screening and analysis processes. The next section presents the descriptive statistics of the participant's demographic variables as well as the key variables of the study. The further section reports the results of the reliability analysis. Following that, the results of Pearson Correlation and Standard Multiple Regression analyses (inferential analysis) were also described comprehensively. Finally, it ends with a brief summary. All the analyses were executed using the SPSS version 27 software.

4.2 Response Rate

The required minimum sample for the present study was 382. From the shared and distributed online survey forms, 445 responses were retrieved. Subsequently, every survey form returned by the participants was carefully examined to ensure that the participants met the inclusion criteria of the study. Out of these 445 responses, 16 responses were excluded as the participants failed to meet the inclusion criteria for participating in this study. Thus, only 429 responses were usable, indicating an overall response rate of 112 percent which is exceptionally high. In this study, follow-ups or reminders were sent to the participants after the delivery of the survey form via emails or messages in order to enhance the response rate and to receive as many responses as

possible. This approach has certainly improved and increased the response rate significantly. All usable 429 responses were used for further analyses.

4.3 Preliminary Data Screening and Analyses

The usable 429 responses were coded and entered into the SPSS system for further analysis. Then, all the 18 negatively worded items were reverse scored. Following that, preliminary data screening and analyses were executed, such as (1) an analysis of univariate descriptive statistics of all the variables in order to ensure the accuracy of data input; (2) an evaluation of missing data; (3) identification of univariate and multivariate outliers; (4) normality test; and (5) checking of the major assumptions of Multiple Regression. In general, preliminary data screening handles a number of issues that are addressed after the data is gathered, but prior to the main data analysis being conducted (Tabachnick & Fidell, 2013). Careful examination and resolution of these issues prior to the main data analysis are critical for conducting accurate data analysis (Tabachnick & Fidell, 2013) and any multivariate analysis (Hair, Black, Babin & Anderson, 2010). It allows the researcher to gain a fundamental understanding of the data collected as well as the relationship between the study variables. Besides, it also prevents potential violations of the key statistical assumptions. The following parts offer a comprehensive discussion of the present study's preliminary data screening and analysis processes.

4.3.1 Accuracy of Data File and Detection of Missing Data

As the study involves relatively large data, univariate descriptive statistics were utilised to detect the missing data and to ensure the accuracy of data input into the SPSS system. An inspection of the univariate descriptive statistics of each variable revealed that there was no missing data in the study data set. Descriptive statistics

results also showed plausible minimum, maximum, means, and standard deviation values. Besides, all the values of the continuous variables were also within the range. And, there were no out-of-range numbers.

4.3.2 Detection of Univariate and Multivariate Outliers

Outliers are values that fall outside the normal or typical range of the data and could potentially distort the statistical analysis (Zikmund et al., 2010). An outlier can be determined from a univariate, bivariate, or even multivariate perspective depending on the number of characteristics or variables taken into account (Hair et al., 2010). In the present study, both univariate and multivariate outliers were identified and dealt with. A univariate outlier is a case that has an extreme or unusual value on a single variable. On the other hand, a multivariate outlier is a case that has an outlandish combination of values on at least two or more variables.

To identify univariate outliers, boxplots were generated for each of the key variables using SPSS software. And then, they were used to spot the potential univariate outliers. The boxplots highlighted 35 univariate outliers, which are case numbers 85, 10, 310, 67, 373, 121, 325, 126, 152, 57, 161, 370, 296, 25, 229, 156, 75, 184, 188, 41, 355, 206, 203, 354, 253, 392, 391, 107, 179, 363, 242, 214, 290, 327 and 330 (see Appendix 4). All 35 cases were deleted, resulting in $N = 394$. After the removal of the univariate outliers, new boxplots were generated again and another nine new univariate outliers were detected in the variable extraversion (8 outliers) and agreeableness (1 outlier). However, these new univariate outliers were retained as their values were not too different from the remaining distribution.

To identify multivariate outliers, Mahalanobis Distance was computed through the Regression program (see Appendix 5). Mahalanobis Distance is the distance of a

specific observation from the centroid of the remaining observations whereby the centroid is the point formed by the means of every one of the variables (Tabachnick & Fidell, 2013). The values of Mahalanobis Distance were then compared against a critical value of Chi-Square in order to identify the potential cases to be multivariate outliers in this study. The critical value was obtained by referring to a Chi-Square critical values distribution table in Tabachnick and Fidell (2013). For the present study, the table showed that the critical value of Mahalanobis Distance with 9 variables at $\alpha = 0.001$ is 27.88. A case is considered a multivariate outlier if the Mahalanobis Distance value exceeds 27.88. Thus, case numbers 415, 253, 376, and 286 were identified as the multivariate outliers and were removed as their Mahalanobis Distance values exceeded the critical value of 27.88 (see Table 4.1). This further results in $N = 390$.

Table 4.1
Summary of Multivariate Outliers

No	Case Number	Mahalanobis Distance (D^2)
1	415	32.44
2	253	32.39
3	376	30.66
4	286	28.83

4.3.3 Normality Test

Normality tests are analyses used to identify and see if the data set is reasonably normally distributed (American Psychological Association, n.d.). Tabachnick and Fidell (2013) claimed that it is always critical to screen continuous variables for normality prior to any multivariate analysis. In the present study, both statistical and graphical techniques were utilised to analyse the normality of the variables. The normality of the distribution of scores for each variable was assessed by inspecting the

Kolmogorov-Smirnov statistics, the values of skewness and kurtosis, histograms, as well as Normal Q-Q Plots. Table 4.2 presents the summary of the results of the normality test for each variable.

The results of the Kolmogorov-Smirnov test revealed that all variables had a p -value of less than 0.05 (see Table 4.2). According to Pallant (2016), a p -value of more than 0.05 signifies normality, thus the present results indicate a violation of the assumption of normality. Following that, the values of skewness and kurtosis of each variable were inspected. The value of skewness often signifies the symmetry of a data distribution whereas the value of kurtosis signifies the peakedness of a data distribution (Pallant, 2016). For a variable to be considered normally distributed, it should have the suggested skewness value between -1.96 to +1.96 (Hair et al., 2010) and also a kurtosis value between -7 to +7 (Byrne, 2010). An inspection of the kurtosis values revealed that all variables had a kurtosis value between -7 to +7. When comes to the skewness values, all the variables had a skewness value between -1.96 to +1.96 (see Table 4.2). This indicates that there is no violation of the assumption of normality. Hair et al. (2010) suggested that scholars should employ both statistical and graphical techniques to evaluate the actual or exact degrees of deviation from the normality. Tabachnick and Fidell (2013) proposed that for larger samples, it is better to assess the shape of the distribution rather than employing statistical tests.

Therefore, to further analyse the normality of the distribution of scores for each variable, both histograms and Normal Q-Q Plots were generated and assessed. The histograms of all the variables were nearly symmetrical and were in a bell-shaped curve (see Appendix 7). The scores in each variable also seem to be quite normally distributed. Besides that, the Normal Q-Q Plots of each variable showed a reasonably

straight line with all the points falling pretty close to the diagonal line, indicating a normal distribution (see Appendix 8). Based on the statistical and graphical analyses, it can be concluded that all the variables of the present study are normally distributed.

Table 4.2
Summary of Results of the Normality Test

Variables	Kolmogorov-Smirnov			Skewness	Kurtosis	Histogram	Normal Q-Q Plots
	Statistic	df	Sig.				
Work Engagement	.051	390	.017	.077	-.438	Normal	Normal
Vigor	.092	390	<.001	-.122	-.132	Normal	Normal
Absorption	.075	390	<.001	.044	-.294	Normal	Normal
Dedication	.118	390	<.001	-.236	-.435	Normal	Normal
Conscientiousness	.077	390	<.001	-.031	-.685	Normal	Normal
Openness	.060	390	.002	.078	-.364	Normal	Normal
Extraversion	.066	390	<.001	.007	-.175	Normal	Normal
Agreeableness	.076	390	<.001	-.083	-.446	Normal	Normal
Neuroticism	.071	390	<.001	.092	-.243	Normal	Normal
Perceived Organizational Support	.073	390	<.001	-.258	-.164	Normal	Normal

Note. Sig. = significant value.

4.3.4 Checking of the Major Assumptions of Multiple Regression

4.3.4.1 Sample Size

Multiple Regression analysis is not the method to be applied to a small sample. One common rule of thumb for the required and appropriate sample size to test Multiple Regression is $N \geq 50 + 8m$, whereby m refers to the number of predictive variables (Tabachnick & Fidell, 2013). As this study has 6 predictive variables, it will need at least 98 cases or respondents to test regression. The present study has met this assumption as the final sample size consists of 390 cases.

4.3.4.2 Multicollinearity

Multicollinearity exists when the independent or predictive variables in the study are too highly correlated with one another with r values of 0.90 and above (Tabachnick & Fidell, 2013). It should be noted that Multiple Regression does not approve or accept multicollinearity. To identify problems in relation to multicollinearity, ‘collinearity diagnostics’ was performed and generated through the Multiple Regression program, whereby two values namely Tolerance and Variance Inflation Factor (VIF) were calculated. And then, these two values were carefully analysed. According to Pallant (2016), Tolerance values of less than 0.10 and VIF values of greater than 10 signify multicollinearity. The results of collinearity diagnostics revealed that all the independent variables in the study had a Tolerance value of greater than 0.10 and a VIF value of below 10 (see Table 4.3), indicating no possibility of multicollinearity. Hence, it can be concluded that there is no violation of the assumption of multicollinearity in the present study.

Table 4.3
Summary of Tolerance and VIF Values for Each Variable

	Collinearity Statistics							
	Model 1		Model 2		Model 3		Model 4	
	T	VIF	T	VIF	T	VIF	T	VIF
Conscientiousness	.568	1.761	.568	1.761	.568	1.761	.568	1.761
Openness	.769	1.301	.769	1.301	.769	1.301	.769	1.301
Extraversion	.732	1.366	.732	1.366	.732	1.366	.732	1.366
Agreeableness	.533	1.877	.533	1.877	.533	1.877	.533	1.877
Neuroticism	.513	1.948	.513	1.948	.513	1.948	.513	1.948
Perceived Organizational Support	.833	1.201	.833	1.201	.833	1.201	.833	1.201

Note. T = tolerance; VIF = variance inflation factor. Dependent Variable = Work Engagement (Model 1), Vigor (Model 2), Absorption (Model 3), and Dedication (Model 4).

4.3.4.3 Normality, Linearity, and Homoscedasticity of Residuals

These assumptions were examined through the inspection of the Normal P-P Plots as well as the scatterplots generated from the Regression program. The Normal P-P Plots showed a reasonably straight diagonal line with all the points falling reasonably close to the diagonal line, indicating normality (see Appendix 11). In addition, the residuals in all the scatterplots were pretty much randomly, evenly, and rectangularly distributed. Also, most of the scores in the scatterplots were concentrated at the centre (see Appendix 10). Based on the examination of the Normal P-P Plots and the scatterplots, it can be concluded that there is no clear violation of the assumptions of normality, linearity, as well as homoscedasticity in the present study.

4.3.4.4 Independence of Errors

This assumption was assessed through the Durbin-Watson test. This test presents test statistics with a value ranging from 0 to 4. According to Field (2009), a value of Durbin-Watson statistics below 1 or greater than 3 is considered to be problematic and to be a cause for concern. On the other hand, a value of Durbin-Watson statistics close to 2 is considered to be better and the assumption of independent errors is likely to be fulfilled. In the present study, all the values of Durbin-Watson statistics were very close to the value 2 and were also within the range of between 1 and 3 (see Table 4.4). Therefore, it can be said that the assumption of independent errors has been pretty much fulfilled and met.

Table 4.4

Summary of Results of the Durbin-Watson Test

Model	Durbin-Watson
1	2.147
2	2.108
3	2.121
4	2.052

Note. Dependent Variable = Work Engagement (Model 1), Vigor (Model 2), Absorption (Model 3), and Dedication (Model 4). Predictors = Conscientiousness, Openness to Experience, Extraversion, Agreeableness, Neuroticism, and Perceived Organizational Support.

4.3.4.5 Conclusion on the Assumptions of Multiple Regression

Based on the results of testing the assumptions of Multiple Regression, it can be concluded that there is no clear violation of the assumptions of normality, multicollinearity, linearity, homoscedasticity, as well as the independence of errors in the present study. All the major assumptions of Multiple Regression were reasonably met and fulfilled.

4.4 Descriptive Analysis

4.4.1 Demographic Profile of The Study Participants

This section describes the participant's demographic characteristics. The demographic information collected from the participants were on their gender, age, marital status, highest educational level, total years of work experience in the academic field, monthly income, current position in the institution, type of institution, and the name of the institution (a non-mandatory question). The actual and final valid number of participants in the present study was 390 ($N = 390$). Table 4.5 illustrates the demographic profile of the study participants.

As shown in Table 4.5, of the total 390 participants, 41.5 percent ($n = 162$) were male and 58.5 percent ($n = 228$) were female, therefore females make up the majority of participants. Apart from that, there was generally an unequal distribution of age groups within the participants, with 3.3 percent ($n = 13$) of the participants in the below 30 age group, followed by 33.6 percent ($n = 131$) of the participants in the 30 to 39 age group, then 36.4 percent ($n = 142$) of the participants in the 40 to 49 age group, another 21.8 percent ($n = 85$) of the participants in the 50 to 59 age group, and 4.9 percent ($n = 19$) of the participants in the 59 and above age group. Hence, it can be concluded that the greatest number of participants were from the age group between 40 to 49.

With regard to the highest educational achievement, 62.6 percent ($n = 244$) of the participants had obtained a PhD or DBA, with the remainder of the participants being in possession of either a Master's degree (31.8 percent; $n = 124$), degree (4.1 percent; $n = 16$) or other educational achievements (1.5 percent; $n = 6$). The specified other highest education achievements by the participants were post-doctoral, surgical specialist, diploma, clinical specialist, Fellow of the Royal College of Obstetricians and Gynaecologists, and Membership of the Royal College of Paediatrics and Child Health. The analyses of the participants' marital status showed that the majority of them were married (73.6 percent; $n = 287$). The remaining 22.8 percent ($n = 89$) of the participants were single and another 3.6 percent ($n = 14$) of the participants were divorced. In terms of the participants' total years of work experience in the academic field, 21.8 percent ($n = 85$) of the participants had 11 to 15 years of work experience. Following that, 19.2 percent ($n = 75$) of the participants had 6 to 10 years of work experience. Then, 17.9 percent ($n = 70$) of the participants had 5 years and below work experience. Another, 17.7 percent ($n = 69$) of the participants had 21 to 25 years of work experience and 14.4 percent ($n = 56$) of the participants had 16 to 20 years of

work experience. The least number of participants (9.0 percent; $n = 35$) had 26 years and above work experience.

The frequency results on monthly salary show that most of the participants (43.1 percent; $n = 168$) receive a salary between RM5001 to RM9000. Following that, 27.2 percent ($n = 106$) of the participants receive a salary between RM9001 to RM13000. The remaining 16.4 percent ($n = 64$) of the participants receive a salary of RM5000 and below, and another 13.3 percent ($n = 52$) receive a salary of RM13001 and above. When comes to the current position in the institution, 42.3 percent ($n = 165$) of the participants were senior lecturers. Another 32.3 percent ($n = 126$) of the participants were lecturers. Following that, 14.9 percent ($n = 58$) were associate professors and 7.9 percent ($n = 31$) were professors. The remaining number of participants (2.6 percent; $n = 10$) were holding an academic position with other titles such as assistant professor, assistant lecturer, principal lecturer, research fellow, and tutor.

The frequency data on the type of institution shows that the majority of the participants (51.3 percent; $n = 200$) came from public universities, followed by 30.8 percent ($n = 120$) from private universities, 7.9 percent ($n = 31$) from polytechnics, 3.8 percent ($n = 15$) from foreign branch campus universities, 3.6 percent ($n = 14$) from private university colleges, 1.5 percent ($n = 6$) from community colleges, and another 1.0 percent ($n = 4$) from private colleges. Based on the disclosed data on the name of the institution (a non-mandatory question), the academic staff of public universities who participated in this study were generally from 16 different universities, namely Universiti Teknologi MARA, Universiti Kebangsaan Malaysia, Universiti Malaysia Terengganu, Universiti Malaya, Universiti Pendidikan Sultan Idris, Universiti Malaysia Pahang, Universiti Malaysia Sarawak, Universiti Sains Malaysia, Universiti

Teknologi Malaysia, Universiti Malaysia Sabah, Universiti Teknikal Malaysia Melaka, Universiti Malaysia Kelantan, Universiti Tun Hussein Onn Malaysia, Universiti Putra Malaysia, University Malaysia Perlis, and Universiti Islam Antarabangsa Malaysia.

The academic staff of private universities who participated in this study roughly came from 12 different universities, which include Taylor's University, Universiti Tun Abdul Razak, Asia Metropolitan University, Multimedia University, Universiti Selangor, Sunway University, Universiti Tunku Abdul Rahman, Universiti Teknologi Petronas, UCSI University, University of Cyberjaya, Tunku Abdul Rahman University of Management & Technology, and Universiti Sultan Azlan Shah. When comes to the academic staff of polytechnics, those who participated were approximately from 10 different institutions, namely Politeknik Hulu Terengganu, Politeknik Seberang Perai, Politeknik Ibrahim Sultan, Politeknik Metro Kuala Lumpur, Politeknik Tun Syed Nasir Syed Ismail, Politeknik Kota Bharu, Politeknik Sandakan Sabah, Politeknik Metro Betong Sarawak, Politeknik Balik Pulau, and Politeknik Banting Selangor.

The academic staffs of foreign branch campus universities who participated in this study were nearly from 4 different universities, namely the University of Southampton Malaysia, Monash University Malaysia, Swinburne University of Technology, and RCSI & UCD Malaysia Campus. The academic staff of private university colleges who participated in this study roughly came from 3 different universities, which include Southern University College, KPJ Healthcare University College, and New Era University College. In terms of the academic staff of community colleges and private colleges, the disclosed data revealed that those who participated were approximately from 2 different institutions, namely the Selayang Community College and KPJ International College respectively.

Table 4.5

The Demographic Profile of The Study Participants (N = 390)

Variable	Frequency (n)	Percentage (%)
Gender		
Male	162	41.5
Female	228	58.5
Total	390	100.0
Age		
Below 30	13	3.3
30-39	131	33.6
40-49	142	36.4
50-59	85	21.8
59 and above	19	4.9
Total	390	100.0
Highest Education		
Degree	16	4.1
Master	124	31.8
PhD/DBA	244	62.6
Others	6	1.5
Total	390	100.0
Marital Status		
Single	89	22.8
Married	287	73.6
Divorced	14	3.6
Total	390	100.0
Total Years of Work Experience in This Field		
5 years and below	70	17.9
6-10 years	75	19.2
11-15 years	85	21.8
16-20 years	56	14.4
21-25 years	69	17.7
26 years and above	35	9.0
Total	390	100.0
Monthly Salary		
RM5000 and below	64	16.4
RM5001-RM9000	168	43.1
RM9001-RM13000	106	27.2
RM13001 and above	52	13.3
Total	390	100.0

Table 4.5 (Continued)

Variable	Frequency (<i>n</i>)	Percentage (%)
Current Position in the Institution		
Professor	31	7.9
Associate Professor	58	14.9
Senior Lecturer	165	42.3
Lecturer	126	32.3
Others	10	2.6
Total	390	100.0
Type of Institution		
Public University	200	51.3
Community College	6	1.5
Polytechnic	31	7.9
Private University	120	30.8
Private College	4	1.0
Private University College	14	3.6
Foreign Branch Campus	15	3.8
University		
Others	0	0.0
Total	390	100.0

4.4.2 Descriptive Statistics of the Study Key Variables

Descriptive analyses were used in analysing the key variables of the study. Descriptive statistics such as frequency, percentage, median, standard deviation, mean, minimum, and maximum were obtained for each and every one of the independent variables and dependent variable as well as their dimensions using SPSS software. The results are presented in Table 4.6, Table 4.7, and Table 4.8. It should be noted that all the key variables and dimensions of the study were measured using a five-point Likert scale measurement.

For the dependent variable work engagement and its three dimensions (vigor, absorption, and dedication), the classification of the scores was in accordance with the scale interpretation proposed by Schaufeli and Bakker (2004) and as illustrated in the test manual of UWES. The scores of work engagement and its three dimensions (vigor,

absorption, and dedication) were classified into five categories, namely 'very low' (score < 5th percentile), 'low' (5th percentile $\leq$ score < 25th percentile), 'average' (25th percentile $\leq$ score < 75th percentile), 'high' (75th percentile $\leq$ score < 95th percentile), and 'very high' (score $\geq$ 95th percentile).

A participant's mean subscale score and/or total score that falls below the 5th percentile denotes a very low level of work engagement, vigor, absorption, or dedication. A mean subscale score and/or total score that falls between the 5th percentile and less than the 25th percentile suggests a low level of work engagement, vigor, absorption, or dedication. A mean subscale score and/or total score that falls between the 25th percentile and less than the 75th percentile illustrates an average level of work engagement, vigor, absorption, or dedication. A mean subscale score and/or total score that falls between the 75th percentile and less than the 95th percentile depicts a high level of work engagement, vigor, absorption, or dedication. And, a mean subscale score and/or total score that falls above or equal to the 95th percentile represents a very high level of work engagement, vigor, absorption, or dedication.

For the independent variables perceived organizational support and the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness), there were no specific norms or classification of scores specified by the original author of the scales of the variables. Therefore, the median score was used as the cut-off point to classify the scores of these variables and their dimensions, whereby the scores were grouped into two categories: scores above and equal to the median (represent a high level of perceived organizational support, openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) and scores below the median (represent a low level of perceived

organizational support, openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness).

4.4.2.1 Work Engagement and Its Three Dimensions

Table 4.6 presents the descriptive statistics of the variable work engagement and its three dimensions (vigor, absorption, and dedication). For the variable work engagement, the mean value was 3.96 ($SD = 0.48$), the minimum score was 2.65 and the maximum score was 5.00. In terms of the level of work engagement, 4.4 percent ($n = 17$) of the participants had a very low level of work engagement, followed by 17.2 percent ($n = 67$) of the participants had a low level of work engagement, then 52.1 percent ($n = 203$) of the participants had an average level of work engagement, another 21.3 percent ($n = 83$) of the participants had a high level of work engagement, and 5.1 percent ($n = 20$) of the participants had a very high level of work engagement. Overall, it can be concluded that the level of work engagement among academic staff is average.

As for the dimension vigor, the mean value was 3.81 ($SD = 0.57$), the minimum score was 2.17 and the maximum score was 5.00. In terms of the level of vigor, 3.3 percent ($n = 13$) of the participants possessed a very low level of vigor, 14.1 percent ($n = 55$) of the participants possessed a low level of vigor, 53.3 percent ($n = 208$) of the participants possessed an average level of vigor, 22.6 percent ($n = 88$) of the participants possessed a high level of vigor, and another 6.7 percent ($n = 26$) of the participants possessed a very high level of vigor. On the whole, the level of vigor among academic staff was found to be average.

When comes to the dimension absorption, the mean value was 3.87 ($SD = 0.53$), the minimum score was 2.50 and the maximum score was 5.00. In terms of the level of

absorption, 3.3 percent ($n = 13$) of the participants experienced a very low level of absorption, 14.4 percent ($n = 56$) of the participants experienced a low level of absorption, 49.2 percent ($n = 192$) experienced an average level of absorption, 25.4 percent ($n = 99$) of the participants experienced a high level of absorption, and another 7.7 percent ($n = 30$) of the participants experienced a very high level of absorption. As shown above, it can be concluded that the level of absorption among academic staff is average.

With regard to the dimension dedication, the mean value was 4.23 ($SD = 0.53$), the minimum score was 2.80 and the maximum score was 5.00. In terms of the level of dedication, 4.9 percent ($n = 19$) of the participants had a very low level of dedication, 7.9 percent ($n = 31$) of the participants had a low level of dedication, 54.4 percent ($n = 212$) of the participants had an average level of dedication, 16.9 percent ($n = 66$) of the participants had a high level of dedication, and another 15.9 percent ($n = 62$) of the participants had a very high level of dedication. Overall, the level of dedication among academic staff was found to be average.

Table 4.6

The Descriptive Statistics of Work Engagement and Its Three Dimensions (N = 390)

Variables	n	%	M	SD	Mdn	Min	Max
Work Engagement			3.96	0.48	3.94	2.65	5.00
Very Low (score < 3.18)	17	4.4					
Low (3.18 ≤ score < 3.59)	67	17.2					
Average (3.59 ≤ score < 4.29)	203	52.1					
High (4.29 ≤ score < 4.82)	83	21.3					
Very High (score ≥ 4.82)	20	5.1					
Vigor			3.81	0.57	3.83	2.17	5.00
Very Low (score < 2.83)	13	3.3					
Low (2.83 ≤ score < 3.33)	55	14.1					
Average (3.33 ≤ score < 4.17)	208	53.3					
High (4.17 ≤ score < 4.83)	88	22.6					
Very High (score ≥ 4.83)	26	6.7					
Absorption			3.87	0.53	3.83	2.50	5.00
Very Low (score < 3.00)	13	3.3					
Low (3.00 ≤ score < 3.50)	56	14.4					
Average (3.50 ≤ score < 4.17)	192	49.2					
High (4.17 ≤ score < 4.83)	99	25.4					
Very High (score ≥ 4.83)	30	7.7					
Dedication			4.23	0.53	4.20	2.80	5.00
Very Low (score < 3.31)	19	4.9					
Low (3.31 ≤ score < 3.80)	31	7.9					
Average (3.80 ≤ score < 4.60)	212	54.4					
High (4.60 ≤ score < 5.00)	66	16.9					
Very High (score ≥ 5.00)	62	15.9					

Note. Min = minimum; Max = maximum.

4.4.2.2 Personality Traits

Table 4.7 depicts the descriptive statistics of the variable personality traits which is composed of five dimensions: openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness. For the dimension

conscientiousness, the mean value was 3.80 ($SD = 0.55$), the minimum score was 2.44 and the maximum score was 5.00. In terms of the level of conscientiousness, the majority of the participants (54.4 percent; $n = 212$) had a high level of conscientiousness. On the other hand, the remaining 45.6 percent ($n = 178$) of the participants had a low level of conscientiousness. Hence, it can be concluded that the level of conscientiousness among academic staff is high.

When comes to the dimension of openness to experience, the mean value was 3.49 ($SD = 0.42$), the minimum score was 2.40 and the maximum score was 4.50. In terms of the level of openness to experience, most of the participants (52.3 percent; $n = 204$) were high in openness to experience. Another 47.7 percent ($n = 186$) of the participants were low in openness to experience. As shown above, it can be said that the level of openness to experience among academic staff is high.

For the dimension extraversion, the mean value was 3.30 ($SD = 0.56$), the minimum score was 1.75 and the maximum score was 4.75. In terms of the level of extraversion, the greatest number of participants (58.7 percent; $n = 229$) scored high on extraversion. The remaining number of participants (41.3 percent; $n = 161$) scored low on extraversion. On the whole, the level of extraversion among academic staff was found to be high.

With regard to the dimension agreeableness, the mean value was 4.03 ($SD = 0.48$), the minimum score was 2.78 and the maximum score was 5.00. In terms of the level of agreeableness, the majority of the participants (50.5 percent; $n = 197$) had a high level of agreeableness, while the remaining participants (49.5 percent; $n = 193$) had a low level of agreeableness. Overall, it can be concluded that the level of agreeableness among academic staff is high.

The descriptive data on the dimension neuroticism shows that the mean value of this dimension was 2.49 ($SD = 0.66$), the minimum score was 1.00 and the maximum score was 4.38. In terms of the level of neuroticism, it is clear that most of the participants (53.1 percent; $n = 207$) were high in neuroticism and the remaining number of participants (46.9 percent; $n = 183$) were low in neuroticism. Hence, it can be said that the level of neuroticism among academic staff is high.

Table 4.7

The Descriptive Statistics of The Big Five Personality Traits (N = 390)

Variables	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>Mdn</i>	Min	Max
Conscientiousness			3.80	0.55	3.78	2.44	5.00
Low (score 2.44 - 3.77)	178	45.6					
High (score 3.78 - 5.00)	212	54.4					
Openness to Experience			3.49	0.42	3.50	2.40	4.50
Low (score 2.40 - 3.49)	186	47.7					
High (score 3.50 - 4.50)	204	52.3					
Extraversion			3.30	0.56	3.25	1.75	4.75
Low (score 1.75 - 3.24)	161	41.3					
High (score 3.25 - 4.75)	229	58.7					
Agreeableness			4.03	0.48	4.11	2.78	5.00
Low (score 2.78 - 4.10)	193	49.5					
High (score 4.11 - 5.00)	197	50.5					
Neuroticism			2.49	0.66	2.50	1.00	4.38
Low (score 1.00 - 2.49)	183	46.9					
High (score 2.50 - 4.38)	207	53.1					

Note. Min = minimum; Max = maximum.

4.4.2.3 Perceived Organizational Support

Table 4.8 shows the descriptive statistics of the variable perceived organizational support. The mean value of this variable was 27.53 ($SD = 5.03$), the minimum score was 14.00 and the maximum score was 40.00. In terms of the level of perceived

organizational support, most of the participants (53.6 percent; $n = 209$) had a high level of perceived organizational support, while the remaining participants (46.4 percent; $n = 181$) had a low level of perceived organizational support. Hence, it can be said that the level of perceived organizational support among academic staff is high.

Table 4.8

The Descriptive Statistics of Perceived Organizational Support (N = 390)

Variables	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>Mdn</i>	Min	Max
Perceived Organizational Support			27.53	5.03	28.00	14.00	40.00
Low (score 14.00 - 27.99)	181	46.4					
High (score 28.00 - 40.00)	209	53.6					

Note. Min = minimum; Max = maximum.

4.5 Reliability Statistics

Reliability analysis was executed to measure the internal consistency of the scales used in the actual study. The internal consistency was measured using Cronbach's alpha values. As presented in Table 4.9, Cronbach's alpha coefficient values of all the variables and dimensions ranged from 0.64 to 0.88. The Cronbach's alpha coefficient value of work engagement was 0.88 (good), vigor was 0.76 (acceptable), absorption was 0.71 (acceptable), dedication was 0.81 (good), personality traits was 0.70 (acceptable), conscientiousness was 0.81 (good), openness to experience was 0.64 (acceptable), extraversion was 0.73 (acceptable), agreeableness was 0.73 (acceptable), neuroticism was 0.83 (good), and for perceived organizational support was 0.83 (good). The above results conclude that all the scales and items utilised in the actual study have a good and/or acceptable internal consistency.

Table 4.9

Summary of Cronbach's Alpha Coefficient Values of the Scales in the Actual Study

Variables	No. of Items	Cronbach Alpha (N = 390)	M	Remarks
Work Engagement	17	0.88	67.26	Good
Vigor	6	0.76	22.85	Acceptable
Absorption	6	0.71	23.24	Acceptable
Dedication	5	0.81	21.17	Good
Personality Traits	44	0.70	151.62	Acceptable
Conscientiousness	9	0.81	34.18	Good
Openness to Experience	10	0.64	34.87	Acceptable
Extraversion	8	0.73	26.42	Acceptable
Agreeableness	9	0.73	36.23	Acceptable
Neuroticism	8	0.83	19.92	Good
Perceived Organizational Support	8	0.83	27.53	Good

4.6 Inferential Analysis

This section explains the results and findings of the inferential analysis of the study. Inferential statistics allow researchers to derive inferences, deductions, or conclusions from a sample to a population of respondents (Creswell, 2012). In the present study, inferential analysis was executed in the form of Pearson Correlation and Standard Multiple Regression analysis, based on the developed research questions.

4.6.1 Correlation Analysis

Correlation is a type of statistical test employed to analyse the relationships between the study variables (Tabachnick & Fidell, 2013). As a preliminary step, Pearson Correlation analyses were conducted to examine the strength, significance, and direction of the relationship between the variables (independent and dependent variables as well as their dimensions) in this study. The result of the Pearson Correlation analyses is presented in Table 4.10. The results showed that both the

independent variables the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) and perceived organizational support, were significantly correlated to work engagement and its three dimensions (vigor, absorption, and dedication), with Pearson correlation coefficient values ranging from 0.159 to 0.471.

As illustrated in Table 4.10 below, conscientiousness was found to have a moderate positive correlation with work engagement ($r = 0.359, p < 0.05$), vigor ($r = 0.429, p < 0.05$), and dedication ($r = 0.326, p < 0.05$). Conscientiousness was also found to have a weak positive correlation with absorption ($r = 0.174, p < 0.05$). Overall, the results indicate that the higher the level of conscientiousness among academic staff, the higher is their level of work engagement, vigor, absorption, and dedication.

Following that, openness to experience was found to have a moderate positive correlation with work engagement ($r = 0.395, p < 0.05$) and all its three dimensions, namely vigor ($r = 0.375, p < 0.05$), absorption ($r = 0.320, p < 0.05$) and dedication ($r = 0.332, p < 0.05$). This means that the higher the level of openness to experience among academic staff, the higher is their level of work engagement, vigor, absorption, and dedication.

Next, extraversion was discovered to have a moderate positive correlation with work engagement ($r = 0.335, p < 0.05$) and vigor ($r = 0.388, p < 0.05$). Also, it was found to have a weak positive correlation with absorption ($r = 0.227, p < 0.05$) and dedication ($r = 0.243, p < 0.05$). On the whole, this result signifies that the higher the level of extraversion among academic staff, the higher is their level of work engagement, vigor, absorption, and dedication.

The results also revealed a moderate positive correlation between agreeableness and work engagement ($r = 0.347, p < 0.05$) as well as its two dimensions, namely vigor ($r = 0.395, p < 0.05$) and dedication ($r = 0.352, p < 0.05$). Also, a weak positive correlation was found between agreeableness and absorption ($r = 0.161, p < 0.05$). Overall, the result indicates that the higher the level of agreeableness among academic staff, the higher is their level of work engagement, vigor, absorption, and dedication.

Further, neuroticism was found to have a moderate negative correlation with work engagement ($r = -0.386, p < 0.05$), vigor ($r = -0.471, p < 0.05$), and dedication ($r = -0.374, p < 0.05$). Neuroticism was also found to have a weak negative correlation with absorption ($r = -0.159, p < 0.05$). In general, the result means that the higher the level of neuroticism among academic staff, the lower is their level of work engagement, vigor, absorption, and dedication.

Finally, based on Table 4.10, perceived organizational support was found to have a moderate positive correlation with work engagement ($r = 0.385, p < 0.05$), vigor ($r = 0.385, p < 0.05$), and dedication ($r = 0.374, p < 0.05$). It was also found to have a weak positive correlation with absorption ($r = 0.250, p < 0.05$). On the whole, the results indicate that the higher the level of perceived organizational support among academic staff, the higher is their level of work engagement, vigor, absorption, and dedication.

Table 4.10
Correlations among Conscientiousness, Openness to Experience, Extraversion, Agreeableness, Neuroticism, Perceived Organizational Support, Work Engagement, Vigor, Absorption, and Dedication (N = 390)

Variables	1	2	3	4	5	6	7	8	9	10
1. Conscientiousness	1									
2. Openness to Experience	.363**	1								
3. Extraversion	.386**	.372**	1							
4. Agreeableness	.580**	.365**	.300**	1						
5. Neuroticism	-.549**	-.315**	-.425**	-.593**	1					
6. Perceived Organizational Support	.214**	.061	.218**	.295**	-.381**	1				
7. Work Engagement	.359**	.395**	.335**	.347**	-.386**	.385**	1			
8. Vigor	.429**	.375**	.388**	.395**	-.471**	.385**	.893**	1		
9. Absorption	.174**	.320**	.227**	.161**	-.159**	.250**	.859**	.621**	1	
10. Dedication	.326**	.332**	.243**	.352**	-.374**	.374**	.855**	.676**	.605**	1

Note. Correlation marked with an asterisk (**) is significant at the 0.01 level (2-tailed).

4.6.2 Standard Multiple Regression Analysis

Standard Multiple Regression analyses were performed to further analyse the relationship between the dependent variable (work engagement and its three dimensions) and independent variables (openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support) in the study. These analyses were also conducted to test hypotheses H1, H2, H3, H4, H5, and H6. It should be noted that as the dependent variable of this study ‘work engagement’ is composed of three sub-dimensions (vigor, absorption, and dedication), a total of four Standard Multiple Regression analyses were executed for work engagement and its three sub-dimensions, whereby considering vigor, absorption, and dedication as different dependent variables. Besides that, preliminary analyses were executed to ensure that there is no significant violation of the assumptions of normality, multicollinearity, linearity, homoscedasticity, and independence of errors in the present study (see Section 4.1.4). Table 4.11 presents the results of the Standard Multiple Regression models for work engagement and the three dimensions. The results and findings of the Multiple Regression analyses were discussed in accordance with the following hypotheses.

H1: Conscientiousness will have a positive effect on work engagement among academic staff in Malaysia

H2: Openness to experience will have a positive effect on work engagement among academic staff in Malaysia

H3: Extraversion will have a positive effect on work engagement among academic staff in Malaysia

H4: Agreeableness will have a positive effect on work engagement among academic staff in Malaysia

H5: Neuroticism will have a negative effect on work engagement among academic staff in Malaysia

H6: Perceived organizational support will have a positive effect on work engagement among academic staff in Malaysia

The Multiple Regression model for work engagement was statistically significant with $F(6,383) = 30.863, p < 0.001$. The R square value of 0.326 revealed that a combination of openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support explained 32.6 percent of the variance in academic staff's work engagement. Of the six variables and dimensions, openness to experience ($\beta = 0.271, p < 0.05$) and perceived organizational support ($\beta = 0.289, p < 0.05$) were the only significant predictors of work engagement. The remaining variables and dimensions, namely extraversion ($\beta = 0.089, p > 0.05$), conscientiousness ($\beta = 0.104, p > 0.05$), neuroticism ($\beta = -0.078, p > 0.05$), and agreeableness ($\beta = 0.030, p > 0.05$) were found to be not significant to work engagement. In addition, perceived organizational support appeared as the strongest significant predictor of academic staff's work engagement, followed by openness to experience.

For vigor, the model was statistically significant with $F(6,383) = 37.398, p < 0.001$. The R square value was 0.369, indicating that all the six independent variables and dimensions (openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support) explained 36.9 percent of the variance in academic staff's vigor. Of the six variables and dimensions, openness to

experience ($\beta = 0.196, p < 0.05$), extraversion ($\beta = 0.126, p < 0.05$), conscientiousness ($\beta = 0.151, p < 0.05$), neuroticism ($\beta = -0.162, p < 0.05$), and perceived organizational support ($\beta = 0.243, p < 0.05$) were found to be the significant predictors of vigor, while agreeableness ($\beta = 0.030, p > 0.05$) was found to be not significant to vigor. The results also revealed that perceived organizational support was by far the strongest significant predictor of academic staff's vigor, followed by openness to experience, neuroticism, conscientiousness, and extraversion.

