

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.



**EMPLOYEE ENGAGEMENT OF PRIVATE SECTOR
EMPLOYEES IN SOUTHERN THAILAND:
PERSONALITY, TRANSFORMATIONAL LEADERSHIP
AND PSYCHOLOGICAL SAFETY**



PARICHAT JANSRIBOOT

UUM
Universiti Utara Malaysia

**DOCTOR OF BUSINESS ADMINISTRATION
UNIVERSITI UTARA MALAYSIA
September 2016**

**EMPLOYEE ENGAGEMENT OF PRIVATE SECTOR EMPLOYEES
IN SOUTHERN THAILAND: PERSONALITY, TRANSFORMATIONAL
LEADERSHIP AND PSYCHOLOGICAL SAFETY**



By:

PARICHAT JANSRIBOOT

UUM
Universiti Utara Malaysia

**Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
in Partial Fulfillment of the Requirement for the Doctor of Business Administration**



**OTHMAN YEOP ABDULLAH GRADUATE SCHOOL OF BUSINESS
UNIVERSITI UTARA MALAYSIA**

**PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)**

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

PARICHAT JANSRIBOOT

calon untuk Ijazah **DOCTOR OF BUSINESS ADMINISTRATION**
(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

**EMPLOYEE ENGAGEMENT OF PRIVATE SECTOR EMPLOYEES
IN SOUTHERN THAILAND: PERSONALITY, TRANSFORMATIONAL LEADERSHIP
AND PSYCHOLOGICAL SAFETY**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:
03 November 2015.

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:
03 November 2015).

Pengerusi Viva : **Prof. Dr. Khulida Kirana Yahya**
(Chairman for Viva)

Tandatangan
(Signature)

Pemerksa Luar : **Prof. Dr. Noormala Dato' Amir Ishak**
(External Examiner)

Tandatangan
(Signature)

Pemerksa Dalam : **Dr. Johanim Johari**
(Internal Examiner)

Tandatangan
(Signature)

Tarikh: **03 November 2015**
(Date)

Nama Pelajar
(Name of Student)

: Parichat Jansriboot

Tajuk Tesis / Disertasi
(Title of the Thesis / Dissertation)

: Employee Engagement of Private Sector Employees in Southern
Thailand: Personality, Transformational Leadership and
Psychological Safety

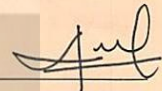
Program Pengajian
(Programme of Study)

: Doctor of Business Administration

Nama Penyelia/Penyelia-penyelia
(Name of Supervisor/Supervisors)

: 1) Assoc. Prof. Dr. Norazuwa Mat

2) Assoc. Prof. Dr. Norsiah Mat



Tandatangan
(Signature)



UUM
Universiti Utara Malaysia

PERMISSION TO USE

In presenting this dissertation 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 dissertation in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my dissertation. It is understood that any copying or publication or use of this dissertation 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 dissertation.

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



ABSTRACT

The motivation for this study is driven by the inconsistent findings in the literature concerning the relationship between the variables related to employee engagement. The main purpose of this study is to investigate the influence of a five-factor model of personality consists of extraversion, agreeableness, conscientiousness, openness to experience, and neuroticism factors on employee engagement. Further, it examines the mediation role of psychological safety on the relationship between transformational leadership and employee engagement. Accordingly, this study is underpinned by self-determination theory to explain the network of the relationship between the variables in the conceptual framework. The study utilized a survey questionnaire which was distributed to 608 employees of private companies in Southern Thailand. Out of the 422 returned questionnaires, 402 were usable for further analysis. PLS-SEM was used to analyze the direct and indirect relationship between the related variables in the study. Of the five personality factors, three which are extraversion, conscientiousness, and openness to experience factors influence the employee engagement. However agreeableness and neuroticism factors do not influence employee engagement. Transformational leadership is discovered to have both direct and indirect influence on the employee engagement. The psychological safety also shows to have an influence on the employee engagement. In addition, the psychological safety constructs is discovered to be a partial mediator in the relationship between the transformational leadership and the employee engagement. The results of the predictive power of the structural model is 0.337 indicating that 33.7% of the variance in the employee engagement construct is explained by the five-factor model of personality, transformational leadership and psychological safety. Theoretical, practical and methodological implications of the study are highlighted. Finally, limitations and further research are also discussed in this paper.

Keywords: employee engagement, five-factor model of personality, transformational leadership, psychological safety, self-determination theory

ABSTRAK

Motivasi untuk melaksanakan kajian ini didorong oleh penemuan yang tidak konsisten dalam literatur tentang hubungan antara pemboleh ubah yang berkaitan dengan penglibatan pekerja. Tujuan utama kajian ini adalah untuk mengkaji pengaruh model lima faktor personaliti iaitu *extraversion*, *agreeableness*, *conscientiousness*, *openness to experience*, dan *neuroticism* keatas penglibatan pekerja. Selanjutnya, kajian ini menguji peranan keselamatan psikologi sebagai pengantara ke atas hubungan antara kepimpinan transformasi dan penglibatan pekerja. Kajian disokong oleh teori penen tuan sendiri untuk menjelaskan rangkaian hubungan antara pemboleh ubah dalam kerangka konseptual. Kajian ini menggunakan soal selidik yang diedarkan kepada 608 orang kakitangan syarikat swasta di Selatan Thailand. Daripada 422 soal selidik yang dikembalikan, 402 didapati lengkap untuk digunakan dalam analisis. PLS-SEM digunakan untuk menganalisis hubungan langsung dan tidak langsung antara pemboleh ubah yang berkaitan dalam kajian ini. Daripada lima faktor personaliti, tiga daripadanya iaitu *extraversion*, *conscientiousness*, dan *openness to experience* mempengaruhi penglibatan pekerja. Walau bagaimanapun sikap *agreeableness* dan *neuroticism* tidak mempengaruhi hubungan tersebut. Kepimpinan transformasi didapati mempengaruhi penglibatan pekerja secara langsung dan tidak langsung. Keselamatan psikologi juga menunjukkan pengaruh ke atas pengambilan pekerja. Di samping itu, konstruk keselamatan psikologi ditemui sebagai pengantara separa ke atas hubungan antara kepimpinan transformasi dan penglibatan pekerja. Keputusan bagi model kuasa ramalan berstruktur adalah 0.337. Ini menunjukan bahawa 33.7% daripada varians dalam konstruk pengambilan pekerja dijelaskan oleh model lima faktor personaliti, kepimpinan transformasi dan keselamatan psikologi. Akhirnya, implikasi pengurusan dan theoretikal serta kajian lanjutan turut dibincangkan. Implikasi teori, praktikal dan metodologi kajian ini diketengahkan. Akhirnya, batasan dan kajian lanjutan turut dibincangkan dalam kajian.

Kata kunci: penglibatan pekerja, model lima-faktor personaliti, kepimpinan transformasi, keselamatan psikologi, teori penentuan sendiri

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to all the people that have contributed to the completion of this dissertation.

First, I would like to express my deepest thank to two supervisors, Assoc. Prof. Dr. Norazuwa binti Mat and Prof. Madya Dr. Norsiah Bt Mat who always motivates, give invaluable knowledge, suggests me during the dissertation process. Their guidance helped me in all the time of research and writing of this thesis. They are always cheers up, supports me, encourage me, and always made me believe that I could succeed. I could not have imagined having a better advisor and mentor for my DBA study.

Second, I would like also thank all employees in private companies who participated in the study. This study could not have happened without the generous giving of their time and the careful completion of the questionnaires. For this I will always be grateful.

Third, I would like thank all my friends who contributed and listened , supported me through the challenging times. Thank you, Teacher Nok that teaches and helps me in English language, Prof. Madya Dr. Faridahwati Bt Mohd Shamsudin who are proofreader

Last but not the least; I would like to thank my family for their endless support. My husband, Wittayagon and my children Pun and Pun have been a great encouragement and motivation. My parents, Waliporn and Prapas have been supporting me spiritually throughout writing this thesis and my life in general.

TABLE OF CONTENTS

	Page
TITLE PAGE.....	i
CERTIFICATION OF THESIS.....	ii
PERMISSION TO USE.....	iv
ABSTRACT.....	v
ABSTRAK.....	vi
ACKNOWLEDGEMENTS.....	vii
TABLE OF CONTENTS.....	viii
LIST OF TABLE.....	xiv
LIST OF FIGURES.....	xvi
LIST OF ABBREVIATIONS.....	xvii
CHAPTER 1- INTRODUCTION.....	1
1.0 Introduction	1
1.1 Background of The Study.....	1
1.2 Problem Statement.....	6
1.3 Research Questions	10
1.4 Research Objectives.....	11
1.5 Scope of Research.....	11
1.6 Significance of Research.....	11
1.7 Definition of Key Terms.....	13
1.8 Organization of Thesis.....	14
CHAPTER 2- LITERATURE REVIEW.....	15
2.0 Introduction	15

2.1	Employee Engagement	15
2.1.1	Definitions of Employee Engagement.....	15
2.1.2	Overlapping Areas of Employee Engagement Construct.....	19
2.2	Advantages of Employee Engagement.....	22
2.3	Underlying Theory.....	24
2.4	Variable Relating to the Study	26
2.4.1	Personality Traits and Employee Engagement.....	26
2.4.2	Transformational Leadership and Employee Engagement	38
2.4.3	Transformational Leadership and Psychological Safety	46
2.4.4	Psychological Safety and Employee Engagement	48
2.4.5	Mediating Effect of Psychological Safety	50
2.5	Literature Gaps.....	51
2.6	Hypotheses Testing.....	54
2.6.1	Personality and Employee Engagement	54
2.6.2	Transformational Leadership and Employee Engagement	55
2.6.3	Transformational Leadership and Psychological Safety.....	55
2.6.4	Psychological Safety and Employee Engagement	55
2.6.5	Mediating effect of Psychological Safety on the Relationship between Transformational Leadership and Employee engagement	56
2.7	Theoretical Framework	56
2.8	Summary	60