The model for absorption was statistically significant with $F(6, 383) = 12.516, p < 0.001$. As shown in Table 4.11, the R square value was 0.164. This means that the model (which includes openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support) explained 16.4 percent of the variance in academic staff's absorption. Of the six variables and dimensions, openness to experience ($\beta = 0.289, p < 0.05$) and perceived organizational support ($\beta = 0.237, p < 0.05$) were the only significant predictors of absorption. The rest of the variables and dimensions, namely extraversion ($\beta = 0.090, p > 0.05$), conscientiousness ($\beta = 0.032, p > 0.05$), neuroticism ($\beta = 0.066, p > 0.05$), and agreeableness ($\beta = -0.020, p > 0.05$) were found to be not significant to absorption. Besides, openness to experience appeared as the strongest significant predictor of academic staff's absorption, followed by perceived organizational support.

For dedication, the model was statistically significant with $F(6, 383) = 23.907, p = 0.000$. The R square value of 0.272 revealed that a combination of openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support explained 27.2 percent of the variance in academic staff's dedication. Both perceived organizational support ($\beta = 0.279, p < 0.05$) and

openness to experience ($\beta = 0.224, p < 0.05$) were discovered to be significant predictors of dedication. The other variables and dimensions were not significant predictors of dedication as their significant value was greater than 0.05. Further, perceived organizational support appeared as the strongest significant predictor of academic staff's dedication, followed by openness to experience.

Summarising, perceived organizational support and openness to experience consistently and significantly predicted work engagement and its three dimensions (vigor, absorption, and dedication) in all four models. Agreeableness did not appear to be the significant predictor of work engagement and its three dimensions. The others (conscientiousness, extraversion, and neuroticism) were found to be non-significant predictors of work engagement, absorption, and dedication, but appear to be a significant predictor of vigor. Hence, the above results fully support hypotheses H2 and H6, partially support hypotheses H1, H3, and H5, and did not support hypothesis H4. It should be noted that the results partially support hypotheses H1, H3, and H5 mainly because the personality traits, namely conscientiousness, extraversion, and neuroticism, were significantly related to vigor, however, did not demonstrate any significant relationship with work engagement, absorption, and dedication. There is some evidence supporting the alternative hypothesis, nonetheless not sufficient to fully reject the null hypothesis.

Table 4.11

Results of the Standard Multiple Regression Models for Work Engagement and the Three dimensions (N = 390)

Variables	Work Engagement		Vigor		Absorption		Dedication	
	β	Sig.	β	Sig.	β	Sig.	β	Sig.
Conscientiousness	0.104	0.063	0.151	0.005	0.032	0.605	0.082	0.158
Openness to Experience	0.271	0.000	0.196	0.000	0.289	0.000	0.224	0.000
Extraversion	0.089	0.071	0.126	0.008	0.090	0.101	-0.001	0.978
Agreeableness	0.030	0.602	0.030	0.592	-0.020	0.750	0.078	0.193
Neuroticism	-0.078	0.183	-0.162	0.004	0.066	0.313	-0.107	0.078
Perceived organizational Support	0.289	0.000	0.243	0.000	0.237	0.000	0.279	0.000
R Square	0.326		0.369		0.164		0.272	
F	30.863		37.398		12.516		23.907	
Sig.	< 0.001		< 0.001		< 0.001		0.000	

Note. Sig. = significant value.

4.7 Overall Hypotheses Testing Results

The results and findings of the hypothesis testing have been summarized and presented in Table 4.12.

Table 4.12
Summary of Findings

Hypothesis	Regression Results	Decision
H1: Conscientiousness will have a positive effect on work engagement among academic staff in Malaysia	WE : $\beta = 0.104, p > 0.05$ V : $\beta = 0.151, p < 0.05$ A : $\beta = 0.032, p > 0.05$ D : $\beta = 0.082, p > 0.05$	Partially Accepted
H2: Openness to experience will have a positive effect on work engagement among academic staff in Malaysia	WE : $\beta = 0.271, p < 0.05$ V : $\beta = 0.196, p < 0.05$ A : $\beta = 0.289, p < 0.05$ D : $\beta = 0.224, p < 0.05$	Accepted
H3: Extraversion will have a positive effect on work engagement among academic staff in Malaysia	WE : $\beta = 0.089, p > 0.05$ V : $\beta = 0.126, p < 0.05$ A : $\beta = 0.090, p > 0.05$ D : $\beta = -0.001, p > 0.05$	Partially Accepted
H4: Agreeableness will have a positive effect on work engagement among academic staff in Malaysia	WE : $\beta = 0.030, p > 0.05$ V : $\beta = 0.030, p > 0.05$ A : $\beta = -0.020, p > 0.05$ D : $\beta = 0.078, p > 0.05$	Rejected
H5: Neuroticism will have a negative effect on work engagement among academic staff in Malaysia	WE : $\beta = -0.078, p > 0.05$ V : $\beta = -0.162, p < 0.05$ A : $\beta = 0.066, p > 0.05$ D : $\beta = -0.107, p > 0.05$	Partially Accepted
H6: Perceived organizational support will have a positive effect on work engagement among academic staff in Malaysia	WE : $\beta = 0.289, p < 0.05$ V : $\beta = 0.243, p < 0.05$ A : $\beta = 0.237, p < 0.05$ D : $\beta = 0.279, p < 0.05$	Accepted

Note. WE = Work Engagement; V = Vigor; A = Absorption; D = Dedication.

4.8 Chapter Summary

This chapter presents the statistical results and findings of the study in the form of percentages, frequency, tables, charts, and text. The researcher managed to identify

notable results through a comprehensive data analysis process. The following chapter which is ‘Chapter Five’ offers a comprehensive discussion of the study results.



CHAPTER FIVE

DISCUSSION

5.1 Introduction

The final chapter presents a comprehensive discussion and summarization of the study findings. It interprets the overall research findings and discusses the generally attained results. On the whole, this chapter consists of four major sections. The first section begins with a brief summary of the study. The next section presents a discussion of the study findings based on the formulated research objectives. The further section discusses the theoretical as well as practical implications of this study. Finally, it also highlights the limitation of the study, some suggestions for future research, and the conclusion of the study.

5.2 Summary of Study

This study aimed to examine the relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff. Further, six specific research objectives were formulated, which include: (1) to examine the relationship between conscientiousness and work engagement among academic staff in Malaysia; (2) to determine the relationship between openness to experience and work engagement among academic staff in Malaysia; (3) to identify the relationship between extraversion and work engagement among academic staff in Malaysia; (4) to analyze the relationship between agreeableness and work engagement among academic staff in Malaysia; (5) to investigate the relationship between neuroticism and work engagement among academic staff in Malaysia; and (6) to

examine the relationship between perceived organizational support and work engagement among academic staff in Malaysia.

There was also a total of six hypotheses suggested to assess the relationship between the independent variables (openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support) and the dependent variable (work engagement and its three dimensions) in the study (see Section 2.5). Each of the study hypotheses was tested and the results were concluded in accordance with the Standard Multiple Regression analyses as it is more reliable. The results of the descriptive analysis revealed that the majority of the Malaysian academic staff possess an average level of work engagement. Specifically, they exhibit an average level of vigor, absorption, and dedication. The results of the Standard Multiple Regression analyses revealed that a combination of openness to experience, extraversion, conscientiousness, neuroticism, agreeableness, and perceived organizational support explained about 16.4 percent to 36.9 percent of the variance in work engagement and its three dimensions.

The results of Standard Multiple Regression analyses also showed that perceived organizational support was significantly and positively related to work engagement and all its three dimensions (vigor, absorption, and dedication). Among the five personality traits, openness to experience was significantly related to work engagement and all its three dimensions (vigor, absorption, and dedication). Agreeableness was not significantly related to work engagement. The remaining personality traits, namely conscientiousness, extraversion, and neuroticism, were significantly related to vigor, however, did not demonstrate any significant relationship with work engagement, absorption, and dedication. In terms of

predictability, perceived organizational support was by far the strongest significant predictor of academic staff's work engagement, vigor, and dedication, followed by openness to experience. For absorption, openness to experience appeared as the strongest significant predictor, followed by perceived organizational support. Overall, out of the six proposed hypotheses, the findings of this study fully accepted two hypotheses (H2 and H6), partially accepted three hypotheses (H1, H3, and H5), and rejected one hypothesis (H4).

5.3 Discussion of Results

This section offers a thorough discussion of the study findings. It has been structured and discussed in accordance with the research objectives.

5.3.1 The Level of Work Engagement

The results revealed that most of the academic staff in Malaysia have an average level of work engagement. This result is consistent with the finding discovered by Nagalingam et al. (2019) who also reported an average level of engagement among lecturers in Malaysia in their studies. When the current result was further analysed in terms of the different dimensions of work engagement, it was found that the level of vigor, absorption, and dedication was also average among the academic staff in Malaysia. The average level of vigor indicates that most of the academic staff in Malaysia have an average degree of mental resistance and energy at the time of working. The average level of absorption signifies that the majority of the academic staff in Malaysia are averagely focused and immersed at the time of working. The average level of dedication suggests that a large number of academic staff in Malaysia are averagely involved in their work and are also averagely experiencing a sense of pride, importance, challenge, enthusiasm, and inspiration.

Indeed, the result is something expected and is also consistent with the point made by Othman et al. (2021) who claimed that the level of work engagement among academic staff in Malaysia has been greatly affected as numerous re-structuring events and changes have been introduced into the institutions of higher learning via transformation programmes by the government (Azman et al., 2011). Globalization, technological advancements, and global competition have led to the transformation of the higher education system in Malaysia. Stress has been placed on both Malaysian public and private higher education institutions to develop and produce graduates with the essential skill sets, knowledge, and capabilities (Hassan et al., 2015). The present academic work climate has turned into an increasingly demanding and highly competitive environment.

Consequently, the academic staff in Malaysian higher education institutions are currently subjected to more complex and challenging roles, functions, and duties besides experiencing elevated accountability pressure (Azman et al., 2011). Additionally, they are also bound to encounter constant new challenges throughout their professional lives such as the pandemic and the government's aspirations. Hence, their work engagement is likely to be at risk and threatened (Nordin & Hamzah, 2021). It is worth remembering that academic staff need to be completely engaged in their job in order to offer students a positive learning experience (Brew & Machiha, 2019), and enhance the productivity and performance of their academic institutions (Alzyoud et al., 2015). The current average level of work engagement, including vigor, absorption, and dedication, among Malaysian academic staff reflects their diminished level of engagement which is giving a cause for concern and the need to determine the potential causes.

5.3.2 The Relationship Between Conscientiousness and Work Engagement

The first research objective is to examine the relationship between conscientiousness and work engagement among academic staff in Malaysia. The results revealed that conscientiousness was not significantly related to the work engagement of academic staff in Malaysia. When the result was further analysed in terms of the different dimensions of work engagement, conscientiousness was found to be significantly and positively related to only one of the dimensions of work engagement which is vigor, and was found to be not significant to absorption, and dedication, thus suggesting a very weak relationship between conscientiousness and engagement. The current finding is contradictory to the previous research that found that conscientiousness has a significant relationship with work engagement (Fukuzaki & Iwata, 2022; Pérez-Fuentes et al., 2019; Janssens et al., 2019; Bhatti et al., 2018; Borst & Knies, 2023; Zaidi et al., 2013; Bansal et al., 2020; Gulamali, 2017) and its three dimensions (Janssens et al., 2019; Bansal et al., 2020; Zaidi et al., 2013; Gulamali, 2017).

Conscientious individuals are often regarded to be self-disciplined, goal-oriented, reliable, hardworking, organized, careful, and responsible (Costa & McCrae, 1992; Mat et al., 2019; Jain & Ansari, 2018). One would expect academic staff to acquire some form of engagement by being conscientious, given that a high level of this trait can enable them to handle and fulfill the demands of their work like the planning and preparation of teaching resources, delivery of lectures, setting and grading of students' assignments and exams, writing and publications of research papers, carrying out administrative tasks, and many more. The present finding can be considered as something totally unexpected.

The non-significant relationship between conscientiousness and work engagement can be possibly explained through the link between conscientiousness, job satisfaction, and engagement. Miller, Griffin and Hart (1999) argued that conscientiousness is connected to contextual performance, which refers to the extra-role behaviours of the workers that contribute to the effective operation and success of the organization (e.g., supporting and assisting others, adhering to the company's rules and regulations, volunteering for extra work, being punctual, being loyal, etc.), but is not directly associated to the aspects of individual well-being like job satisfaction. Pongton and Suntrayuth (2019) asserted that well-being and job satisfaction predicts an employee's engagement. An individual who is satisfied and contented at work are more likely to be passionate, motivated, excited, and eager about their work in spite of the difficulties they encounter, thus leading to greater work engagement (Alzyoud, 2018). Considering that conscientiousness is not directly associated with job satisfaction, it might not pose an impact on an individual's work engagement.

5.3.3 The Relationship Between Openness to Experience and Work Engagement

The second objective of this study is to determine the relationship between openness to experience and work engagement among academic staff in Malaysia. The results showed that openness to experience was significantly and positively related to work engagement and all its three dimensions (vigor, absorption, and dedication) among academic staff in Malaysia. This signifies that a higher level of openness to experience contributes to a higher level of work engagement among academic staff in Malaysia. Specifically, it contributes to a higher level of vigor, absorption, and dedication among them. Although several previous studies (Janssens et al., 2019; Brew & Machiha, 2019; Wildermuth, 2008) reported inconsistent findings, the current result is

substantially supported by a few studies that also discovered a significant positive relationship between openness to experience and work engagement (Pérez-Fuentes et al., 2019; Fukuzaki & Iwata, 2022; Bhatti et al., 2018; Borst & Knies, 2023; Zaidi et al., 2013; Bansal et al., 2020; Gulamali, 2017), including its three dimensions (Bansal et al., 2020; Zaidi et al., 2013; Gulamali, 2017).

The positive relationship between openness to experience and work engagement can be explained and understood by looking into the nature of the trait ‘openness to experience’. Openness to experience is often described as being artistic, curious, imaginative, original, and showing wide interest (McCrae & John, 1992). It also entails intellectual curiosity, preferences for varieties, and active imagination. Hence, with such qualities, highly open individuals are more prone to perceive happiness in their daily work roles and are more likely to experience a sense of inspiration, significance, challenge, and enthusiasm (Fukuzaki & Iwata, 2022). Besides that, this dimension was claimed to be significant only in certain work contexts and types of jobs, for instance, those distinguished by complexities and novelties (Griffin & Hesketh, 2004). Considering that academic work is described by the need for imagination and intellectual curiosity in order to generate novel or innovative research and teaching methodologies, a high level of openness to experience enables academic staff to handle and meet the demands of their work, which subsequently and indirectly improves their work engagement.

The finding also confirmed the JD-R theory which postulates that ‘resources’, which can be either in the form of personal resources or job-related resources, and ‘job demands’ trigger two distinct processes, known as a motivational process and a health-impairment process. Resources generally trigger a motivational process. Having a high

level of openness to experience (which is a type of personal resource) leads to greater positive self-evaluation and consequently greater experience of goal self-concordance by an academic staff. Academic staff with goal self-concordance is motivated in an intrinsic manner to attain his or her objectives or goals, which therefore leads to greater performance and satisfaction in him or her. In other words, an academic staff who is high in openness to experience (higher individual personal resource) has a better ability to control his or her environment (more positive self-evaluation), which gives him or her the intrinsic motivation to attain his or her goals (more goal self-concordance), and subsequently lead to engagement in his or her work.

In addition, among the big five personality traits, openness to experience appeared as the consistent strongest predictor of work engagement and its three dimensions. One possible reason for this could be due to the rapidly evolving and changing nature of the present Malaysian academic staff's working life. The academic staff in Malaysia are bound to experience constant new challenges and changes (e.g., the pandemic, new changing technologies, the government's aspirations, organizational change and restructuring, expansion in roles and responsibilities, etc.) throughout their career. Academic staff who adjust and adapt to the changes are likely to be better engaged in their work. As openness to experience reflects a person's overall scope of preferences, interest in innovations, creativities as well as tolerance of change (Salgado, 2002), one can expect a significantly strong contribution of openness to experience to the prediction of work engagement of academic staff in Malaysia.

5.3.4 The Relationship Between Extraversion and Work Engagement

The third proposed objective of this study is to identify the relationship between extraversion and work engagement among academic staff in Malaysia. This study

found that there is no significant relationship between extraversion and work engagement among academic staff in Malaysia. On a dimensional level, extraversion was found to be significantly and positively related to vigor, however, it was found to be not significant to absorption and dedication. This finding is something unexpected and it contradicts the majority of the previous studies that claim extraversion was significantly related to work engagement (Brew & Machiha, 2019; Fukuzaki & Iwata, 2022; Bhatti et al., 2018; Gulamali, 2017; Pérez-Fuentes et al., 2019) and its three dimensions (Janssens et al., 2019; Bansal et al., 2020; Zaidi et al., 2013).

Additionally, the relationship of extraversion with only one of the dimensions of work engagement (vigor) in the present study is indeed intriguing and fascinating. But the reason behind this relationship can be simply explained just by looking into the nature of the personality trait 'Extraversion'. Extraversion is a trait that is characterised as friendly, sociable, assertive, cheerful, excitement-seeking, active, outgoing, talkative, energetic, and enthusiastic (McCrae & John, 1992; McCrae & Costa, 1983), whereby it includes an element of energy and activity (Janssens et al., 2019). Given that vigor is described as having a high degree of mental resistance and energy at the time of working and extraversion includes an element of energy and activity, one could expect a relationship between them.

5.3.5 The Relationship Between Agreeableness and Work Engagement

The fourth research objective is to analyze the relationship between agreeableness and work engagement among academic staff in Malaysia. In the present study, agreeableness was found to be not significantly related to work engagement and all its three dimensions (vigor, absorption, and dedication). This result is consistent with the finding discovered by Janssens et al. (2019) and Brew and Machiha (2019) who also

found a non-significant relationship between agreeableness and work engagement as well as its three dimensions. The personality trait 'Agreeableness' can be considered more vital for the investment of energy in social connections and interpersonal relationships. Thus, it might not pose a direct impact on an individual's work engagement, which is generally connected to attitudes toward work (Brew & Machiha, 2019).

5.3.6 The Relationship Between Neuroticism and Work Engagement

The fifth formulated objective of this study is to investigate the relationship between neuroticism and work engagement among academic staff in Malaysia. The results revealed that neuroticism was not significantly related to the work engagement of academic staff in Malaysia. Although this result is in line with the finding by Janssens et al. (2019), it goes against the findings of the majority of the previous studies (Pérez-Fuentes et al., 2019; Zaidi et al., 2013; Bansal et al., 2020; Fukuzaki & Iwata, 2022; Gulamali, 2017) which consistently argue that neuroticism was significantly and negatively related to work engagement. Neuroticism is a dimension that may signify a vulnerability factor (Langelaan, Bakker, Van Doornen & Schaufeli, 2006). Individuals who are high in neuroticism tend to be vulnerable to stress and experience distressing feelings such as nervousness, worry, and depression (Robbins & Judge, 2016). Considering that engagement is characterised as a positive affective-motivational state of well-being at work, it is likely to postulate that an employee's inclination to experience positive or negative emotions is crucial for engagement (Janssens et al., 2019).

On a dimensional level, neuroticism was found to have a significant negative relationship with vigor, and a non-significant relationship with absorption and

dedication, indicating a very weak relationship between neuroticism and engagement. The negative relationship of neuroticism with only one of the dimensions of work engagement (vigor) in the present study may be because those with high neuroticism have the tendency to get distracted and spend more time or energy stressing about personal issues that are unrelated to the work to be done (Mhlanga et al., 2021). Thus, this naturally may impact their vigor.

5.3.7 The Relationship Between Perceived Organizational Support and Work Engagement

The sixth research objective of the current study is to examine the relationship between perceived organizational support and work engagement among academic staff in Malaysia. The results showed that perceived organizational support was significantly and positively related to work engagement and all its three dimensions (vigor, absorption, and dedication). This signifies that a higher level of perceived organizational support contributes to the higher level of work engagement among academic staff in Malaysia. Specifically, it contributes to a higher level of vigor, absorption, and dedication among them. The current result is also supported by a few other previous studies (Gillet et al., 2013; Musenze et al., 2022; Al-Hamdan & Bani Issa, 2021). In the stated studies, perceived organizational support was discovered to have a significant positive relationship with work engagement and its three dimensions. Perceived organizational support also appeared as the consistent strongest predictor of work engagement and its three dimensions.

Perceived organizational support reflects an individual's perception of how much his organization appreciates his contribution and concern for his overall well-being (Eisenberger et al., 1986). Perceived organizational support as a 'positive

environmental determinant' can generate a variety of positive and beneficial work-related behaviours and attitudes (Xu et al., 2021). When people perceive that they are cared for, appreciated, and supported by their organizations, they are likely to work more efficiently for the prosperity of the organization (Eisenberger, Jones, Aselage & Sucharski, 2004). Individuals are likely to spend their time, energy, and effort at the workplace for valued outcomes.

The current finding confirmed the JD-R theory which the study relied on. According to the JD-R theory, job resources trigger a motivational process. It can be deduced that adequate job resources like a high level of organizational support, will fulfill an academic staff's basic psychological needs and lead to more motivation in him or her, which consequently will enhance his or her work engagement. In other words, sufficient job resources like organizational support, will stimulate an academic staff's motivation and contribute to work engagement. This indeed suggests that higher education institutions in Malaysia should give serious consideration to organizational support.

5.4 Implications of the Study

This section offers the important theoretical and practical implications of the present study. It provides an explanation of how the findings of the current study may be significant for policy, practice, and theory.

5.4.1 Theoretical Implications

The present study makes a few theoretical contributions to the engagement literature. Firstly, it addresses several gaps in the literature on engagement. A number of researchers claimed that there is limited literature on engagement present particularly

in developing countries (Kossyva et al., 2023), public organizations (Kossyva et al., 2023; Bakker & Albrecht, 2018) as well as specific industries and job types (Kossyva et al., 2023; Bakker & Albrecht, 2018). Some even asserted that individual factors like personality traits were inadequately examined with regard to engagement (Saks & Gruman, 2014; Mhlanga et al., 2019; Borah & Barua, 2018) and the findings on the link between the big five personality traits and work engagement seem to be mixed.

This study addresses these gaps and extended the engagement literature by examining the predictive role of the big five personality traits and perceived organizational support on work engagement within the Malaysian setting (a developing country), specifically among academic staff of public and private higher educational institutions. This study also investigates the effect of the big five personality traits and perceived organizational support on work engagement at a dimensional level (vigor, absorption, and dedication) which very few researchers have explored. This contributes to a valuable understanding of which dimensions of work engagement are impacted by the big five personality traits, perceived organizational support, or both. Subsequently, it contributed to the identification of which predictor is more relevant in influencing academic staff's work engagement in the workplace.

Secondly, this study significantly enriches the understanding of Malaysian academic staff's work engagement. The present study has offered a rough visualization of the current level of work engagement among academic staff in Malaysia. It has provided some insights into the individual and organizational factors (resources) that are needed to encourage work engagement among academic staff in Malaysia. It has also provided a deeper understanding of how the big five personality traits (openness to experience, extraversion, conscientiousness, neuroticism, and agreeableness) and

perceived organizational support impact the work engagement of Malaysian academic staff. Although the result demonstrates that extraversion, conscientiousness, neuroticism, and agreeableness did not have a significant relationship with academic staff's work engagement, other noteworthy findings emerged.

Of all the variables and dimensions, only perceived organizational support and openness to experience were significantly related to work engagement and all its three dimensions (vigor, absorption, and dedication). The emergence of perceived organizational support and openness to experience as the strongest predictors of work engagement and its three dimensions is new knowledge on this focus. Despite the non-significant relationship with work engagement, the personality traits conscientiousness, extraversion, and neuroticism demonstrated a significant relationship with one of the dimensions of work engagement which is vigor, indicating their potential impact on academic staff's mental resistance and energy at the time working, and thus offering new knowledge and insight on this area.

Thirdly, this study has provided empirical evidence to support the JD-R theory which postulates that resources (which can be in the form of personal resources or job-related resources) stimulate a motivational process (Bakker et al., 2022). The results of this study discovered that certain personality traits like openness to experience (personal resource) and perceived organizational support (job resource) can act as resources and stimulate a motivational process that contributes to the engagement of academic staff. In other words, the findings of this study indicate that a high level of certain personality traits like openness to experience (personal resource) and a high level of perceived organizational support (job resource) stimulated academic staffs' motivation and consequently fostered their work engagement. This enriches the existing body of

knowledge in the area of work engagement from the perspective of human resource management as well as organisational psychology.

5.4.2 Practical Implications

This study offers several valuable practical implications. Firstly, the findings of this study may be beneficial to leaders, policymakers, practitioners, and the management of higher education institutions to further understand the current status of work engagement of the academic staff in Malaysia. The present average level of work engagement among academic staff in Malaysia creates a cause for concern and the need for the management of higher education institutions to determine the potential causes. It also implies that the management of higher education institutions should take the necessary efforts to improve the work engagement of academic staff in order to create a completely engaged academic workforce.

According to Schaufeli and Salanova (2010), there are nine organizational-based interventions for enhancing work engagement which include: (1) implementing career management practices; (2) employing personnel assessment and evaluation; (3) offering work training programs that contribute to the growth and development of the employees; (4) creating and monitoring of a fair psychological contract; (5) enhancing transformational leadership in the organization; (6) conducting regular work-wellness audit; (7) implementing work changes; (8) organizing workshops on work engagement to foster health and well-being among employees; and (9) redesigning of job to enhance employee motivation. The management of higher education institutions may use the suggested strategies to improve the work engagement of their academic staff.

Secondly, the findings of this study inform the management of higher education institutions of the necessity to take into account personality in the academic staff

selection procedure, rewards and benefits, performance management, training and development as well as other human resource management initiatives. The results of this study revealed that among the big five personality traits, openness to experience was the strongest significant predictor of work engagement and its three dimensions, besides being positively related to work engagement and its dimensions. The personality traits conscientiousness, extraversion, and neuroticism demonstrated a significant relationship with only one of the dimensions of work engagement which is vigor. When selecting academic staff, the management of the higher education institutions should try to identify candidates who score highly mainly on the trait openness to experience, coupled with a high score on the trait conscientiousness, a high score on the trait extraversion, and a low score on the trait neuroticism as these candidates are predisposed to be engaged at work and likely to show enhanced level of mental resistance and energy at the time working.

A personality-based academic staff selection system can be a good approach to accomplish a better fit between academic staff and their jobs as well as to achieve a highly engaged academic workforce. Additionally, the hiring of an academic staff who is predisposed to be engaged at work will contribute to the better effectiveness of organizational interventions implemented to enhance engagement (e.g., rewards, training and development, and performance management). The knowledge and information about academic staff personality traits will enable the tailoring of organizational interventions implemented to enhance engagement (e.g., rewards, training and development, and performance management) based on the academic staff's unique strength and energy.

Lastly, the findings of the current study also suggest that the management of higher education institutions should focus on increasing the level of perceived organizational support to enhance the level of work engagement among academic staff in Malaysia. They should take all appropriate steps and provide the necessary support to the academic staff in order to get them more involved, committed, and engaged toward their work.

5.5 Limitations and Future Directions

In this study, there are a few limitations worth noting. First and foremost, the present study was cross-sectional in nature, whereby the data was gathered at a single point in time. Hence, the study is unable to establish and illustrate cause-and-effect relationships between the selected variables. It is strongly recommended that future studies use a longitudinal research design, which is a more comprehensive approach to research, to identify the causal nature of the relationships between the study variables,

Secondly, this study utilised self-report questionnaires to collect data on personality traits, perceived organizational support, and work engagement from the participants. This might have resulted in social desirability bias in the present study. Social desirability bias refers to an individual tendency to answer surveys in a way to make good impressions, to be socially accepted, and to save face in the existence of the interviewers (Zikmund et al., 2010). However, this limitation is not considered serious as the study used an anonymous online survey which might have reduced social desirability bias and its effects in the current study. Future research can attempt to utilise neutralized questions, besides using anonymous online surveys, in order to achieve greater benefits.

Thirdly, the findings of the present study might not be generalizable to the whole population of academic staff of higher education institutions in Malaysia. This is mainly due to the use of the convenience sampling technique in the selection of the participants in the present study. This technique is highly criticised for its lack of generalizability. Besides that, there is also an unequal distribution of participants in each type of institution in the present study. The majority of the participants (60.7 percent) were from public higher education institutions (e.g., public universities, community colleges, and polytechnics), side-lining the number of academic staff from private higher education institutions (e.g., private universities, private colleges, private university colleges, and foreign branch campus universities). This factor might have affected the results considering that private higher education institutions were a little underrepresented. It is suggested that future studies use probability sampling methods to enhance the generalizability of the study results.

Lastly, in this study, socio-demographic factors such as gender, age, marital status, highest educational level, work experience, monthly income, current position in the institution, and type of institution were not considered as the other factors that could contribute to an academic staff's work engagement. Studies have reported that the level of work engagement differed significantly with income, age, position in the organization, work experience, and educational level (Sharma, Goel & Sengupta, 2017; Chaudhary & Rangnekar, 2017). The present study has overlooked the important influence of demographic factors on the work engagement of academic staff, indicating a lack of in-depth analysis in the current study. To offset this limitation, it is suggested future studies consider and include demographic factors in the data analysis and investigate their potential impact on academic staff's work engagement.

This information could offer greater insight and clarity on the myriad of variables that contribute to academic staff's work engagement.

This study also identifies a few directions for future research. The study provides an initial answer on the direct relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff. The results revealed that, among all the variables and dimensions, openness to experience and perceived organizational support were positively and significantly related to academic staff's work engagement. Future studies can investigate the impacts of such engagement on organizational consequences like intention to quit, organizational citizenship behaviour, job satisfaction, and organizational commitment. Further, future studies can also explore the moderating effect of openness to experience in the relationship between perceived organizational support and work engagement. Additionally, more studies should be conducted in a different context (e.g., across different countries, industries or sectors, types of organizations, and types of jobs) to compare the findings.

5.6 Conclusion

Work engagement is a positive, pleasing, job-related mental condition that is distinguished by absorption, dedication, and vigor (Schaufeli et al., 2002). When individuals are engaged, they tend to become connected to their professional roles and thus become absorbed while performing them. Engaged employees who are absorbed, vigorous as well as dedicated in their work roles are critical for the survival and prosperity of organizations in the current continuously changing environment. The important role of work engagement and the current intriguing and worrying dwindling of work engagement among the academic staff has created the need for this study.

Subsequently, this study tried to understand and determine the factors (resources) that might contribute to the work engagement of academic staff. It examined the relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff.

The results revealed that most of the academic staff in Malaysia have an average level of work engagement. Specifically, they display an average level of vigor, absorption, and dedication, thus creating a cause for concern and the need to determine the potential causes. The results also showed that, among the big five personality traits, openness to experience was positively and significantly related to work engagement and its three dimensions (vigor, absorption, and dedication). The personality traits conscientiousness, extraversion, and neuroticism demonstrated a significant relationship with only one of the dimensions of work engagement which is vigor. The above results signify that personality is important when comes to the work engagement of academic staff. Higher education institutions cannot modify the inherent personality of academic staff, however, the knowledge, information, and understanding of the relationship between personality traits and the potential academic staff's behaviours and attitudes can assist the management of higher education institutions to accomplish a better fit between academic staff and their jobs as well as to enhance the effectiveness of organizational interventions.

The present study also found that perceived organizational was significantly and positively related to work engagement and its three dimensions (vigor, absorption, and dedication). The degree to which an individual perceives being valued and supported at work impacts not only his effectiveness but also his dedication and loyalty as well as his overall mood and job satisfaction (Rhoades & Eisenberger, 2002). In this study,

of all the variables and dimensions, perceived organizational support and openness to experience appeared as the consistent strongest predictors of work engagement and its three dimensions (vigor, absorption, and dedication). The rapidly evolving and changing nature of the present academic staff's working life has caused openness to experience to become an important predictor of academic staff's work engagement, which is a new knowledge on this focus. This study has provided empirical evidence to support the JD-R theory. Certain personality traits like openness to experience (personal resource) and perceived organizational support (job resource) can act as resources and stimulate a motivational process that contributes to the engagement of academic staff.

In sum, as a start, this study has provided an initial answer on the direct relationship between the big five personality traits, perceived organizational support, and work engagement among academic staff. This study has also discovered several new knowledge in the area of academic staff's work engagement from the perspective of human resource management as well as organisational psychology. Future researchers are encouraged to further broaden and extend the provided knowledge while addressing the identified limitations.

REFERENCES

- Abdullahi, M. S., Adeiza, A., Abdelfattah, F., Fatma, M., Fawehinmi, O., & Aigbogun, O. (2022). Talent management practices on employee performance: A mediating role of employee engagement in institution of higher learning: Quantitative analysis. *Industrial and Commercial Training*, 54(4), 589–612. <https://doi.org/10.1108/ict-10-2021-0075>
- Achievers. (2021). *Engagement and Retention Report*. <https://www.achievers.com/wp-content/uploads/2021/04/Achievers-Workforce-Institute-2021-Engagement-and-Retention-Report.pdf>
- Agarwal, U. A. (2014). Examining the impact of social exchange relationships on innovative work behaviour. *Team Performance Management*, 20(3/4), 102–120. <https://doi.org/10.1108/tpm-01-2013-0004>
- Aggarwal, A., Jaisinghani, D., & Nobi, K. (2022). Effect of organizational justice and support on organizational commitment and employee turnover intentions: The mediating role of employee engagement. *International Journal of Quality and Service Sciences*, 14(4), 525–554. <https://doi.org/10.1108/ijqss-08-2021-0112>
- Akhtar, R., Boustani, L., Tsivrikos, D., & Chamorro-Premuzic, T. (2015). The engageable personality: Personality and trait EI as predictors of work engagement. *Personality and Individual Differences*, 73, 44–49. <https://doi.org/10.1016/j.paid.2014.08.040>
- Akingbola, K., & Van Den Berg, H. A. (2017). Antecedents, consequences, and context of employee engagement in nonprofit organizations. *Review of Public Personnel Administration*, 39(1), 46–74. <https://doi.org/10.1177/0734371x16684910>
- Alessandri, G., Consiglio, C., Luthans, F., & Borgogni, L. (2018). Testing a dynamic

- model of the impact of psychological capital on work engagement and job performance. *Career Development International*, 23(1), 33–47.
<https://doi.org/10.1108/cdi-11-2016-0210>
- Al-Hamdan, Z., & Bani Issa, H. (2021). The role of organizational support and self-efficacy on work engagement among registered nurses in Jordan: A descriptive study. *Journal of Nursing Management*, 30(7), 2154–2164.
<https://doi.org/10.1111/jonm.13456>
- Ali, K. (2014). *The effects of leader-member exchange and employee wellbeing towards employee turnover intention* [Doctoral thesis, Deakin University]. Semantic Scholar.
- Allen, M. W., Armstrong, D. K., Reid, M. D., & Riemenschneider, C. K. (2008). Factors impacting the perceived organizational support of IT employees. *Information & Management*, 45(8), 556–563.
<https://doi.org/10.1016/j.im.2008.09.003>
- Almotawa, A., & Shaari, R. B. (2020). Validation of employee engagement framework. *Advances in Intelligent Systems and Computing*, 961, 435–447.
https://doi.org/10.1007/978-3-030-20154-8_40
- Al-Omar, H. A., Arafah, A. M., Barakat, J. M., Almutairi, R. D., Khurshid, F., & Alsultan, M. S. (2019). The impact of perceived organizational support and resilience on pharmacists' engagement in their stressful and competitive workplaces in Saudi Arabia. *Saudi Pharmaceutical Journal*, 27(7), 1044–1052. <https://doi.org/10.1016/j.jsps.2019.08.007>
- Allport, G. W. (1961). *Pattern and Growth in Personality*. Fort Worth TX: Harcourt College Publisher.
- Alshaabani, A., Naz, F., Magda, R., & Rudnák, I. (2021). Impact of perceived

- organizational support on OCB in the time of COVID-19 pandemic in Hungary: Employee engagement and affective commitment as mediators. *Sustainability*, 13(14), 7800. <https://doi.org/10.3390/su13147800>
- Alvi, K. A., Abbasi, S. A., & Haider, R. (2014). Relationship of perceived organizational support and employee engagement. *Sci. Int. (Lahore)*, 26(2), 951–954.
- Alzyoud, A. A. Y. (2018). Job satisfaction and work engagement moderated by trust. *International Journal of Economics, Commerce and Management*, VI(11), 125–139.
- Alzyoud, A. A. Y., Othman, S. Z., & Isa, M. F. M. (2015). Examining the role of job resources on work engagement in the academic setting. *Asian Social Science*, 11(3), 103. <https://doi.org/10.5539/ass.v11n3p103>
- American Psychological Association. (n.d.). *Personality*. <https://www.apa.org/topics/personality#:~:text=Personality%20refers%20to%20the%20enduring,%2C%20abilities%2C%20and%20emotional%20patterns>
- American Psychological Association. (n.d.). *test for normality*. <https://dictionary.apa.org/test-for-normality>
- Amir, M. T., & Fadhilah, S. (2022). The role of compassion in work engagement among academics. *The International Journal of Interdisciplinary Organizational Studies*, 18(1), 1–10. <https://doi.org/10.18848/2324-7649/cgp/v18i01/1-10>
- Amor, A. M., Vázquez, J. A., & Faíña, J. A. (2020). Transformational leadership and work engagement: Exploring the mediating role of structural empowerment.

European Management Journal, 38(1), 169–178.

<https://doi.org/10.1016/j.emj.2019.06.007>

Ancarani, A., Arcidiacono, F., Mauro, C. D., & Giammanco, M. D. (2020).

Promoting work engagement in public administrations: The role of middle managers' leadership. *Public Management Review*, 23(8), 1234–1263.

<https://doi.org/10.1080/14719037.2020.1763072>

Anjali Daisy, S., Vijayabanu C., Vijayanand V., Ganeshkumar, P. T., Mumtha, M.,

Saravanakumar, M., & Srivathsan, M. (2017). The impact of employee engagement on discretionary effort and intention to turnover among HR professionals in manufacturing sector-an empirical study. *International Journal of Applied Business and Economic Research*. 15(7), 449–462.

Ansari, J. A. N. (2020). Driving employee engagement through five personality

traits: An exploratory study. *Metamorphosis: A Journal of Management Research*, 19(2), 94–105. <https://doi.org/10.1177/09726225211007247>

Aon. (2018). *Trends in global employee engagement*.

<http://www.aon.com/attachments/human-capital>

[consulting/2018_Trends_in_Global_Employee_Engagement_Report.pdf](http://www.aon.com/attachments/human-capital/consulting/2018_Trends_in_Global_Employee_Engagement_Report.pdf)

Arokiasamy, A. R. A. (2021). The uncharted territory: Plotting the relationships

between perceived organizational support, work engagement and expatriate retention in Vietnam. *Journal of Asia-Pacific Business*, 22(3), 201–225.

<https://doi.org/10.1080/10599231.2021.1943809>

Arokiasamy, A. R. A., & Tat, H. H. (2020). Exploring the influence of

transformational leadership on work engagement and workplace spirituality of academic employees in the private higher education institutions in Malaysia.

Management Science Letters, 10(4), 855–864.

<https://doi.org/10.5267/j.msl.2019.10.011>

Arora, R. & Adhikari, B. (2013). A study on personality as predictor of dedication component of work engagement. *International Journal of Development and Social Research*, 2(1), 53–60.

Askarian, N., & Golkariee, M. R. (2014). Examine the relationship between conscientiousness and versatility on the job performance. *Journal of Management Development*, 12(5), 100–15.

Azagra-Caro, J. M., & Llopis, O. (2017). Who do you care about? Scientists' personality traits and perceived impact on beneficiaries. *R&D Management*, 48(5), 566–579. <https://doi.org/10.1111/radm.12308>

Azlan, S. K., Rosnah, I., & Rizal, M. A. M. (2017). Systematic review of organization stressors as predictors for job stress and burnout among university academicians in Malaysia. *International Journal of Public Health and Clinical Sciences*, 4(3), 2289–7577.

Azman, N., Jantan, M., & Sirat, M. (2011). Malaysia: Perspectives of university governance and management within the academic profession. *Changing Governance and Management in Higher Education*, 83–105. https://doi.org/10.1007/978-94-007-1140-2_5

Azmy, A. (2019). Employee engagement factors in a higher education institution. *Binus Business Review*, 10(3), 187–200. <https://doi.org/10.21512/bbr.v10i3.5857>

Babakus, E., & Mangold, W. G. (1992). Adapting the SERVQUAL scale to hospital services: An empirical investigation. *Health Services Research*, 26(6), 767–786.

- Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: A narrative synthesis. *International Journal of Management Reviews*, 19(1), 31–53. <https://doi.org/10.1111/ijmr.12077>
- Bakker, A. B. (2011). An Evidence-Based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265–269. <https://doi.org/10.1177/0963721411414534>
- Bakker, A. B., & Albrecht, S. (2018). Work engagement: Current trends. *Career Development International*, 23(1), 4–11. <https://doi.org/10.1108/cdi-11-2017-0207>
- Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Work and wellbeing* (pp. 37–64). Wiley Blackwell. <https://doi.org/10.1002/9781118539415.wbwell019>
- Bakker, A. B., & Demerouti, E. (2016). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285. <https://doi.org/10.1037/ocp0000056>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209–223. <https://doi.org/10.1108/13620430810870476>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. (2022). Job Demands–Resources theory: Ten years later. *Annual Review of Organizational Psychology and*

- Organizational Behavior*, 10(1), 25–53. <https://doi.org/10.1146/annurev-orgpsych-120920-053933>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman
- Bansal, E., Bhushan, P., & Gupta, Y. (2020). Personality traits and work engagement: A case study on female bank employees in banking sector. 2008,72–83. <https://doi.org/10.23862/kiit-parikalpana/2020/v16/i1-2/204557>
- Baranik, L. E., Roling, E. A., & Eby, L. T. (2010). Why does mentoring work? The role of perceived organizational support. *Journal of Vocational Behavior*, 76(3), 366–373. <https://doi.org/10.1016/j.jvb.2009.07.004>
- Bas, M., & Çınar, O. (2021). The mediating role of work engagement in the relationship between perceived organizational support and turnover intention – with an application to healthcare employees in Erzincan province of Turkey. *Ekonomski Vjesnik*, 34(2), 291–306. <https://doi.org/10.51680/ev.34.2.4>
- Basarudin, N. A., Yeon, A. L., Yacoob, N., & Rahman, R. A. (2016). Faculty Workload and Employment Benefits in Public Universities. *International Review of Management and Marketing*, 6(S7), 73–82.
- Baumgartner, H. (2002). Toward a personology of the consumer: Figure 1. *Journal of Consumer Research*, 29(2), 286–292. <https://doi.org/10.1086/341578>
- Bell, A. S., Rajendran, D., & Theiler, S. (2012). Job stress, wellbeing, work-life balance and work-life conflict among Australian academics. *E-Journal of Applied Psychology*, 8(1), 25–37. <https://doi.org/10.7790/ejap.v8i1.320>
- Bhatti, M. A., Alshagawi, M., & Syah Juhari, A. (2018). Mediating the role of work engagement between personal resources (self-efficacy, the big five model) and nurses' job performance. *International Journal of Human Rights in Healthcare*, 11(3), 176–191. <https://doi.org/10.1108/ijhrh-10-2017-0056>

- Bizri, R. M., & Hamieh, F. (2020). Beyond the “Give back” equation. *International Journal of Organizational Analysis*, 28(3), 699–718.
<https://doi.org/10.1108/ijoa-07-2019-1838>
- Blatný, M., Šolcová, I., Květoň, P., Jelínek, M., Záborská, K., Mudrák, J., & Machovcová, K. (2018). The influence of personality traits on life satisfaction through work engagement and job satisfaction among academic faculty members. *Studia Psychologica*, 60(4), 274–286.
<https://doi.org/10.21909/sp.2018.04.767>
- Bonaiuto, F., Fantinelli, S., Milani, A., Cortini, M., Vitiello, M. C., & Bonaiuto, M. (2022). Perceived organizational support and work engagement: The role of psychosocial variables. *Journal of Workplace Learning*, 34(5), 418–436.
<https://doi.org/10.1108/jwl-11-2021-0140>
- Borah, N., & Barua, M. (2018). Employee engagement: A critical review of literature. *Journal of Organisation & Human Behaviour*, 7(4), 22–30.
- Borst, R., & Knies, E. (2023). Well-being of public servants under pressure: The roles of job demands and personality traits in the health-impairment process. *Review of Public Personnel Administration*, 43(1), 159–184.
<https://doi.org/10.1177/0734371x211052674>
- Borst, R. T., Kruyen, P. M., & Lako, C. J. (2019). Exploring the Job Demands—Resources Model of work engagement in government: Bringing in a psychological perspective. *Review of Public Personnel Administration*, 39(3), 372–397. <https://doi.org/10.1177/0734371x17729870>
- Brew, G., & Machiha, M. (2019). *Predictors of work engagement among university Teachers: The role of personality and perceived organizational support* [Master’s thesis, Linnaeus University]. Digitala Vetenskapliga Arkivet.

- Bühler, K. E., & Land, T. (2003). Burnout and personality in intensive care: An empirical study. *Hospital Topics*, 81(4), 5–12.
<https://doi.org/10.1080/00185860309598028>
- Burke, R. J., Koyuncu, M., Fiksenbaum, L., & Tekin, Y. (2013). Antecedents and consequences of work engagement among frontline employees in Turkish hotels. *Journal of Transnational Management*, 18(3), 191–203.
<https://doi.org/10.1080/15475778.2013.817243>
- Byrne, B. M. (2010). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming* (2nd ed.). Routledge Academic.
- C. Barnes, D., & E. Collier, J. (2013). Investigating work engagement in the service environment. *Journal of Services Marketing*, 27(6), 485–499.
<https://doi.org/10.1108/jsm-01-2012-0021>
- C. Barnes, D., E. Collier, J., & Robinson, S. (2014). Customer delight and work engagement. *Journal of Services Marketing*, 28(5), 380–390.
<https://doi.org/10.1108/jsm-02-2013-0051>
- Caniëls, M. C., Semeijn, J. H., & Renders, I. H. (2018). Mind the mindset! The interaction of proactive personality, transformational leadership and growth mindset for engagement at work. *Career Development International*, 23(1), 48–66. <https://doi.org/10.1108/cdi-11-2016-0194>
- Canboy, B., Tillou, C., Barzantny, C., Güçlü, B., & Benichoux, F. (2023). The impact of perceived organizational support on work meaningfulness, engagement, and perceived stress in France. *European Management Journal*, 41(1), 90–100.
<https://doi.org/10.1016/j.emj.2021.12.004>
- Carter, N. T., Guan, L., Maples, J., Williamson, R. M., & Miller, J. D. (2015). The downsides of extreme conscientiousness for psychological well-being: The

- role of obsessive compulsive tendencies. *Journal of Personality*, 84(4), 510–522. <https://doi.org/10.1111/jopy.12177>
- Chai, D. S., Song, J. H., & You, Y. M. (2020). Psychological ownership and openness to change: The mediating effects of work engagement, and knowledge creation. *Performance Improvement Quarterly*, 33(3), 305–326. <https://doi.org/10.1002/piq.21326>
- Chan, S. (2021). The interplay between relational and transactional psychological contracts and burnout and engagement. *Asia Pacific Management Review*, 26(1), 30–38. <https://doi.org/10.1016/j.apmr.2020.06.004>
- Chandani, A., Mehta, M., Mall, A., & Khokhar, V. (2016). Employee engagement: A review paper on factors affecting employee engagement. *Indian Journal of Science and Technology*, 9(15), 1–7. <https://doi.org/10.17485/ijst/2016/v9i15/92145>
- Chang, P. C., Sun, K., & Wu, T. (2022). A study on the mechanisms of strengths-based psychological climate on employee innovation performance: A moderated mediation model. *Chinese Management Studies*, 16(2), 422–445. <https://doi.org/10.1108/cms-09-2020-0374>
- Chaudhary, R., & Rangnekar, S. (2017). Socio-demographic factors, contextual factors, and work engagement: Evidence from india. *Emerging Economy Studies*, 3(1), 1–18. <https://doi.org/10.1177/2394901517696646>
- Child, I. L. (1968). Personality in Culture. In E. F. Borgatta & W. W. Lambert (Eds.), *Handbook of personality theory and research*. Chicago: Rand McNally
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A

quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89–136.
<https://doi.org/10.1111/j.1744-6570.2010.01203.x>

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900.
<https://doi.org/10.1177/0149206305279602>

Churchman, D. (2006). Institutional commitments, individual compromises: Identity-related responses to compromise in an Australian university. *Journal of Higher Education Policy and Management*, 28(1), 3–15.
<https://doi.org/10.1080/13600800500283676>

Cohen, J. (1971). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum Associates.

Contreras, F., Abid, G., Govers, M., & Saman Elahi, N. (2021). Influence of support on work engagement in nursing staff: The mediating role of possibilities for professional development. *Academia Revista Latinoamericana De Administración*, 34(1), 122–142. <https://doi.org/10.1108/arla-04-2020-0057>

Conway, E., Fu, N., Monks, K., Alfes, K., & Bailey, C. (2016). Demands or resources? The relationship between HR practices, employee engagement, and emotional exhaustion within a hybrid model of employment relations. *Human Resource Management*, 55(5), 901–917. <https://doi.org/10.1002/hrm.21691>

Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods* (12th ed.). McGraw Hill Education.

Costa, P. L., Passos, A., & Bakker, A. B. (2015). Direct and contextual influence of team conflict on team resources, team work engagement, and team

- performance. *Negotiation and Conflict Management Research*, 8(4), 211–227.
<https://doi.org/10.1111/ncmr.12061>
- Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13(6), 653–665. [https://doi.org/10.1016/0191-8869\(92\)90236-i](https://doi.org/10.1016/0191-8869(92)90236-i)
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.
- Cummins, J., Brown, K., & Sayers, D. (2007). *Literacy, technology, and diversity: Teaching for success in changing times* (pp. 91-111). Boston, MA: Pearson.
- Dabke, D., & Patole, S. (2014). Predicting employee engagement: Role of perceived organizational support and perceived superior support. *Tactful Management Research Journal*, 3(1), 1–8.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Deniz, M. E., & Satıcı, S. A. (2017). The relationships between big five personality traits and subjective vitality. *Anales De Psicologia*, 33(2), 218.
<https://doi.org/10.6018/analesps.33.2.261911>
- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the big five. *Journal of Personality and Social Psychology*, 93(5), 880–896. <https://doi.org/10.1037/0022-3514.93.5.880>
- Djarmiko, T., Prasetyo, P. A., & Azis, E. (2020). Perceived organizational support as mediator in the relationship between effective human resources practice and employee engagement in Indonesia. *Journal of Applied Management*, 18(2), 307–317. <http://dx.doi.org/10.21776/ub.jam.2020.018.02.11>

- Doan, T., Kanjanakan, P., Zhu, D., & Kim, P. B. (2021). Consequences of employee personality in the hospitality context: A systematic review and meta-analysis. *International Journal of Contemporary Hospitality Management*, 33(10), 3814–3832. <https://doi.org/10.1108/ijchm-03-2021-0349>
- Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of Applied Psychology*, 82, 812–820. <https://doi.org/10.1037/0021-9010.82.5.812>
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500–507. <https://doi.org/10.1037/0021-9010.71.3.500>
- Eisenberger, R., Jones, J. R., Aselage, J., & Sucharski, I. L. (2004). Perceived organizational support. In J. A-M. Coyle-Shapiro, L. M. Shore, M. S. Taylor & L. E. Tetrick (Eds.), *The employment relationship: Psychological and contextual perspectives* (pp. 206–225). Oxford: Oxford University Press.
- Eisenberger, R., Rhoades Shanock, L., & Wen, X. (2020). Perceived organizational support: Why caring about employees counts. *Annual Review of Organizational Psychology and Organizational Behavior*, 7(1), 101–124. <https://doi.org/10.1146/annurev-orgpsych-012119-044917>
- Eldor, L., & Harpaz, I. (2016). A process model of employee engagement: The learning climate and its relationship with extra-role performance behaviors. *Journal of Organizational Behavior*, 37(2), 213–235. <https://doi.org/10.1002/job.2037>
- Feist, J. & Feist, G. J. (2008). *Theories of Personality* (7th ed.). McGraw-Hill.
- Ferreira, P., Gabriel, C., Faria, S., Rodrigues, P., & Sousa Pereira, M. (2020). What if

- employees brought their life to work? The relation of life satisfaction and work engagement. *Sustainability*, 12(7), 2743. <https://doi.org/10.3390/su12072743>
- Field, A. (2009). *Discovering Statistics Using SPSS* (3rd ed.). SAGE Publications Ltd.
- Fleeson, W., & Gallagher, M. P. (2009). The implications of Big Five standing for the distribution of trait manifestation in behavior: Fifteen experience-sampling studies and a meta-analysis. *Journal of Personality and Social Psychology*, 97(6), 1097–1114. <https://doi.org/10.1037/a0016786>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226. <https://doi.org/10.1037/0003-066x.56.3.218>
- Fukuzaki, T., & Iwata, N. (2022). Association between the five-factor model of personality and work engagement: A meta-analysis. *Industrial Health*, 60(2), 154–163. <https://doi.org/10.2486/indhealth.2021-0051>
- Funder, D. C. (2004). *The Personality puzzle* (3rd ed.). New York: W. W. Norton & Company.
- Gallup. (2023). *State of the Global Workplace 2023 Report*.
<https://www.gallup.com/workplace/349484/state-of-the-global-workplace.aspx>
- Gallup. (n.d.). *Three-Year Rolling Engagement Trends by Country* [Data set].
<https://www.gallup.com/394373/indicator-employee-engagement.aspx>
- Gallup. (2021). *State of the Global Workplace: 2021 Report*.
<https://bendchamber.org/wp-content/uploads/2021/12/state-of-the-global-workplace-2021-download.pdf>
- Gallup. (2017). *State of the Global Workplace*.
<https://www.gallup.com/workplace/257552/state-global-workplace-2017.as>

- George, G. (2015). A Study on the Relationship between Psychological Climate, Employee Engagement and Organizational Citizenship Behavior. *OPUS: HR Journal*, 6(2).
- Gillet, N., Huart, I., Colombat, P., & Fouquereau, E. (2013). Perceived organizational support, motivation, and engagement among police officers. *Professional Psychology: Research and Practice*, 44(1), 46–55. <https://doi.org/10.1037/a0030066>
- Ghosh, P., Rai, A., & Sinha, A. (2014). Organizational justice and employee engagement. *Personnel Review*, 43(4), 628–652. <https://doi.org/10.1108/pr-08-2013-0148>
- Gomes, A. R., Faria, S., & Gonçalves, A. M. (2013). Cognitive appraisal as a mediator in the relationship between stress and burnout. *Work & Stress*, 27(4), 351–367. <https://doi.org/10.1080/02678373.2013.840341>
- González-Rico, P., Carvalho, A. C., Chambel, M. J., & Guerrero, E. (2018). Be well at work, be well outside work: A study with university workers. *Studies in Higher Education*, 43(6), 1034–1044. <https://doi.org/10.1080/03075079.2016.1212326>
- González-Romá, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles? *Journal of Vocational Behavior*, 68(1), 165–174. <https://doi.org/10.1016/j.jvb.2005.01.003>
- Gorgievski, M. J., & Hobfoll, S. E. (2008). Work can burn us out or fire us up: Conservation of resources in burnout and engagement. In J. R. B. Halbesleben (Eds.), *Handbook of stress and burnout in health care* (pp. 7–22). Hauppauge, NY: Nova Science Publishers.

- Grapragasem, S., Krishnan, A., & Mansor, A. N. (2014). Current trends in Malaysian higher education and the effect on education policy and practice: An overview. *International Journal of Higher Education*, 3(1), 85–93. <https://doi.org/10.5430/ijhe.v3n1p85>
- Griffin, B., & Hesketh, B. (2004). Why openness to experience is not a good predictor of job performance. *International Journal of Selection and Assessment*, 12(3), 243–251. https://doi.org/10.1111/j.0965-075x.2004.278_1.x
- Gulamali, D. I. (2017). *Relationship between personality and work engagement: The role of individual traits and international Experience*. [Unpublished Doctoral Dissertation, Universidade Católica Portuguesa].
- Gupta, N., & Sharma, V. (2016). The Relationship between Corporate Social Responsibility and Employee Engagement and Its Linkage to Organizational Performance: A Conceptual Model. *IUP Journal of Organizational Behavior*, 15(3), 59.
- Gupta, V., Agarwal, U. A., & Khatri, N. (2016). The relationships between perceived organizational support, affective commitment, psychological contract breach, organizational citizenship behaviour and work engagement. *Journal of Advanced Nursing*, 72(11), 2806–2817. <https://doi.org/10.1111/jan.13043>
- Gyensare, M. A., Kumudzro, L. E., Sanda, A., & Boso, N. (2017). Linking transformational leadership to turnover intention in the public sector. *African Journal of Economic and Management Studies*, 8(3), 314–337. <https://doi.org/10.1108/ajems-07-2016-0099>
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.

- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Pearson Prentice Hall.
- Hakkak, M., Gashti, M. A. H., & Nawaser, K. (2014). The relationship between perceived organizational support & job satisfaction with organizational commitment. *Entrepreneurship and Innovation Management Journal*, 2(3), 194–202.
- Halbesleben, J. R. B. (2010). A Meta-Analysis of Work Engagement: Relationships with Burnout, Demands, Resources, and Consequences. In A. B. Bakker & M. P. Leiter (Eds.), *Work Engagement: A Handbook of Essential Theory and Research*. Psychology Press, New York, 102–117.
- Hamzah, H., & Nordin, N. S. (2022). Perceived supervisor support and work engagement: Mediating role of Job-Related affective Well-Being. *Pakistan Journal of Psychological Research*, 37(2), 149–164. <https://doi.org/10.33824/pjpr.2022.37.2.10>
- Hamzah, H., Nordin, N. S., Dwiyanti, R., Na'imah, T., & Mawi, N. (2021). The role of well-being, supervisor support and positive feedback on lecturers' work engagement. *The Journal of Behavioral Science*, 16(1), 73–84.
- Handa, M., & Gulati, A. (2014). Employee engagement: Does individual personality matter. *Journal of Management Research*, 14(1), 57.
- Han, S. H., Sung, M., & Suh, B. (2021). Linking meaningfulness to work outcomes through job characteristics and work engagement. *Human Resource Development International*, 24(1), 3–22. <https://doi.org/10.1080/13678868.2020.1744999>
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship

- between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268–279.
<https://doi.org/10.1037/0021-9010.87.2.268>
- Hassan, N., Jani, S. H. M., Som, R. M., Hamid, N. Z. A., & Azizam, N. A. (2015). The relationship between emotional intelligence and teaching effectiveness among lecturers at Universiti Teknologi MARA, Puncak Alam, Malaysia. *International Journal of Social Science and Humanity*, 5(1), 1–5.
<https://doi.org/10.7763/ijssh.2015.v5.411>
- Hau, T. C., & Bing, K. W. (2018). Relationship between big five personality traits and work engagement among private university academic staff. *Psychology and Counseling*, 3(15), 79–85.
- Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: Holland.
- Hidayat, S., Febrianto, Z., Eliyana, A., Purwohedi, U., Anggraini, R. D., Emur, A. P., & Zahar, M. (2023). Proactive personality and organizational support in television industry: Their roles in creativity. *PLOS ONE*, 18(1), 1–23.
<https://doi.org/10.1371/journal.pone.0280003>
- Hills, H., & Norvell, N. (1991). An Examination of hardiness and neuroticism as potential moderators of stress outcomes. *Behavioral Medicine*, 17, 31–38.
<https://doi.org/10.1080/08964289.1991.9937550>
- Hobfoll, S. E., & Shirom, A. (2000). Conservation of resources: Applications to stress and management in the workplace. In R. T. Golembiewski (Eds.), *Handbook of organizational behavior* (2nd ed., pp. 57–81). New York: Dekker.
- Huang, I. C., Du, P. L., Wu, L. F., Achyldurdyeva, J., Wu, L. C., & Lin, C. S. (2021). Leader–member exchange, employee turnover intention and presenteeism: The mediating role of perceived organizational support.

Leadership & Organization Development Journal, 42(2), 249–264.

<https://doi.org/10.1108/lodj-03-2020-0094>

Huhtala, H., & Parzefall, M. R. (2007). A review of employee Well-Being and innovativeness: An opportunity for a mutual benefit. *Creativity and Innovation Management*, 16(3), 299–306. <https://doi.org/10.1111/j.1467-8691.2007.00442.x>

Ibrahim, S. B. S. (2021). The influence of Job Demand-Resources Model on work engagement among Malaysian Northern region public universities academics. *Jurnal Aplikasi Manajemen, Ekonomi dan Bisnis*, 6(1), 1–13.

Idike, A. N., Egwu, O. I., Ugwu, F. O., Okorie, C. O., & Akwara, F. A. (2020). Abusive supervision and work engagement in the Nigerian public service sector: Do strengths use, and promotion focus matter? *Journal of Psychology in Africa*, 30(4), 300–306. <https://doi.org/10.1080/14330237.2020.1796021>

Idris, M. K. (2009). *Occupational Stress in Academic life: A Study of Academics of Malaysian Public Universities* [Master's thesis, The University of Waikato, Hamilton, New Zealand].

Idris, M. A., Dollard, M. F., & Winefield, A. H. (2011). Integrating psychosocial safety climate in the JD-R model: A study amongst Malaysian workers. *SA Journal of Industrial Psychology*, 37(2), 1–11. <https://doi.org/10.4102/sajip.v37i2.851>

Ilyas, S., Abid, G., & Ashfaq, F. (2022). The impact of perceived organizational support on professional commitment: A moderation of burnout and mediation of well-being. *International Journal of Sociology and Social Policy*. <https://doi.org/10.1108/ijssp-06-2022-0170>

Imran, M. Y., Elahi, N. S., Abid, G., Ashfaq, F., & Ilyas, S. (2020). Impact of

perceived organizational support on work engagement: Mediating mechanism of thriving and flourishing. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 82. <https://doi.org/10.3390/joitmc6030082>

Inam, A., Ho, J. A., Zafar, H., Khan, U., Sheikh, A. A., & Najam, U. (2021).

Fostering creativity and work engagement through perceived organizational support: The interactive role of stressors. *SAGE Open*, 11(3), 1–16. <https://doi.org/10.1177/21582440211046937>

Inglesi-Lotz, R., & Pouris, A. (2014). The contribution of higher education institutions to the South African economy. *South African Journal of Science*, 110(3/4), 1–5. <https://doi.org/10.1590/sajs.2014/a0059>

Ivani, Muchtar, B., & Rasyid, R. (2019). Effect of Organizational Justice, Perceived Organizational Support and Employee Engagement to Employee Organizational Citizenship Behavior of Regional Secretariat of West Sumatra Province. *Advances in Economics, Business and Management Research*, 97, 757–765. <https://doi.org/10.2991/piceeba-19.2019.83>

Jain, L., & Ansari, A. A. (2018). Effect of perception for organisational politics on employee engagement with personality traits as moderating factors. *The South East Asian Journal of Management*, 12(1), 85–104. <https://doi.org/10.21002/seam.v12i1.9396>

Jameel, A. S., & Ahmad, A. R. (2020). The mediating role of job satisfaction between leadership style and performance of academic staff. *International Journal of Psychosocial Rehabilitation*, 24(04), 2399–2414. <https://doi.org/10.37200/ijpr/v24i4/pr201349>

James, L. R., & Mazerolle, M. D. (2002). *Personality in Work Organizations*. Thousand Oaks, CA: Sage.

- James, R., & Azungah, T. (2020). Repatriation of academics: Organizational support, adjustment and intention to leave. *Management Research Review*, 43(2), 150–165. <https://doi.org/10.1108/mrr-04-2019-0151>
- Jangsiriwattana, T. (2021). The mediating effect of resilience on the relationship between perceived organizational support and work engagement. *Academy of Strategic Management Journal*, 20(5), 1–12.
- Jankelová, N., Joniaková, Z., & Skorková, Z. (2021). Perceived organizational support and work engagement of First-Line managers in healthcare – the mediation role of feedback seeking behavior. *Journal of Multidisciplinary Healthcare*, 14, 3109–3123. <https://doi.org/10.2147/jmdh.s326563>
- Janssens, H., De Zutter, P., Geens, T., Vogt, G., & Braeckman, L. (2019). Do personality traits determine work engagement? Results from a Belgian study. *Journal of Occupational & Environmental Medicine*, 61(1), 29–34. <https://doi.org/10.1097/jom.0000000000001458>
- Jehanzeb, K. (2020). Does perceived organizational support and employee development influence organizational citizenship behavior? *European Journal of Training and Development*, 44(6/7), 637–657. <https://doi.org/10.1108/ejtd-02-2020-0032>
- Jiang, Q., Lee, H., & Xu, D. (2020). Challenge stressors, work engagement, and affective commitment among Chinese public servants. *Public Personnel Management*, 49(4), 547–570. <https://doi.org/10.1177/0091026020912525>
- Jin, J., & Tang, J. (2021). Exploring the effect of perceived organizational support and resilience on Chinese pharmacists' engagement in stressful and competitive pharmaceutical work at hospitals. *Journal of the Saudi Pharmaceutical Society*, 29(9), 931–938. <https://doi.org/10.1016/j.jsps.2021.08.003>

- Jin, M. H., & McDonald, B. (2016). Understanding employee engagement in the public sector: The role of immediate supervisor, perceived organizational support, and learning opportunities. *The American Review of Public Administration*, 47(8), 881–897. <https://doi.org/10.1177/0275074016643817>
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory—Versions 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy. History, measurement, and conceptual issues. In O. P. John, R. W. Robins & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114–158). New York: Guilford Press.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of Personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford Press.
- Judge, T. A., Simon, L. S., Hurst, C., & Kelley, K. (2014). What I experienced yesterday is who I am today: Relationship of work motivations and behaviors to within-individual variation in the five-factor model of personality. *Journal of Applied Psychology*, 99(2), 199–221. <https://doi.org/10.1037/a0034485>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724. <https://doi.org/10.5465/256287>
- Kahya, M., & Şahin, F. (2018). The effect of leader personality on follower behaviour. *Leadership & Organization Development Journal*, 39(1), 14–33. <https://doi.org/10.1108/lodj-08-2016-0206>

- Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285.
<https://doi.org/10.2307/2392498>
- Karatepe, O. M. (2013). High-performance work practices and hotel employee performance: The mediation of work engagement. *International Journal of Hospitality Management*, 32, 132–140.
<https://doi.org/10.1016/j.ijhm.2012.05.003>
- Kataria, A., Garg, P., & Rastogi, R. (2012). Employee engagement and organizational effectiveness: The role of organizational citizenship behavior. *International Journal of Business Insights and Transformation*, 6 (1), 102–113.
- Kenny, J. (2018). Re-empowering academics in a corporate culture: An exploration of workload and performativity in a university. *Higher Education*, 75(2), 365–380. <https://doi.org/10.1007/s10734-017-0143-z>
- Khairani, A. Z., & Razak, N. A. (2013). Assessing factors influencing students' choice of Malaysian public university: A Rasch model analysis. *International Journal of Applied Psychology*, 3(1), 19–24.
- Khajuria, G., & Khan, N. (2022). Perceived organisational support and employee engagement: A literature review. *Journal of Positive School Psychology*, 6(3), 1366–1384.
- Kim, D., Moon, C. W., & Shin, J. (2018). Linkages between empowering leadership and subjective well-being and work performance via perceived organizational and co-worker support. *Leadership & Organization Development Journal*, 39(7), 844–858. <https://doi.org/10.1108/lodj-06-2017-0173>
- Kordsmeyer, A. C., Efimov, I., Harth, V., & Mache, S. (2022). Job demands and

- resources related to burn-out symptoms and work engagement in supervisors working with people with severe disabilities in social firms: A cross-sectional study. *BMJ Open*, 12(9), e063118. <https://doi.org/10.1136/bmjopen-2022-063118>
- Kossyva, D., Theriou, G., Aggelidis, V. P., & Sarigiannidis, L. (2023). Definitions and antecedents of engagement: A systematic literature review. *Management Research Review*, 46(5), 719–738. <https://doi.org/10.1108/mrr-01-2021-0043>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A Meta-Analytic evaluation of organizational support theory. *Journal of Management*, 43(6), 1854–1884. <https://doi.org/10.1177/0149206315575554>
- Kumar, K., & Bakhshi, A. (2010). The five-factor model of personality and organizational commitment: Is there any relationship. *Humanity & Social Sciences Journal*, 5(1), 25–34.
- Kweh, Q. L., Yao, L., Darun, M. R., Juan, S. H., & Ting, I. W. K. (2020). The impact of knowledge creation on employee engagement from the perspectives of exploitation and exploration. *International Journal of Business Information Systems*, 1(1), 1. <https://doi.org/10.1504/ijbis.2020.10022501>
- Kwon, B., Farndale, E., & Park, J. G. (2016). Employee voice and work engagement: Macro, meso, and micro-level drivers of convergence? *Human Resource Management Review*, 26(4), 327–337. <https://doi.org/10.1016/j.hrmr.2016.04.005>

- Lampraklis, A., Alamani, K., Malliari, A., & Grivas, I. (2018). The organisational justice as a human resources management practice and its impact on employee engagement: The case of the prefecture of Attica (Greece). *Scientific Annals of Economics and Business*, 65(1), 65–79. <https://doi.org/10.2478/saeb-2018-0004>
- Langelan, S., Bakker, A. B., Van Doornen, L. J., & Schaufeli, W. B. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40(3), 521–532. <https://doi.org/10.1016/j.paid.2005.07.009>
- Lee, Y., Shin, H. Y., Park, J., Kim, W., & Cho, D. (2017). An integrative literature review on employee engagement in the field of human resource development: Exploring where we are and where we should go. *Asia Pacific Education Review*, 18(4), 541–557. <https://doi.org/10.1007/s12564-017-9508-3>
- Lesener, T., Gusy, B., Jochmann, A., & Wolter, C. (2020). The drivers of work engagement: A meta-analytic review of longitudinal evidence. *Work & Stress*, 34(3), 259–278. <https://doi.org/10.1080/02678373.2019.1686440>
- Li, Q., Mohamed, R., Mahomed, A., & Khan, H. (2022). The Effect of Perceived Organizational Support and Employee Care on Turnover Intention and Work Engagement: A Mediated Moderation Model Using Age in the Post Pandemic Period. *Sustainability*, 14(15), 9125. <https://doi.org/10.3390/su14159125>
- Listau, K., Christensen, M., & Innstrand, S. T. (2017). Work engagement: A Double-Edged sword? A study of the relationship between work engagement and the Work-Home interaction using the ARK research platform. *Scandinavian Journal of Work and Organizational Psychology*, 2(1), 1–13. <https://doi.org/10.16993/sjwop.20>

Luta, D., Powell, D. M., & Spence, J. R. (2019). Entrained engagement?

Investigating if work engagement follows a predictable pattern across the work week and the role of personality in shaping its pattern. *Research on Emotion in Organizations*, 89–109. <https://doi.org/10.1108/s1746-979120190000015009>

Mahmoud, M. A., Ahmad, S., & Poespowidjojo, D. A. L. (2020). Intrapreneurial behavior, big five personality and individual performance. *Management Research Review*, 43(12), 1499–1516. <https://doi.org/10.1108/mrr-09-2019-0419>

Mahon, E. G., Taylor, S., & Boyatzis, R. E. (2014). Antecedents of organizational engagement: Exploring vision, mood and perceived organizational support with emotional intelligence as a moderator. *Frontiers in Psychology*, 5, 1–11. <https://doi.org/10.3389/fpsyg.2014.01322>

Makanjee, C. R., Hartzer, Y. F., & Uys, I. L. (2006). The effect of perceived organizational support on organizational commitment of diagnostic imaging radiographers. *Radiography*, 12(2), 118–126. <https://doi.org/10.1016/j.radi.2005.04.005>

Malaysian Qualifications Agency (2019). *MQA At A Glance*.

https://www.mqa.gov.my/pv4/profil_MQA.cfm

Malik, M. F., & Khan, M. A. (2019). Tracking engagement through leader authentic leadership's consequences on followers' attitudes: A sequential mediated mode. *International Journal of Public Administration*, 43(10), 831–838. <https://doi.org/10.1080/01900692.2019.1659817>

Malik, P., & Garg, P. (2020). Learning organization and work engagement: The mediating role of employee resilience. *International Journal of Human*

Resource Management, 31(8), 1071–1094.
<https://doi.org/10.1080/09585192.2017.1396549>

- Martinez, I. M., Salanova, M., & Cruz-Ortiz, V. (2020). Our boss is a good boss! Cross-level effects of transformational leadership on work engagement in service jobs. *Revista De Psicología Del Trabajo Y De Las Organizaciones*, 36(2), 87–94. <https://doi.org/10.5093/jwop2020a10>
- Maslach, C., & Leiter, M. (2016). Burnout. *Stress: Concepts, Cognition, Emotion, and Behavior, 1*, 351–357. <https://doi.org/10.1016/b978-0-12-800951-2.00044-3>
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- Mat, N., Jansriboot, P., & Mat, N. (2019). Big Five personality, transformational leadership, psychological safety, and employee engagement of private sector employees in Southern Thailand. *Journal of Management*, 56, 15–26. <https://doi.org/10.17576/pengurusan-2019-56-02>
- Mauno, S., Ruokolainen, M., Kinnunen, U., & De Bloom, J. (2016). Emotional labour and work engagement among nurses: Examining perceived compassion, leadership and work ethic as stress buffers. *Journal of Advanced Nursing*, 72(5), 1169–1181. <https://doi.org/10.1111/jan.12906>
- McCrae, R. R., & Costa, P. T. (1983). Joint factors in self-reports and ratings: Neuroticism, extraversion and openness to experience. *Personality and Individual Differences*, 4(3), 245–255. [https://doi.org/10.1016/0191-8869\(83\)90146-0](https://doi.org/10.1016/0191-8869(83)90146-0)
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of

- personality across instruments and observers. *Journal of Personality and Social Psychology*, 52(1), 81–90. <https://doi.org/10.1037/0022-3514.52.1.81>
- McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, 52(5), 509–516. <https://doi.org/10.1037/0003-066x.52.5.509>
- McCrae, R. R., & Costa, P. T. (2003). *Personality in Adulthood: A Five-Factor Theory Perspective* (2nd ed.). Guilford Press, New York.
- McCrae, R. R., & John, O. P. (1992). An introduction to the Five-Factor model and its applications. *Journal of Personality*, 60(2), 175–215. <https://doi.org/10.1111/j.1467-6494.1992.tb00970.x>
- Meintjes, A., & Hofmeyr, K. (2018). The impact of resilience and perceived organisational support on employee engagement in a competitive sales environment. *SA Journal of Human Resource Management*, 16. <https://doi.org/10.4102/sajhrm.v16i0.953>
- Meng, F., Wang, Y., Xu, W., Ye, J., Peng, L., & Gao, P. (2020). The diminishing effect of transformational leadership on the relationship between task characteristics, perceived meaningfulness, and work engagement. *Frontiers in Psychology*, 11, 1–9. <https://doi.org/10.3389/fpsyg.2020.585031>
- Mercer. (2022). *Understanding Employee Engagement in Malaysia*. <https://www.asean.mercer.com/our-thinking/career/employee-engagement-malaysia.html#contactForm>
- Meskelis, S., & Whittington, J. L. (2020). Driving employee engagement: How personality trait and leadership style impact the process. *Journal of Business & Industrial Marketing*, 35(10), 1457–1473. <https://doi.org/10.1108/jbim-11-2019-0477>

- Mhlanga, T. S., Mjoli, T. Q., & Chamisa, S. F. (2019). Personality and job engagement among municipal workers in the Eastern Cape province, South Africa. *SA Journal of Human Resource Management*, 17(0), 1–11. <https://doi.org/10.4102/sajhrm.v17i0.1188>
- Mhlanga, T. S., Mjoli, T. Q., Chamisa, S. F., & Marange, C. S. (2021). Personality and psychological conditions in relation to job engagement amongst municipal workers in the Eastern Cape province, South Africa. *SA Journal of Industrial Psychology*, 47, 1–13. <https://doi.org/10.4102/sajip.v47i0.1804>
- Miller, R. J., Griffin, M. A., & Hart, P. C. (1999). Personality and organizational health: The role of conscientiousness. *Work & Stress*, 13(1), 7–19. <https://doi.org/10.1080/026783799296156>
- Ministry of Higher Education (MOHE). (2015). *Corporate*. <https://www.mohe.gov.my/en/corporate/about-us/introduction>
- Ministry of Higher Education (MOHE). (2022). *Statistics of Higher Education 2022*. [https://www.mohe.gov.my/en/downloads/statistics/2022-3/1177-statistik-
pendidikan-tinggi-2022-bab-1-makro-institusi-pendidikan-tinggi/file](https://www.mohe.gov.my/en/downloads/statistics/2022-3/1177-statistik-pendidikan-tinggi-2022-bab-1-makro-institusi-pendidikan-tinggi/file)
- Ministry of Education Malaysia. (2015). *Malaysia Education Blueprint 2015-2025 (Higher Education)*. [https://www.kooperation-
international.de/uploads/media/3._Malaysia_Education_Blueprint_2015-
2025__Higher_Education__.pdf](https://www.kooperation-international.de/uploads/media/3._Malaysia_Education_Blueprint_2015-2025__Higher_Education__.pdf)
- Miranda, A. R., Scotta, A. V., Méndez, A. L., Serra, S. V., & Soria, E. A. (2020). Public sector workers' mental health in Argentina: Comparative psychometrics of the perceived stress scale. *Journal of Preventive Medicine and Public Health*, 53(6), 429–438. <https://doi.org/10.3961/jpmph.20.229>
- Mirbaha, S., Kashani, P., Arhami Dolatabadi, A., Amini, A., Meschi, F., &

- Baratloo, A. (2017). The prevalence of personality disorders in nurses: Role of the workplace environment. *Journal of Emergency Practice and Trauma*, 3(2), 59–63. <https://doi.org/10.15171/jept.2017.22>
- Mostafa, A., & Shen, J. (2020). Ethical leadership, internal CSR, organisational engagement and organisational workplace deviance. *Evidence-based HRM: a Global Forum for Empirical Scholarship*, 8(1), 113–127. <https://doi.org/10.1108/ebhrm-03-2019-0026>
- Mostafa, A. M. S., & Abed El-Motalib, E. A. (2020). Ethical leadership, work meaningfulness, and work engagement in the public sector. *Review of Public Personnel Administration*, 40(1), 112–131. <https://doi.org/10.1177/0734371x18790628>
- Mostert, K., & Rothmann, S. (2006). Work-related well-being in the South African Police Service. *Journal of Criminal Justice*, 34(5), 479–491. <https://doi.org/10.1016/j.jcrimjus.2006.09.003>
- Mischel, W., Shoda, Y., & Ayduk, O. (2007). *Introduction to personality: Toward an integrative science of the person* (8th ed.). New York: Wiley.
- Mphahlele, P., Els, C., De Beer, L. T., & Mostert, K. (2018). Investigating strengths and deficits to increase work engagement: A longitudinal study in the mining industry. *SA Journal of Human Resource Management*, 16(0), 1–16. <https://doi.org/10.4102/sajhrm.v16i0.900>
- Musenze, I. A., Mayende, T. S., Kalenzi, A., & Namono, R. (2022). Perceived organizational support, self-efficacy and work engagement: Testing for the interaction effects. *Journal of Economic and Administrative Sciences*, 38(2), 201–228. <https://doi.org/10.1108/jeas-08-2020-0141>
- Musenze, I. A., Mayende, T. S., Wampande, A. J., Kasango, J., & Emojong, O. R.