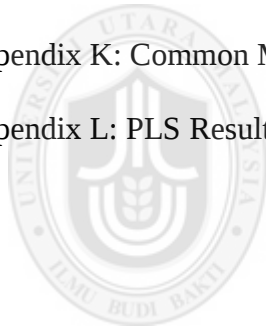
CHAPTER 3- RESEARCH METHODOLOGY.....	59
3.0 Introduction	59
3.1 Research Design	59
3.2 Unit of Analysis and Population	60
3.3 Sampling and Sampling Design	61
3.4 Questionnaire Design and Instrumentation	63
3.4.1 Employee Engagement	66
3.4.2 Employee Personality	67
3.4.3 Transformational Leadership	69
3.4.4 Psychological Safety	72
3.5 Pilot Study	73
3.5.1 Reliability	73
3.6 Data Collection Procedure	74
3.7 Data Analysis	75
3.7.1 Structural Equation Modeling (SEM)	76
3.7.2 The Partial Least Squares (PLS)	78
3.8 Proposed Structural Model of the Study	85
3.9 Summary	87
CHAPTER 4- DATA ANALYSES AND RESULTS	88
4.0 Introduction	88
4.1 Profile of Participants.....	88
4.2 Demographic Characteristics	89

4.3	Data Screening	90
4.3.1	Data Transformation	90
4.3.2	Accuracy of Data Input	91
4.3.3	Missing Data	91
4.3.4	Outlier	92
4.3.5	Normality Test	92
4.3.6	Test for Non-response Bias	93
4.3.7	Common Method Variance.....	94
4.4	Descriptive Statistics	95
4.5	Model Evaluation: The Partial Least Squares Analyses	96
4.6	Measurement Model Results	98
4.6.1	Internal Consistency Reliability	99
4.6.2	Convergent Validity	99
4.6.3	Discriminant Validity	103
4.7	Structural Model Results	108
4.7.1	Collinearity Assessment	108
4.7.2	Coefficient of Determination	109
4.7.3	Blindfolding and Predictive Relevance Q2.....	110
4.7.4	Goodness of Fit Measurement (GoF)	111
4.7.5	Structural Model Path Coefficients and Hypotheses Testing....	113
4.7.6	Mediator Analysis	115
4.8	Summary	122

CHAPTER 5- DISCUSSION AND CONCLUSION.....	124
5.0 Introduction	124
5.1 Review of The Research Results.....	124
5.2 Discussion of The Results	125
5.2.1 The Influence of Employee Personality on Employee Engagement	125
5.2.2 The Influence of Transformational Leadership on Employee Engagement	131
5.2.3 The Influence of Transformational leadership on Psychological Safety	132
5.2.4 The Influence of Psychological safety on Employee engagement	133
5.2.5 Mediating Effect of Psychological Safety on the Relationship between Transformational Leadership and Employee engagement	133
5.3 Implications	134
5.3.1 Theoretical Implications	134
5.3.2 Practical Implications	137
5.3.3 Methodological Implications	138
5.4 Limitations and Future Research	139
5.5 Summary	140
REFERENCES.....	142

APPENDICES

Appendix A: Invitation to be Respondents.....	175
Appendix B: Invitation Letter to Expert.....	176
Appendix C: English Version Questionnaire.....	179
Appendix D: Thai Version Questionnaire.....	184
Appendix E: Certification of Questionnaire Translators.....	190
Appendix F: Descriptive Statistics for Early and Late Respondents	192
Appendix G: Demographic statistics for T-test and Anova	193
Appendix H: Pilot Test.....	195
Appendix I: Outlier Results.....	202
Appendix J: Skewness and Kurtosis	280
Appendix K: Common Method Variance.....	282
Appendix L: PLS Result.....	285



UUM
Universiti Utara Malaysia

LIST OF TABLE

	Page
Table 3.1 Number of Organization and Employees in Songkhla Province by the Size of Organization in 2012	61
Table 3.2 Determining Sample Size of a Given Population	62
Table 3.3 Proportion of Sample Size of Participants in Private Companies in Southern Thailand.....	63
Table 3.4 Items to Measure Employee Engagement Construct.....	66
Table 3.5 Items to Measure Employee Personality Constructs	68
Table 3.6 Items to Measure Transformational Leadership Construct.....	70
Table 3.7 Items to Measure Psychological Safety Construct.....	72
Table 3.8 Cronbach's Alpha Values of Psychological Safety before Removal	74
Table 3.9 Cronbach's Alpha Values of the Scales in the Pilot Test	74
Table 3.10 Number of Questionnaires Distributed and Participant Response.....	75
Table 3.11 Comparison of PLS and Covariance Approaches of SEM.....	78
Table 3.12 Summary of the Jarvis, Mackenzie and Podsakoff (2003) Decision Rules.....	82
Table 4.1 Demographic Characteristics of Participants.....	89
Table 4.2 Descriptive Statistics for Early and Late Participants.....	93
Table 4.3 Independent Samples T-test for Equality of Means.....	94
Table 4.4 Means and Standard Deviations of Variable under Study	95
Table 4.5 Summary Results of the Reflective Measurement Model	101
Table 4.6 Results for Outer Model Loadings and Cross Loading	104

Table 4.7 Results of the Discriminant Validity of Constructs	106
Table 4.8 Multicollinearity Test Based on Assessment of Tolerance and VIF Values	109
Table 4.9 Results of R^2	110
Table 4.10 Results for Direct Relationship.....	113
Table 4.11 Results of Direct and Indirect Effects.....	117
Table 4.12 Summary of Hypotheses Testing.....	123



LIST OF FIGURES

	Page
Figure 2.1 Theoretical Framework of This Study	57
Figure 3.1 Formative and Reflective Factors of Measurement Models	81
Figure 3.2 Research Framework	86
Figure 4.1 Propose Model	97
Figure 4.2 Path Analysis Results After Revised Model	107
Figure 4.3 The Q ² value of The Model	112
Figure 4.4 T-values for The Path Analysis Results	114
Figure 4.5 T-Value of Path Analysis (without psychological safety)	118
Figure 4.6 PLS Algorithm for transformational leadership on employee engagement without psychological safety	119
Figure 4.7 T-values for the Path Analysis (including psychological safety)....	120
Figure 4.8 Path Analysis Results (including psychological safety)	121
Figure4.9 Sobel Test Calculator for Significance of Mediation	122

LIST OF ABBREVIATIONS

Agree	Agreeableness
AVE	Average Variance Extraxted
Cons	Conscientiousness
CR	Composite Reliability (CR)
STD	Self-Determination Theory
EE	Employee Engagement
Ext	Extraversion
FFM	Five Factor Model
GOF	Goodness of Fit
MLQ	The Multifactor Leadership Questionnaire
Neuro	Neuroticism
NESDB	The National Economic and Social Development board
Open	Openness
PLS	Partial Least Squares
Psy	Psychological Safety
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Science
TL	Transformational Leadership
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter describes the background of the study and discusses the problem statement, research questions, research objectives, and scope of this research. The significance of the study and the definitions of the key terms as well as the organization of research are also provided at the end of the chapter.

1.1 Background of the Study

In order to oversee the development of the national economy, the government of Thailand has set up an office at the prime minister department, which is called the national economic and social development board (NESDB). The NESDB is tasked with the Thailand National Development Plans. They have been responsible for the first national plan until the most current one, i.e. the 11th national plans. From the 1st plan to the 7th Plan, the national development was growth-oriented. However, due to the economic mismanagement, which led to the 1997 Asian Crisis, the 8th Plan until the current 11th Plan have concentrated on people-centered development. During the 11th Plan (2012-2016), Thailand encounters more complicated domestic and external changes that present both opportunities for and threats to the national development. In order to cope with these changes, it is necessary for Thailand to prepare its people (National Economic and Social Development Board, 2011). Within the people-centered development, human resource is the most important resource in the development of a country (Rodgers & Peter, 2001). It is the most important resource if organizations

wish to be successful and effective. Thus, many organizations have made substantial investment in human capital.

During the 1997 Asian financial crisis, the Thai economy faced slower growth over the medium term. In the manufactured exports, which were the driver of Thailand's economic performance, had been growing slower, reflecting the struggling recovery of the advanced economies (Asian Development Bank, 2013a). Therefore, the government of Thailand shifted its focus by concentrating on people-centered development. However, in the transition from the factor-based growth that has traditionally relied on natural resources and low-cost labour to a knowledge-based economy that broadly focuses on value creation, a number of challenges ensue. For instance, the Private Sector Assessment 2013 reported that Thailand is also facing a growing mismatch between the demand and supply of labor against the backdrop of an aging population that constrains the supply of labor. These challenges are reflected in the dramatic and swift decline in the assessment of Thailand's labor market efficiency in the World Economic Forum's Global Competitiveness Report 2013-2014, which ranks it 62nd as compared with 24th in 2010. Further, Thailand will require higher levels of skills and related investments by enterprises and government. Thai firms are also finding it difficult to fill high-skilled jobs. Lack of skilled manpower is one of two key reasons (along with finance) cited by Thai firms for lack of innovation and upgrading.

In the world that is constantly changing and highly competitive as a result of political, economic, and socio-demographic changes, organizations have to take significant steps to remain competitive and deliver results. However, the changes that take place can cause employees to feel confused or unsure about how they will fit in. In these uncertain

times, it can be difficult for employees to remain focused and stay productive. Therefore, maintaining employee engagement in the midst of organizational change is key in any change initiative (AonHewitt, 2014). Employee engagement is also one way to measure whether the organization's investment in human capital makes a good return (Ferrer, 2005). Engagement is the key to the success of an organization because employee performance does not only depend on the employees' intellectual skills, but also on their attitude toward their work and organization (Ulrich, 2007). Engagement refers to the energy and the dedication that employees have toward their employer and their job.