- (2021). Mechanism between perceived organizational support and work engagement: Explanatory role of self-efficacy. *Journal of Economic and Administrative Sciences*, 37(4), 471–495. <https://doi.org/10.1108/jeas-02-2020-0016>
- Muthu, K., & Chelliah, S. (2020). Perceived factors influencing internationalisation of Malaysian public higher learning institutions. *European Proceedings of Social and Behavioural Sciences*, 518–526. <https://doi.org/10.15405/epsbs.2020.10.46>
- Nagalingam, U. D., Kadir, N. B. A., & Hoesni, S. M. (2019). The mediating role of work engagement in the relationship between emotional intelligence and organisational commitment among higher education institution lecturers. *International Journal of Learning, Teaching and Educational Research*, 18(8), 31–53. <https://doi.org/10.26803/ijlter.18.8.3>
- Naicker, T. (2013). *The effect of knowledge sharing on employee engagement* [Doctoral Dissertation, University of Johannesburg]. UJContent.
- Naidoo-Chetty, M., & Plessis, M. D. (2021). Systematic review of the job demands and resources of academic staff within higher education institutions. *International Journal of Higher Education*, 10(3), 268. <https://doi.org/10.5430/ijhe.v10n3p268>
- Nazari, K., Pihie, Z. A. L., Basri, R., & Idris, K. (2012). The level of organisational commitment among lecturers in technical and vocational colleges in Iran. *Pertanika Journal of Social Sciences & Humanities*, 20, 22–40.
- Nazir, S., Qun, W., Hui, L., & Shafi, A. (2018). Influence of social exchange

- relationships on affective commitment and innovative behavior: Role of perceived organizational support. *Sustainability*, 10(12), 4418. <https://doi.org/10.3390/su10124418>
- Nazir, S., Shafi, A., Atif, M. M., Qun, W., & Abdullah, S. M. (2019). How organization justice and perceived organizational support facilitate employees' innovative behavior at work. *Employee Relations: The International Journal*, 41(6), 1288–1311. <https://doi.org/10.1108/er-01-2017-0007>
- Newman, D. A., Joseph, D. L., Sparkman, T. E., & Carpenter, N. C. (2011). Invited reaction: The work cognition inventory: Initial evidence of construct validity. *Human Resource Development Quarterly*, 22(1), 37–47. <https://doi.org/10.1002/hrdq.20065>
- Nguyen, H. N., & Tran, M. D. (2021). The effect of perceived organizational support on employee engagement during the COVID-19 pandemic: An empirical study in Vietnam. *Journal of Asian Finance, Economics and Business*, 8(6), 415–426. <https://doi.org/10.13106/jafeb.2021.vol8.no6.0415>
- Nguyen, L. G. T., & Pham, H. T. (2020). Factors affecting employee engagement at Not-For-Profit organizations: A case in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(8), 495–507. <https://doi.org/10.13106/jafeb.2020.vol7.no8.495>
- Noermijati, N., Firdaus, E. Z., & Baltimurik, R. W. (2021). The effects of personality, deviant behavior, and employee engagement on frontline employees' organizational commitment. *Management Science Letters*, 1033–1044. <https://doi.org/10.5267/j.msl.2020.9.039>
- Noesgaard, M. S. (2016). *Work engagement among caregivers: Exploring the*

interplay between the individual and their context [PhD Dissertation, Department of Management, Aarhus: Aarhus University].

- Nordin, N. S., & Hamzah, H. (2021). Issues and challenges of work engagement among lecturers. *International Journal of Academic Research in Business and Social Sciences*, 11(7), 1619–1625. <https://doi.org/10.6007/ijarbss/v11-i7/10206>
- Obuobisa-Darko, T. (2020). Leaders' behaviour as a determinant of employee performance in Ghana: The mediating role of employee engagement. *Public Organization Review*, 20(3), 597–611. <https://doi.org/10.1007/s11115-019-00460-6>
- Othman, R., Asri, N. A. M., Alias, N. E., Jahya, A., Koe, W., & Krishnan, R. (2021). The effect of job resources on work engagement: Does this matter among academics in Malaysia? *International Journal of Academic Research in Business and Social Sciences*, 11(6), 1165–1175. <https://doi.org/10.6007/ijarbss/v11-i6/10245>
- Ojo, A. O., Fawehinmi, O., & Yusliza, M. Y. (2021). Examining the predictors of resilience and work engagement during the COVID-19 pandemic. *Sustainability*, 13(5), 2902. <https://doi.org/10.3390/su13052902>
- Ongore, O. (2014). A study of relationship between personality traits and job engagement. *Procedia - Social and Behavioral Sciences*, 141, 1315–1319. <https://doi.org/10.1016/j.sbspro.2014.05.226>
- Orgambidez-Ramos, A., & de Almeida, H. (2017). Work engagement, social support, and job satisfaction in Portuguese nursing staff: A winning combination. *Applied Nursing Research*, 36, 37–41. <https://doi.org/10.1016/j.apnr.2017.05.012>

- Orpina, S., Abdul Jalil, N. I. B., & Ting, T. S. (2022). Job satisfaction and turnover intention among Malaysian private university academics: Perceived organisational support as a moderator. *South East Asian Journal of Management*, 16(1), 26–50. <https://doi.org/10.21002/seam.v16i1.1002>
- Orth, M., & Volmer, J. (2017). Daily within-person effects of job autonomy and work engagement on innovative behaviour: The cross-level moderating role of creative self-efficacy. *European Journal of Work and Organizational Psychology*, 26(4), 601–612. <https://doi.org/10.1080/1359432x.2017.1332042>
- Oshagbemi, T. (2000). Is length of service related to the level of job satisfaction? *International Journal of Social Economics*, 27(3), 213–226. <https://doi.org/10.1108/03068290010286546>
- Pallant, J. (2016). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS* (6th ed.). Open University Press.
- Pérez-Fuentes, M., Molero Jurado, M., Martos Martínez, F., & Gázquez Linares, J. (2019). Burnout and engagement: Personality profiles in nursing professionals. *Journal of Clinical Medicine*, 8(3), 286. <https://doi.org/10.3390/jcm8030286>
- Pervin, L. A., Cervone, D., & John, O. P. (2005). *Personality: Theory and Research* (9th ed.). Hoboken, NJ: John Wiley & Sons.
- Pirzada, Z. A., Mirani, S. H. H., Phulpoto, N., Dogar, H., & Mahar, S. A. (2020). Study of employee silence, organizational justice and work engagement: Mediation analysis. *International Journal of Computer Science and Network Security*, 20(1), 9–14.
- Policy Planning and Research Division, Ministry of Higher Education Malaysia. (2022). *Higher Education Report: [MALAYSIA]*. <https://whec2022.net/resources/Country%20report%20-%20Malaysia.pdf>

- Pongton, P., & Suntrayuth, S. (2019). Communication satisfaction, employee engagement, job satisfaction, and job performance in higher education institutions. *ABAC Journal*, 39(3), 90–110.
- Pradhan, R. K., Dash, S., & Jena, L. K. (2019). Do HR practices influence job satisfaction? Examining the mediating role of employee engagement in Indian public sector undertakings. *Global Business Review*, 20(1), 119–132. <https://doi.org/10.1177/0972150917713895>
- Qualtrics. (2023). *2023 Employee Experience Trends*. <https://success.qualtrics.com/rs/542-FMF-412/images/Employee-Experience-Trends-2023-APJ.pdf>
- Qualtrics. (2020). *2020 experience trends Malaysia*. https://www.qualtrics.com/m/assets/au/wp-content/uploads/2020/01/FINALMYEX_MYGlobal_Trends_Report_Ebook-2.pdf
- Quandt, C. O., Silva, H. D. F. N., Ferraresi, A. A., & Frega, J. R. (2019). Idea management and innovation programs: Practices of large companies in the south region of Brazil. *International Journal of Business Innovation and Research*, 18(2), 187. <https://doi.org/10.1504/ijbir.2019.097257>
- Rai, A., & Maheshwari, S. (2021). Exploring the mediating role of work engagement between the linkages of job characteristics with organizational engagement and job satisfaction. *Management Research Review*, 44(1), 133–157. <https://doi.org/10.1108/mrr-10-2019-0442>
- Rashid, A., & Boussabiane, H. (2019). Conceptualizing the influence of personality

- and cognitive traits on project managers' risk-taking behaviour. *International Journal of Managing Projects in Business*, 14(2), 472–496.
<https://doi.org/10.1108/ijmpb-11-2017-0138>
- Rasool, S. F., Wang, M., Tang, M., Saeed, A., & Iqbal, J. (2021). How toxic workplace environment effects the employee engagement: The mediating role of organizational support and employee wellbeing. *International Journal of Environmental Research and Public Health*, 18(5), 2294.
<https://doi.org/10.3390/ijerph18052294>
- Reis, G., Trullen, J., & Story, J. (2016). Perceived organizational culture and engagement: The mediating role of authenticity. *Journal of Managerial Psychology*, 31(6), 1091–1105. <https://doi.org/10.1108/jmp-05-2015-0178>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698–714.
<https://doi.org/10.1037/0021-9010.87.4.698>
- Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86(5), 825–836. <https://doi.org/10.1037/0021-9010.86.5.825>
- Rich, B. L. (2006). *Job engagement: Construct validation and relationships with job satisfaction, job involvement, and intrinsic motivation*. [Unpublished Doctoral Dissertation, University of Florida, USA].
- Robbins, S. P., & Judge, T. A. (2016). *Organizational Behavior, Global Edition* (16th ed.). Pearson.
- Roberts, B. W., & Mroczek, D. K. (2008). Personality trait change in adulthood.

Current Directions in Psychological Science, 17(1), 31–35.

<https://doi.org/10.1111/j.1467-8721.2008.00543.x>

Roof, R. A. (2015). The association of individual spirituality on employee engagement: The spirit at work. *Journal of Business Ethics*, 130(3), 585–599.
<https://doi.org/10.1007/s10551-014-2246-0>

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46(4), 655–684.
<https://doi.org/10.2307/3094827>

Rothmann, S., & Rothmann Jr, S. (2010). Factors associated with employee engagement in South Africa. *SA Journal of Industrial Psychology*, 36(2), 1–12. <https://doi.org/10.4102/sajip.v36i2.925>

Ruiz-Zorrilla, P., Hernández, X., De Roda, A. B. L., Antino, M., & Rodríguez-Muñoz, A. (2020). Exploring daily patterns of work engagement among teachers: A latent growth modeling approach. *Psicothema*, 32(3), 374–381.
<https://doi.org/10.7334/psicothema2020.57>

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066x.55.1.68>

Sabir, I., Ali, I., Majid, M. B., Sabir, N., Mehmood, H., Rehman, A. U., & Nawaz, F. (2022). Impact of perceived organizational support on employee performance in IT firms – a comparison among Pakistan and Saudi Arabia. *International Journal of Organizational Analysis*, 30(3), 795–815.
<https://doi.org/10.1108/ijoa-10-2019-1914>

Saks, A. M. (2006). Antecedents and consequences of employee engagement.

- Journal of Managerial Psychology*, 21(7), 600–619.
<https://doi.org/10.1108/02683940610690169>
- Saks, A. M. (2011). Workplace spirituality and employee engagement. *Journal of Management, Spirituality & Religion*, 8(4), 317–340.
<https://doi.org/10.1080/14766086.2011.630170>
- Saks, A. M., & Gruman, J. A. (2014). What do we really know about employee engagement? *Human Resource Development Quarterly*, 25(2), 155–182.
<https://doi.org/10.1002/hrdq.21187>
- Saks, A. M., & Gruman, J. A. (2018). Socialization resources theory and newcomers' work engagement. *Career Development International*, 23(1), 12–32.
<https://doi.org/10.1108/cdi-12-2016-0214>
- Salgado, J. F. (2002). The big five personality dimensions and counterproductive behaviors. *International Journal of Selection and Assessment*, 10(1 & 2), 117–125. <https://doi.org/10.1111/1468-2389.00198>
- Sanda, M., & Awolusi, O. D. (2014). The effects of management use of motivation on workers' job commitment: An empirical investigation of tertiary institutions in South-western Nigeria. *International Journal of Business Innovation and Research*, 8(6), 581. <https://doi.org/10.1504/ijbir.2014.065486>
- Sarti, D. (2014). Job resources as antecedents of engagement at work: Evidence from a Long-Term care setting. *Human Resource Development Quarterly*, 25(2), 213–237. <https://doi.org/10.1002/hrdq.21189>
- Schaufeli, W. B. (2014). What is engagement? In C. Truss, R. Delbridge, K. Alfes, A. Shantz & E. Soane (Eds.), *Employee Engagement in Theory and Practice* (pp. 15–35). London: Routledge.
- Schaufeli, W., & Bakker, A. B. (2004). *UWES Utrecht Work Engagement Scale*

Preliminary Manual. Occupational Health Psychology Unit Utrecht University, Utrecht.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. *Educational and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>

Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 10–24). Psychology Press. <https://doi.org/10.4324/9780203853047>

Schaufeli, W. B., & Salanova, M. (2010). How to improve work engagement? In S. L. Albrecht (Eds.), *Handbook of employee engagement: Perspectives, issues, research and practice* (pp. 399–415). Cheltenham, UK: Edward Elgar Publishers.

Schaufeli, W. B., & Salanova, M. (2007). Work engagement: An emerging psychological concept and its implications for organizations. In S. W. Gilliland, D. D. Steiner & D. P. Skarlicki (Eds.), *Research in Social Issues in Management (Volume 5): Managing social and ethical issues in organization* (pp. 135–177). Greenwich, CT: Information Age Publishers.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92. <https://doi.org/10.1023/A:1015630930326>

Schwartz, S. H. (2012). An Overview of the Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture*, 2(1). <https://doi.org/10.9707/2307-0919.1116>

- Sekaran, U. (2003). *Research Methods for Business* (4th ed.). John Wiley & Sons, New York.
- Shaheen, S., Zulfikar, S., Saleem, S., & Shehazadi, G. (2020). Does organizational cronyism lead to lower employee performance? Examining the mediating role of employee engagement and moderating role of islamic work ethics. *Frontiers in Psychology, 11*, 579560. <https://doi.org/10.3389/fpsyg.2020.579560>
- Shams, S. M., Niazi, M. M., & Asim, F. (2020). The relationship between perceived organizational support, employee engagement, and organizational citizenship behavior: Application of pls-sem approach. *Kardan Journal of Economics and Management Sciences, 3*(1), 35–55.
- Sharma, A., Goel, A., & Sengupta, S. (2017). How does work engagement vary with employee demography? *Procedia Computer Science, 122*, 146–153. <https://doi.org/10.1016/j.procs.2017.11.353>
- Shi, X., Evans, R., Pan, W., & Shan, W. (2022). Understanding the effects of personality traits on solver engagement in crowdsourcing communities: A moderated mediation investigation. *Information Technology & People, 35*(2), 750–780. <https://doi.org/10.1108/itp-05-2020-0290>
- Shirom, A. (2010). Feeling energetic at work: On vigor's antecedents. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 10–24). Psychology Press. <https://doi.org/10.4324/9780203853047>
- Shrand, B., & Ronnie, L. (2019). Commitment and identification in the Ivory Tower: academics' perceptions of organisational support and reputation. *Studies in Higher Education, 46*(2), 285–299. <https://doi.org/10.1080/03075079.2019.1630810>

- Shuck, B., Reio, T. G., & Rocco, T. S. (2011). Employee engagement: An examination of antecedent and outcome variables. *Human Resource Development International*, 14(4), 427–445. <https://doi.org/10.1080/13678868.2011.601587>
- Shukla, S., Aggarwal, P., Adhikari, B., & Singh, V. (2014). Relationship between employee engagement and big five personality factors: A study of online B2C e-commerce company. *JIMS8M: The Journal of Indian Management & Strategy*, 19(3), 26. <https://doi.org/10.5958/0973-9343.2014.01233.2>
- Sidek, S., Dora, M. T., Kudus, N., & Hassan, M. A. (2012). Academic career in the Malaysian higher education: Becoming a professor. *Journal of Human Capital Development*, 5(2), 127–140.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27–41. <https://doi.org/10.1037/1076-8998.1.1.27>
- Sihag, P. (2021). The mediating role of perceived organizational support on psychological capital – employee engagement relationship: A study of Indian IT industry. *Journal of Indian Business Research*, 13(1), 154–186. <https://doi.org/10.1108/jibr-01-2019-0014>
- Singh, J. (2015). *Employees engagement and family friendly initiatives a study of selected corporate enterprises in India*. [PhD Dissertation, Punjabi University].
- Sivapragasam, P., & Raya, R. (2017). HRM and employee engagement link: Mediating role of employee well-being. *Global Business Review*, 19(1), 1–15. <https://doi.org/10.1177/0972150917713369>
- Smith, R. W., & DeNunzio, M. M. (2019). Examining personality—Job

- characteristic interactions in explaining work outcomes. *Journal of Research in Personality*, 84, 103884. <https://doi.org/10.1016/j.jrp.2019.103884>
- Spreitzer, G. M., Lam, C. F., & Fritz, C. (2010). Engagement and human thriving: Complementary perspectives on energy and connections to work. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 10–24). Psychology Press. <https://doi.org/10.4324/9780203853047>
- Stefanidis, A., & Strogilos, V. (2021). Perceived organizational support and work engagement of employees with children with disabilities. *Personnel Review*, 50(1), 186–206. <https://doi.org/10.1108/pr-02-2019-0057>
- Suls, J. (2001). Affect, stress, and personality. In J. P. Forgas (Eds.), *Handbook of affect and social cognition* (pp. 392–409). Mahwah, NJ: Lawrence Erlbaum.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.). Pearson Education, Inc.
- Tapsir, S. H. (2019, May 15). Harmonising Public and Private Higher Education. *New Straits Times*. <https://www.moe.gov.my/en/menumedia/printed-media/newspaper-clippings/harmonising-public-and-private-higher-education-new-straits-times-15-mei-2019>
- Taylor, N., & De Bruin, G. P. (2006). *Basic traits inventory: Technical manual*. Johannesburg: Jopie van Rooyen & Partners.
- Teng, C. I. (2008). Personality differences between online game players and nonplayers in a student sample. *CyberPsychology & Behavior*, 11(2), 232–234. <https://doi.org/10.1089/cpb.2007.0064>
- Teng, S., Samah, A. H. I., Naiemah, U. S., Rashid, A. M. I. & Shamsuddin, S. A.

- (2020). Employees personality trait towards engagement in four-star hotel in northern region malaysia: A mediating effect of agreeableness. *Journal of Social Science and Humanities*, 3 (5), 29–34.
<https://doi.org/10.26666/rmp.jssh.2020.5.5>
- Tengah, A. (2022). The relationship between HRM practices and academic staff job engagement: The role of leader-member exchange as moderator. *Journal of Management & Muamalah*, 12(1), 74-93.
- Tensay, A. T., & Singh, M. (2020). The nexus between HRM, employee engagement and organizational performance of federal public service organizations in Ethiopia. *Heliyon*, 6(6), e04094.
<https://doi.org/10.1016/j.heliyon.2020.e04094>
- Thavakumar, D. (2018). The impact of personality traits on cognitive engagement: The study on financial institutions in Trincomalee district. *Journal of Management*, 14(1), 24–31.
- Tian, L., Wu, A., Li, W., Huang, X., Ren, N., Feng, X., & Zhang, Y. (2023). Relationships between perceived organizational support, psychological capital and work engagement among Chinese infection control nurses. *Risk Management and Healthcare Policy*, 2023;16, 551–562.
<https://doi.org/10.2147/rmhp.s395918>
- Tims, M., Bakker, A. B., Derks, D., & Van Rhenen, W. (2013). Job crafting at the team and individual level: Implications for work engagement and performance. *Group & Organization Management*, 38(4), 427–454.
<https://doi.org/10.1177/1059601113492421>
- To, W. M., & Huang, G. (2022). Effects of equity, perceived organizational support

- and job satisfaction on organizational commitment in Macao's gaming industry. *Management Decision*, 60(9), 2433–2454.
<https://doi.org/10.1108/md-11-2021-1447>
- Travers, C. J., & Cooper, C. L. (1996). *Teachers under stress. Stress in teaching professions* (1st ed.). Routledge.
- Ugwu, F. O., & Onyishi, I. E. (2020). The moderating role of person-environment fit on the relationship between perceived workload and work engagement among hospital nurses. *International Journal of Africa Nursing Sciences*, 13, 100225.
<https://doi.org/10.1016/j.ijans.2020.100225>
- Ulrich, D. (2007). The Talent trifecta. *Workforce Management*, 86, 32–33.
- Van Teijlingen, E., & Hundley, V. (2002). The importance of pilot studies. *Nursing Standard*, 16(40), 33–36. <https://doi.org/10.7748/ns2002.06.16.40.33.c3214>
- Wickramasinghe, V., & Perera, S. (2014). Effects of perceived organisation support, employee engagement and organisation citizenship behaviour on quality performance. *Total Quality Management & Business Excellence*, 25(11–12), 1280–1294. <https://doi.org/10.1080/14783363.2012.728855>
- Widiger, T. A., & Oltmanns, J. R. (2017). Neuroticism is a fundamental domain of personality with enormous public health implications. *World Psychiatry*, 16(2), 144–145. <https://doi.org/10.1002/wps.20411>
- Wildermuth (2008). *Engaged to serve: The relationship between employee engagement and the personality of human services professionals and paraprofessionals*. [Doctoral Dissertation, The Graduate College of Bowling Green State University].
- Wollard, K. K., & Shuck, B. (2011). Antecedents to employee engagement.

- Advances in Developing Human Resources*, 13(4), 429–446.
<https://doi.org/10.1177/1523422311431220>
- Woods, S. A., Mustafa, M. J., Anderson, N., & Sayer, B. (2018). Innovative work behavior and personality traits. *Journal of Managerial Psychology*, 33(1), 29–42. <https://doi.org/10.1108/jmp-01-2017-0016>
- Wushe, T., & Shenje, J. (2019). The antecedents of employee engagement and their effect on public sector service delivery: The case study of government departments in Harare. *SA Journal of Human Resource Management*, 17(2), 1–11. <https://doi.org/10.4102/sajhrm.v17i0.1082>
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82(1), 183–200. <https://doi.org/10.1348/096317908x285633>
- Xu, D., Zhang, N., Bu, X., & He, J. (2021). The effect of perceived organizational support on the work engagement of Chinese nurses during the COVID-19: The mediating role of psychological safety. *Psychology, Health & Medicine*, 27(2), 481–487. <https://doi.org/10.1080/13548506.2021.1946107>
- Yin, C., Zhang, X., & Liu, L. (2020). Reposting negative information on microblogs: Do personality traits matter? *Information Processing and Management*, 57(1), 102106. <https://doi.org/10.1016/j.ipm.2019.102106>
- Young, H. R., Glerum, D. R., Wang, W., & Joseph, D. L. (2018). Who are the most engaged at work? A meta-analysis of personality and employee engagement. *Journal of Organizational Behavior*, 39(10), 1330–1346. <https://doi.org/10.1002/job.2303>
- Zaidi, N. R., Wajid, R. A., Zaidi, F. B., & Zaidi, G. B. (2013). The big give

personality traits and their relationship with work engagement among public sector university teachers of Lahore. *African Journal of Business Management*, 7(15), 1344–1353. <https://doi.org/10.5897/AJBM12.290>

Zahari, N., & Kaliannan, M. (2022). Antecedents of work engagement in the public sector: A systematic literature review. *Review of Public Personnel Administration*, 1–26. <https://doi.org/10.1177/0734371x221106792>

Zellars, K. L., Perrewé, P. L., & Hochwarter, W. A. (2000). Burnout in health care: The role of the five factors of personality. *Journal of Applied Social Psychology*, 30(8), 1570–1598. <https://doi.org/10.1111/j.1559-1816.2000.tb02456.x>

Zikmund, W. G., Babin, B. J., Griffin, M., & Carr, J. C. (2010). *Business Research Methods* (8th ed.). Cengage Learning.



APPENDIX 1

Questionnaire



Dear Professor/Associate Professor/Doctor/Sir/Madam,

I am Puspu Nanthinni Ramasamy, a student of Master of Human Resource Management from University Utara Malaysia. I am conducting a research project entitled **“UNRAVELING THE RELATIONSHIP BETWEEN PERSONALITY TRAITS, PERCEIVED ORGANIZATIONAL SUPPORT, AND WORK ENGAGEMENT: A STUDY OF ACADEMIC STAFF IN MALAYSIA”** to fulfill the Master’s requirement of the university. I would like to invite you to participate in this study and humbly seek your kind cooperation to complete the questionnaire of my study.

I understand your tight schedule and would appreciate it if you could spend **10 MINUTES** of your precious time to complete this survey. Please be informed that the information that you provide for the purpose of this study will be **STRICTLY CONFIDENTIAL** and will be used for academic purposes only. Hence, your honest and accurate information is very much needed and appreciated.

If you have any questions or would like to have further information regarding this research, please do not hesitate to reach me at the contact given below. Thank you in advance for your valuable time and effort. I greatly appreciate your help in furthering this research endeavor.

Yours sincerely,

Puspu Nanthinni Ramasamy
Master of Human Resource Management
Universiti Utara Malaysia
Contact Number: 010-3718973
Email: nanthinni92@gmail.com

Supervisor: Dr. Edora Binti Ismail
School of Business Management
College of Business
Universiti Utara Malaysia
Email: edora@uum.edu.my

SECTION A : DEMOGRAPHIC PROFILE

Instruction: The following items are related to personal information. Please **TICK (/)** or **WRITE** your response. Rest assured that your personal information will be kept confidential and will be used solely for the study purpose only.

(1) Gender

☐

Male

☐

Female

(2) Age

☐

Below 30

☐

30-39

☐

40-49

☐

50-59

☐

59 and above

(3) Highest Education

☐

Degree

☐

Master

☐

PhD/DBA

☐

Others _____ (Please specify)

(4) Marital Status

☐

Single

☐

Married

☐

Divorced

(5) Total Years of Work Experience in the Academic Field

☐

5 years and below

☐

6-10 years

☐

11-15 years

☐

16-20 years

☐

21-25 years

☐

26 years and above

(6) Monthly Salary

☐

RM5000 and below

☐

RM5001-RM9000

☐

RM9001-RM13000

☐

RM13001 and above

(7) Current Position in the Institution

☐	Professor	☐	Associate Professor	☐	Senior Lecturer
☐	Lecturer	☐	Others_____ (Please specify)		

(8) Type of Institution

☐	Public University	☐	Community College	☐	Polytechnic
☐	Private University	☐	Private College	☐	Private University College
☐	Foreign Branch Campus University	☐	Others		

(9) Name of the Institution Currently Attached to:

_____ (Please specify)

SECTION B : WORK & WELL-BEING

Instruction: The following statements are about how you feel at work. Please **CIRCLE** how strongly you agree or disagree with each of the following statement based on the Likert scale below.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

1. At my work, I feel bursting with energy.	1	2	3	4	5
2. I find the work that I do full of meaning and purpose.	1	2	3	4	5
3. Time flies when I'm working.	1	2	3	4	5
4. At my job, I feel strong and vigorous.	1	2	3	4	5
5. I am enthusiastic about my job.	1	2	3	4	5

6. When I am working, I forget everything else around me.	1	2	3	4	5
7. My job inspires me.	1	2	3	4	5
8. When I get up in the morning, I feel like going to work.	1	2	3	4	5
9. I feel happy when I am working intensely.	1	2	3	4	5
10. I am proud of the work that I do.	1	2	3	4	5
11. I am immersed in my work.	1	2	3	4	5
12. I can continue working for very long periods at a time.	1	2	3	4	5
13. To me, my job is challenging.	1	2	3	4	5
14. I get carried away when I'm working.	1	2	3	4	5
15. At my job, I am very resilient, mentally.	1	2	3	4	5
16. It is difficult to detach myself from my job.	1	2	3	4	5
17. At my work, I always persevere, even when things do not go well.	1	2	3	4	5

SECTION C : HOW I AM IN GENERAL

Instruction: Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please **CIRCLE** how strongly you agree or disagree with each of the following statement based on the Likert scale below.

1	2	3	4	5
Disagree	Disagree a	Neither	Agree a	Agree
Strongly	Little	Agree	Little	Strongly
		Nor Disagree		

I am someone who...					
1. is talkative	1	2	3	4	5

2. tends to find fault with others	1	2	3	4	5
3. does a thorough job	1	2	3	4	5
4. is depressed, blue	1	2	3	4	5
5. is original, comes up with new ideas	1	2	3	4	5
6. is reserved	1	2	3	4	5
7. is helpful and unselfish with others	1	2	3	4	5
8. can be somewhat careless	1	2	3	4	5
9. is relaxed, handles stress well	1	2	3	4	5
10. is curious about many different things	1	2	3	4	5
11. is full of energy	1	2	3	4	5
12. starts quarrels with others	1	2	3	4	5
13. is a reliable worker	1	2	3	4	5
14. can be tense	1	2	3	4	5
15. is ingenious, a deep thinker	1	2	3	4	5
16. generates a lot of enthusiasm	1	2	3	4	5
17. has a forgiving nature	1	2	3	4	5
18. tends to be disorganized	1	2	3	4	5
19. worries a lot	1	2	3	4	5
20. has an active imagination	1	2	3	4	5
21. tends to be quiet	1	2	3	4	5
22. is generally trusting	1	2	3	4	5
23. tends to be lazy	1	2	3	4	5
24. is emotionally stable, not easily upset	1	2	3	4	5
25. is inventive	1	2	3	4	5
26. has an assertive personality	1	2	3	4	5

27. can be cold and aloof	1	2	3	4	5
28. perseveres until the task is finished	1	2	3	4	5
29. can be moody	1	2	3	4	5
30. values artistic, aesthetic experiences	1	2	3	4	5
31. is sometimes shy, inhibited	1	2	3	4	5
32. is considerate and kind to almost everyone	1	2	3	4	5
33. does things efficiently	1	2	3	4	5
34. remains calm in tense situations	1	2	3	4	5
35. prefers work that is routine	1	2	3	4	5
36. is outgoing, sociable	1	2	3	4	5
37. is sometimes rude to others	1	2	3	4	5
38. makes plans and follows through with them	1	2	3	4	5
39. gets nervous easily	1	2	3	4	5
40. likes to reflect, play with ideas	1	2	3	4	5
41. has few artistic interests	1	2	3	4	5
42. likes to cooperate with others	1	2	3	4	5
43. is easily distracted	1	2	3	4	5
44. is sophisticated in art, music, or literature	1	2	3	4	5

SECTION D : PERCEIVED ORGANIZATIONAL SUPPORT

Instruction: Listed below are statements that represent possible opinions that **YOU** may have about working at your organization. Please **CIRCLE** how strongly you agree or disagree with each of the following statement based on the Likert scale below.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

1. My organization strongly considers my goals and values.	1	2	3	4	5
2. My organization really cares about my well-being.	1	2	3	4	5
3. My organization shows very little concern for me.	1	2	3	4	5
4. My organization would forgive an honest mistake on my part.	1	2	3	4	5
5. My organization cares about my opinions.	1	2	3	4	5
6. If given the opportunity, my organization would take advantage of me.	1	2	3	4	5
7. Help is available from my organization when I have a problem.	1	2	3	4	5
8. My organization is willing to help me when I need a special favor.	1	2	3	4	5

Thank You for Your Kind Participation

APPENDIX 2

SPSS OUTPUT

Descriptive Statistics of Demographic Variables (Pilot Test)

Statistics

	Gender	Age	Education	Marital Status	Experience	Salary	Position	Type of Institution	Name of Institution
N	Valid	30	30	30	30	30	30	30	30
	Missing	0	0	0	0	0	0	0	0

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Male	11	36.7	36.7	36.7
Female	19	63.3	63.3	100.0
Total	30	100.0	100.0	

Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
30-39	5	16.7	16.7	16.7
40-49	7	23.3	23.3	40.0
50-59	17	56.7	56.7	96.7
59 and above	1	3.3	3.3	100.0
Total	30	100.0	100.0	

Highest Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Degree	2	6.7	6.7	6.7
Master	8	26.7	26.7	33.3
PhD/DBA	20	66.7	66.7	100.0
Total	30	100.0	100.0	

Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Single	1	3.3	3.3	3.3
Married	27	90.0	90.0	93.3
Divorced	2	6.7	6.7	100.0
Total	30	100.0	100.0	

Total Years of Work Experience in This Field

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 years and below	1	3.3	3.3	3.3
	11-15 years	6	20.0	20.0	23.3
	16-20 years	3	10.0	10.0	33.3
	21-25 years	12	40.0	40.0	73.3
	26 years and above	8	26.7	26.7	100.0
	Total	30	100.0	100.0	

Monthly Salary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RM5000 and below	1	3.3	3.3	3.3
	RM5001-RM9000	9	30.0	30.0	33.3
	RM9001-RM13000	19	63.3	63.3	96.7
	RM13001 and above	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Current Position in the Institution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Associate Professor	11	36.7	36.7	36.7
	Senior Lecturer	11	36.7	36.7	73.3
	Lecturer	8	26.7	26.7	100.0
	Total	30	100.0	100.0	

Type of Institution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public University	18	60.0	60.0	60.0
	Polytechnic	6	20.0	20.0	80.0
	Private University	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Name of the Institution Currently Attached to

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	OUM	4	13.3	13.3	13.3
	PSAS	6	20.0	20.0	33.3
	UUM	19	63.3	63.3	96.7
	WOU	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

APPENDIX 3

SPSS OUTPUT

Results of Reliability Analysis (Pilot Test)

i) Scale: Work Engagement

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.944	.949	17

Item Statistics

	Mean	Std. Deviation	N
WE1	3.6333	1.03335	30
WE2	4.3000	.79438	30
WE3	4.4667	.86037	30
WE4	4.0000	.78784	30
WE5	4.3333	.80230	30
WE6	3.6333	1.21721	30
WE7	4.1333	.86037	30
WE8	3.9667	.88992	30
WE9	3.8667	.97320	30
WE10	4.4000	.96847	30
WE11	3.8333	.94989	30
WE12	3.6667	1.12444	30
WE13	4.2667	.82768	30
WE14	3.7000	.98786	30
WE15	3.8333	.94989	30
WE16	3.3333	1.21296	30
WE17	3.5667	.97143	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
WE1	63.3000	129.390	.467	.564	.946
WE2	62.6333	127.344	.751	.912	.940
WE3	62.4667	126.395	.740	.799	.940
WE4	62.9333	126.685	.797	.875	.939

WE5	62.6000	126.869	.771	.903	.940
WE6	63.3000	124.631	.564	.816	.945
WE7	62.8000	124.510	.843	.865	.938
WE8	62.9667	124.516	.812	.870	.939
WE9	63.0667	123.995	.761	.855	.939
WE10	62.5333	126.878	.625	.880	.942
WE11	63.1000	123.886	.788	.796	.939
WE12	63.2667	122.754	.699	.792	.941
WE13	62.6667	126.575	.762	.770	.940
WE14	63.2333	124.944	.703	.817	.941
WE15	63.1000	126.024	.681	.774	.941
WE16	63.6000	126.455	.496	.677	.946
WE17	63.3667	125.551	.687	.876	.941

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
66.9333	141.444	11.89301	17

ii) Scale: Vigor

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.854	.864	6

Item Statistics

	Mean	Std. Deviation	N
WE1	3.6333	1.03335	30
WE4	4.0000	.78784	30
WE8	3.9667	.88992	30
WE12	3.6667	1.12444	30
WE15	3.8333	.94989	30
WE17	3.5667	.97143	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
WE1	19.0333	15.068	.407	.381	.875

WE4	18.6667	14.299	.752	.659	.816
WE8	18.7000	13.321	.814	.717	.800
WE12	19.0000	13.172	.608	.458	.839
WE15	18.8333	13.592	.701	.713	.819
WE17	19.1000	13.748	.654	.647	.827

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.6667	19.402	4.40480	6

iii) Scale: Absorption

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.852	.863	6

Item Statistics

	Mean	Std. Deviation	N
WE3	4.4667	.86037	30
WE6	3.6333	1.21721	30
WE9	3.8667	.97320	30
WE11	3.8333	.94989	30
WE14	3.7000	.98786	30
WE16	3.3333	1.21296	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
WE3	18.3667	17.551	.582	.389	.838
WE6	19.2000	15.683	.552	.349	.849
WE9	18.9667	15.757	.749	.653	.808
WE11	19.0000	15.517	.811	.673	.798
WE14	19.1333	15.775	.731	.610	.811
WE16	19.5000	16.190	.495	.294	.860

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.8333	22.489	4.74220	6

iv) Scale: Dedication

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.910	.912	5

Item Statistics

	Mean	Std. Deviation	N
WE2	4.3000	.79438	30
WE5	4.3333	.80230	30
WE7	4.1333	.86037	30
WE10	4.4000	.96847	30
WE13	4.2667	.82768	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
WE2	17.1333	8.740	.849	.728	.875
WE5	17.1000	8.921	.791	.693	.886
WE7	17.3000	8.769	.755	.597	.893
WE10	17.0333	8.309	.736	.605	.900
WE13	17.1667	8.971	.746	.615	.894

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.4333	13.357	3.65479	5

v) Scale: Personality Traits

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.636	.721	44

Item Statistics

	Mean	Std. Deviation	N
BFI1	2.9667	1.15917	30
BFI2	4.4000	.85501	30
BFI3	3.8667	1.00801	30
BFI4	2.0000	.94686	30
BFI5	3.8000	.71438	30
BFI6	2.7333	1.04826	30
BFI7	4.2333	.62606	30
BFI8	3.4000	1.16264	30
BFI9	2.3000	.83666	30
BFI10	3.9667	.71840	30
BFI11	3.9000	.66176	30
BFI12	4.5000	.77682	30
BFI13	4.2667	.78492	30
BFI14	2.7333	1.01483	30
BFI15	3.8333	.79148	30
BFI16	3.9000	.66176	30
BFI17	4.1000	.71197	30
BFI18	3.6667	1.06134	30
BFI19	2.7667	1.27802	30
BFI20	3.9333	.73968	30
BFI21	2.6667	1.18419	30
BFI22	4.1333	.73030	30
BFI23	3.8667	1.07425	30
BFI24	2.5333	.93710	30
BFI25	3.3667	.96431	30
BFI26	3.5333	.86037	30
BFI27	3.2000	.99655	30
BFI28	3.8667	.77608	30
BFI29	2.4333	1.04000	30
BFI30	4.0000	.83045	30
BFI31	2.6000	1.00344	30
BFI32	4.2333	.77385	30
BFI33	3.9000	.80301	30
BFI34	2.1667	.74664	30
BFI35	3.0333	1.06620	30
BFI36	3.2333	1.13512	30
BFI37	3.9333	.98027	30
BFI38	3.9000	.95953	30
BFI39	2.6333	1.12903	30
BFI40	3.9667	.71840	30
BFI41	2.6333	1.03335	30
BFI42	4.3333	.60648	30
BFI43	3.2333	1.19434	30
BFI44	2.9333	.86834	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BFI1	148.6333	95.964	.093	.	.636
BFI2	147.2000	93.476	.315	.	.619
BFI3	147.7333	94.754	.186	.	.628
BFI4	149.6000	105.628	-.365	.	.668
BFI5	147.8000	96.648	.161	.	.630
BFI6	148.8667	98.051	.013	.	.642
BFI7	147.3667	91.895	.594	.	.609
BFI8	148.2000	92.717	.239	.	.623
BFI9	149.3000	101.872	-.187	.	.652
BFI10	147.6333	95.482	.244	.	.626
BFI11	147.7000	92.148	.538	.	.610
BFI12	147.1000	95.955	.188	.	.629
BFI13	147.3333	90.782	.536	.	.606
BFI14	148.8667	103.292	-.238	.	.661
BFI15	147.7667	92.875	.388	.	.616
BFI16	147.7000	93.872	.399	.	.618
BFI17	147.5000	90.603	.613	.	.604
BFI18	147.9333	92.202	.299	.	.618
BFI19	148.8333	99.040	-.049	.	.652
BFI20	147.6667	92.851	.423	.	.615
BFI21	148.9333	95.444	.111	.	.635
BFI22	147.4667	93.361	.392	.	.617
BFI23	147.7333	93.375	.236	.	.624
BFI24	149.0667	101.306	-.146	.	.652
BFI25	148.2333	99.633	-.059	.	.646
BFI26	148.0667	94.064	.277	.	.622
BFI27	148.4000	102.800	-.216	.	.659
BFI28	147.7333	90.892	.536	.	.607
BFI29	149.1667	105.109	-.317	.	.668
BFI30	147.6000	91.352	.465	.	.610
BFI31	149.0000	101.034	-.130	.	.653
BFI32	147.3667	91.137	.520	.	.608
BFI33	147.7000	91.734	.458	.	.611
BFI34	149.4333	105.426	-.428	.	.664
BFI35	148.5667	98.461	-.008	.	.644
BFI36	148.3667	90.378	.359	.	.612
BFI37	147.6667	92.299	.327	.	.617
BFI38	147.7000	91.734	.368	.	.614
BFI39	148.9667	106.585	-.362	.	.674
BFI40	147.6333	91.413	.545	.	.608

BFI41	148.9667	100.447	-.101	.	.651
BFI42	147.2667	92.409	.570	.	.611
BFI43	148.3667	89.482	.377	.	.609
BFI44	148.6667	93.333	.318	.	.619

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
151.6000	99.421	9.97099	44

vi) Scale: Conscientiousness

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.833	.842	9

Item Statistics

	Mean	Std. Deviation	N
BFI3	3.8667	1.00801	30
BFI8	3.4000	1.16264	30
BFI13	4.2667	.78492	30
BFI18	3.6667	1.06134	30
BFI23	3.8667	1.07425	30
BFI28	3.8667	.77608	30
BFI33	3.9000	.80301	30
BFI38	3.9000	.95953	30
BFI43	3.2333	1.19434	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BFI3	30.1000	30.162	.270	.709	.846
BFI8	30.5667	27.978	.394	.659	.836
BFI13	29.7000	28.838	.560	.526	.816
BFI18	30.3000	26.010	.650	.716	.803
BFI23	30.1000	26.921	.547	.500	.816
BFI28	30.1000	28.576	.602	.664	.813
BFI33	30.0667	27.857	.669	.736	.806
BFI38	30.0667	27.306	.593	.611	.811
BFI43	30.7333	24.409	.706	.790	.795

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
33.9667	34.171	5.84562	9

vii) Scale: Openness to Experience

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.748	.784	10

Item Statistics

	Mean	Std. Deviation	N
BFI5	3.8000	.71438	30
BFI10	3.9667	.71840	30
BFI15	3.8333	.79148	30
BFI20	3.9333	.73968	30
BFI25	3.3667	.96431	30
BFI30	4.0000	.83045	30
BFI35	3.0333	1.06620	30
BFI40	3.9667	.71840	30
BFI41	2.6333	1.03335	30
BFI44	2.9333	.86834	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BFI5	31.6667	18.437	.551	.559	.711
BFI10	31.5000	18.741	.493	.438	.718
BFI15	31.6333	16.999	.720	.665	.684
BFI20	31.5333	17.430	.704	.736	.690
BFI25	32.1000	18.990	.286	.693	.748
BFI30	31.4667	18.326	.466	.699	.720
BFI35	32.4333	17.151	.457	.703	.721
BFI40	31.5000	18.259	.579	.633	.707
BFI41	32.8333	23.316	-.206	.247	.825
BFI44	32.5333	18.257	.447	.490	.722

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
35.4667	22.326	4.72509	10

viii) Scale: Extraversion

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.728	.739	8

Item Statistics

	Mean	Std. Deviation	N
BFI1	2.9667	1.15917	30
BFI6	2.7333	1.04826	30
BFI11	3.9000	.66176	30
BFI16	3.9000	.66176	30
BFI21	2.6667	1.18419	30
BFI26	3.5333	.86037	30
BFI31	2.6000	1.00344	30
BFI36	3.2333	1.13512	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BFI1	22.5667	17.289	.283	.168	.734
BFI6	22.8000	15.614	.561	.467	.669
BFI11	21.6333	18.378	.449	.470	.702
BFI16	21.6333	18.930	.346	.462	.716
BFI21	22.8667	15.430	.487	.443	.686
BFI26	22.0000	17.310	.462	.461	.694
BFI31	22.9333	17.789	.303	.381	.724
BFI36	22.3000	15.183	.553	.485	.670

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.5333	21.361	4.62179	8

ix) Scale: Agreeableness

Case Processing Summary

		N	%
Cases	Valid	30	100.0

Excluded ^a	0	.0
Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.814	.839	9

Item Statistics

	Mean	Std. Deviation	N
BFI2	4.4000	.85501	30
BFI7	4.2333	.62606	30
BFI12	4.5000	.77682	30
BFI17	4.1000	.71197	30
BFI22	4.1333	.73030	30
BFI27	3.2000	.99655	30
BFI32	4.2333	.77385	30
BFI37	3.9333	.98027	30
BFI42	4.3333	.60648	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BFI2	32.6667	15.816	.588	.482	.785
BFI7	32.8333	16.420	.736	.675	.774
BFI12	32.5667	16.185	.601	.644	.784
BFI17	32.9667	15.482	.814	.783	.760
BFI22	32.9333	16.340	.622	.537	.782
BFI27	33.8667	19.913	-.040	.269	.873
BFI32	32.8333	15.316	.765	.686	.763
BFI37	33.1333	15.982	.460	.420	.805
BFI42	32.7333	18.064	.410	.466	.806

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
37.0667	20.547	4.53289	9

x) Scale: Neuroticism

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.701	.694	8

Item Statistics

	Mean	Std. Deviation	N
BFI4	2.0000	.94686	30
BFI9	2.3000	.83666	30
BFI14	2.7333	1.01483	30
BFI19	2.7667	1.27802	30
BFI24	2.5333	.93710	30
BFI29	2.4333	1.04000	30
BFI34	2.1667	.74664	30
BFI39	2.6333	1.12903	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BFI4	17.5667	17.564	.295	.298	.691
BFI9	17.2667	18.961	.157	.161	.714
BFI14	16.8333	15.316	.561	.442	.632
BFI19	16.8000	13.890	.555	.485	.628
BFI24	17.0333	18.171	.220	.189	.706
BFI29	17.1333	16.120	.432	.369	.662
BFI34	17.4000	17.352	.466	.327	.663
BFI39	16.9333	15.513	.452	.421	.657

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.5667	20.806	4.56133	8

xi) Scale: Perceived Organizational Support

Case Processing Summary

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

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

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.835	.838	8

Item Statistics

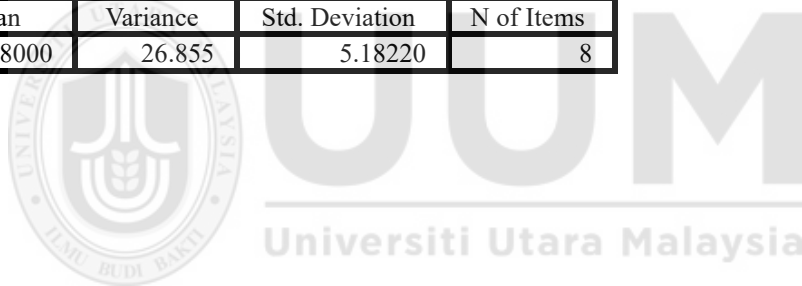
	Mean	Std. Deviation	N
SPOS1	3.3667	1.03335	30
SPOS2	3.3667	1.03335	30
SPOS3	3.2000	.99655	30
SPOS4	3.0333	.85029	30
SPOS5	3.3000	.91539	30
SPOS6	2.8333	.91287	30
SPOS7	3.3667	.92786	30
SPOS8	3.3333	.92227	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SPOS1	22.4333	18.599	.807	.843	.780
SPOS2	22.4333	19.633	.672	.785	.800
SPOS3	22.6000	26.800	-.091	.557	.895
SPOS4	22.7667	21.289	.617	.765	.810
SPOS5	22.5000	20.052	.728	.589	.794
SPOS6	22.9667	21.551	.528	.507	.820
SPOS7	22.4333	19.426	.803	.877	.784
SPOS8	22.4667	21.016	.590	.701	.812