Many companies have heavily invested in employee engagement as it increases employee retention, raises employee morale, minimizes absenteeism, and decreases turnover rate, which are vital for the successes of an organization (AonHewitt, 2013; Blessing White Inc., 2008; Gagnon & Michael, 2004; Little & Little, 2006; McBain, 2007; Saks, 2006). Towers Perrin (2003) examined the relationship between employee engagement and employee disengagement by examining 35,000 employees in US companies and found that the highly engaged employees did not have plan to leave their current job. Blessing White (2013) also reported that 81% of engaged employees have a plan on remaining with their current organization for next 12 months. It may be perplexing that 2% of Engaged employees intend on leaving. The results showed that employee engagement could influence to employee retention, which could decrease the direct and indirect costs of the organization (McBain, 2007). Moreover, many researchers claimed that employee engagement directly impacts an organization's performance (CIDP, 2014), and employee productivity and efficiency (AonHewitt,

2013; Harter, Schmidt & Hayes, 2002; Towers Perrin, 2003). It was found to develop a sense of being associated with the organization, accomplishing sustained success (Baumruk, 2004; Gagnon & Michael, 2003; Harter et al., 2002; Little & Little, 2006; McBain, 2007; Saks, 2006).

However, there seems to be a rise in disengagement among employees lately (AonHewitt, 2013; Bates, 2004; Gallup, 2013; Shuck, 2009). For example, Gallup (2013) reported that 80-87% of employees in the world were not highly engaged in their organization. Blessing White Inc. (2008) surveyed 7,508 individuals from Southeast Asia, India, Australia/New Zealand, Europe, China, and North America. The results showed that only 10% of the individuals were fully engaged, whereas a full third were disengaged. It also found that more employees in India were engaged in their companies than any other regions in Asia-Pacific. Employees in China appeared to be the least engaged. In 2010, the Gallup Organization's study of 200 participants found that less than 30% of the employees were fully engaged at work.

The Gallup Organization surveyed employee engagement in Thailand and found out that only 14% of Thai employees were engaged, 84% were not engaged, and 2% were disengaged (Gallup, 2013). The report also showed that Thailand has the highest proportion of not engaged employees in the world (Gallup, 2013). Gallup identified three levels of engagement: (1) engaged – employees who work with passion and feel a profound connection to their organization, and who drive innovation and move the organization forward; (2) not engaged – employees who tend to concentrate on their job rather than the organizational goals, and they tend to feel their contribution are being overlooked; and (3) disengaged – employees who are unhappy and want to move out of

the company. Gallup estimated that disengaged employees cost approximately 98.8 billion Thai Baht per annum to the Thai economy (Gallup, 2013). Therefore, many organizations, especially those in the private sector, are concerned about how to enhance employee engagement.

In the 11th Plan of NESDB, the Thai private sector is said to play a dominant role in the economy (Asian Development Bank, 2013b). It continues to be the key engine of growth and is critical for the diversification and upgrading of the economy (Asian Development Bank, 2013). One of the regions in Thailand where the private sector is poised to play a key player in the economic growth is Southern Thailand. Southern Thailand has 14 provinces. Five border provinces are important strategic areas for the economic and social development in Thailand (Makishima & Somchai, 2003). As a result, the Thai government has been encouraging investments in the Southern areas because there are approximately 8.4 million people who live in this region. Furthermore, the population is mostly composed of people aged between 15 and 59, who are highly productive. The workforce in this region makes up about 70% of the total regional population, which is a positive factor for future productive activity and development. Moreover, the private sector in Southern Thailand has played and will carry on playing an important role for promoting the economic cooperation in the IMT-GT and ASEAN Economic Community. IMT-GT aims at achieving private sector-led economic growth and regional development in cooperation with each government (Makishima & Somchai, 2003)

The Bank of Thailand reports that the overall economy of the Southern region in February 2015 improved continually from the previous months, contributed primarily

by the increased agricultural production, particularly oil palm, and the expanded tourism sector which witnessed a rising number of tourists from Malaysia and China (Bank of Thailand, 2015). But despite the economic indicators, Southern Thailand also saw the highest percentage of employee turnover, as high as 34.79% (Department of Employment Thailan, 2012). Previous research argued that employee turnover is an indicator of disengagement at the workplace (Baumruk, 2004; Gagnon & Michael, 2003), which leads to reduced revenue, productivity, profitability, and customer loyalty (Baumruk, 2004; Gagnon & Michael, 2003). Although understanding employee engagement has great practical importance, academic research works on this issue are relatively limited (Lewis, Donaldson & Tharani, 2011; Macey & Schneider, 2008; Sally, Natalie, & Clair, 2014), especially employee engagement in Southern Thailand. To fill this gap, the researcher was interested in studying the factors purported to influence employee engagement in Southern Thailand.

Until recently, research aimed at identifying the specific management behaviors key to increasing employee engagement has been limited (Lewis et al., 2011), particularly in Southern Thailand that has a different culture from the West. Southern Thailand culture has a strong senior system and is a high power distance society in which inequalities are an accepted orientation (Hofstede, 1980).

1.2 Problem Statement

Employee engagement has been defined both in psychological and management terms. For Kahn (1990), employee engagement is “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances”. However, previous

studies suggested that individual differences, such as personality, influence employee engagement (Kahn, 1990; Wildermuth, 2008). Earlier research has investigated the effect of personality on negative outcomes, such as stress, turnover, and burnout. Very limited research has been conducted on the effect of personality on positive behavior, especially employee engagement (Schaufeli & Bakker, 2004). Wildermuth (2008) stated that the Five Factor Model is a probable tool to determine engagement (McCrae & Costa, 1997). The Five Factor Model is a highly stable personality model and it is able to predict individual behavior (Mat, 2008; Moss & Ngu, 2006). Even though the Five Factor Model has been used to predict burnout (Bakkeret, Van, Lewig & Dallard, 2006; Ghorpade, Lackritz, & Singh, 2007; Langelaan, Bakker Van Doornen, & Schaufeli, 2004; Teven, 2007), which is the antithesis of employee engagement, few studies have concentrated on the influence of all five dimensions of this model and employee engagement (Langelaan et al., 2004; Rich, 2006; Wildermuth, 2008). Thus, this study contributes to positive organizational behavior by investigating the effect of the Five Factor Model on employee engagement.

In management term, employee engagement is described as a two-way, positive relationship between employees and their organization (Devi, 2009; DDI, 2005; Luthans & Peterson, 2002; McBain, 2007). Although many factors have been found to be related to employee engagement, DDI (2005) and Watson Wyatt (2007) found that money was not the key contributor to high engagement. Yahya, Isa, and Johari (2012) found that financial recognition was not significantly related to employee engagement, but the strongest predictor was non-financial recognition, such as acceptance and recognition by supervisor. Bevan (2003), and Brown and Armstrong (1999) reported that

most employees value non-financial recognition very highly as they feel respected by their employers or their leaders. In a similar vein, AonHewitt (2004) revealed that a leader was the factor that influenced employee engagement levels, especially in the fast-growing economies such as China, Indonesia, India, and Thailand.

Previous studies seemed to indicate that a leader behavior is key to employee engagement (Blessing White, 2006; Clifton & James, 2008; The Towers Perrin Talent Report, 2003). DDI (2005) and McBain (2007) also stated that a leader behavior probably has the greatest influence on engagement because a leader can make the workplace conducive for employees to work in. Other scholars also argued that leadership has not only been well recognized as a critical component in the effective management of employees, but has also been suggested as one of the single biggest element contributing to employee perceptions in the workplace and employee engagement (CIPD, 2014; Macey & Schneider, 2008; Wang & Walumbwa, 2007). However, some researchers found that different leadership styles were responsible for employee engagement (Macey & Schneider, 2008; Zhang, 2010). For example, Zhang revealed that transformational leadership, which concentrates on team-building, motivation and cooperation with employees at different levels in the organization, was associated significantly with employee engagement. Transformational leaders set target and incentives to push their subordinates to a higher performance level (Yammarino, Spangler & Bass, 1993) and a higher engagement level (Zhang, 2010) while providing opportunities for personal and professional growth for each employee (Yammarino et al., 1993). The growing globalization demands that leaders instill inspiration in employees so that they become engaged in the organization. However,

limited studies focused on the influence of transformational leadership on employee engagement. To obtain understanding of how leadership improves employee engagement, this study explored the influence of transformational leadership on employee engagement. The reason is that managers/leaders who apply transformational leadership motivate employees to perform above and beyond expectations, become better at solving problems, increase their performance, and become engaged in their job. Bass (1997) proposed that transformational leadership is more effective than other styles.

Despite the growing attention on employee engagement, studies on leadership and employee engagement are limited, and inconclusive findings on the effect of leadership have been made reported (Macleod & Clarke, 2009; Zhang, 2010). For example, Karatepe and Olugbade (2009) and Saks (2006) found that supervisor support had no significant effect on engagement. Pati and Kumar (2010) showed that supervisor support was related to, but not a moderator in the relationship between self-efficacy and employee engagement. Christian, Garza & Slaughter. (2011) found a weak relationship between leadership and employee engagement. Because of the weak relationship, it is possible that a mediator might influence the relationship between leadership and engagement (Macey & Schneider, 2008). One work condition thought to influence engagement is psychological safety (Kahn, 1990). Psychological safety refers to the perceived negative consequences of taking interpersonal risks or employing one's self in the work environment (Edmondson, 1999; Kahn, 1990). If individuals feel psychologically safe, they may feel personally engaged in their work without fear of negative consequence to self-image, status, or career (Kark & Carmeli, 2009).

Despite the extant literature on the mediating effect of psychological condition, limited studies on the role of psychological safety as a mediator have been carried out (Dunne, 2013; May, Gilson, & Harter, 2004). Once an employee has all of his/her basic needs met, safety is a major need that must be addressed. A manager can make employees feel safe (Edmonson, 2003). Edmonson (2004) and May et al. (2004) concluded that leader is essential in creating a work environment in which subordinates feel that they are psychologically safe. Psychological safety was found positively related to employee engagement (Kahn, 1990). Thus, future research should investigate whether the extent to which individuals feel “safe to engage” at work (Kahn, 1990) explains the relationship between leadership and engagement.