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.8000	26.855	5.18220	8

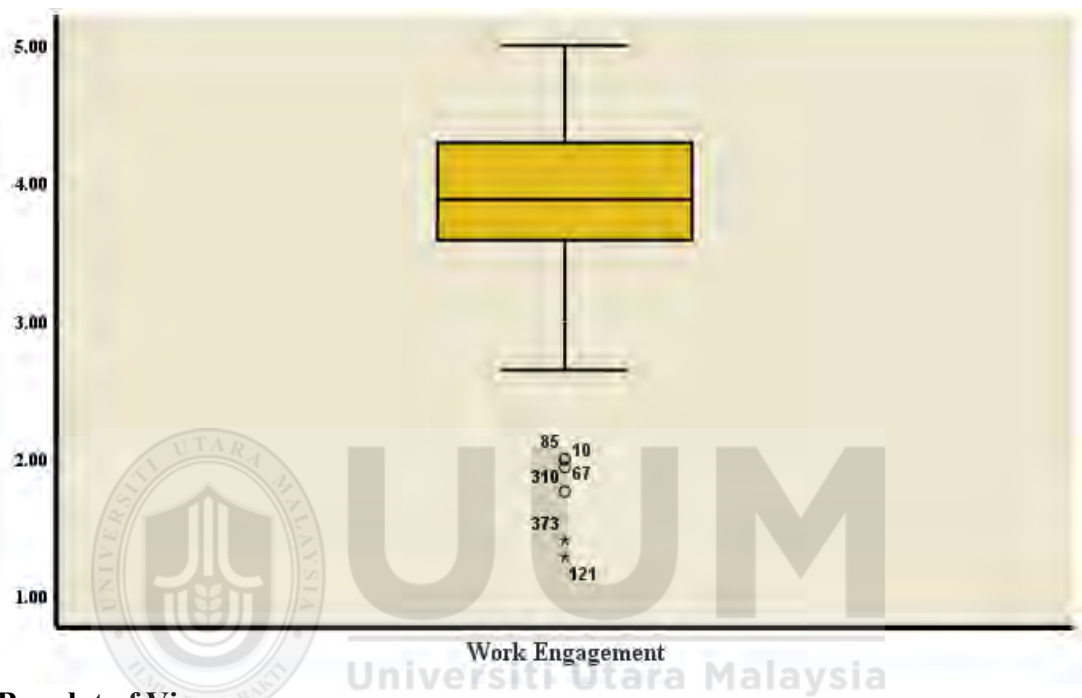


APPENDIX 4

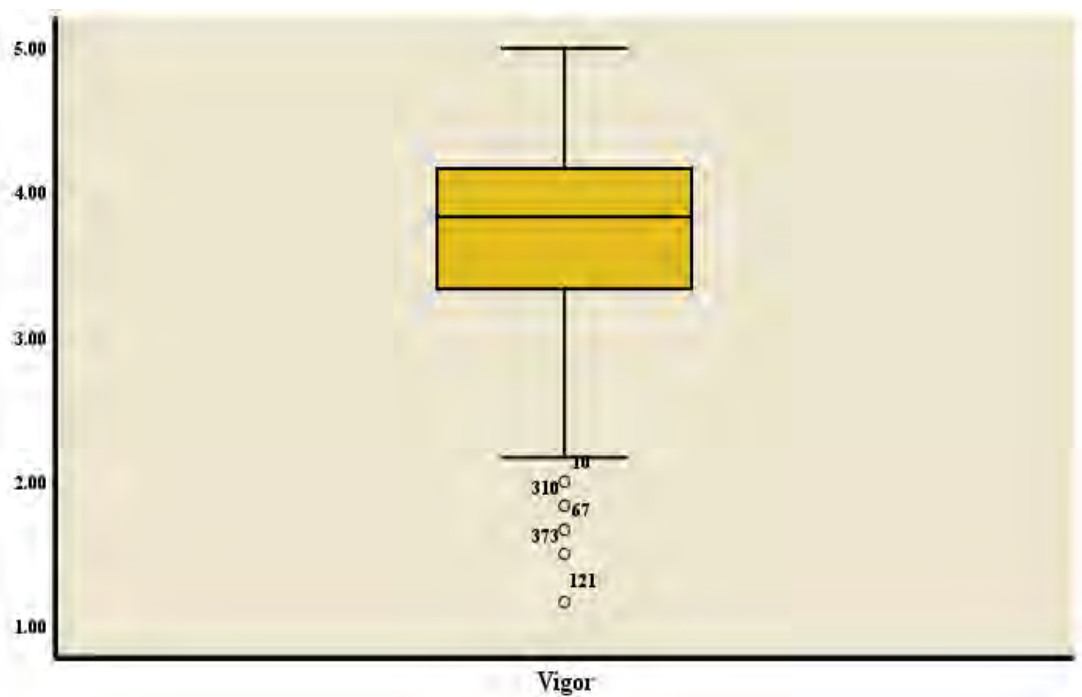
SPSS OUTPUT

Univariate Outliers: Boxplot for Each Variable – First Round

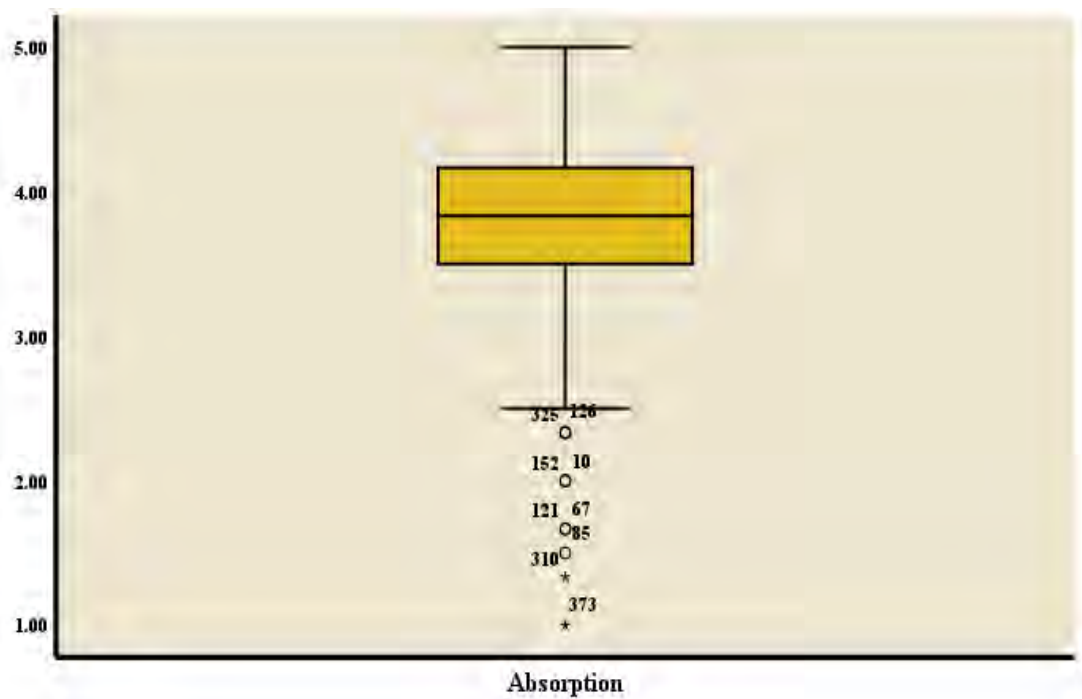
Boxplot of Work Engagement



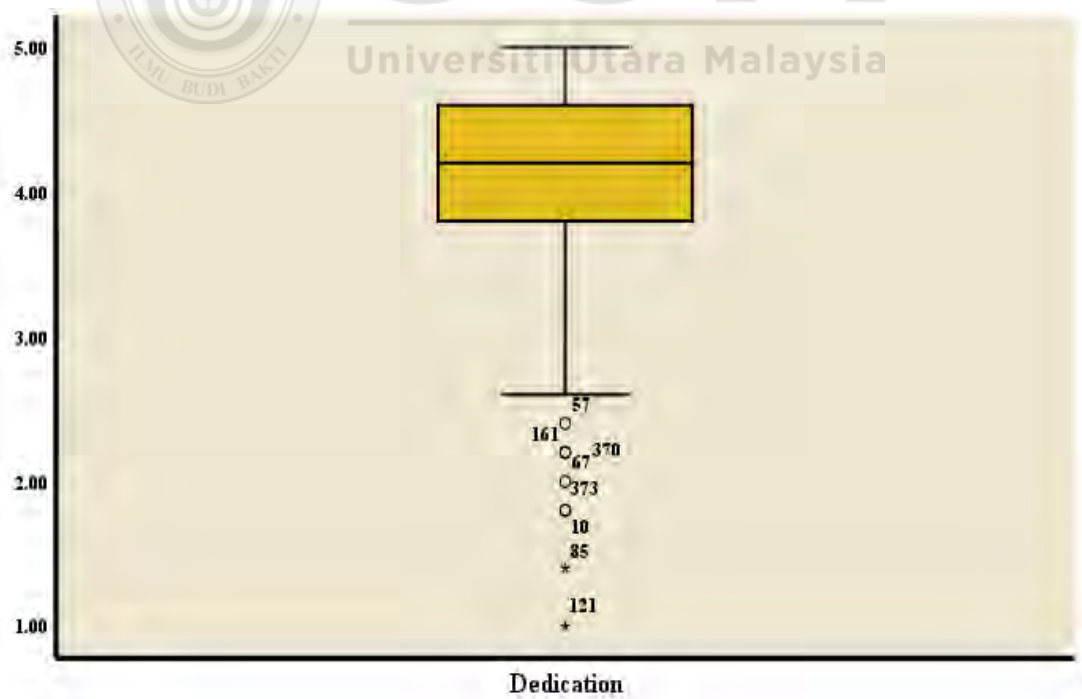
Boxplot of Vigor



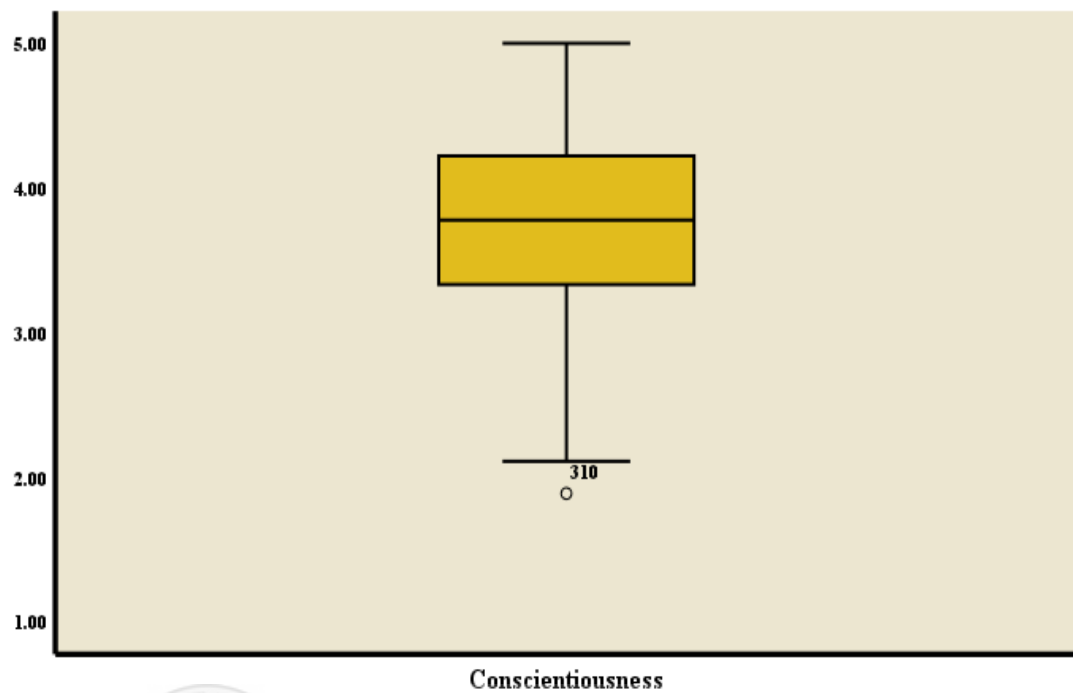
Boxplot of Absorption



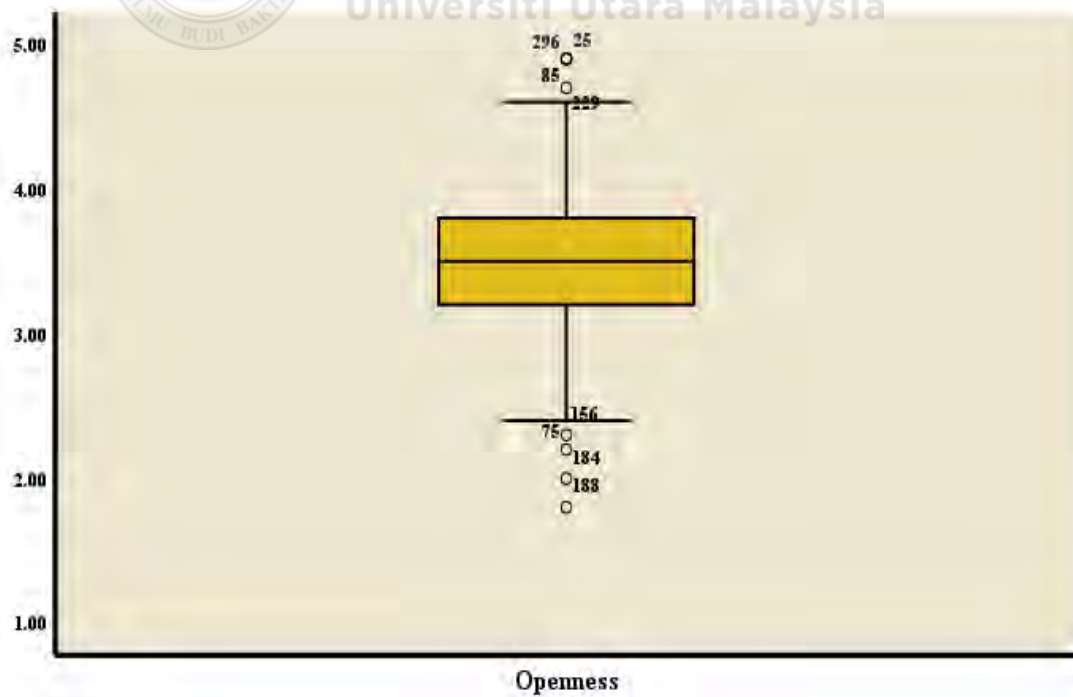
Boxplot of Dedication



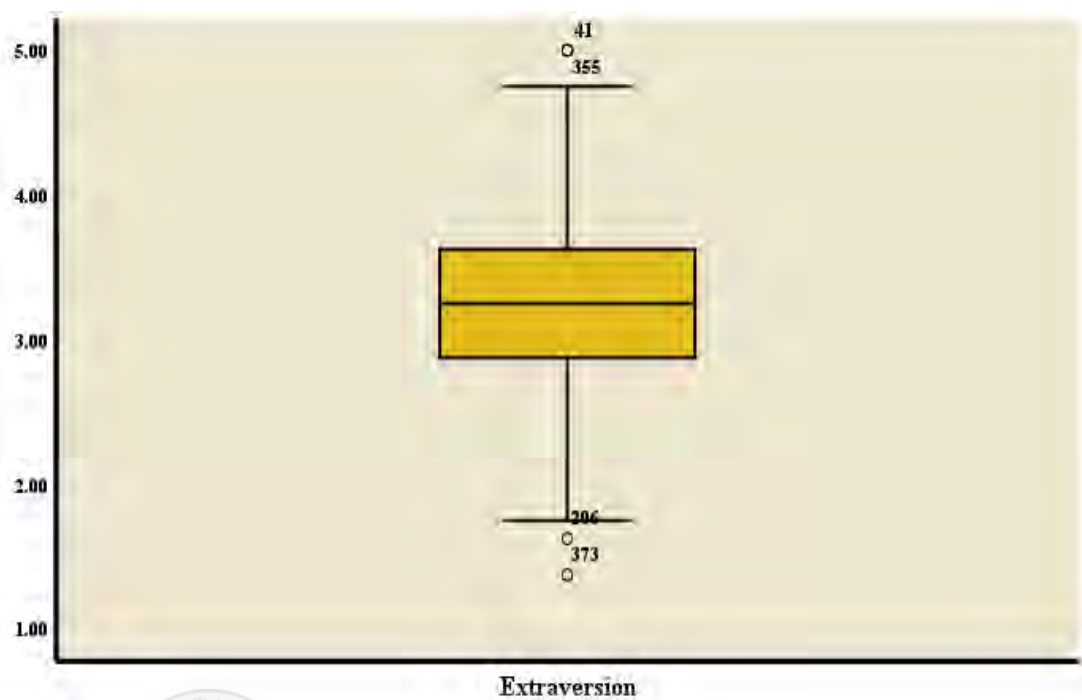
Boxplot of Conscientiousness



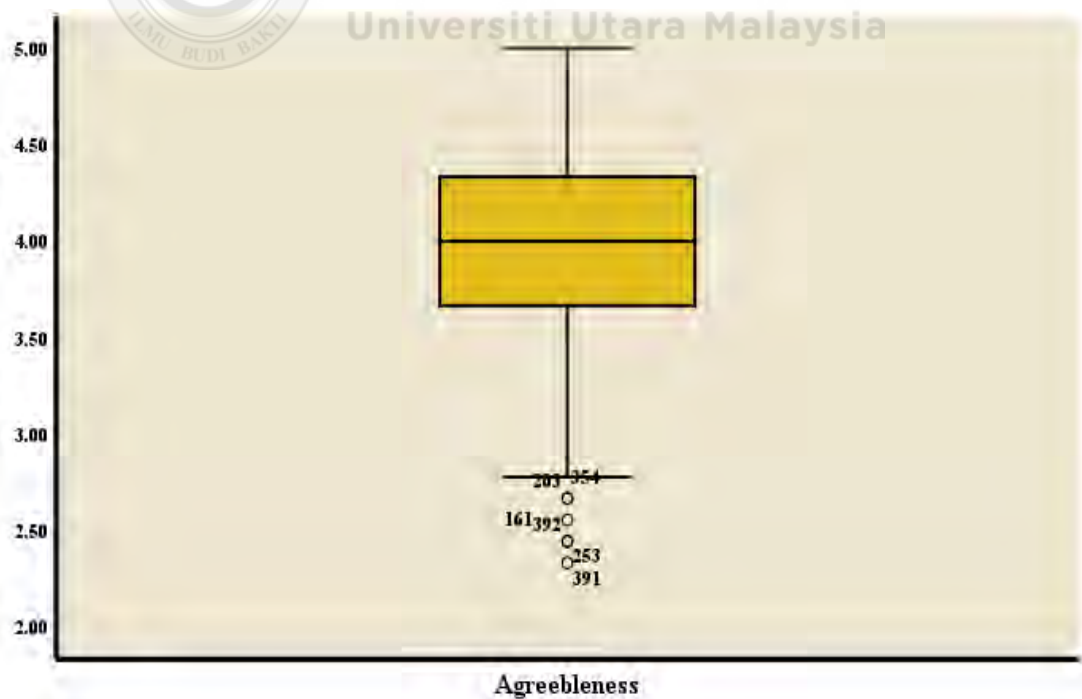
Boxplot of Openness to Experience



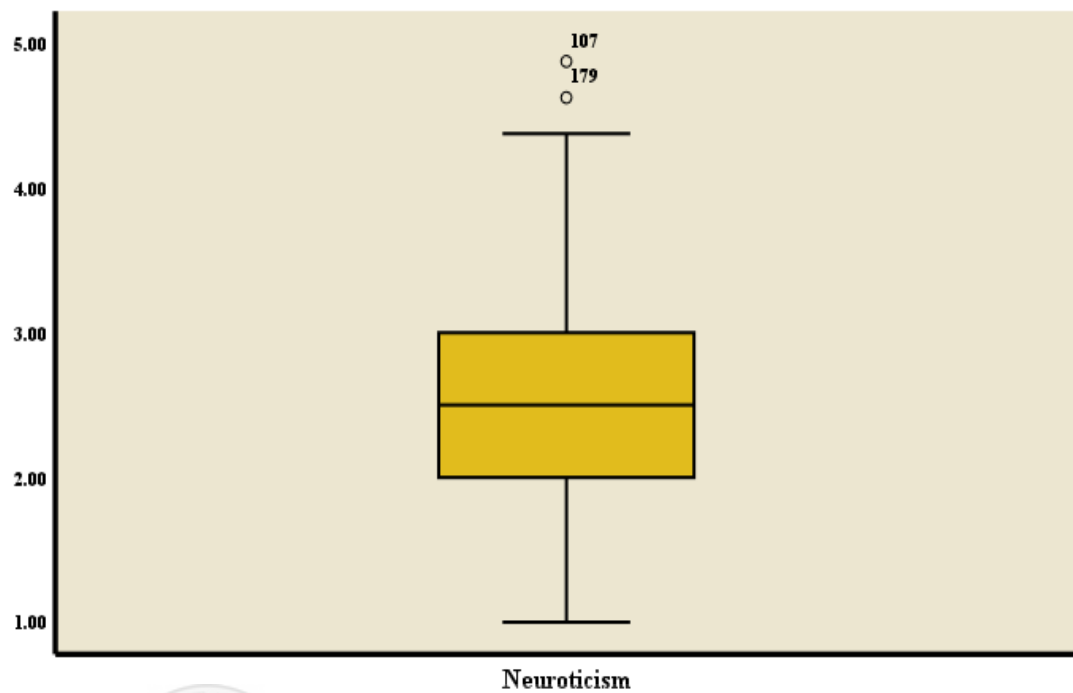
Boxplot of Extraversion



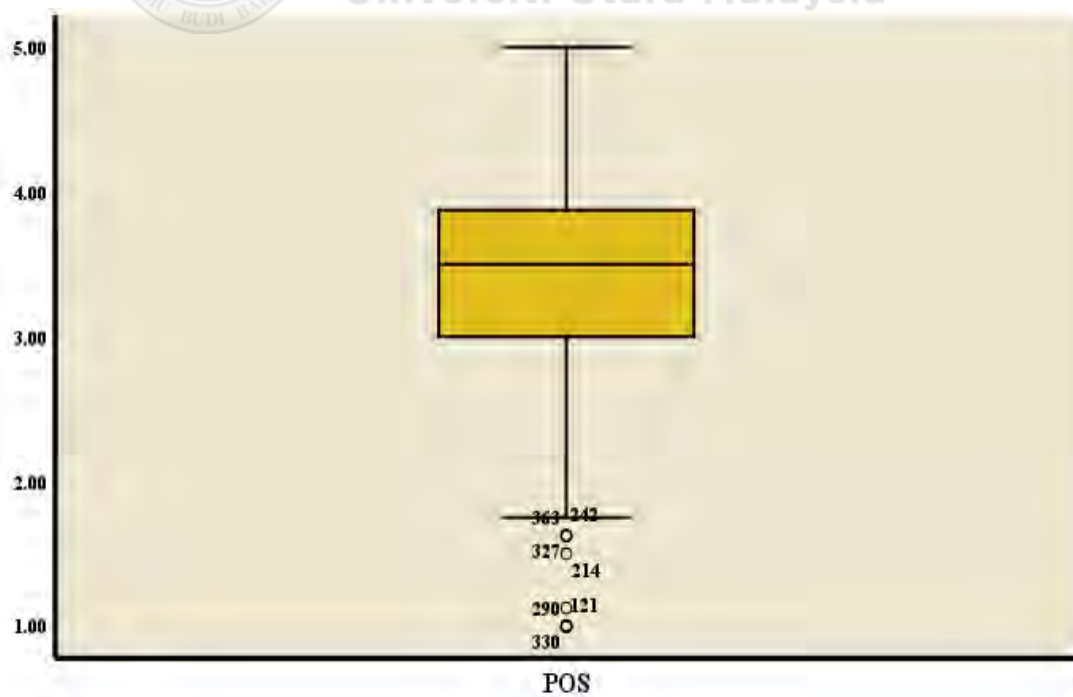
Boxplot of Agreeableness



Boxplot of Neuroticism

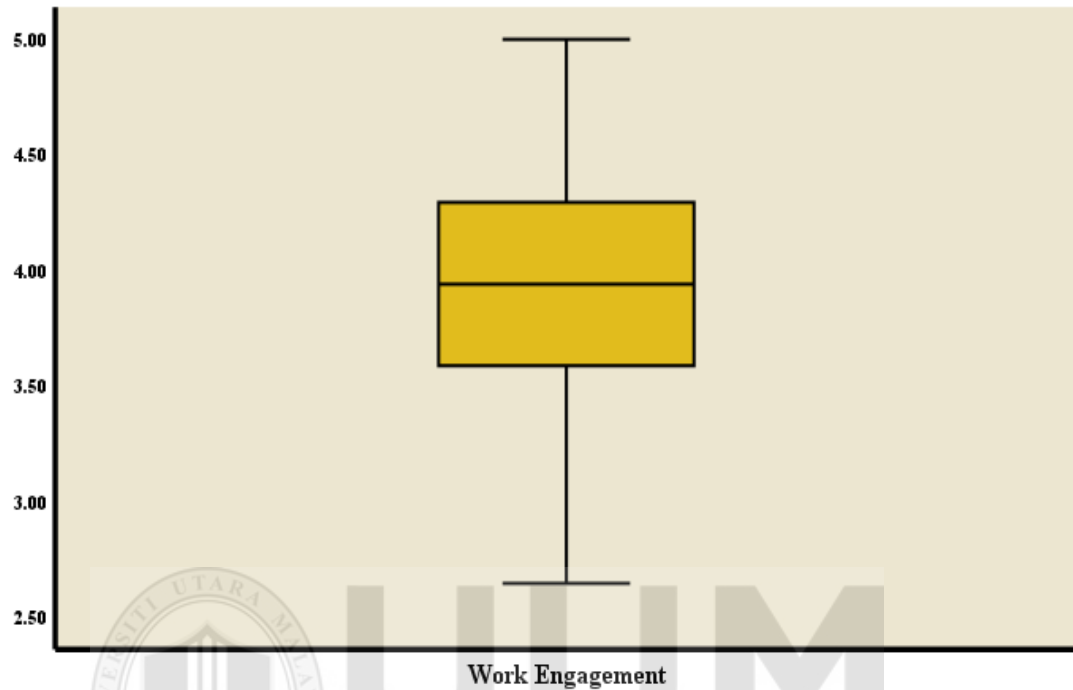


Boxplot of Perceived Organizational Support

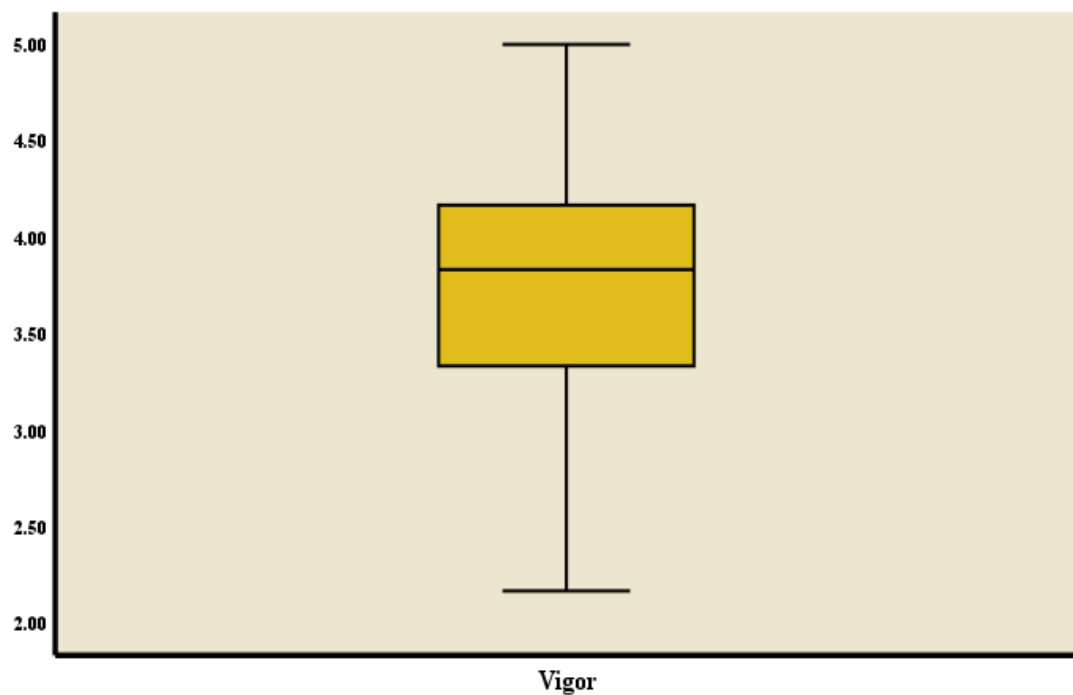


Boxplot for Each Variable – Second Round

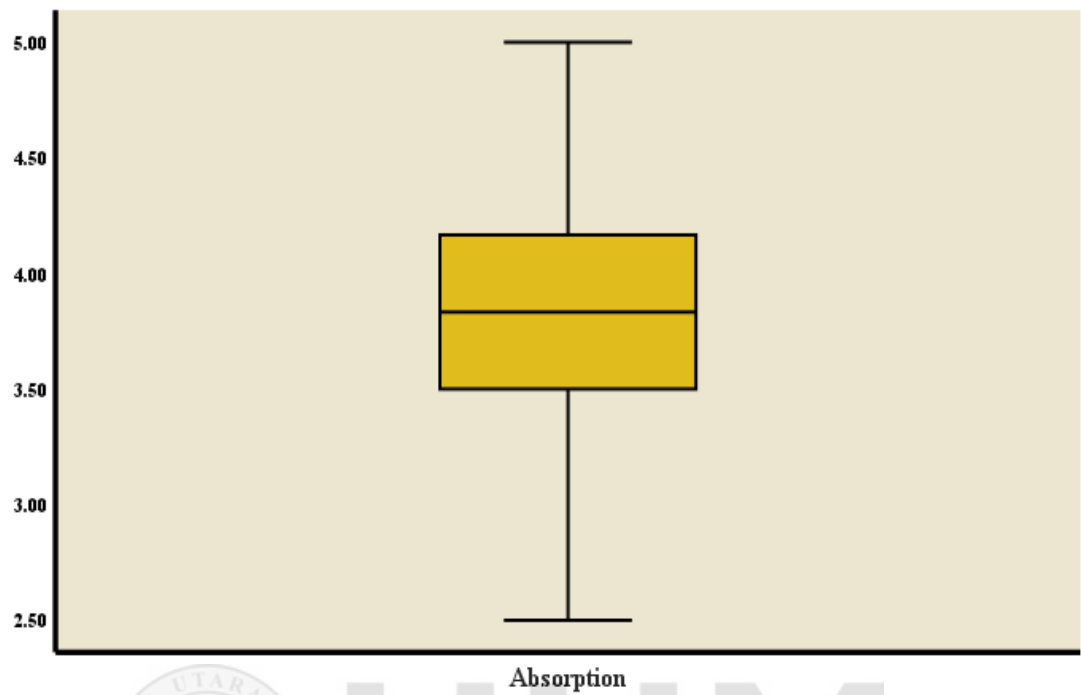
Boxplot of Work Engagement



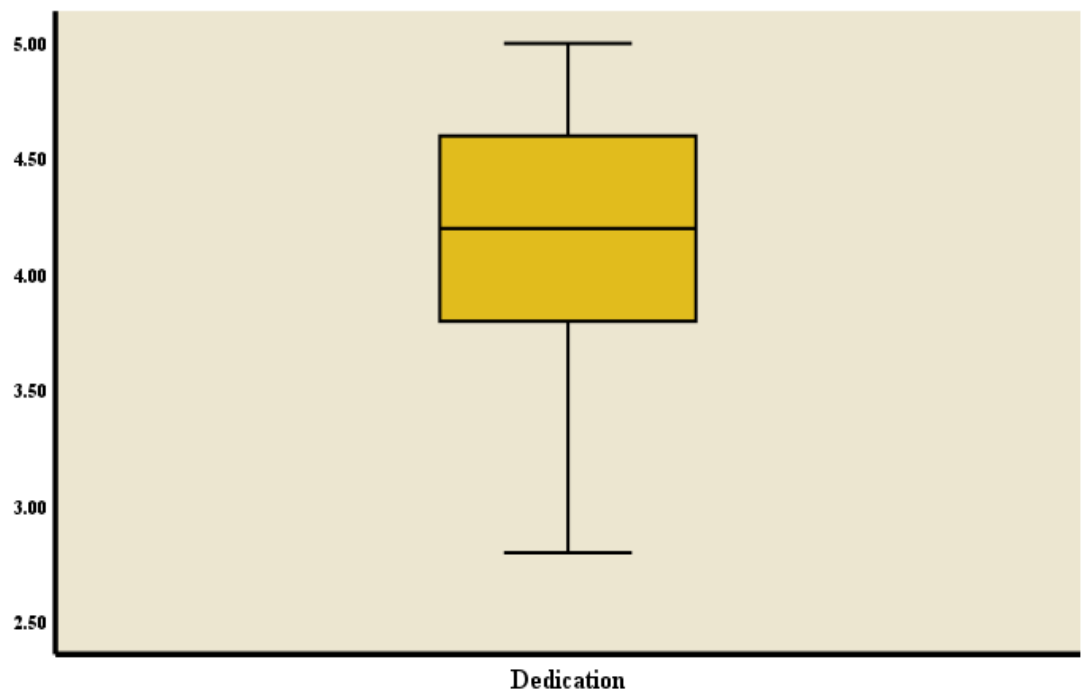
Boxplot of Vigor



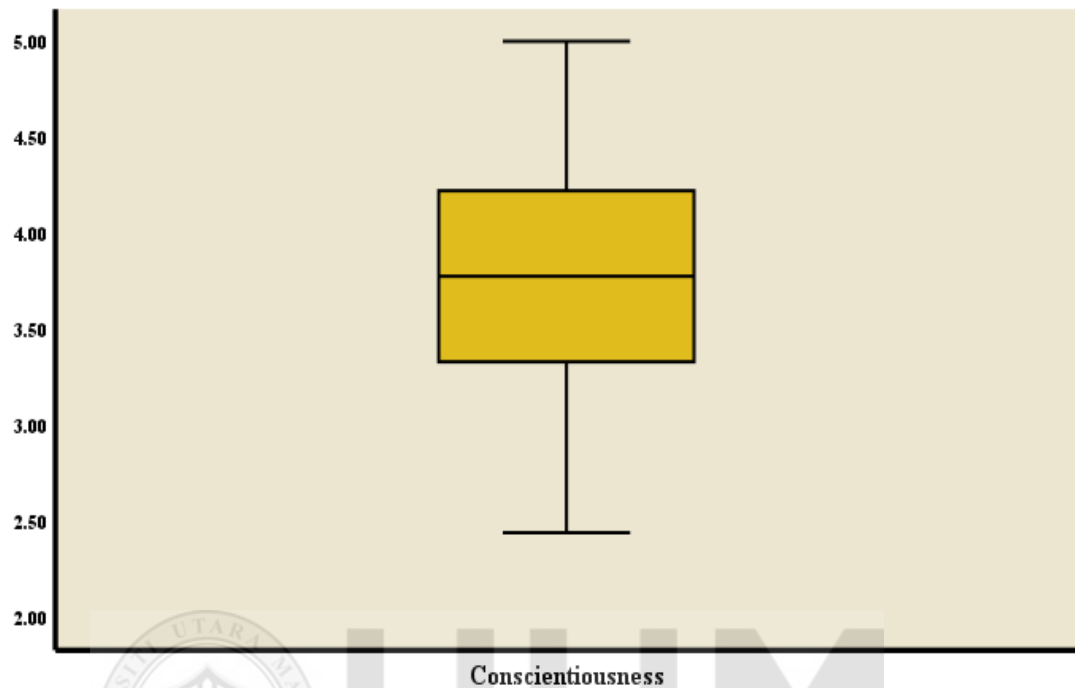
Boxplot of Absorption



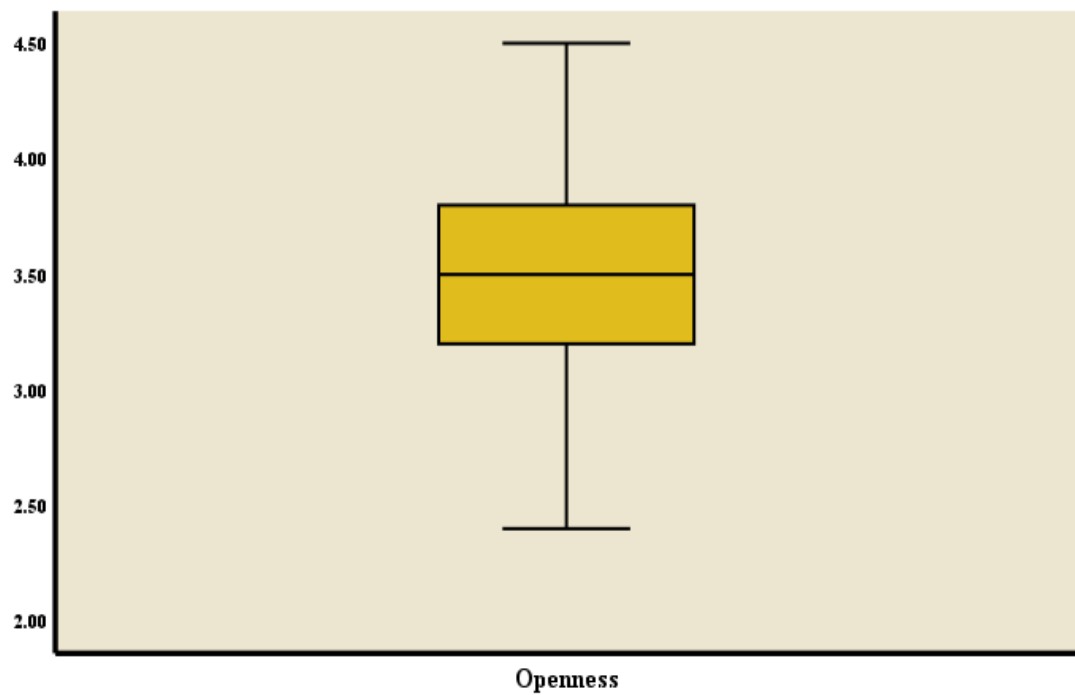
Boxplot of Dedication



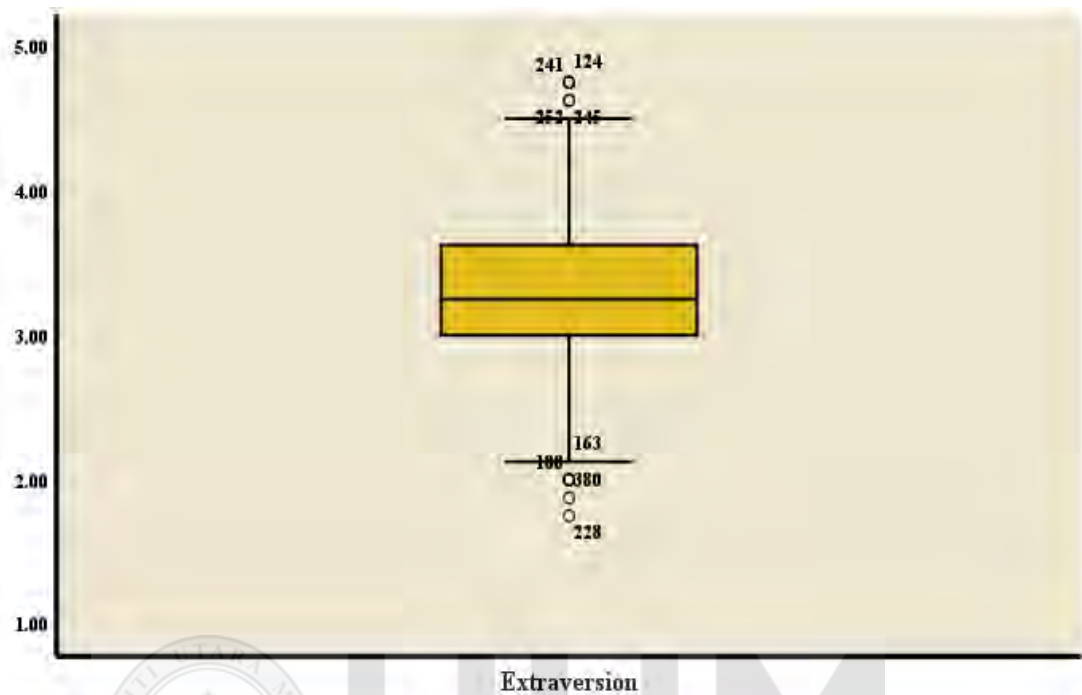
Boxplot of Conscientiousness



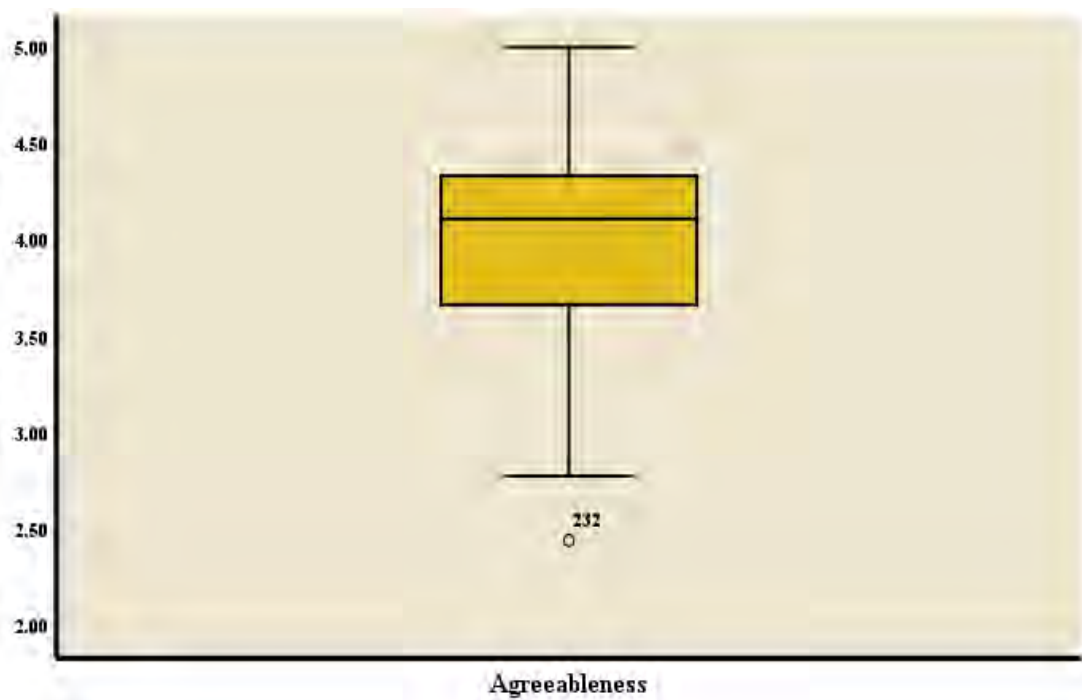
Boxplot of Openness to Experience



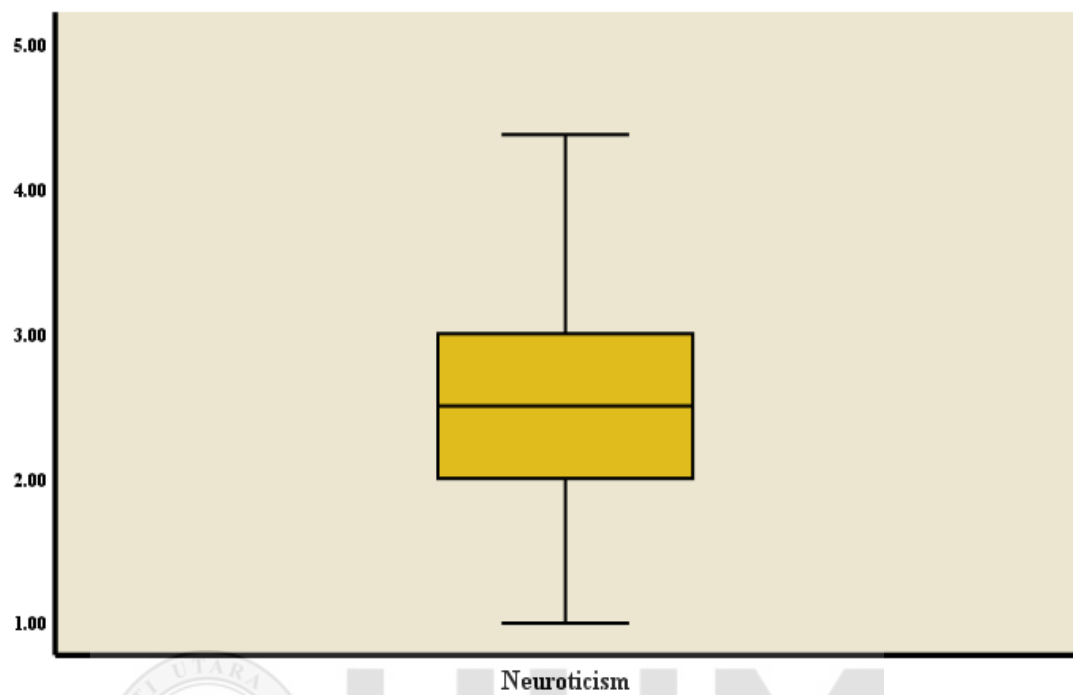
Boxplot of Extraversion



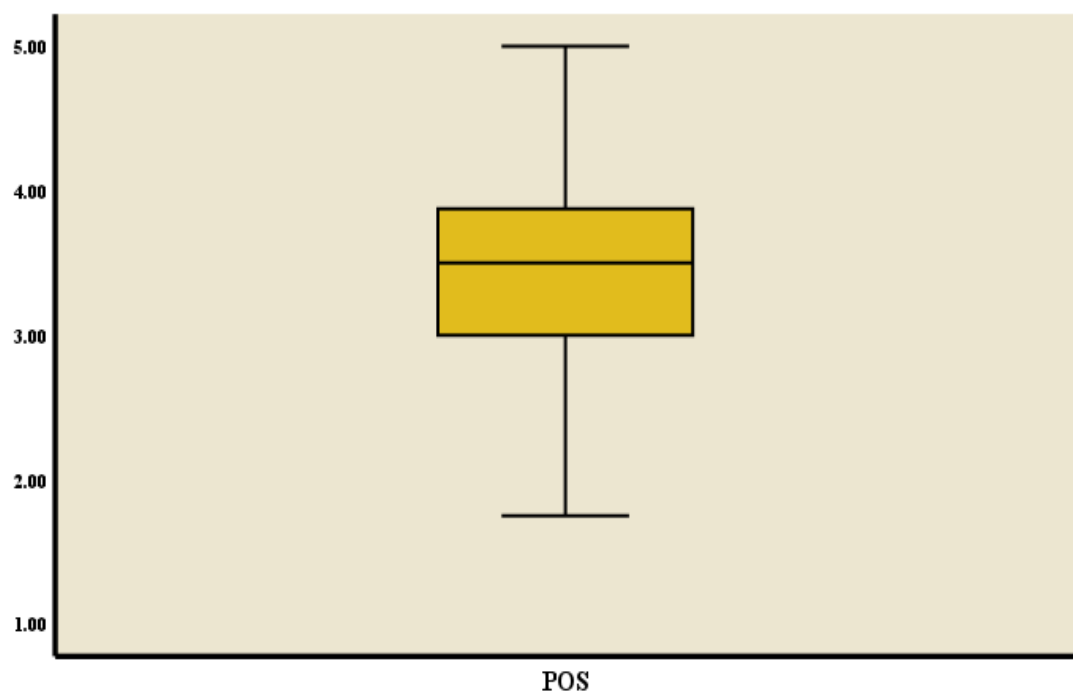
Boxplot of Agreeableness



Boxplot of Neuroticism



Boxplot of Perceived Organizational Support



APPENDIX 5

SPSS OUTPUT

Multivariate Outliers: Mahalanobis Distance

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.173 ^a	.030	.007	124.087

a. Predictors: (Constant), Perceived Organizational Support, Openness to Experience, Absorption, Conscientiousness, Extraversion, Agreeableness, Dedication, Neuroticism, Vigor

b. Dependent Variable: ID

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	181742.578	9	20193.620	1.311	.229 ^b
	Residual	5912707.198	384	15397.675		
	Total	6094449.777	393			

a. Dependent Variable: ID

b. Predictors: (Constant), Perceived Organizational Support, Openness to Experience, Absorption, Conscientiousness, Extraversion, Agreeableness, Dedication, Neuroticism, Vigor

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	445.595	116.649		3.820	.000
	Vigor	-1.697	17.699	-.008	-.096	.924
	Absorption	-22.384	16.442	-.096	-1.361	.174
	Dedication	-1.262	17.373	-.005	-.073	.942
	Conscientiousness	-9.025	14.671	-.040	-.615	.539
	Openness	-15.673	17.382	-.053	-.902	.368
	Extraversion	-16.801	13.147	-.076	-1.278	.202
	Agreeableness	11.543	17.329	.045	.666	.506
	Neuroticism	-19.169	13.307	-.103	-1.441	.151
	Perceived Organizational Support	3.910	11.346	.020	.345	.731

a. Dependent Variable: ID

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	129.67	286.59	214.66	21.505	394
Std. Predicted Value	-3.952	3.345	.000	1.000	394
Standard Error of Predicted Value	9.098	36.195	19.115	5.049	394
Adjusted Predicted Value	134.61	293.48	214.68	21.778	394
Residual	-232.509	235.102	.000	122.658	394
Std. Residual	-1.874	1.895	.000	.988	394
Stud. Residual	-1.887	1.981	.000	1.001	394
Deleted Residual	-237.494	256.965	-.019	125.832	394
Stud. Deleted Residual	-1.894	1.988	.000	1.002	394
Mahal. Distance	1.115	32.440	8.977	5.469	394
Cook's Distance	.000	.036	.003	.003	394
Centered Leverage Value	.003	.083	.023	.014	394

a. Dependent Variable: ID



APPENDIX 6

SPSS OUTPUT

Normality Test: Kolmogorov-Smirnov Statistics for Each Variable

Work Engagement

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
	Work Engagement	.051	390	.017	.991	390

a. Lilliefors Significance Correction

Vigor

Tests of Normality						
Vigor	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
	.092	390	<.001	.984	390	.000

a. Lilliefors Significance Correction

Absorption

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
	Absorption	.075	390	<.001	.982	390

a. Lilliefors Significance Correction

Dedication

Tests of Normality						
Dedication	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
	.118	390	<.001	.946	390	.000

a. Lilliefors Significance Correction

Conscientiousness

Tests of Normality						
Conscientiousness	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
	.077	390	<.001	.986	390	.001

a. Lilliefors Significance Correction

Openness To Experience

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Openness To Experience	.060	390	.002	.990	390	.009

a. Lilliefors Significance Correction

Extraversion

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Extraversion	.066	390	<.001	.992	390	.042

a. Lilliefors Significance Correction

Agreeableness

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Agreeableness	.076	390	<.001	.987	390	.002

a. Lilliefors Significance Correction

Neuroticism

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Neuroticism	.071	390	<.001	.992	390	.027

a. Lilliefors Significance Correction

Perceived Organizational Support

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Perceived Organizational Support	.073	390	<.001	.988	390	.003

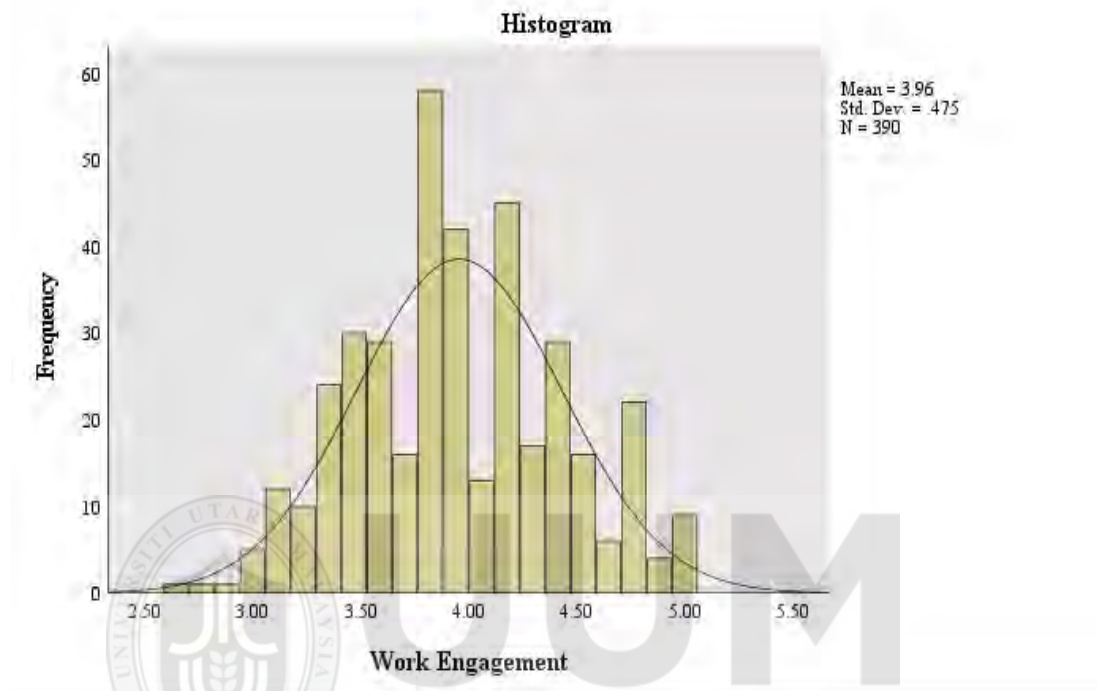
a. Lilliefors Significance Correction

APPENDIX 7

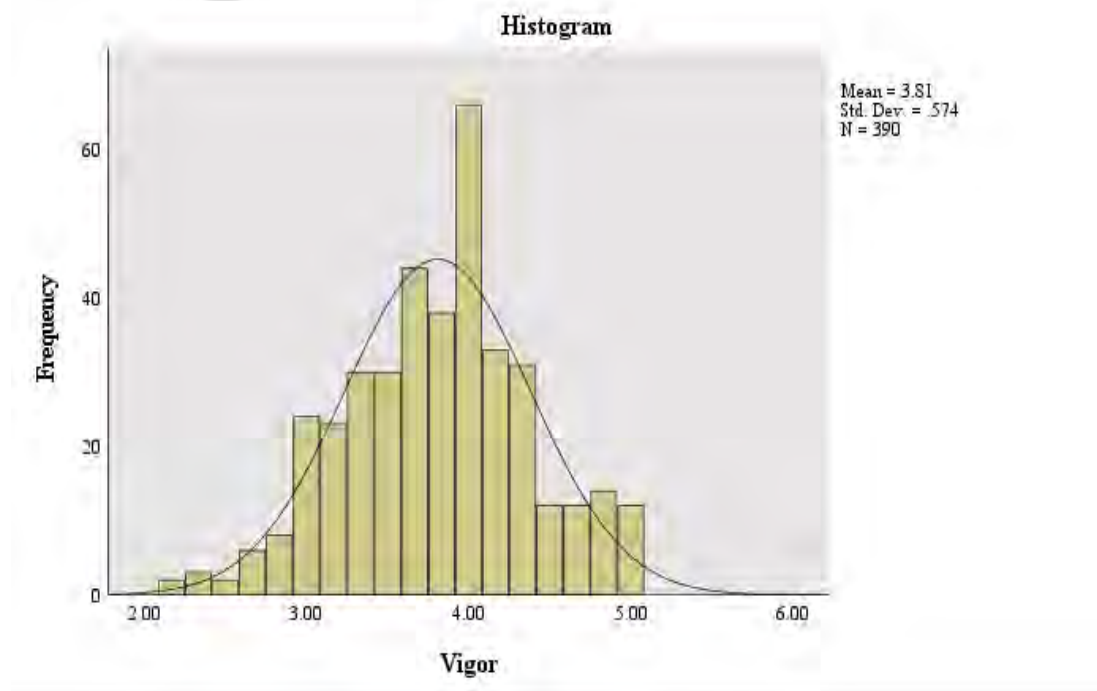
SPSS OUTPUT

Normality Test: Histogram for Each Variable

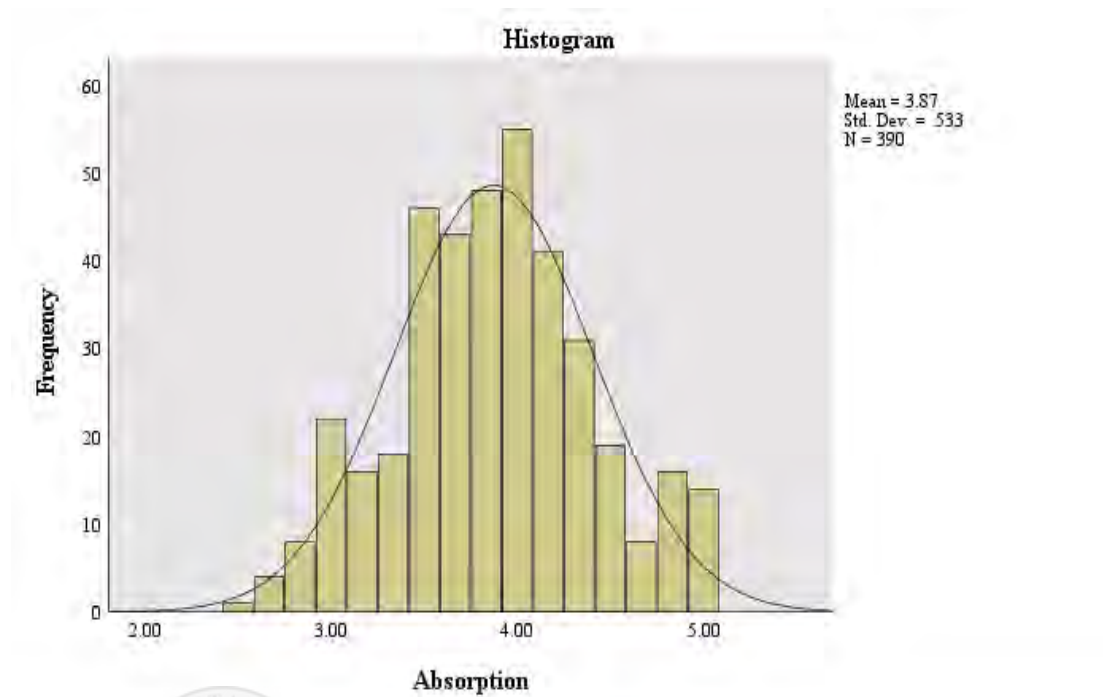
Histogram of Work Engagement



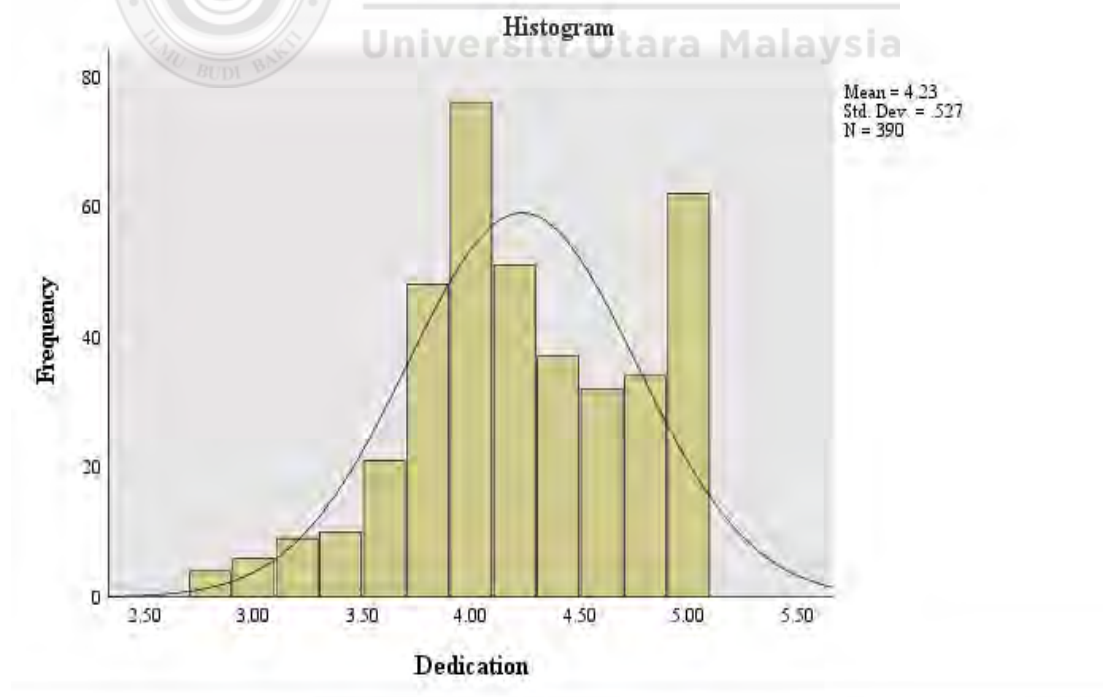
Histogram of Vigor



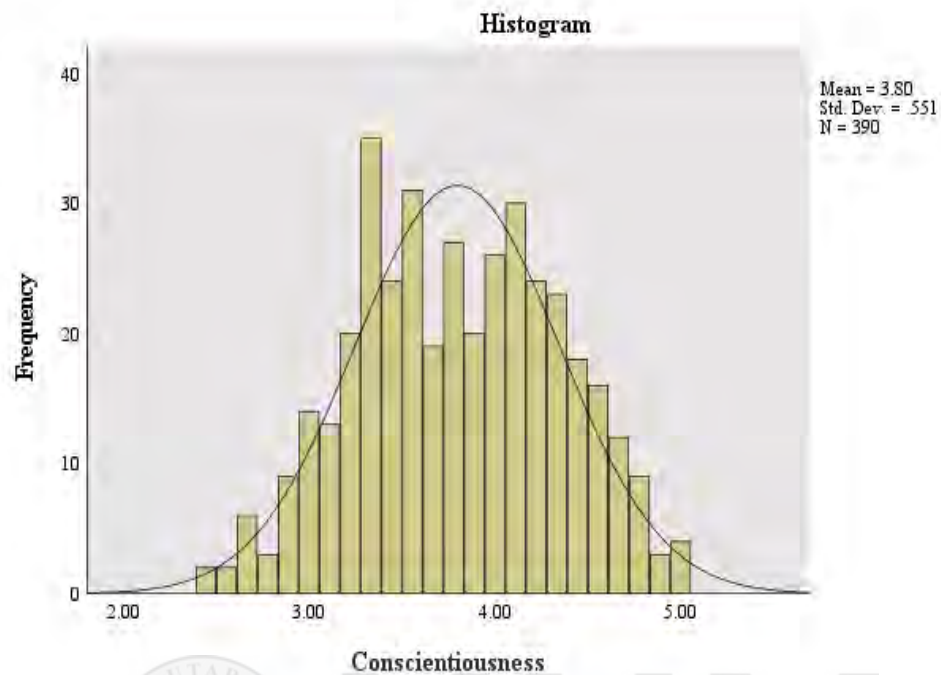
Histogram of Absorption



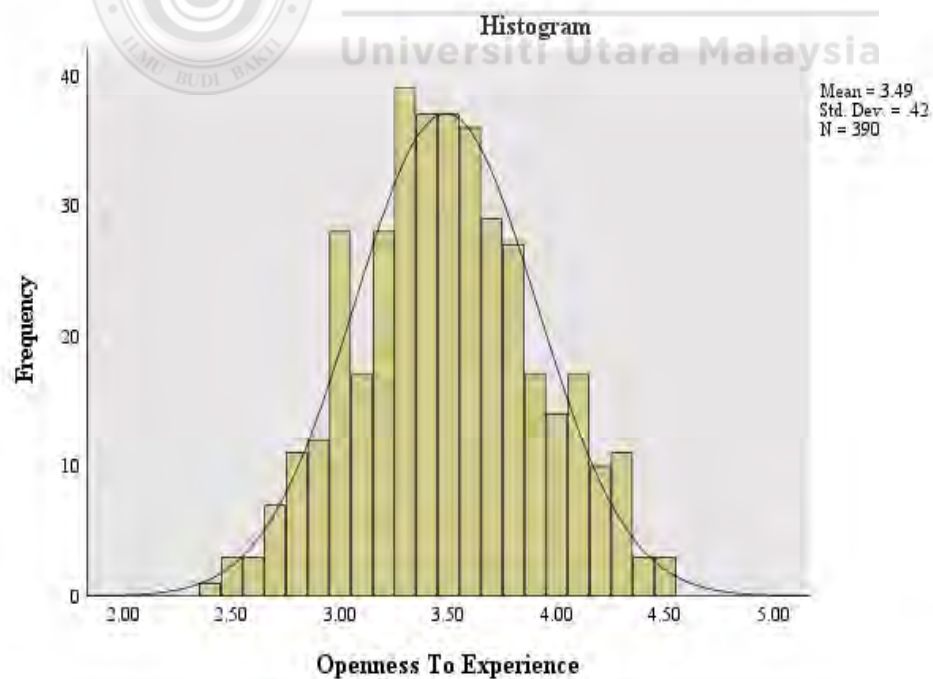
Histogram of Dedication



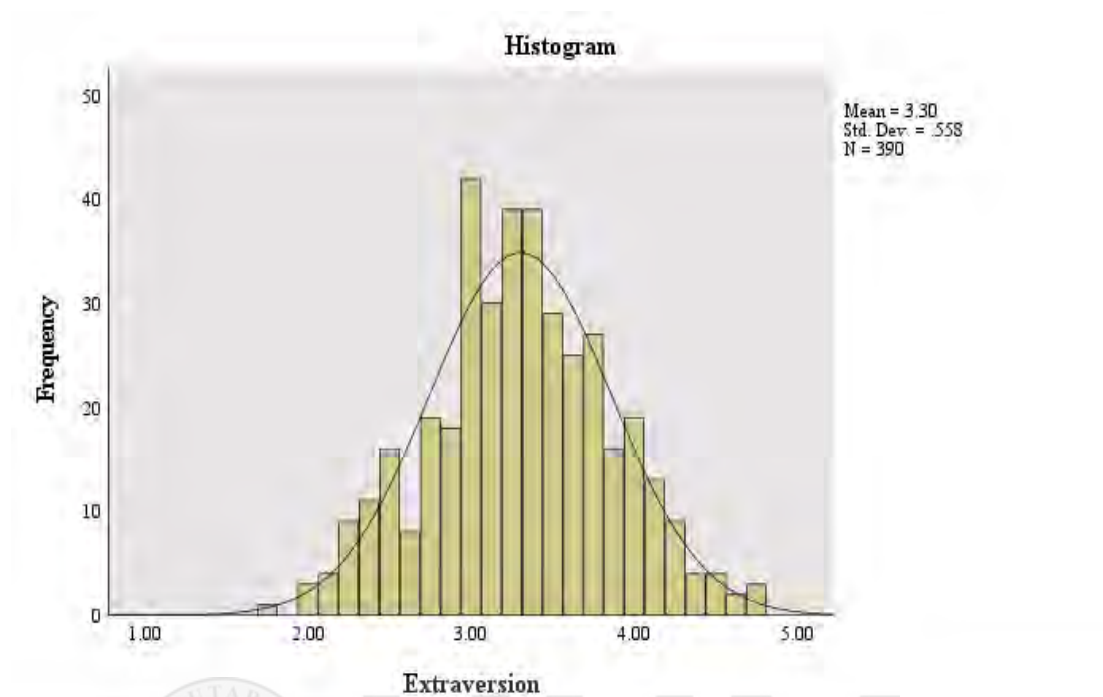
Histogram of Conscientiousness



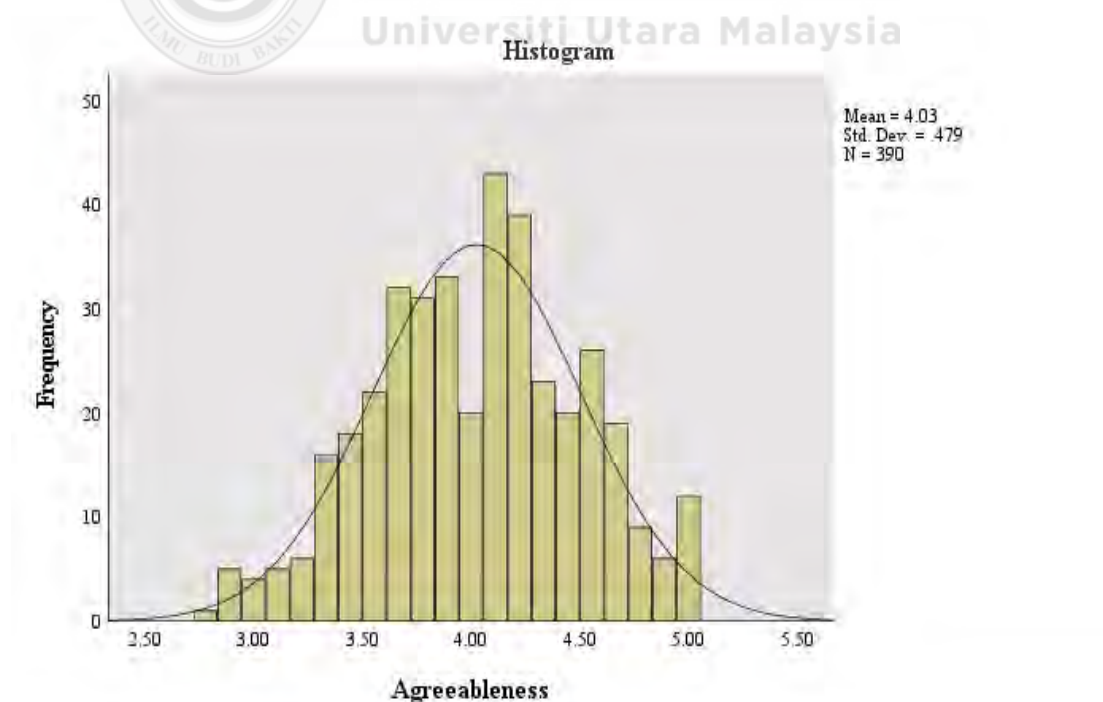
Histogram of Openness to Experience



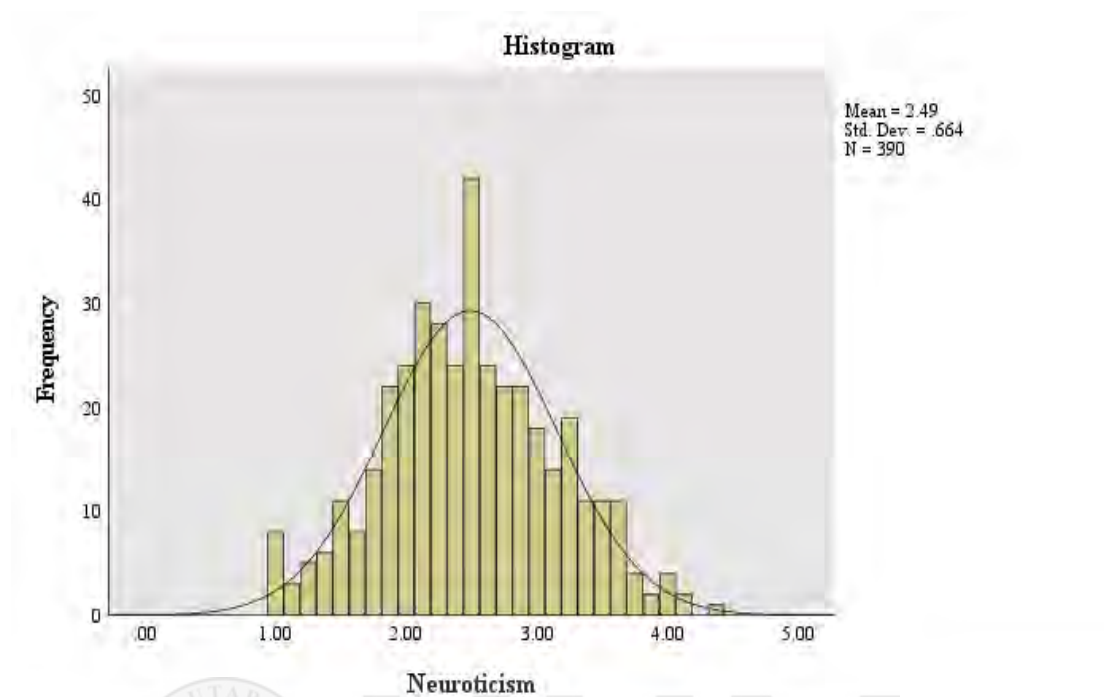
Histogram of Extraversion



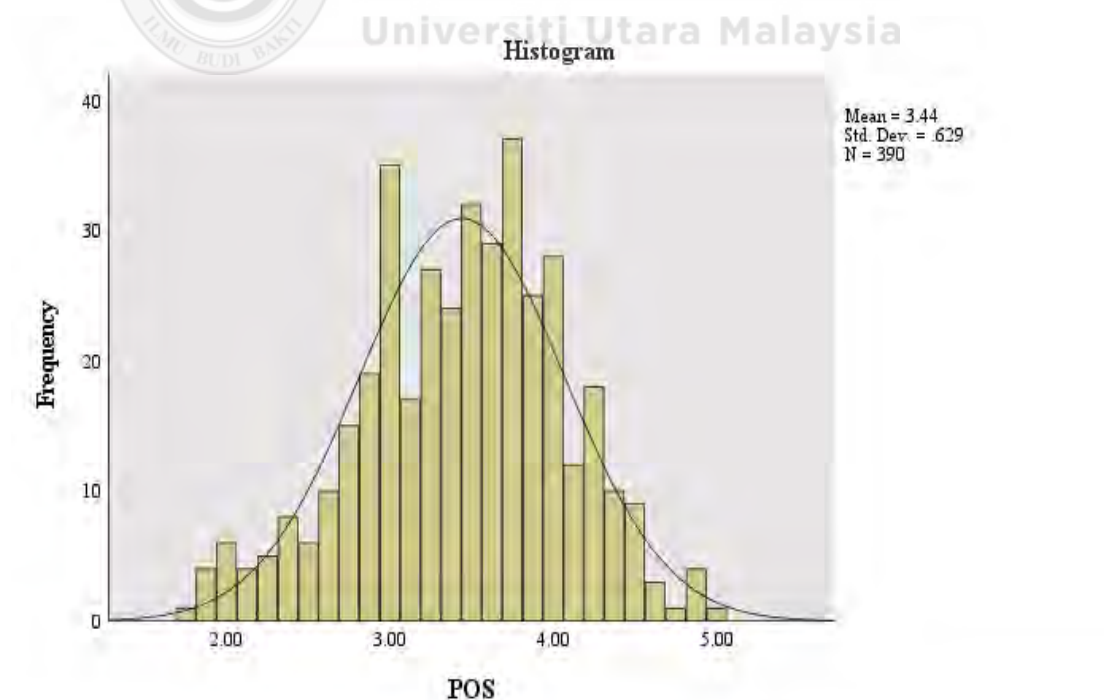
Histogram of Agreeableness



Histogram of Neuroticism



Histogram of Perceived Organizational Support

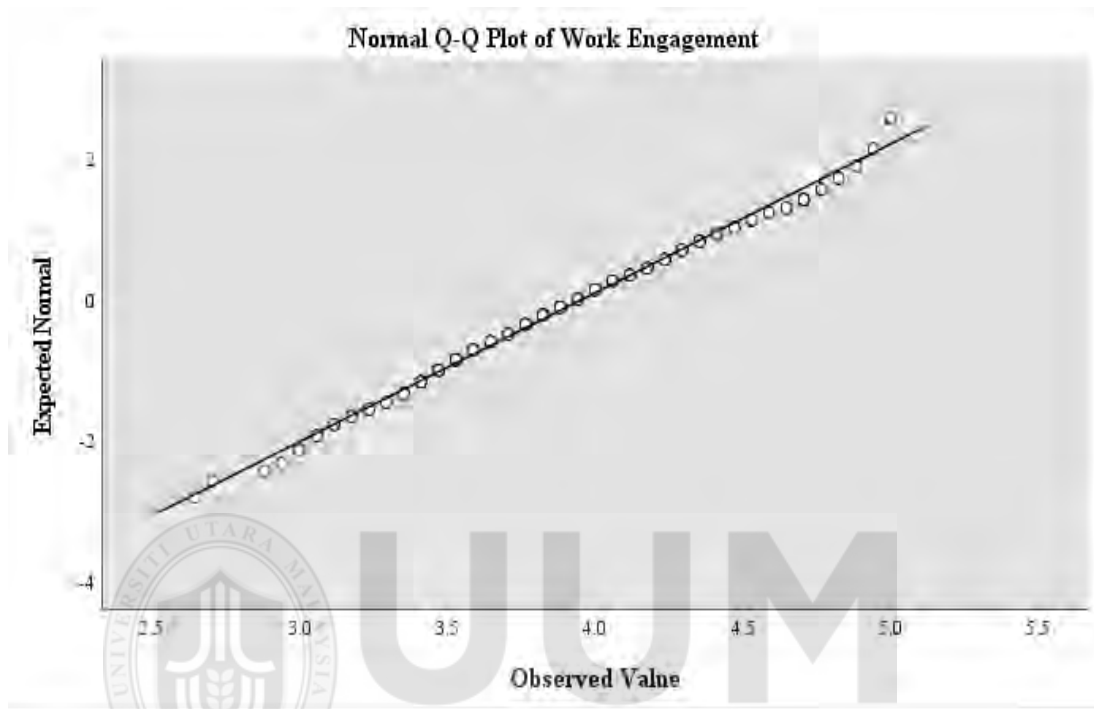


APPENDIX 8

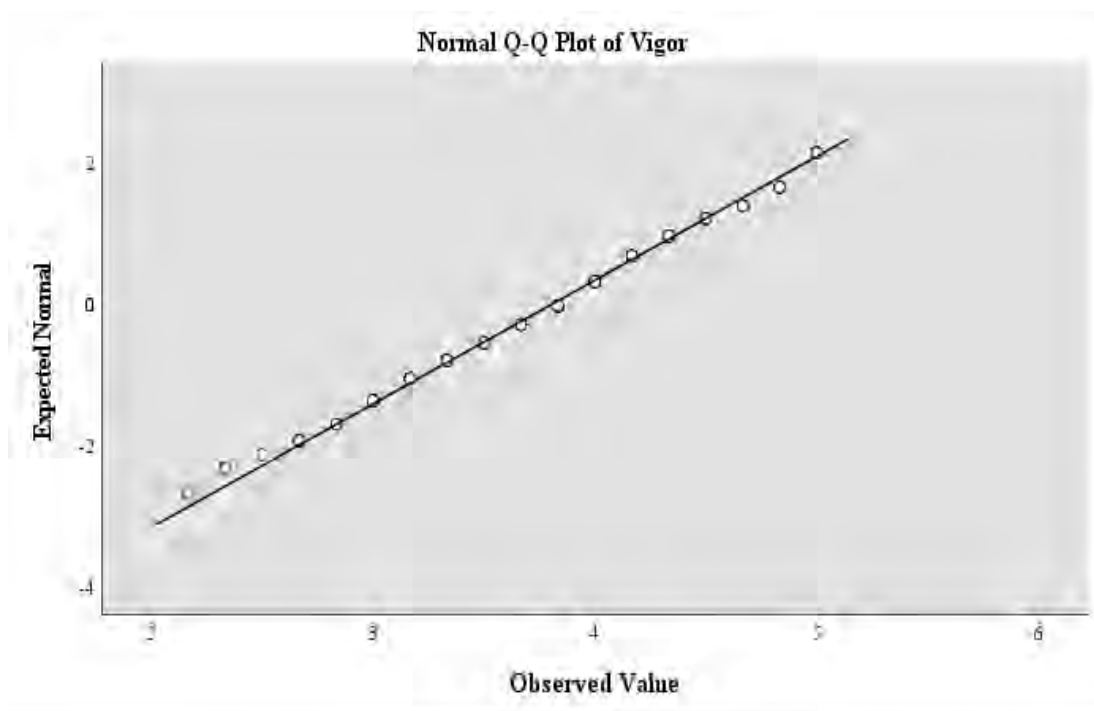
SPSS OUTPUT

Normality Test: Normal Q-Q Plot for Each Variable

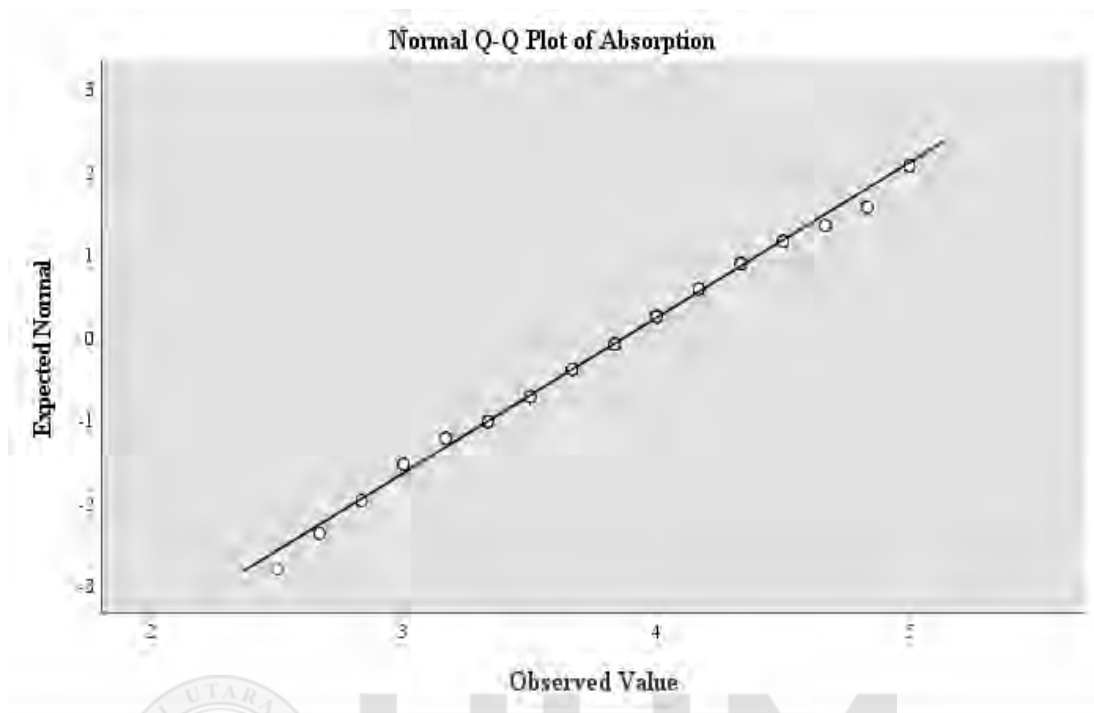
Normal Q-Q Plot of Work Engagement



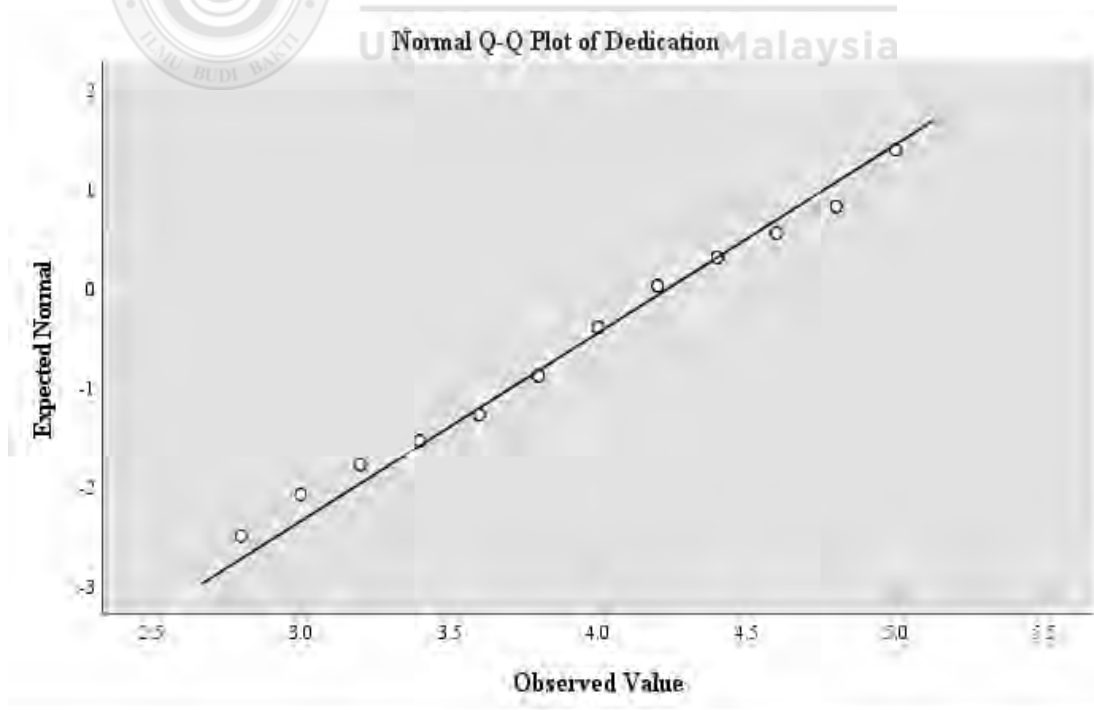
Normal Q-Q Plot of Vigor



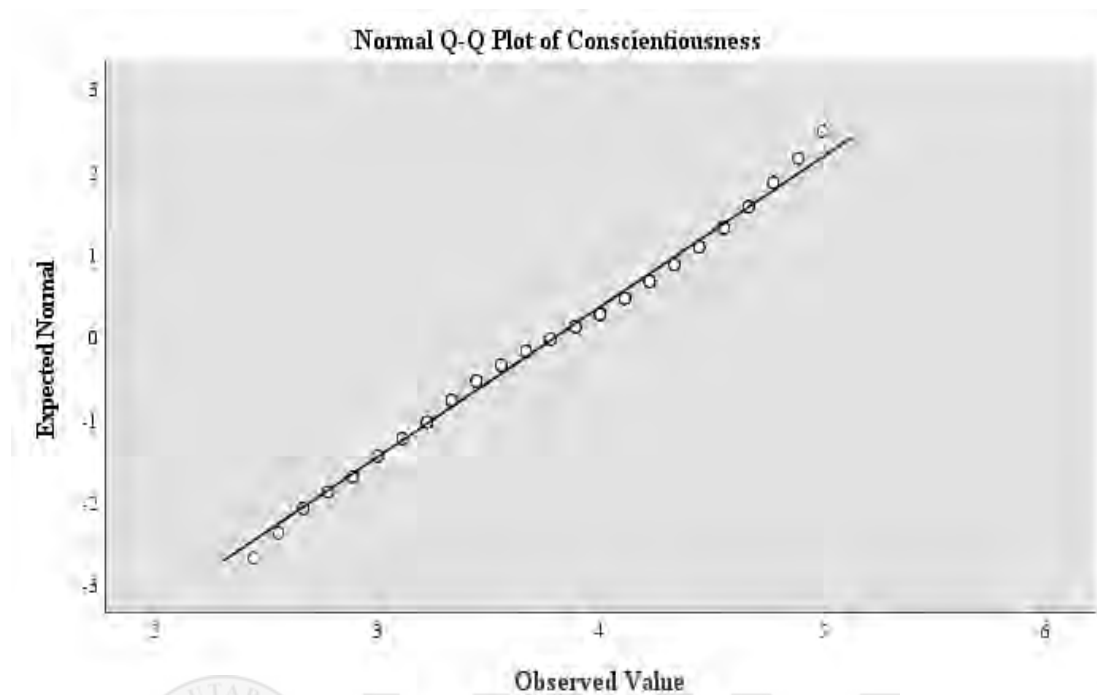
Normal Q-Q Plot of Absorption



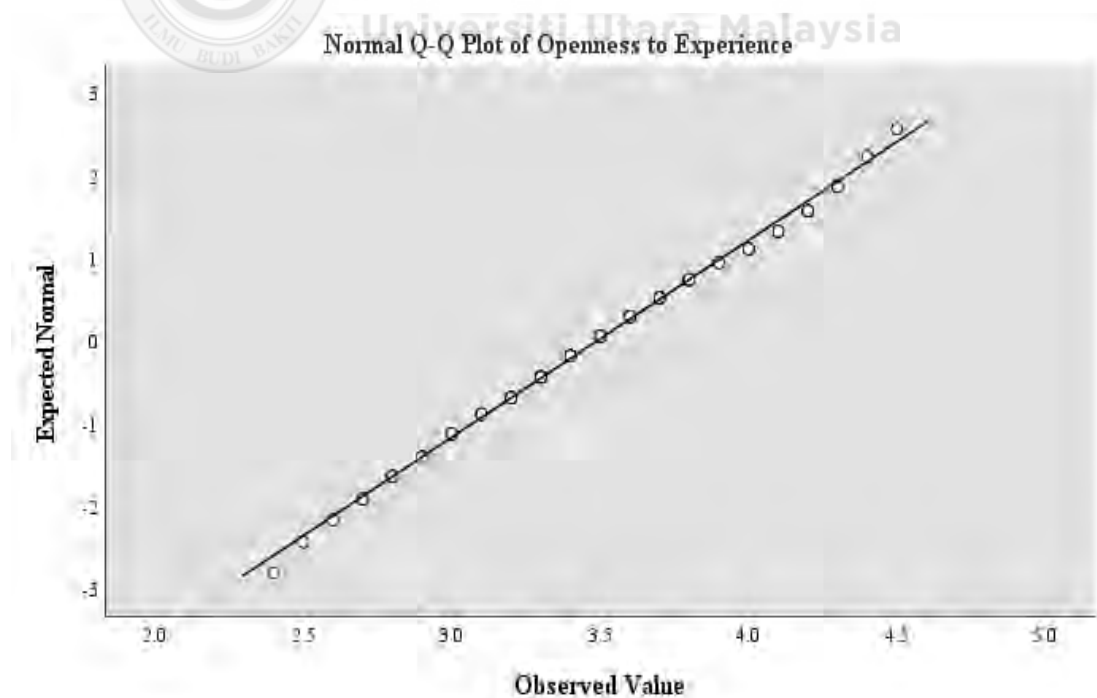
Normal Q-Q Plot of Dedication



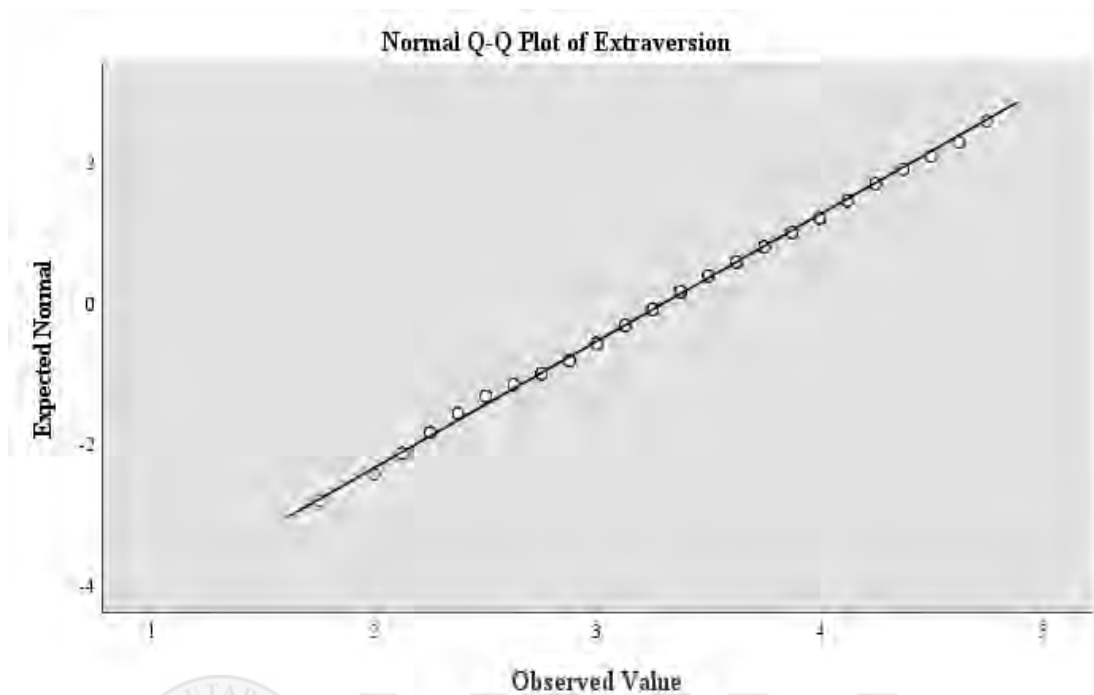
Normal Q-Q Plot of Conscientiousness



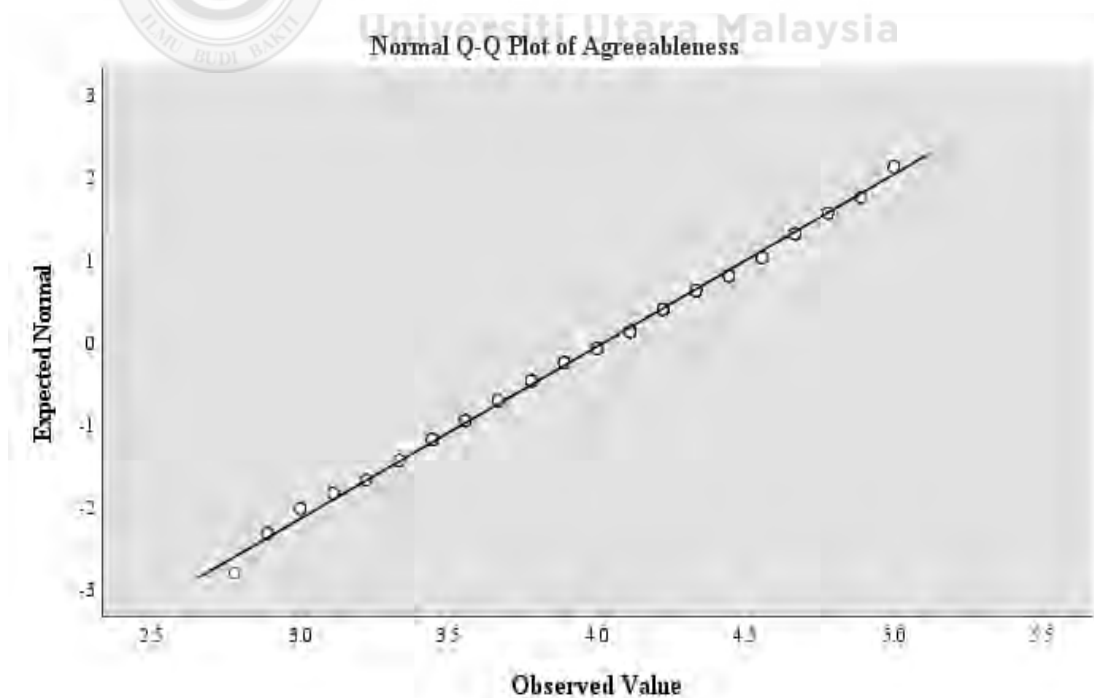
Normal Q-Q Plot of Openness to Experience



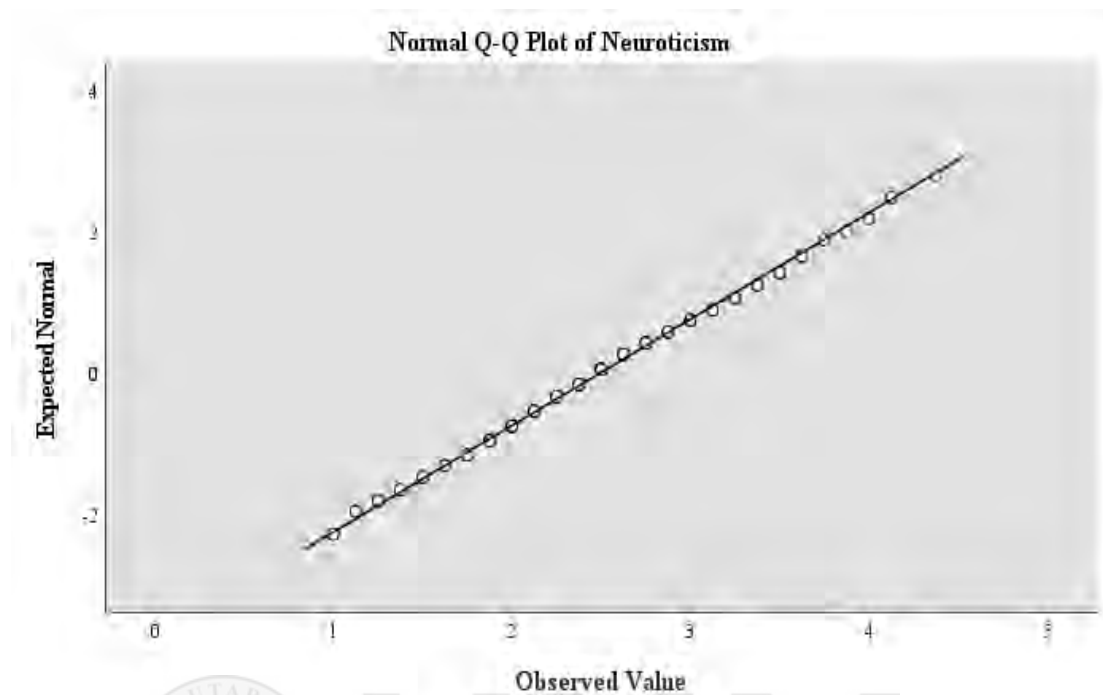
Normal Q-Q Plot of Extraversion



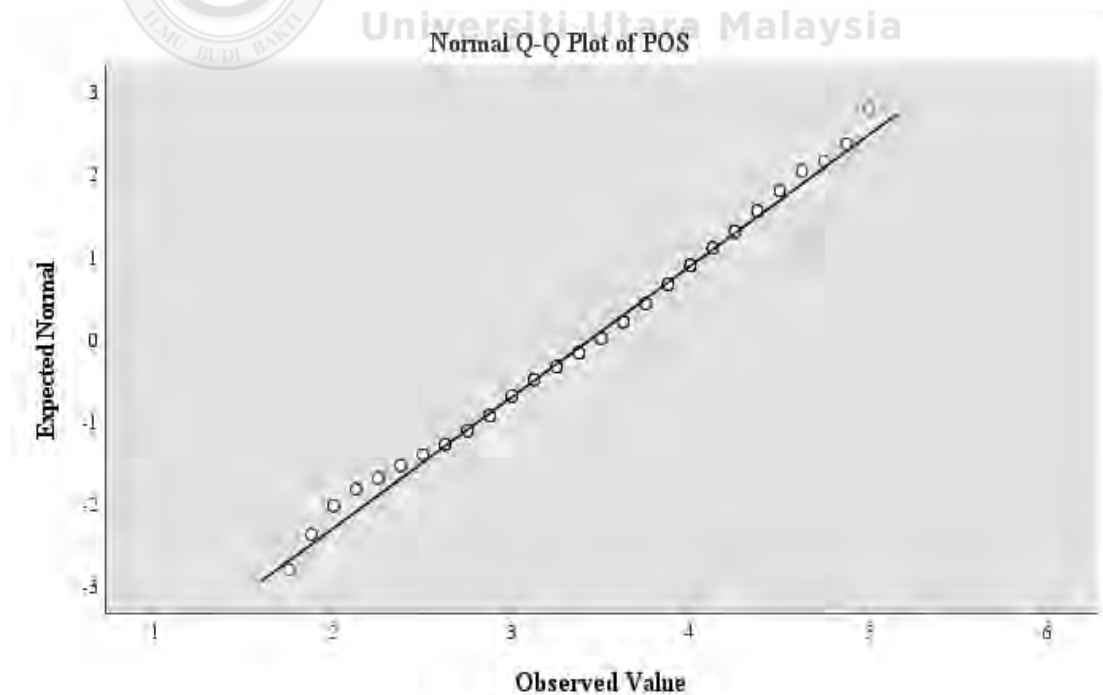
Normal Q-Q Plot of Agreeableness



Normal Q-Q Plot of Neuroticism



Normal Q-Q Plot of Perceived Organizational Support



APPENDIX 9

SPSS OUTPUT

Multiple Regression Analysis

Dependent Variable – Work Engagement

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.571 ^a	.326	.315	.39307	.326	30.868	6	383	.000	2.147

a. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

b. Dependent Variable: Work Engagement

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.615	6	4.769	30.868	< .001 ^b
	Residual	59.175	383	.155		
	Total	87.790	389			

a. Dependent Variable: Work Engagement

b. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	1.566	.364		4.299	.000		
	Conscientiousness	.089	.048	.104	1.865	.063	.568	1.761
	Openness	.307	.054	.271	5.668	.000	.769	1.301
	Extraversion	.076	.042	.089	1.812	.071	.732	1.366
	Agreeableness	.030	.057	.030	.522	.602	.533	1.877
	Neuroticism	-.056	.042	-.078	-1.334	.183	.513	1.948
	POS	.218	.035	.289	6.280	.000	.833	1.201

a. Dependent Variable: Work Engagement

Dependent Variable – Vigor

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.608 ^a	.369	.360	.45903	.369	37.398	6	383	.000	2.108

a. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

b. Dependent Variable: Vigor

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.281	6	7.880	37.398	< .001 ^b
	Residual	80.702	383	.211		
	Total	127.983	389			

a. Dependent Variable: Vigor

b. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	1.291	.425		3.035	.003		
	Conscientiousness	.157	.056	.151	2.806	.005	.568	1.761
	Openness	.268	.063	.196	4.245	.000	.769	1.301
	Extraversion	.129	.049	.126	2.656	.008	.732	1.366
	Agreeableness	.036	.067	.030	.536	.592	.533	1.877
	Neuroticism	-.140	.049	-.162	-2.868	.004	.513	1.948
	POS	.222	.041	.243	5.467	.000	.833	1.201

a. Dependent Variable: Vigor

Dependent Variable – Absorption

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.405 ^a	.164	.151	.49156	.164	12.516	6	383	.000	2.121

a. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

b. Dependent Variable: Absorption

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.146	6	3.024	12.516	< .001 ^b
	Residual	92.544	383	.242		
	Total	110.690	389			

a. Dependent Variable: Absorption

b. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.460	.456		3.205	.001		
	Conscientiousness	.031	.060	.032	.518	.605	.568	1.761
	Openness	.367	.068	.289	5.417	.000	.769	1.301
	Extraversion	.086	.052	.090	1.645	.101	.732	1.366
	Agreeableness	-.023	.071	-.020	-.319	.750	.533	1.877
	Neuroticism	.053	.052	.066	1.011	.313	.513	1.948
	POS	.201	.043	.237	4.633	.000	.833	1.201

a. Dependent Variable: Absorption

Dependent Variable – Dedication

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.522 ^a	.272	.261	.45339	.272	23.907	6	383	.000	2.052

a. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

b. Dependent Variable: Dedication

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.487	6	4.915	23.907	.000 ^b
	Residual	78.732	383	.206		
	Total	108.220	389			

a. Dependent Variable: Dedication

b. Predictors: (Constant), POS, Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism

Coefficients^a

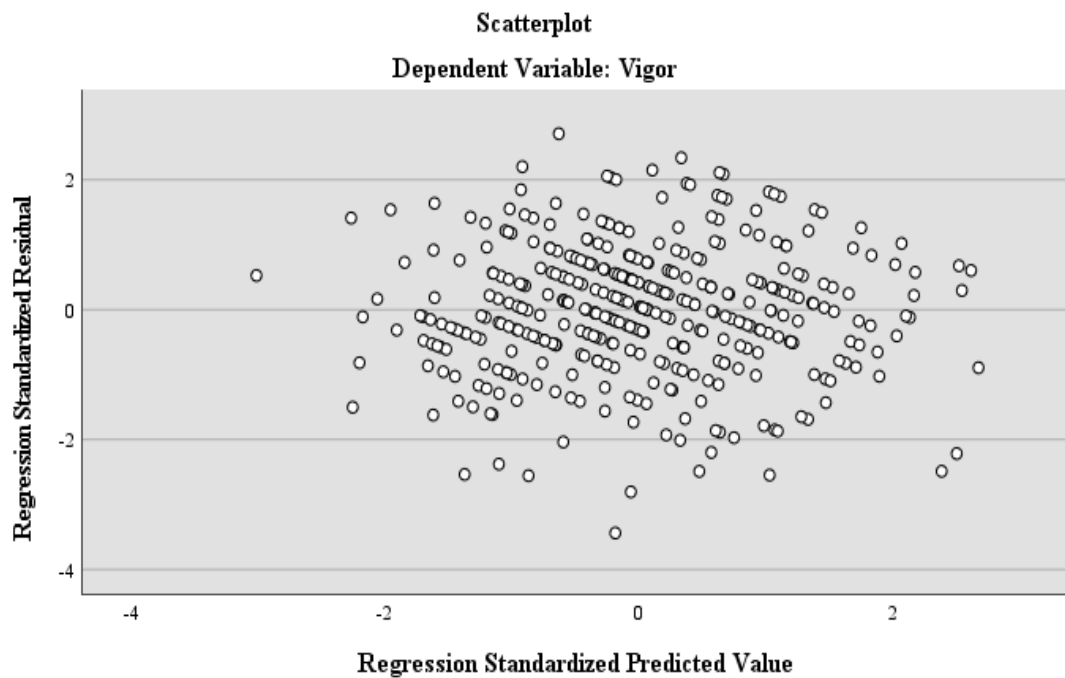
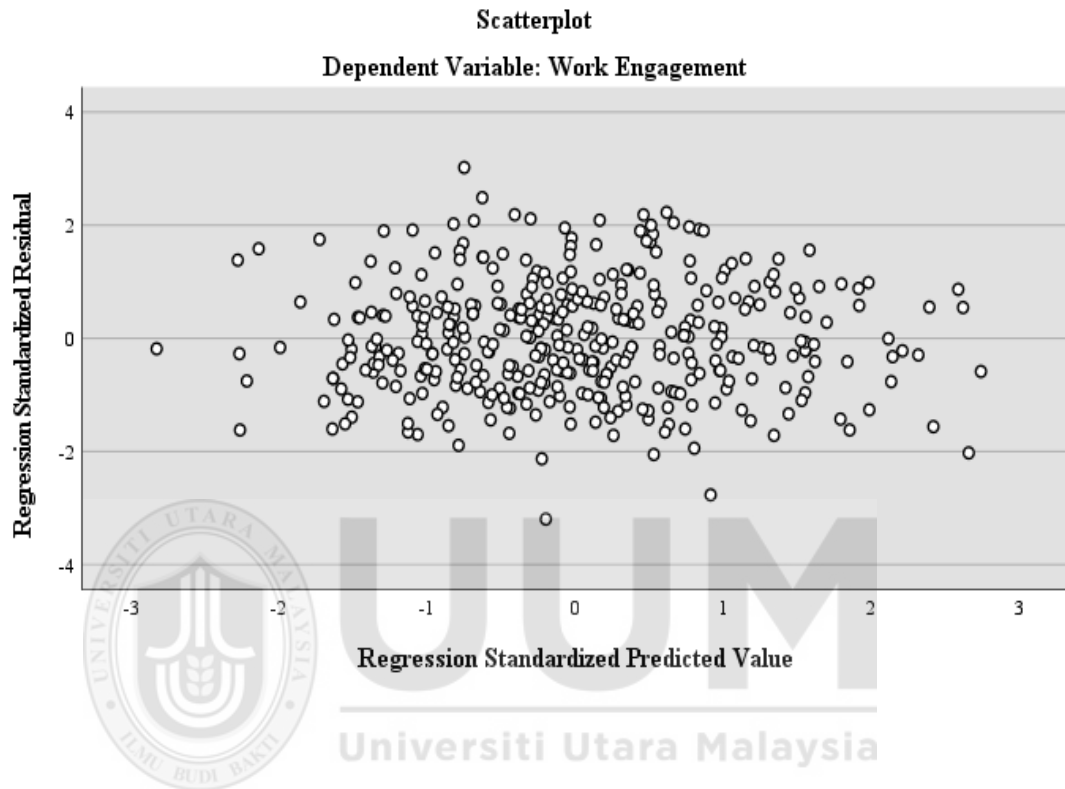
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.023	.420		4.815	.000		
	Conscientiousness	.078	.055	.082	1.413	.158	.568	1.761
	Openness	.281	.062	.224	4.502	.000	.769	1.301
	Extraversion	-.001	.048	-.001	-.027	.978	.732	1.366
	Agreeableness	.086	.066	.078	1.303	.193	.533	1.877
	Neuroticism	-.085	.048	-.107	-1.764	.078	.513	1.948
	POS	.234	.040	.279	5.841	.000	.833	1.201

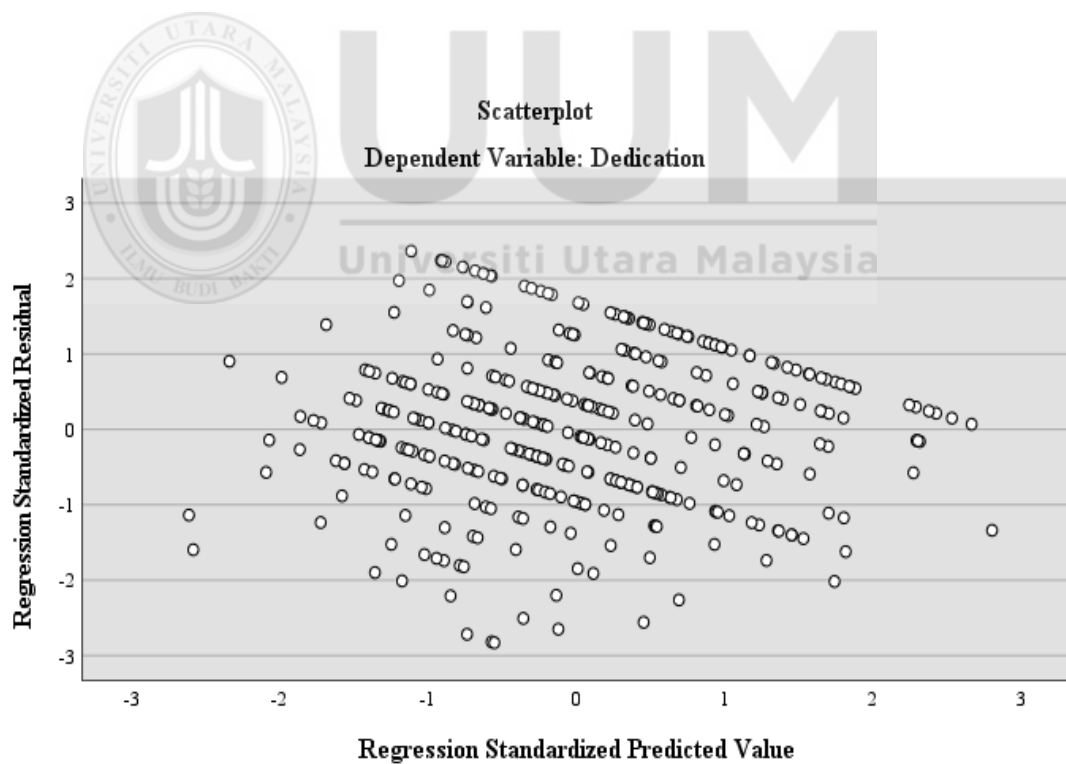
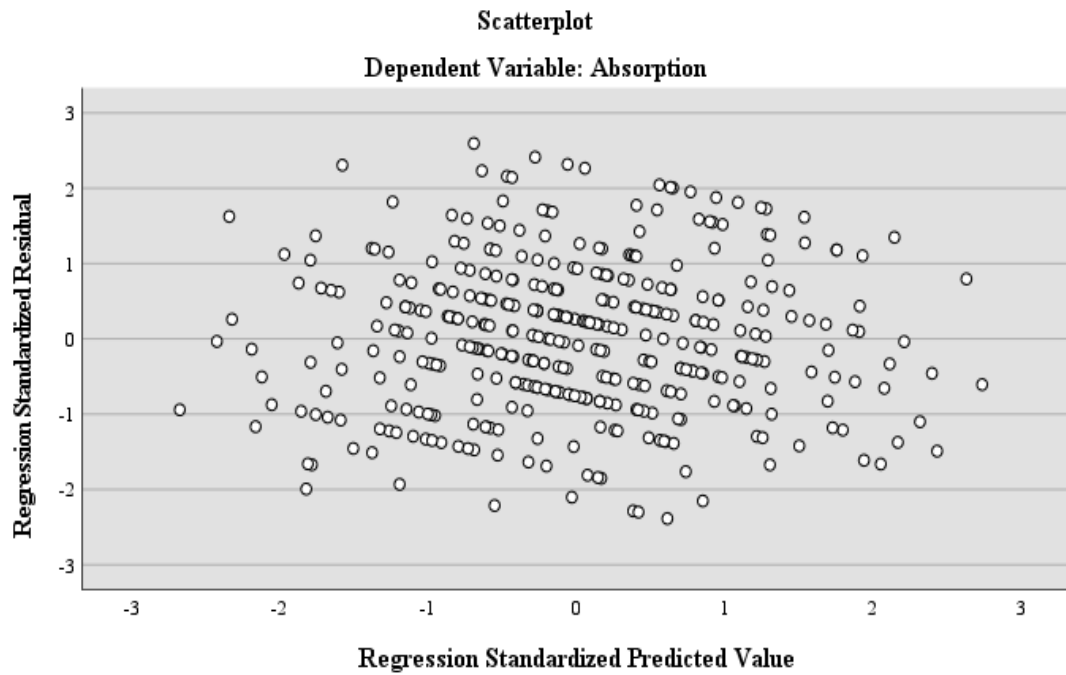
a. Dependent Variable: Dedication

APPENDIX 10

SPSS OUTPUT

Scatterplots

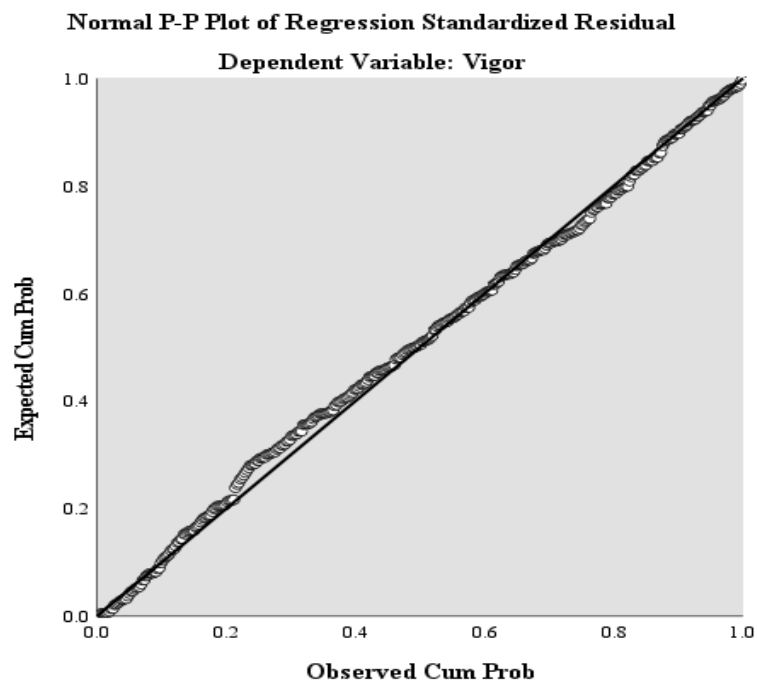
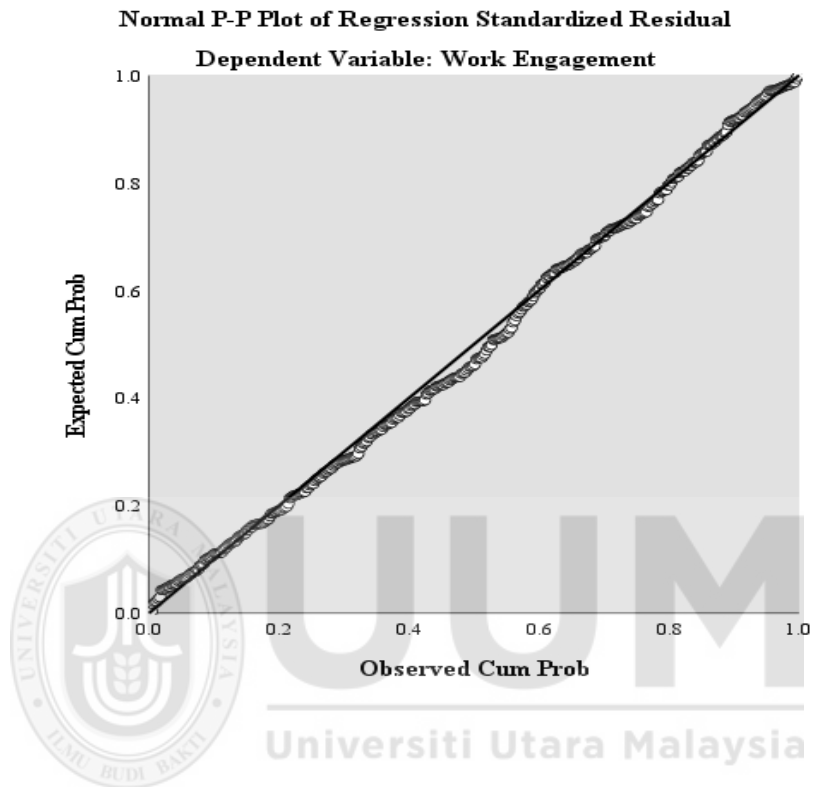




APPENDIX 11

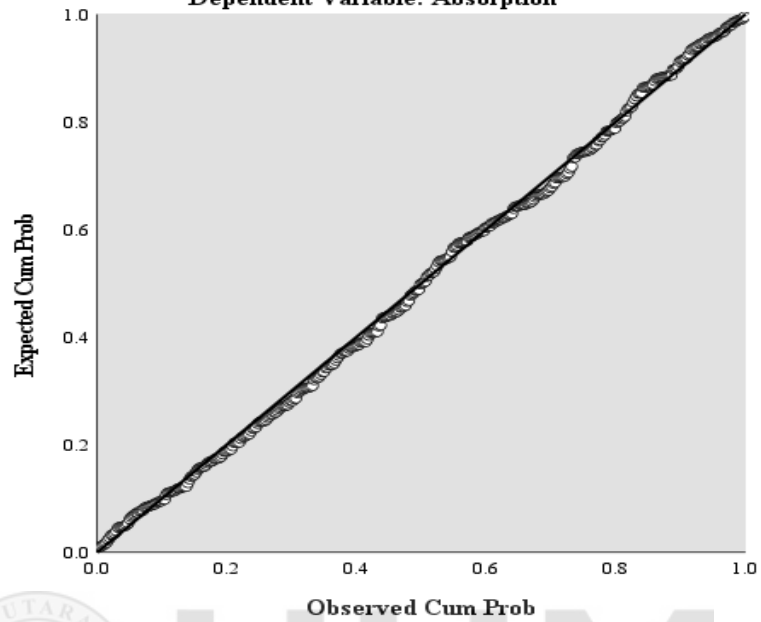
SPSS OUTPUT

Normal P-P Plots of the Regression Standardised Residual



Normal P-P Plot of Regression Standardized Residual

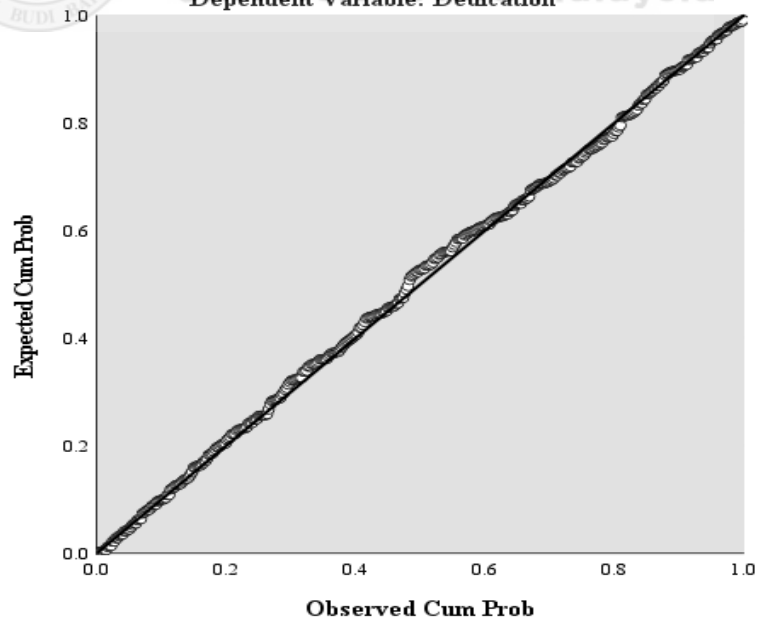
Dependent Variable: Absorption



UUM

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Dedication



APPENDIX 12

SPSS OUTPUT

Pearson Correlation Analysis

		Correlations									
		C	O	E	AG	N	POS	WE	V	A	D
C	Pearson Correlation	1	.363**	.386**	.580**	-.549**	.214**	.359**	.429**	.174**	.326**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.001	.000
	N	390	390	390	390	390	390	390	390	390	390
O	Pearson Correlation	.363**	1	.372**	.365**	-.315**	.061	.395**	.375**	.320**	.332**
	Sig. (2-tailed)	.000		.000	.000	.000	.232	.000	.000	.000	.000
	N	390	390	390	390	390	390	390	390	390	390
E	Pearson Correlation	.386**	.372**	1	.300**	-.425**	.218**	.335**	.388**	.227**	.243**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	390	390	390	390	390	390	390	390	390	390
AG	Pearson Correlation	.580**	.365**	.300**	1	-.593**	.295**	.347**	.395**	.161**	.352**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.001	.000
	N	390	390	390	390	390	390	390	390	390	390
N	Pearson Correlation	-.549**	-.315**	-.425**	-.593**	1	-.381**	-.386**	-.471**	-.159**	-.374**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.002	.000
	N	390	390	390	390	390	390	390	390	390	390
POS	Pearson Correlation	.214**	.061	.218**	.295**	-.381**	1	.385**	.385**	.250**	.374**
	Sig. (2-tailed)	.000	.232	.000	.000	.000		.000	.000	.000	.000
	N	390	390	390	390	390	390	390	390	390	390
WE	Pearson Correlation	.359**	.395**	.335**	.347**	-.386**	.385**	1	.893**	.859**	.855**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	390	390	390	390	390	390	390	390	390	390
V	Pearson Correlation	.429**	.375**	.388**	.395**	-.471**	.385**	.893**	1	.621**	.676**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	390	390	390	390	390	390	390	390	390	390
A	Pearson Correlation	.174**	.320**	.227**	.161**	-.159**	.250**	.859**	.621*	1	.605**
	Sig. (2-tailed)	.001	.000	.000	.001	.002	.000	.000	.000		.000
	N	390	390	390	390	390	390	390	390	390	390
D	Pearson Correlation	.326**	.332**	.243**	.352**	-.374**	.374**	.855**	.676*	.605**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	390	390	390	390	390	390	390	390	390	390

Note. Correlation marked with an asterisk (**) is significant at the 0.01 level (2-tailed). C = Conscientiousness; O = Openness to Experience; E = Extraversion; AG = Agreeableness; N = Neuroticism; POS = Perceived Organizational Support; WE = Work Engagement; V = Vigor; A = Absorption; D = Dedication.

APPENDIX 13

SPSS OUTPUT

Descriptive Statistics of Demographic Variables (Actual Study)

Statistics

		Gender	Age	Education	Marital Status	Work Experience	Salary	Position	Type of Institution
N	Valid	390	390	390	390	390	390	390	390
	Missing	0	0	0	0	0	0	0	0

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	162	41.5	41.5	41.5
	Female	228	58.5	58.5	100.0
	Total	390	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 30	13	3.3	3.3	3.3
	30-39	131	33.6	33.6	36.9
	40-49	142	36.4	36.4	73.3
	50-59	85	21.8	21.8	95.1
	59 and above	19	4.9	4.9	100.0
	Total	390	100.0	100.0	

Highest Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	16	4.1	4.1	4.1
	Master	124	31.8	31.8	35.9
	PhD/DBA	244	62.6	62.6	98.5
	Others	6	1.5	1.5	100.0
	Total	390	100.0	100.0	

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	89	22.8	22.8	22.8
	Married	287	73.6	73.6	96.4
	Divorced	14	3.6	3.6	100.0
	Total	390	100.0	100.0	

Total Years of Work Experience in This Field

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 years and below	70	17.9	17.9	17.9
	6-10 years	75	19.2	19.2	37.2
	11-15 years	85	21.8	21.8	59.0
	16-20 years	56	14.4	14.4	73.3
	21-25 years	69	17.7	17.7	91.0
	26 years and above	35	9.0	9.0	100.0
	Total	390	100.0	100.0	

Monthly Salary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RM5000 and below	64	16.4	16.4	16.4
	RM5001-RM9000	168	43.1	43.1	59.5
	RM9001-RM13000	106	27.2	27.2	86.7
	RM13001 and above	52	13.3	13.3	100.0
	Total	390	100.0	100.0	

Current Position in the Institution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professor	31	7.9	7.9	7.9
	Associate Professor	58	14.9	14.9	22.8
	Senior Lecturer	165	42.3	42.3	65.1
	Lecturer	126	32.3	32.3	97.4
	Others	10	2.6	2.6	100.0
	Total	390	100.0	100.0	

Type of Institution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public University	200	51.3	51.3	51.3
	Community College	6	1.5	1.5	52.8
	Polytechnic	31	7.9	7.9	60.8
	Private University	120	30.8	30.8	91.5
	Private College	4	1.0	1.0	92.6
	Private University College	14	3.6	3.6	96.2
	Foreign Branch Campus	15	3.8	3.8	100.0
	University				
	Total	390	100.0	100.0	

APPENDIX 14

SPSS OUTPUT

Descriptive Statistics of Independent and Dependent Variables (Actual Study)

Work Engagement

Descriptives

		Statistic	Std. Error
Work Engagement	Mean	3.9566	.02406
	95% Confidence Interval for Mean	3.9093	
	Lower Bound	4.0039	
	Upper Bound	3.9561	
	5% Trimmed Mean	3.9412	
	Median	.226	.124
	Variance	.47506	
	Std. Deviation	2.65	
	Minimum	5.00	
	Maximum	2.35	
	Range	.71	
	Interquartile Range	.077	
	Skewness	-.438	
	Kurtosis		.247

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average	Work Engagement	3.1765	3.3529	3.5882	3.9412	4.2941	4.6471	4.8235
Tukey's Hinges	Work Engagement			3.5882	3.9412	4.2941		

Vigor

Descriptives

		Statistic	Std. Error
Vigor	Mean	3.8085	.02904
	95% Confidence Interval for Mean	3.7514	
	Lower Bound	3.8657	
	Upper Bound	3.8129	
	5% Trimmed Mean	3.8333	
	Median	.329	.124
	Variance	.57359	
	Std. Deviation	2.17	
	Minimum	5.00	
	Maximum	2.83	
	Range	.83	
	Interquartile Range	-.122	
	Skewness	-.132	
	Kurtosis		.247

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average	Vigor	2.8333	3.0000	3.3333	3.8333	4.1667	4.5000	4.8333
Tukey's Hinges	Vigor			3.3333	3.8333	4.1667		

Absorption

Descriptives

		Statistic	Std. Error
Absorption	Mean	3.8731	.02701
	95% Confidence Interval for Mean	3.8200	
	Lower Bound	3.9262	
	Upper Bound	3.8706	
	5% Trimmed Mean	3.8706	
	Median	3.8333	
	Variance	.285	
	Std. Deviation	.53343	
	Minimum	2.50	
	Maximum	5.00	
	Range	2.50	
	Interquartile Range	.67	
	Skewness	.044	.124
	Kurtosis	-.294	.247

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average	Absorption	3.0000	3.1667	3.5000	3.8333	4.1667	4.5000	4.8333
Tukey's Hinges	Absorption			3.5000	3.8333	4.1667		

Dedication

Descriptives

		Statistic	Std. Error
Dedication	Mean	4.2344	.02671
	95% Confidence Interval for Mean	4.1818	
	Lower Bound	4.2869	
	Upper Bound	4.2570	
	5% Trimmed Mean	4.2570	
	Median	4.2000	
	Variance	.278	
	Std. Deviation	.52745	
	Minimum	2.80	
	Maximum	5.00	
	Range	2.20	
	Interquartile Range	.80	
	Skewness	-.236	.124
	Kurtosis	-.435	.247

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average	Dedication	3.3100	3.6000	3.8000	4.2000	4.6000	5.0000	5.0000
Tukey's Hinges	Dedication			3.8000	4.2000	4.6000		

Conscientiousness

Descriptives

		Statistic	Std. Error
Conscientiousness	Mean	3.7977	.02791
	95% Confidence Interval for Mean	3.7428	
	Lower Bound	3.8526	
	Upper Bound	3.8006	
	5% Trimmed Mean	3.7778	
	Median	.304	
	Variance	.55127	
	Std. Deviation	2.44	
	Minimum	5.00	
	Maximum	2.56	
	Range	.89	
	Interquartile Range	-.031	.124
	Skewness	-.685	.247
	Kurtosis		

Openness to Experience

Descriptives

		Statistic	Std. Error
Openness To Experience	Mean	3.4872	.02126
	95% Confidence Interval for Mean	3.4454	
	Lower Bound	3.5290	
	Upper Bound	3.4858	
	5% Trimmed Mean	3.5000	
	Median	.176	
	Variance	.41993	
	Std. Deviation	2.40	
	Minimum	4.50	
	Maximum	2.10	
	Range	.60	
	Interquartile Range	.078	.124
	Skewness	-.364	.247
	Kurtosis		

Extraversion

Descriptives

		Statistic	Std. Error
Extraversion	Mean	3.3026	.02827
	95% Confidence Interval for Mean	3.2470	
	Lower Bound	3.3581	
	Upper Bound	3.3018	
	5% Trimmed Mean		

Median	3.2500	
Variance	.312	
Std. Deviation	.55834	
Minimum	1.75	
Maximum	4.75	
Range	3.00	
Interquartile Range	.66	
Skewness	.007	.124
Kurtosis	-.175	.247

Agreeableness

Descriptives

			Statistic	Std. Error
Agreeableness	Mean		4.0254	.02424
	95% Confidence Interval for Mean	Lower Bound	3.9777	
		Upper Bound	4.0730	
	5% Trimmed Mean		4.0288	
	Median		4.1111	
	Variance		.229	
	Std. Deviation		.47864	
	Minimum		2.78	
	Maximum		5.00	
	Range		2.22	
	Interquartile Range		.67	
	Skewness		-.083	.124
	Kurtosis		-.446	.247

Neuroticism

Descriptives

			Statistic	Std. Error
Neuroticism	Mean		2.4897	.03364
	95% Confidence Interval for Mean	Lower Bound	2.4236	
		Upper Bound	2.5559	
	5% Trimmed Mean		2.4890	
	Median		2.5000	
	Variance		.441	
	Std. Deviation		.66427	
	Minimum		1.00	
	Maximum		4.38	
	Range		3.38	
	Interquartile Range		.91	
	Skewness		.092	.124
	Kurtosis		-.243	.247

Perceived Organizational Support

Descriptives

			Statistic	Std. Error
Perceived Organizational Support	Mean		27.5308	.25482
	95% Confidence Interval for Mean	Lower Bound	27.0298	
		Upper Bound	28.0318	
	5% Trimmed Mean		27.6254	
	Median		28.0000	
	Variance		25.324	
	Std. Deviation		5.03232	
	Minimum		14.00	
	Maximum		40.00	
	Range		26.00	
	Interquartile Range		7.00	
	Skewness		-.258	.124
	Kurtosis		-.164	.247



UUM
Universiti Utara Malaysia

APPENDIX 15

SPSS OUTPUT

Results of Reliability Analysis (Actual Study)

i) Scale: Work Engagement

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.884	17

Item Statistics

	Mean	Std. Deviation	N
WE1	3.69	.863	390
WE2	4.31	.655	390
WE3	4.41	.710	390
WE4	3.90	.827	390
WE5	4.20	.692	390
WE6	3.58	.941	390
WE7	4.13	.753	390
WE8	3.86	.822	390
WE9	3.94	.834	390
WE10	4.38	.626	390
WE11	4.03	.743	390
WE12	3.76	.948	390
WE13	4.16	.761	390
WE14	3.77	.836	390
WE15	3.78	.840	390
WE16	3.50	.934	390
WE17	3.86	.770	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
WE1	63.57	58.893	.422	.882
WE2	62.96	58.469	.632	.875
WE3	62.85	59.957	.433	.881
WE4	63.36	57.101	.595	.875
WE5	63.06	58.161	.623	.875
WE6	63.68	58.692	.391	.884
WE7	63.14	56.781	.693	.872
WE8	63.40	57.094	.600	.875
WE9	63.32	57.708	.538	.877
WE10	62.88	59.162	.589	.876
WE11	63.23	58.323	.559	.876

WE12	63.50	56.940	.516	.878
WE13	63.11	59.580	.431	.881
WE14	63.49	58.441	.476	.879
WE15	63.48	57.371	.562	.876
WE16	63.76	58.032	.444	.881
WE17	63.40	58.580	.513	.878

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
67.26	65.222	8.076	17

ii) Scale: Vigor

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.764	6

Item Statistics

	Mean	Std. Deviation	N
WE1	3.69	.863	390
WE4	3.90	.827	390
WE8	3.86	.822	390
WE12	3.76	.948	390
WE15	3.78	.840	390
WE17	3.86	.770	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
WE1	19.16	8.912	.425	.751
WE4	18.95	8.378	.581	.711
WE8	18.99	8.509	.555	.718
WE12	19.09	8.593	.424	.755
WE15	19.07	8.301	.586	.709
WE17	18.99	8.982	.492	.734

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.85	11.844	3.442	6

iii) Scale: Absorption

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.707	6

Item Statistics

	Mean	Std. Deviation	N
WE3	4.41	.710	390
WE6	3.58	.941	390
WE9	3.94	.834	390
WE11	4.03	.743	390
WE14	3.77	.836	390
WE16	3.50	.934	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
WE3	18.83	8.518	.294	.706
WE6	19.65	7.008	.471	.657
WE9	19.29	7.658	.409	.676
WE11	19.21	7.637	.500	.651
WE14	19.46	7.201	.522	.640
WE16	19.74	7.164	.441	.668

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
23.24	10.244	3.201	6

iv) Scale: Dedication

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.810	5

Item Statistics

	Mean	Std. Deviation	N
WE2	4.31	.655	390
WE5	4.20	.692	390
WE7	4.13	.753	390
WE10	4.38	.626	390
WE13	4.16	.761	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
WE2	16.87	4.563	.702	.744
WE5	16.97	4.603	.630	.763
WE7	17.05	4.240	.692	.742
WE10	16.79	4.790	.647	.761
WE13	17.02	5.115	.366	.847

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.17	6.955	2.637	5

v) Scale: Personality Traits

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.699	44

Item Statistics

	Mean	Std. Deviation	N
BF11	3.12	1.029	390
BF12	4.06	.967	390
BF13	3.92	.813	390
BF14	1.99	.979	390
BF15	3.79	.788	390
BF16	2.84	1.013	390
BF17	4.23	.641	390
BF18	3.42	1.057	390
BF19	2.36	.880	390
BF110	3.94	.782	390
BF111	3.77	.834	390
BF112	4.37	.923	390
BF113	4.23	.667	390
BF114	2.91	1.077	390
BF115	3.78	.732	390
BF116	3.82	.750	390
BF117	3.94	.797	390

BFI18	3.64	1.092	390
BFI19	2.84	1.148	390
BFI20	3.73	.826	390
BFI21	2.90	1.114	390
BFI22	4.05	.745	390
BFI23	3.86	.991	390
BFI24	2.32	.870	390
BFI25	3.59	.792	390
BFI26	3.53	.767	390
BFI27	3.21	1.106	390
BFI28	4.03	.687	390
BFI29	2.56	1.024	390
BFI30	3.85	.801	390
BFI31	3.04	1.063	390
BFI32	4.12	.677	390
BFI33	3.99	.736	390
BFI34	2.24	.812	390
BFI35	2.66	.985	390
BFI36	3.40	.972	390
BFI37	4.10	.990	390
BFI38	3.86	.730	390
BFI39	2.72	1.087	390
BFI40	3.86	.727	390
BFI41	2.60	.998	390
BFI42	4.14	.718	390
BFI43	3.24	1.030	390
BFI44	3.05	1.151	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BFI1	148.50	108.657	.219	.693
BFI2	147.55	109.369	.203	.694
BFI3	147.70	106.838	.411	.683
BFI4	149.63	119.155	-.267	.721
BFI5	147.82	106.634	.439	.682
BFI6	148.77	109.944	.162	.696
BFI7	147.38	107.661	.476	.683
BFI8	148.20	106.697	.302	.687
BFI9	149.26	119.232	-.291	.720
BFI10	147.68	106.949	.423	.683
BFI11	147.85	105.915	.454	.680
BFI12	147.25	109.754	.197	.694
BFI13	147.39	105.883	.588	.678
BFI14	148.71	119.249	-.255	.723
BFI15	147.84	106.647	.478	.681
BFI16	147.79	105.120	.567	.677
BFI17	147.68	109.066	.282	.690
BFI18	147.98	106.197	.312	.686
BFI19	148.78	118.393	-.212	.722
BFI20	147.89	106.577	.419	.682
BFI21	148.72	108.583	.197	.694
BFI22	147.56	108.401	.351	.687
BFI23	147.76	105.740	.377	.683
BFI24	149.30	120.093	-.338	.722
BFI25	148.02	106.511	.445	.682
BFI26	148.08	108.180	.353	.687
BFI27	148.41	107.862	.231	.692
BFI28	147.59	107.066	.483	.682

BFI29	149.06	119.387	-.269	.722
BFI30	147.77	107.557	.374	.685
BFI31	148.58	107.082	.282	.688
BFI32	147.49	107.222	.480	.682
BFI33	147.63	105.536	.550	.678
BFI34	149.38	120.304	-.368	.721
BFI35	148.96	115.440	-.095	.711
BFI36	148.22	106.666	.339	.685
BFI37	147.52	109.124	.208	.693
BFI38	147.76	107.006	.455	.682
BFI39	148.90	121.147	-.331	.728
BFI40	147.75	106.798	.471	.682
BFI41	149.02	117.100	-.171	.716
BFI42	147.48	108.261	.377	.686
BFI43	148.38	108.417	.230	.692
BFI44	148.57	107.861	.219	.693

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
151.62	114.406	10.696	44

vi) Scale: Conscientiousness

Case Processing Summary

	N	%
Cases		
Valid	390	100.0
Excluded ^a	0	.0
Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.805	9

Item Statistics

	Mean	Std. Deviation	N
BFI3	3.92	.813	390
BFI8	3.42	1.057	390
BFI13	4.23	.667	390
BFI18	3.64	1.092	390
BFI23	3.86	.991	390
BFI28	4.03	.687	390
BFI33	3.99	.736	390
BFI38	3.86	.730	390
BFI43	3.24	1.030	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BFI3	30.26	21.145	.376	.800
BFI8	30.76	18.592	.538	.781
BFI13	29.95	20.789	.556	.782
BFI18	30.54	18.249	.555	.779

BFI23	30.32	18.759	.568	.776
BFI28	30.15	21.253	.456	.792
BFI33	30.19	20.446	.545	.782
BFI38	30.32	20.830	.488	.788
BFI43	30.94	19.251	.476	.790

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
34.18	24.616	4.961	9

vii) Scale: Openness to Experience

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.636	10

Item Statistics

	Mean	Std. Deviation	N
BFI5	3.79	.788	390
BFI10	3.94	.782	390
BFI15	3.78	.732	390
BFI20	3.73	.826	390
BFI25	3.59	.792	390
BFI30	3.85	.801	390
BFI35	2.66	.985	390
BFI40	3.86	.727	390
BFI41	2.60	.998	390
BFI44	3.05	1.151	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BFI5	31.08	13.999	.511	.569
BFI10	30.93	14.193	.481	.576
BFI15	31.09	14.144	.537	.568
BFI20	31.14	13.712	.530	.563
BFI25	31.28	13.753	.554	.560
BFI30	31.02	14.606	.390	.594
BFI35	32.21	16.948	-.035	.689
BFI40	31.01	14.213	.527	.570
BFI41	32.27	18.727	-.242	.732
BFI44	31.82	14.312	.229	.637

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
34.87	17.634	4.199	10

viii) Scale: Extraversion

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.728	8

Item Statistics

	Mean	Std. Deviation	N
BFI1	3.12	1.029	390
BFI6	2.84	1.013	390
BFI11	3.77	.834	390
BFI16	3.82	.750	390
BFI21	2.90	1.114	390
BFI26	3.53	.767	390
BFI31	3.04	1.063	390
BFI36	3.40	.972	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BFI1	23.31	15.333	.442	.696
BFI6	23.58	16.445	.302	.725
BFI11	22.65	16.213	.453	.695
BFI16	22.60	16.796	.422	.702
BFI21	23.52	14.600	.483	.687
BFI26	22.89	17.422	.303	.721
BFI31	23.38	14.777	.495	.684
BFI36	23.02	15.370	.477	.688

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
26.42	19.951	4.467	8

ix) Scale: Agreeableness

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.727	9

Item Statistics

	Mean	Std. Deviation	N
BF12	4.06	.967	390
BF17	4.23	.641	390
BF112	4.37	.923	390
BF117	3.94	.797	390
BF122	4.05	.745	390
BF127	3.21	1.106	390
BF132	4.12	.677	390
BF137	4.10	.990	390
BF142	4.14	.718	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BF12	32.16	14.708	.393	.705
BF17	31.99	15.573	.509	.691
BF112	31.86	14.946	.387	.706
BF117	32.29	15.339	.413	.701
BF122	32.17	15.661	.397	.704
BF127	33.02	15.223	.244	.742
BF132	32.11	15.431	.502	.691
BF137	32.13	14.081	.471	.690
BF142	32.09	15.501	.449	.697

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
36.23	18.557	4.308	9

x) Scale: Neuroticism**Case Processing Summary**

	N	%
Cases Valid	390	100.0
Excluded ^a	0	.0
Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.825	8

Item Statistics

	Mean	Std. Deviation	N
BF14	1.99	.979	390
BF19	2.36	.880	390
BF114	2.91	1.077	390
BF119	2.84	1.148	390
BF124	2.32	.870	390

BFI29	2.56	1.024	390
BFI34	2.24	.812	390
BFI39	2.72	1.087	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BFI4	17.93	22.583	.505	.810
BFI9	17.56	22.648	.575	.802
BFI14	17.01	21.972	.506	.811
BFI19	17.08	20.130	.659	.788
BFI24	17.60	23.155	.517	.809
BFI29	17.36	21.722	.573	.801
BFI34	17.68	23.585	.507	.811
BFI39	17.20	21.504	.551	.804

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.92	28.240	5.314	8

xi) Scale: Perceived Organizational Support

Case Processing Summary

		N	%
Cases	Valid	390	100.0
	Excluded ^a	0	.0
	Total	390	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.827	8

Item Statistics

	Mean	Std. Deviation	N
POS1	3.66	.923	390
POS2	3.53	.969	390
POS3	3.33	1.081	390
POS4	3.37	.807	390
POS5	3.52	.850	390
POS6	2.94	1.060	390
POS7	3.68	.837	390
POS8	3.50	.920	390

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
POS1	23.87	19.305	.637	.795
POS2	24.01	18.308	.733	.780
POS3	24.20	19.732	.461	.822
POS4	24.16	21.764	.387	.826

POS5	24.01	19.378	.698	.788
POS6	24.59	21.594	.264	.849
POS7	23.85	19.642	.672	.792
POS8	24.03	19.228	.650	.793

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
27.53	25.324	5.032	8