In the interest of filling the practical and theoretical gaps and furthering the understanding of the factors that influence employee engagement in the private sector in Southern Thailand, the present study sought to investigate the influence of transformational leadership behavior and the Five Factor Model of personality on employee engagement. Besides, it was postulated that psychological safety mediates the relationship between transformational leadership and employee engagement.

1.3 Research Questions

This research examined the influence of employee personality, transformational leadership, psychological safety and employee engagement. The following questions were developed to accomplish the purpose of this study:

1. Does employee personality influence employee engagement?
2. Does transformational leadership influence employee engagement?
3. Does transformational leadership influence psychological safety?

4. Does psychological safety influence employee engagement?
5. Does psychological safety mediate the relationship between transformational leadership and employee engagement?

1.4 Research Objectives

The research objectives of this study are as follows:

1. To investigate the influence of employee personality on employee engagement.
2. To examine the influence of transformational leadership on employee engagement.
3. To investigate the influence of transformational leadership on psychological safety.
4. To analyze the influence of psychological safety on employee engagement.
5. To examine the mediating role of psychological safety in the relationship between transformational leadership and employee engagement.

1.5 Scope of Research

In order to meet the research objectives, data were collected from full-time employees who work in private sector organizations in Southern Thailand. A survey was used for such purpose. Because data were collected from individual full-time employees, the level of analysis was individual.

1.6 Significance of Research

This research is important for theory and practice as discussed below.

Theoretically speaking, the present research contributes to the existing literature employee engagement by focusing on the topic in Thailand since past studies tended to

be conducted in Western countries, which have different cultural background. Due to the cultural differences, it is important to investigate employee engagement in the local context so that the findings are relevant. Secondly, in spite of the growing interest in employee engagement, the influence of individual differences and leadership styles on employee engagement remains under studied. This study is particularly important for researchers as it provides a better understanding of the role of the Five Factor Model of personality and transformational leadership in predicting employee engagement at the individual level of analysis. This study also provides a new dimension by the inclusion of mediator of psychological safety in the relationship between transformational leadership and employee engagement. Hence, the finding of this study could enrich the existing knowledge in area of employee engagement from the perspectives of organizational psychology and human resource management.

The study is significant for managers in that it offers practical recommendations on how to improve employee engagement. Specifically, the findings offer leaders, policy makers and practitioners in the private sector in three major ways. Firstly, the research provides information on how employee personality influences employee engagement in the workplace. If the findings are valid, they could inform the managers on the need to consider personality in employee selection process, training and development, and other human resource management initiatives. Secondly, the study provided insight into the role of leadership in employee engagement. If leaders are to be effective in enhancing employee engagement, they may have to undergo leadership training programs so that their transformational leadership skills can be developed. Thirdly, the study also informs managers and practitioners in the private sector organizations

in Thailand on the need to make employees feel psychologically safe for the enhancement of employee engagement. Here, the role of leadership is crucial as leaders have the ability to ensure that psychological safety is ascertained in the workplace.

1.7 Definition of Key Terms

Employee engagement refers to the expression of task behavior and personal energy that is reflected in role performance. In engagement, employees employ and express themselves physically, cognitively, and emotionally during role performances (Kahn, 1990) as measured by Rich Engagement Scale (2006).

Personality is a set of relatively stable and pervasive dispositions to act, think, and feel in a consistent way (McCrae, 2006). In this study, personality was examined using the Five Factor personality dimensions. They are extraversion, agreeableness, conscientiousness, openness, and neuroticism (Judge & Bono, 2000; McCrae & John, 1992).

Transformational leadership refers to leaders who emphasize higher motive development, and arouse followers' motivation and positive emotions by means of creating and representing an inspiring vision of the future (Bass, 1997).

Psychological safety is described as the employee's sense of being able to show and employ one's self without fear of negative consequences to self-image, status, or career (Kahn, 1990).

1.8 Organization of Thesis

This research comprises five chapters: Chapter 1 offers an overview of the study background, problem statement, objectives, definition of key terms, and significance of the study. Chapter 2 reviews the relevant literature on employee engagement. This chapter also reveals the variables under study of employee personality (Five Factor Model), transformational leadership and psychological safety. Next, Chapter 3 discusses the research design, population and sampling, variable measurements, questionnaire design, and methods of data analysis. Later, Chapter 4 shows the complete results from the collected data. This chapter presents results on non-response bias, demographic profile of the participants, and, more importantly, the model evaluation of the partial least squares analyses (PLS). The final part of this chapter is about the hypothesis testing. Finally, Chapter 5 discusses the results in greater detail by relating them to theory and past research. The chapter also highlights theoretical and practical implications, recommendations for future studies, and the study limitations. Some concluding remarks end the thesis.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter reviews previous studies and pertinent literature in relation to employee engagement. Relevant research materials on the definition and the concept of employee engagement are explained. The underlying theory of self-determination (SDT), the three constructs of employee personality, transformational leadership, and psychological safety are also reviewed in relation to employee engagement. Finally, this chapter presents the research framework under study based on the literature.

2.1 Employee Engagement

The following sections review related literature on employee engagement. An overview of the definition, the overlapping areas of employee engagement with other constructs, and the advantages of having engaged employee to the organization are offered.

2.1.1 Definitions of Employee Engagement

Employee engagement has been one of the key foci in organizations as it brings purported benefits. However, employee engagement is not easily defined. There are many definitions of employee engagement in the literature. However, the key definitions can be grouped into three categories: (a) the psychological definition offered by Kahn; (b) employee engagement as the antithesis of burnout; and (c) management definition of the term.

In the psychological literature, Kahn (1990) was the pioneer in employee engagement works when he developed the theory of personal engagement and personal disengagement at work. He used empirical data to provide the grounded theoretical framework by illustrating how the psychological experiences of work and work contexts shape the way people are presenting and absenting themselves during task performances (Kahn, 1990). He defined employee engagement as the harnessing of organization member's selves to their work roles, When a person is engaged he or she will employ and express themselves physically, cognitively, and emotionally during task performance. In addition, people who are engaged in organization seem to keep themselves within a role they are assigned (Kahn, 1990).

The definition offered by Kahn (1990) has influenced many scholars to define engaged employee in the psychological term. For example, Baumruk (2004) described employee engagement as the state where individuals emotionally and intellectually perform for the sake of the organization. Employee engagement can be measured by three basic behaviors: say, stay, strive. These behaviors refer to the energy and the passion that the employee has for the job and employer. According to Baumruk (2004), 'say' means positively speaking for their organization. 'Stay' is when the employee works in the same workplace even though he/she has been offered a new job by other organizations. 'Strive' refers to an additional attempt to offer outstanding service for the sake of the customers and co-workers. Similarly, Lockwood (2008) defined engagement in terms of emotional and intellectual dimensions. He stated that employee engagement is the desire and commitment of employees who make continuous effort in the job. In other words, it is the sense of the mission, enthusiasm and dignity that

persuade employees to give their discretionary effort and to be fully engaged. In addition, the resources, support and tools provided by the organization are also important to bring about employee engagement.

The CIPD described employee engagement in three ways: intellectual, affective, and social engagement. Intellectual engagement is defined as thinking and concerning not only about the job but also how to do it better (Alfes, Truss, Soane, Rees & Gatenby, 2010). Affective engagement is a positive feeling about a good job (feeling). Social engagement involves vigorously willing to take opportunities to consult work-related developments with others at work (acting). These definitions focus more on the job role and tasks. Krug (2008) argued that engagement is a motivational construct that explains the physical, emotional, process and cognitive processes involved when employees accomplish their task performances.

In the second category, employee engagement is referred to as the antithesis of burnout. Maslach and Leiter (1997) described engagement as an antithesis of burnout which could occur when all three components of engagement are at low levels. They stated that burnout is an erosion of engagement. When there is a low level of engagement force, energy will turn into exhaustion, involvement into cynicism, and efficacy into ineffectiveness. Thus, Maslach and Leiter (1997) assessed burnout and engagement by using the same instruments. They used the Maslach Burnout Inventory (MBI) that has three dimensions: (a) energy, which is assessed by the exhaustion subscale; (b) involvement which is tested by the cynicism subscale; and (c) ineffectiveness which is assessed by the professional efficacy scale. Accordingly, burnout exists when cynicism and exhaustion are high, and engagement is reflected by a high score in efficacy.

Schaufeli and Bakker (2004) argued that engagement is a positive fulfilling and work-related state of mind identified by dedication, vigor, and absorption. Vigor refers to high energy levels and mental resilience. Dedication involves a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is related to being fully concentrated and happily engrossed in one's work whereby time passes quickly.

Employee engagement has also been defined from the management point of view (Devi, 2009; DDI, 2005; Harter, Schmidt & Hayes 2002; Luthans & Peterson 2002; May, Gilson & Harder 2004; McBain, 2007). Scholars have defined employee engagement as a positive and two-way relationship between employees and their organization (Devi, 2009; DDI, 2005; Luthans & Peterson, 2002; McBain, 2007). McBain (2007) defined engagement as a state when employees' energies and interests are aligned with the goals of the organization. This alignment has emotional and rational dimensions. He argued that when employees are engaged, they are likely to be prepared to give discretionary effort over and above the demands of the job. Luthans and Peterson (2002) contended that employee engagement occurs when employees work with a powerful psychological sense to accomplish the goals of their work. Luthans and Peterson's (2002) definition is consistent with that of Robinson, Derryman & Hayday (2004). Emotional engagement refers to the management interest in the employee; there are strong emotional ties and the employee's opinion counts. Cognitive engagement refers to employees knowing what is expected of them, understanding their purpose or mission within the organization and are being given opportunities to excel and grow within the organization.

2.1.2 Overlapping Areas of Employee Engagement Construct

Scholars agree that employee engagement is a distinct and unique construct related to organizations. The literature on employee engagement builds on earlier research and discussion on issues of commitment, organizational citizenship behavior (OCB), and job involvement (Rafferty, Maben, West & Robinson, 2005). As a result, it is inevitable that employee engagement overlaps with these constructs as reviewed below.

One of the constructs with which employee engagement overlaps is organizational commitment (Rrurkkhum, 2010). Muchnik (2003) defined organizational commitment as “the degree to which an employee feels a sense of allegiance to his or her employer”. Meyer, John & Smith (2000) argued that organizational commitment is crucial to individual performance in modern organizations that require greater self-management than in the past when employees were constantly supervised. Employee engagement and commitment are used interchangeably by some scholars, such as Ferrer (2005), who explored the relationship between the two. He concluded that both employee engagement and commitment could be interchangeable because both refer to the feeling of being valued and involved, a sense of loyalty, connection and identification with the organization and the extra effort on behalf of the organization.

On the contrary, Robinson et al. (2004) demonstrated that commitment is a prerequisite of employee engagement. Saks (2006) shared the same argument when they examined the antecedents and the effects of engagement. They demonstrated that employee engagement was a distinct and unique construct that consists of cognitive, emotional and behavior components that are associated with individual role performance. He also stated that there are many different ways to defining employee engagement and

measuring organizational employee behavior, such as by considering the voluntary and informal manners. Employee engagement tends to concentrate on the conventional role performance instead of the extra-role and voluntary behavior (Bakker & Schaufeli, 2008; Saks, 2006) while organizational commitment is more attitudinal in nature that includes the affective, continuance, and normative domains (Song & Kim, 2009). Saks noted that organizational commitment refers only to employees' loyalty, attitudes and attachment to the organization, which in turn bring the benefit of employment. Employee engagement is not only an attitude, but it is also the degree of alertness and absorption an individual has in his/her role performance (Saks, 2006). In addition, commitment focuses on the organization, while the engagement focuses on the tasks (Little & Little, 2006; Maslach, Schaufeli & Leiter 2001).

According to the Scottish Executive Social Research (2007), organizational citizenship behavior (OCB) predates employee engagement, but is highly relevant to it. Organizational citizenship behavior is defined as discretionary extra role behavior and classified into seven important themes by Podsakoff, MacKenzie, Paine, & Bachrach, (2000). They are (a) helping behavior in terms of helping other voluntarily, (b) commitment and loyalty by promoting the organization to the outside world, (c) organizational compliance by following the organization's rules, (d) individual initiative, i.e., going the extra mile over and above what is expected, (e) civic virtue and self-development by voluntarily improving one's own knowledge, (f) skill and abilities in order to help the organization, and (g) sportsmanship (having a positive attitude in the face of adversity and setting aside personal interests for the good of the organization or team (Smith & Markwick, 2009). There is a strong relationship between OCB and

engagement (Robinson et al. 2004). Robinson et al. (2004) pointed out that the definition of employee engagement is related to organizational citizenship behavior and organizational commitment. Employee engagement focuses on the formal role performance actions, which are not voluntary and not extra-role, whereas OCB relates to the voluntary behavior (Saks, 2006) and informal intentions to help co-workers or the organization over what is expected of them (Robinson et al., 2004). Halbesleben, Harvey, and Bolino (2009) found that employee engagement was associated with higher work interference with family and organizational citizenship behaviors (OCBs) mediated the link.

Employee engagement is most closely associated with the existing construct of job involvement (Brown, 1996). Job involvement is defined as the degree to which the job situation is central to the person and his identity (Lawler & Hall, 1970). Kanungo (1982) and Lodahl and Kejner (1965) stated that job involvement is a cognitive or belief state of psychological identification with one's work. That is, job involvement results from a cognitive judgment about the need satisfying abilities of the job. Jobs in this view are tied to one's self-image. Lodahl and Kejner (1965) found that job involvement positively impacted work performance.

In summary, it is quite clear that employee engagement shares some characteristics with organizational commitment, OCB, and job involvement, but there are also differences between them. Rafferty et al. (2005) draw the distinction on the basis that engagement is a two-way mutual process between the employee and the organization. Although elements of commitment and OCB are important to engagement, engagement is viewed in the literature as to mean more than either implies. 'Going the extra mile,' providing

discretionary effort, being aligned to the organization's objectives, being capable of delivering and wanting to deliver results for the good of the organization' are the defining characteristics of an engaged employee (Scottish Executive Social Research, 2007).

2.2 Advantages of Employee Engagement

Employee engagement is important to business results, and it contributes to a company's success (Devi, 2009). Previous studies found that employee engagement had a positive relationship with organizational desirable outcomes, such as financial return, organizational growth, job performance, and employee retention (Alagaraja & Shuck, 2015; Xanthopoulos, Bakker, Demerouti, & Shaufeli, 2009a; Badal & Harter, 2014; Bhattacharya, 2015; Kim, Kolb, & Kim, 2012; Sahoo & Sahu, 2009).

Baumruk (2004) referred to engagement as the energy and the feeling that employees have for their job and their employer. Such feeling and energy are good for a business success and help retain employees' skill, decrease absenteeism, and raise employee morale (Devi, 2009; Gagnon & Michael, 2004; Little & Little, 2006; McBain, 2007; Saks, 2006). Moreover, Baumruk (2004) tested his proposition by using Hewitt Associates' database of employee engagement data on more than 4 million employees from almost 1,500 companies. The results showed a strong positive relationship between employee engagement and organizational performance. Specifically, an organization with higher levels of engagement has higher sale growth and higher total shareholder return (Wiley, 2008). Employee engagement was also found to be directly related to the financial performance of organizations (Badal & Harter, 2014; Xanthopoulos, Bakker, Demerouti, & Shaufeli, 2009b). According to the research summary ISR (2003), firms

described having low overall engagement lost 2.01 percent of their operating margin and lost 1.38 percent in net profit margin over a three-year period. In contrast, firms which were highly engaged gained 3.74 percent of operating margin and 2.06 percent of net profit margin

In addition, many researchers found that employee engagement influenced productivity, customer satisfaction, profitability, service climate, and employee retention (Harter, Schmidt, & Hayes, 2002; McBain, 2007; Salonova, Agut, & Peiro, 2005). A meta-analysis of 7,939 business units of industry was conducted by Harter et al. (2002). They demonstrated that employee satisfaction and engagement were related to meaningful business outcomes. Also, the consequences of employee engagement in a service climate were studied by Salonova, Agut, and Peiro (2005). They investigated the mediating effect of service climate on the link between employee performance and customer loyalty. Salonova and colleagues used structural equation modeling (SEM) to analyze the full mediated model. They found that high engagement led to a better service climate, resulting in enhanced customer loyalty. Slatten and Mehmetoglu (2011) examined the antecedents and consequences of employee engagement. They revealed that engagement was positively linked to employees' innovative behavior.

Past studies found that employee engagement decreased a turnover problem (Blessing White, 2008; DDI, 2005; Hart, Schmidt, & Hayes, 2002, Lockwood, 2007; Towers Perrins, 2003). Towers Perrins (2003) examined the relationship between employee engagement and employee disengagement by collecting data from 35,000 employees in US companies and found that 66% of the participants were highly engaged employees who did not have any plan to leave their current job, followed by 36% who were

moderately engaged, and 12% who were disengaged. Berry and Morris (2008) investigated the relationship between employee recognition programs (ERP), employee engagement, and turnover intention mediated by job satisfaction. Their study was conducted on 900 state employees at a medium to the large sized agency in the public sector in South Carolina. They discovered that the perceptions of employee recognition and employee engagement had a significant outcome on job satisfaction and intent to quit the job. The results sustained the theory that recognition and engagement practices are significant predictors of job satisfaction and turnover intention. Nowack (2008) also revealed that employees who had a lower level of engagement had a higher level of intention to leave. In other words, those who had higher engagement were shown to be less likely to leave.

Luthans and Peterson (2002) investigated the mediating role of managers' self-efficacy in the relationship between employee engagement and managerial effectiveness. The results showed that the manager's self-efficacy was a partial mediator of the relationship between his or her employees' engagement and the managerial effectiveness. They also found that both manager's self-efficacy and employee engagement were significantly and positively related to managerial effectiveness.

2.3 Underpinning Theory

Self-determination theory was utilized in this study to illuminate the relationship between personality traits, transformational leadership, employee engagement, and the mediating role of psychological safety. Self-determination theory is a theory of human motivation, personality, and optimal functioning which proposes that individuals decide to be engaged in an activity by their own choice (Deci & Ryan, 2000). According

to self-determination theory, two different types of motivation, i.e., extrinsic and intrinsic motivations are possible (Deci & Ryan, 2000).

Extrinsic motivation is described as doing something because it leads to a separable outcome, and intrinsic motivation refers to doing something because it is inherently interesting or enjoyable (Deci & Ryan, 2000). Extrinsic motivation can be seen as a continuum in which extrinsic motivation becomes more internalized (Gagné & Deci, 2005). By promoting the satisfaction of the psychological needs, extrinsic motivation becomes increasingly autonomous. When people are autonomously motivated, they show more creativity and take in values, attitudes, and regulatory structures. As a result, behavior becomes more internally regulated so that external contingencies are no longer needed to promote motivation (Gagné & Deci, 2005).

In term of intrinsic motivation, self-determination theory posits that individuals have three core psychological needs: competence (the belief that one has the ability to influence important outcomes), relatedness (the experience of having satisfying and supportive social relationships), and autonomy (the experience of acting with a sense of choice, volition, and self-determination) (Deci & Ryan, 2000). These needs promote autonomous motivation, which means that one acts with a sense of volition, engagement, the experience of choice, which emerge from a sense of the self. (Deci & Ryan, 2000; Gagné & Deci, 2005; Stone, Deci, & Ryan, 2009). Moreover, autonomous motivation increases effort (Sheldon & Elliot, 1998), goal acceptance (Gagné, Koestner, & Zuckerman, 2000), perceived competence (Williams & Deci, 1996), organizational commitment (Gagné, Chemolli, Forest, Koestner, 2008), and psychological well-being (Baard, Deci & Ryan, 2004; Black & Deci, 2000). Other researchers also found that

autonomous motivation predicted lower turnover intentions (Richer, Blanchard, & Vallerand, 2002) and physical symptoms (Otis & Pelletier, 2005).

2.4 Variables Relating to the Study

In this study, three important variables were examined. The first variable was employee personality traits. The FFM of personality traits of extraversion, agreeableness, conscientiousness, openness, and neuroticism were considered. The second variable was transformational leadership, and the third variable was psychological safety, which was the mediator between transformational leadership and employee engagement. All these variables were predicted to have relationships with employee engagement.

2.4.1 Personality Traits and Employee Engagement

Most psychologists agreed that the word ‘personality’ came from the Latin word ‘persona,’ which means to wear a mask wearing in a play. Personality has many meanings and has been defined in many ways. For example, Schultz and Schultz (2009) defined personality as an enduring, unique cluster of characteristics that may change in different situations. Similarly, Feist and Feist (2002) stated that personality is a pattern of dispositions or characteristics, relatively permanent traits that measure the consistency of a person behavior. Funder (2007) described personality as the personal’s characteristic form of thought, behavior, and emotion together with the psychological mechanisms. The fundamental goal of personality psychology is to explain every individual from the inside out. In brief, personality traits refer to the stable characteristics that are psychological in nature which predict a person’s behavior.

Many researchers agreed the Five Factor Model (FFM) best captures personality. Digman (1990), Gholipour, Akhavan, Seyed & Yazdani (2011), McCrae and John (1992), and Rammstedt and Kemper (2011) maintained that the FFM best describes the structure of personality traits validated by personality theory and has psychological implications. In addition, the five factors of personality trait structure are universal (McCrae & Costa, 1997) and highly consistent (Gosling, Rentfrow, Swan, 2003). The FFM is the instrument to discover personality psychology (McCrae & Costa, 1997). The FFM has five broad domains that define human personality and individual differences (Digman, 1990; Gholipour et al., 2011; McCrae & John, 1992; Rammstedt & Kemper, 2011).

The FFM is highly stable over time and predicts important real-world criteria (Mat, 2008). Moss and Ngu (2006) stated that the FFM was regularly discussed and challenged, and it remains the most widely and accepted characterization of personality traits. The FFM of personality can be categorized into five factors: (a) extraversion which reflects individual traits such as being sociable, gregarious, assertive, talkative, and active; (b) agreeableness refers to the extent to which an individual is collaborative and sympathetic towards others; (c) conscientiousness is defined by features like responsibility and perseverance; (d) openness to experience reflects the extent to which an individual is creative and intellectually curious; (e) and neuroticism is the tendency to experience negative emotions, such as anger, anxiety, or depression (Judge & Bono, 2000; McCrae & Costa, 2004).

Nowadays, these personality traits are considered personal resources and have received much attention because they were found to have a connection with intrinsic and extrinsic motivation (Ariani, 2015; Komarraju, Karau, & Schmeck, 2009). Previous research showed that these five-factor dimensions were related to both work-related attitudes and behavior. In terms of job-related attitudes, the big five factors model were found to be significant predictors of job satisfaction, organizational commitment, and job involvement (Ahmad, Ather, & Hussain, 2014; Bozionelos, 2004; Choi, Oh, & Colbert, 2015; Daneshfard, 2012; Furnham, Eracleous, & Chamorro-Premuzic, 2009; Hackney & Cynthia, 2012; Hurtz, & Donovan, 2000; Ijaz & Khan, 2015; Kappagoda, 2012; Izzati Suhariadi, 2015; Lättman, 2012; Naik, 2015; Naimi & Ghafeli, 2016; Pandey & Kavitha, 2015; Panaccio & Vandenberghe, 2002; Prayitno & Suwandi, 2016; Syed, Saeed, & Farrukh, 2015; Templer, 2012; Yahaya, Yahaya, Bon, Ismail, & Noor, 2012) . Besides, these five factors of personality traits were found to be related to job behaviors such as organizational citizenship behavior, job performance, employee effectiveness, and careers success (Binti Rusbadrol, Mahmud, & Arif, 2015; Broucek, 2011; Chandel, Muscat, Sharma, & Bansal, 2011; Chiaburu, Oh, Berry, Li, & Gardner, 2011; Cupani & Pautassi, 2013; De Fruyt & Salgado, 2003; Elanain, 2007; Fan, Javed, & Akhtar, 2014; Hogan & Ones, 1997; Howard & Howard, 2001b; Matin, Jandaghi & Ahmadi, 2010; Mosalaei, Nikbakhsh, & Tojari, 2014; Mushraf, Sary, & Obaid, 2015; Patki & Abhyankar, 2016; Phipps, Prieto, & Deis, 2015; Raja & Johns, 2010; Rashid, Sah, Ariffin, Ghani, & Yunus, 2016; Saeedy & Rastgar, 2015; Salgado, Roberts & Hogan, 2001; Viswesvaran, & Ones, 2001; Zeigler-Hill, Besser, Vrabel, & Noser, 2015).

Although personality traits have been found to be an important predictor of job-related attitudes and behaviors, there were few studies on their effect on employee engagement (Kim, Shin, & Swanger, 2009).

Extraversion and Employee Engagement

Extraversion refers to the predisposition to experience positive emotions (Kumar & Bakhshi, 2010). The behavioral tendencies associated with this dimension include fun-loving, affectionate, sociable, talkative, friendly, cheerful (McCrae & Costa, 1983), enthusiastic, optimistic and energetic (McCrae & John, 1992), outgoing, bold, and active (Judge & Bono, 2000). This trait is argued to involve a positive emotionality temperament (Moss & Ngu, 2006). Individuals who are high in extraversion tend to be talkative and active, sociable, aspiring, aggressive, and adventurous (Moss & Ngu, 2006; Wildermuth, 2008). Researchers have demonstrated the influence of extraversion on various outcomes (Wildermuth, 2008), such as psychological well-being (Diener & Lucas, 1999; Searle & Ward, 1990), career success (Judge et al., 1999), teaching effectiveness (Mat, 2008), burnout (Anvari et al., 2011; Gholipour et al., 2011; Langelaan Bakker, Van, & Schaufeli, 2006; Schaufeli et al., 2002; Zellars, Hochwarter, Perrewé, Hoffman, & Ford, 2004) and engagement (Langelaan Bakker, Van, & Schaufeli, 2006; Mostert & Rothmann, 2006; Wildermuth, 2008; Zaidi, Wajid, Zaidi & Zaidi 2013).

Extraversion has been identified as affiliation (strongly desiring social interaction) and social potency (proactivity in influencing other people) (DeYoung, Quilty, & Peterson, 2007). It was found that individuals who had a high score on extraversion had a positive emotion (Judge & Bono, 2000). Relative to extroverted individuals are one of the core

dimensions of work engagement. Highly extroverted individuals probably experience vigor (Brief & Weiss, 2002). This trait has been one of most used, among the five factors, to examine its association with employee engagement (Vanam, 2009). Indeed past research demonstrated a significant link between extraversion and employee engagement (Akhtar et al., 2014; Inceoglu, 2012; Mostert & Rothmann, 2006; Vanam, 2009; Zaidi et al., 2013). Langelaan, Bakker, Van, and Schaufeli (2006) examined the effect of personality and temperament on burnout and work engagement among 572 Dutch managers and blue-collar workers. Employee engagement was measured using the Utrecht Work Engagement Scale (UWES) and FFM using Costa and McCrae's (1997) NEO. They found significant support for the relationship between extraversion and engagement.

Wildermuth (2008) investigated the relationship between personality and engagement among human services professionals and paraprofessionals in the Midwest of the United States. Five personality traits, i.e., need for stability (tolerance to stress, tendency to worry), extraversion (sociability, enthusiasm, energy), originality (imagination, complexity, tolerance to "newness"), accommodation (service orientation, comfort with "not having one's way"), and consolidation (focus, concentration, discipline) were examined. These traits were measured by the WorkPlace Big Five ProFile™ or WPB5 (Howard & Howard, 2001). Employee engagement was measured by Rich's (2006) Job Engagement Survey (JES). He found that the relationship between extraversion and employee engagement was stronger than other four personality traits. His results also revealed that the extraversion had the highest correlation with employee engagement.

In contrast, Kim, Shin, and Swanger (2009) found extraversion to be weakly related to employees' work engagement. Arora and Adhikari (2013) found no relationship between extraversion and employee engagement.

Agreeableness and Employee Engagement

Agreeableness is a trait related to service orientation, harmony-seeking, and the propensity to defer to others (Wildermuth, 2008). This trait represents the tendency to be trusting and trustworthy, gentle, kind and warm. Individuals who have a high score in agreeableness might be dependent and fawning. Agreeableness is strong when someone has a feeling of warmth and caring, easy-going sense, friendliness, and sociability (Achua & Lussier, 2010). Individuals who have a high score in agreeableness are sympathetic to others and are desirous to help others, but in return they expect others to help them (Costa & McCrae, 1992, Zaidi et al., 2013). In other words, this trait is associated with harmony seeking and the propensity to defer to others, known as accommodation (Howard & Howard, 2001). This trait was shown to have a positive relationship with career success (Bozionelos, 2004), psychological adjustment (Costa & McCrae, 1992), psychosocial health (Chen & Piedmont, 1999), and psychological well-being (Searle & Ward, 1990; Ward, Leong, & Low, 2004).

Kim et al. (2009) investigated the relationship between job burnout, job engagement, and the FFM dimensions. Data were collected from employees (managerial/supervisory positions and non-supervisory positions) working for quick-service restaurants. They found a positive and significant relationship between agreeableness and engagement. Zaidi et al. (2013) investigated the relationship between FFM personality traits and work engagement among public sector university teachers in Lahore.

They also found that agreeableness and engagement had a significant and positive relationship with employee engagement. Similar results were also reported elsewhere (Wefald, Reichard, & Serrano, 2011; Kim, Shin, & Umbreit, 2007; Mostert & Rothmann, 2006).

In contrast, an inconsistent result was reported by Wildermuth (2008) in his investigation on the effect of this trait on employee engagement. He found no significant relationship between the two. Similarly, Akhtar, Boustani, Tsivrikos, and Premuzic (2015) found no significant effect of agreeableness on employee engagement among 1,050 workers in education, technology, and health field.

Conscientiousness and Employee Engagement

McCrae and Costa (1987) stated that individuals who have a high score in conscientiousness are habitually well organized, accomplished, capable of self-discipline, and highly focused on goal setting and achievement. Many researchers found that conscientiousness at the workplace shaped work behaviors (Hogan & Ones, 1997). Previous research demonstrated a significant link between conscientiousness at work and attendance at work (Judge, Martocchio, & Thoresen, 1997), job performance (Barrick and Mount, 1991; Hurtz & Donovan, 2000; Robertson Baron, Gibbons, MacIver, & Nyfield, 2000; Salgado, 2003; Salgado & DeFruyt, 2005), retention (Barrick, Mount, 1991), OCB (Halbesleben, Harvey, & Bolino, 2009), teaching effectiveness (Mat, 2008), and career success (Judge et al., 1999). Besides, it was also found to have a negative impact on job burnout (Anvari et al., 2011; Gholipour et al., 2011).

Conscientiousness describes socially prescribed impulse control that facilitates task- and goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, planning, organizing, and prioritizing tasks (John & Srivastava, 1999). This type of personality trait was consistently frequency found to have a positive relationship with employee engagement. Inceoglu and Warr (2012) collected data from several countries, such as Australia, India, the United Kingdom, and the United States across various organizations in education, financial services, manufacturing and public sector. They revealed that the achievement orientation facet of conscientiousness was the strongest predictor of engagement relative to other Big Five factors.

Halbesleben, Harvey, and Bolino (2009) hypothesized that engagement will be associated with higher work interference with family due to the resources engaged employees may expend when they engage in extra-role work behavior such as organizational citizenship behaviors (OCBs). They proposed that conscientiousness, as a personal resource, serves to buffer the relationship between OCB and work interference with family. They found that engagement was associated with higher levels of work interference with family and that this relationship was mediated by the performance of OCBs. The findings also indicated that engaged employees who were highly conscientious experienced lower levels of work interference with family than engaged employees who were less conscientious.

Kim et al. (2009) studied the effect of the FFM personality on employee engagement and burnout of frontline employees of quick-service restaurants. They revealed that individuals who had high conscientiousness seemed to appreciate the motivation to achieve, which led to engagement. Similarly, Mostert and Rothmann (2006) found

conscientiousness to be a significant predictor of engagement in a survey of 1,794 South African police officers. Rich (2006) also found that conscientiousness predicted employee engagement among firefighters positively. Rich stated that individuals who were highly conscientiousness were more likely to be hardworking and dependable.

Openness to Experience and Employee Engagement

Openness to experience is related to scientific and artistic creativity, divergent thinking, and political liberalism. The behavioral tendencies include being cultured, curious, foresighted, original, imaginative, broad-minded, and having a need for variety, aesthetic sensitivity and unconventional values (Judge,, Bono,, Ilies, & Gerhardt). Individuals who score highly in openness to experience are interested in a wider area of topic and theories (Wildermuth, 2008).

Openness to experience is an important personality dimension that can explain creativity or artistic temperament, social attitudes and behavior, an ability to be hypnotized, changes one makes in his/her career, and one's ethical reasoning (McCrae & Costa, 1997). Openness to experience was found to influence job burnout (Zellars, Perrew, & Hochwarter, 2000). Later, Bakker et al. (2006) revealed a negative relationship between openness and burnout of cynicism dimension. Gholipour et al. (2011) also demonstrated the negative impact of personality traits of extraversion, neuroticism, agreeableness and openness on job burnout among nursing staff in a private hospital in Tehran. In a different study, Smith (2012) examined the Big Five personality traits as predictors of cultural intelligence of ethnic minority college students in the USA. He observed that openness to experience was the strongest predictor of cultural intelligence. The result is

consistent with that by other researchers (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007; Barrick & Mount, 1991; Hurtz & Donovan, 2000; Moody, 2007). Despite the existing studies on the relationship between openness and job engagement (Vanam, 2009), the number of research works is still less than the number of studies that have looked at other personality traits and employee engagement. Furthermore, openness to experience is also perceived as a weak predictor of work-related outcomes (Griffin & Hesketh, 2004). Also, Scheepers, Arah, Heineman, and Lombarts (2016) found no relationship between openness to experience clinician-supervisors work engagement. A similar result was reported by Sulea, Beek, Sarbescu, Virga, and Schaufeli (2015), who did not find any relationship between openness to experience and student engagement. Wildermuth (2008) also explored the relationships between openness to experience and engagement among human services professionals and paraprofessionals, found no significant correlation between the two.

Neuroticism and Employee Engagement

Neuroticism or need for stability is defined in terms of worry, insecurity, self-consciousness and temper. It is represented as a variety of negative effects such as anger, embarrassment, worry, unhappiness as well as worried thinking and behaviors that carry on emotional concern (McCrae & Costa, 1987). Individuals who are highly neurotic have a tendency to experience negative emotions. They have a greater chance of feeling threatened or being in a bad mood in a normal situation. They may find it difficult to think clearly and cope with stress. Thus, neuroticism seems to relate to the negative behavior at work such as absenteeism, career success (Judge et al, 1999), employee engagement (Kim et al., 2009; Langelan et al., 2006; Wildermuth., 2008),

psychological well-being (Keyes, Shmotkin & Ryff, 2002), burnout (Gholipour, Anvari, et al., 2011; Langelaan et al., 2006), and job performance (Hurtz & Donovan, 2000)

Many studies used the five-factor personality model to test that relation between neuroticism and burnout, and found individuals high in neuroticism were more likely to show emotional exhaustion and cynicism and decreasing of personal achievement (Buhler & Land, 2003; LePine, LePine, & Jackson, 2004; Zellars, et al., 2000). Burnout is an erosion of engagement with the job (Maslach et al., 2001). Zellars et al. (2000) also demonstrated that neuroticism was associated with higher emotional exhaustion, whereas extraversion, openness to experience, and agreeableness were inversely related to depersonalization among healthcare workers. Other scholars also revealed that neurotic individuals tended to experience more exhaustion and stress (Bakker et al., 2006; Bolger & Schilling, 1991; Hills & Norvell, 1991).

As neuroticism can be a negative factor that increases stresses (Suls, 2001), it may exacerbate the effects of job demands on the risk for burnout. Employees high in neuroticism experience the job demands in their work environment as more stressful than others, which, in turn, leads to negative emotions and poor performance (Schneider, 2004) and increases the risk of burnout (Tokar, Fischer, & Subich, 1998) and physical illness (Van Heck, 1997). Gholipour, et al., (2011) also revealed the influence of neuroticism on job burnout among the nursing staff in a private hospital in Tehran.

Neurotic individuals tend to be stressful as they are likely to perceive their environment as threatening (Sulea et al., 2015). Thus, neuroticism seems to relate to negative

behavior at work such as disengagement. Previous research found evidence that neuroticism was negatively related to employee engagement. Mostert and Rothmann (2006) also examined the influence of personality traits on work-related well-being (burnout and work engagement) of police members. The results showed that age, gender, and race explained a small percentage of the variance in exhaustion, cynicism, and vigor/dedication. Emotional stability predicted vigor and dedication of employee engagement. Langelaan et al. (2006) investigated the relationship between personality traits of neuroticism and extraversion and engagement among Dutch employees. Engagement was measured by Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002). They found that neuroticism negatively predicted employee engagement while extraversion positively predicted engagement. Zaidi et al. (2012) investigated the relationship between the big five personality traits and work engagement among 399 public sector university teachers in Lahore. They found neuroticism non-significant effects on work engagement.

Some researchers pointed out the overlap between personality (Clark & Watson, 1999) and affect (Russell & Carroll, 1999). Affect refers to the mental states in which persons feel good (positive affect) or bad (negative affect) about what is happening to them (Watson, 2002). Positive affect is characterized by feelings of enthusiasm, energy, and happiness, whereas negative affect is characterized by feelings of anger, fear, nervousness and subjective stress (Watson, 2002). It has been suggested that employee engagement is characterized by high positive affect and low negative affect (Langelaan et al., 2006). In fact, measures of negative affect have been found to be strongly associated with neuroticism and weakly with extraversion while measures of positive

affect are more strongly related to extraversion than to neuroticism (Schaufeli & Bakker, 2004; Watson & Clark, 1992).

In sum, evidence on the influence of personality traits on employee engagement is rather mixed. Therefore, more research is needed in order to understand the relationship between the two. Personality is related to intrinsic and extrinsic motivation (Komarraju, Karau, & Schmeck, 2009), which, according to Schaufeli and Bakker (2004), can directly elicit the feeling of employee engagement. Therefore, personality is likely to lead to employee engagement.

2.4.2 Transformational Leadership and Employee Engagement

There has been dramatic growth in research interests over the past decade on leadership (Robbin & Judge, 2009). Leadership behaviors have been described in various ways (Lee & Chang, 2006; Zhang, 2010). For instance, Dubrin (2001) defined leadership behavior as the relatively consistent pattern of behavior that characterizes a leader. Leadership is often identified in terms of transactional and transformational dimensions, which first appeared in Burns's (1978) Pulitzer Prize. They were later developed by Bass in 1985. The model of transactional-transformational leadership has been universally accepted across countries and cultures.

Bass (1985) noted that transactional leadership is a cost-benefit exchange method for performance and goal achievement (Breevaart, Bakker, Hetland, Demerouti, Olsen, & Espevik, 2014; Ismail, Mohamad, Mohamed, Rafiuddin, & Zenn, 2010; Pierce & Newstrom, 2011). Followers behave in the way desired by their leaders in exchange for goods such as tangible and calculable. Therefore, leader-follower relations are based

on a series of exchanges or implicit bargains between leaders and followers. Transactional leaders use disciplinary power and an arrangement of incentives to motivate employees to carry out at their best. A transactional leader generally does not look ahead in strategically guiding an organization to a position of market leadership; instead, these managers are solely concerned with managing the status quo and maintaining the day-to-day operations of the business (Symonds, Holly, Milner, & Margaret, 2015). Transactional leaders set goals, establish expectations and rewards, and provide feedback and course corrections to keep followers on task (Jamaludin, Rahman, Makhbul, & Idris, (2011). Thus, they focus on specific tasks and do not build a relationship that binds leaders and followers together in mutual and continuing pursuit of a higher purpose (Burns, 1978). In sum, transactional leadership focuses on specific tasks and short-term goals and does not align productivity with long-term goal or strategy because this is driven mainly by the economic exchange model.

In contrast, transformational leadership goes beyond the self-interest exchange of rewards for compliance. It involves extreme personal recognition with the leader. Therefore, a transformational leader goes beyond managing day-to-day operations and crafts strategies for taking his company, department or work team in order to achieve organizational success (Bryman, 1992; Hater & Bass, 1988). Such leaders concentrate on team-building, motivation and cooperation with employees in an organization to perform change for the better. They set target and incentives to push their subordinates to higher performance levels while providing opportunities for personal and professional growth for each employee (Yammarino et al., 1993). Bass and Avolio (1994) asserted that transformational leadership motivates followers by (a) raising their level of value

and providing a sense of connection to goals, (b) encouraging them to transcend their own self-interest for the betterment of the team, and (c) helping them address higher level needs (i.e., intrinsic psychological motivation factors). Transformational leaders are more effective than transactional leaders (Breevart et al., 2014) because transformational leaders focus on the synergistic relationship between a leader and a follower leading to increased performance (Avolio, Walumbwa, & Weber, 2009) and employee engagement (Wang & Walumbwa, 2007; Macey & Schneider, 2008; Attridge, 2009).

Transformational leadership is theorized to have four dimensions which are idealized influence/charisma, inspirational motivation, intellectual stimulation, and individual consideration (Pierce & Newstrom, 2011). Details are as follows:

1. Idealized influence involves gaining respect, trust, and confidence of others. It is identified as a role model of appealing to followers that is the key element of transformational leadership. Idealized behaviors take charismatic leadership which concerns with their most important values and beliefs. This can be considered as the moral and ethical results of decisions (Bass & Avolio, 1994).
2. Inspirational motivation is expressed as having a clear, appealing, and inspirational vision to subordinates. Leaders who have a high inspirational motivation motivate their subordinates to do more than the original expectation. They make followers aware of the important goals and outcome. Some researchers found a high correlation between inspirational motivation and idealized influence (Bass & Avolio, 1994).

3. Intellectual stimulation involves leaders who motivate followers to take initiative and solve problems and help them look at a new perspective. Lim and Ployhart (2004) stated that intellectual stimulation leadership develops followers' use of their potential and abilities.
4. Individual consideration involves leaders focus on followers' achievement and growth (Bass, 1985). It involves coaching, advising, and supporting. In other words, it makes followers feel valued.

Transformational leadership is also known as charismatic or visionary leadership. Transformational leaders are characterized by integrity and fairness, a clear goal, high expectations, and provide support and recognition (Pierce & Newstrom, 2011). They exhibit proactive behaviors and find ways to motivate employees to common goals while simultaneously attending to the needs and wants of the employees. Moreover, transformational leadership is key in developing followers' trust, loyalty, respect, and self-reliance. Followers who are willing to identify with their leader or supervisor can trust him or her and engaged with them (Pierce & Newstrom, 2011). Transformational leaders are able to motivate employees by inspiring them and transforming their attitudes, beliefs, and values into a common vision and goals (Breevart et al., 2014) which enhance the performance and enlarge the employees' fullest capability (Northouse, 2007).

According to self-determination theory (Deci & Ryan, 1987; Deci & Ryan 2000; Gagné & Deci, 2005), leaders in organizations (e.g., managers) can create an autonomous supportive climate to promote and support employees' work motivation, which results in better performance and well-being (Baad, 2002 ; Deci & Ryan 2000). These autonomy

supportive factors include providing informative feedback, acknowledging individual feelings, facilitating access to necessary resources for employees to feel less controlled, as well as allowing choices and encouraging personal initiative before carrying out tasks (Deci, Ryan, Gagné, Leone, Usunov & Kornazheva, 2001; Gagné, 2003). Autonomous support from managers in the workplace can be seen as a proxy for transformational leadership due to their similar behavioral characteristics. However, transactional leadership, on the other hand, is more about a controlling behavior by providing reward and punishment which in turn can reduce the willingness of individual in displaying autonomous behavior (Kappen, 2010). In comparison, empirical evidence indicated that leaders who showed the four dimensions of transformational leadership behavior tended to be more effective and satisfying than transactional leadership (Bass, 1990).

In the field of management, more research has been carried out on transformational leadership than transactional leadership as the former was shown to be a significant predictor of organizational desirable consequences (Avolio, Zhu, Hoh, & Bhatia, 2004; Aydin, Sarier, & Uysal, 2013; Bushra, Ahmad, & Naveed, 2011; Dhammika, Ahmad, & Sam, 2013; Emery & Barker, 2007; Gumusluoglu, Karakitapoglu-Aygun, & Hirst, 2013; Kim & Kim, 2014; Kieres, 2012; Mahmoud, 2008; Mohamed, 2016; Munir, Rahman, Malik, & Ma'amor, 2012; Ngodo, 2008; Nielsen et al., 2009; Saleem, 2015; Shurbagi, 2014; Thamrin, 2012; Top, Akdere & Tarcen, 2015; Yeh & Hong, 2012; Yucel, McMillan, & Richard, 2014) such as employee satisfaction (Hater & Bass, 1988; Walumbwa, Orwa, Wang, & Lawler, 2005), trust (Podsakoff, Mackenzie & Boomer, 1996), well-being (Nielsen et al., 2009; Skakon, Nielsen, Borg, & Guzman, 2010), creativity (Shin & Zhou, 2003), task performance (Avolio et al., 2009; Piccolo &

Colquitt, 2006), lower turnover (Attridge, 2009), and organizational commitment (Walumbwa, et al., 2005).

Previous research also tended to show that leadership styles play an importance role in influencing employee engagement in organization (Blessing White, 2006; Clifton, 2008; DDI, 2005; Luthans & Peterson, 2002; Schneider, Macey, Barbera, & Martin, 2009; Schaufeli & Salanova, 2007; The Towers Perrin Talent Report, 2003; Zhang, 2010). Kahn (1990), and Macey and Schneider (2008) pointed out that when leaders have clear expectations, are fair, recognize good performance, and carry a sense of attachment to the task, employee engagement is likely to ensue.

Transformational leadership involves supportive behavior, which, according to Deci and Ryan (2000), is a job resource that can prompt an individual's intrinsic motivation, which affects employee work engagement. Other researchers have also reported the significant influence of transformational leadership on increasing employee engagement (Attridge, 2009; Breevaart, Bakker, Hetland, Demerouti, Olsen, & Espevik, 2014; Cartwright & Holmes, 2006; Macey & Schneider, 2008; Nohria, Groysberg, & Lee, 2008; Shuck, 2009; Shuck & Herd, 2012; Song, Kolb, Lee, & Kyoung, 2012; Wang & Walumbwa, 2007). For example, Albrecht and Andreetta (2011) found that employees who perceived their leaders and managers to have an empowering style of leadership tended to feel that they were engaged with and belong to their organization. Shirom (2003) argued that leaders who encourage their followers to demonstrate creative thinking are likely to develop a sense of engagement in the employees. It was also found that supportive leadership behavior enhanced employee engagement (Aguilar & Salanova, 2005).

However, Karatepe and Olugbade (2009) and Saks (2006) found inconsistent results and reported that supportive supervisor had no significant effect on engagement. Karatepe and Olugbade (2009) investigated the effects of job and personal resources on work engagement of front-line hotel employees in Nigeria. Job resources were defined in terms of supervisor support while personal resources were defined as competitiveness and self-efficacy. They revealed that while personal resources were significantly related to employee engagement job resources did not. In his survey of 102 employees working in a variety of jobs and organizations, Saks (2006) also demonstrated that perceived supervisor support did not significantly relate to engagement.

Tims, Bakker and Xanthopoulou (2011) showed that transformational leaders offered many opportunities to develop mastery of employees and increased the levels of employee engagement by ensuring a fit between employees and their roles. Lewis et al. (2011) conducted a qualitative research and identified management behaviors significant for employee engagement. In the study, 48 call center employees were interviewed from a large global energy provider. The interviews were transcribed and analyzed using content analysis. Three thematic behaviors including supporting employee growth, interpersonal style, and integrity, and monitoring direction were found significant for employee engagement. Other studies found that employees who had positive interactions with their managers had increased levels of engagement (Bakker & Schaufeli, 2008). Kahn (1990), and Macey and Schneider (2008) also demonstrated that when leaders had clear expectations, were fair, and recognized good performance, employee engagement would be enhanced. Shuck (2009) proposed transformational leadership as an antecedent of engagement. Consistently, Cartwright and Holmes (2006) found that

leaders who focused on relationship building and trust development increased engagement levels.

Salanova et al. (2011) observed that transformational leaders influenced employee extra-role performance of engagement of 280 nurses from different health services and their 17 supervisors. The same result was reported by Christian et al. (2011), and Macey and Schneider (2008). Zhu, et al. (2009) examined the relationship between transformational leadership and employee work engagement. Data were collected from 140 employees and their 48 supervisors from a diverse range of industries in South Africa. The hierarchical linear modeling results showed that transformational leadership had a positive effect on work engagement. In their quasi-experimental study, Avery, McKay and Wilson (2007) demonstrated that when employees received support for challenging jobs from their leaders, they were likely to become highly engaged with the job tasks. In a different study, Hansen (2009) showed that transformational leadership, interpersonal justice, and informational justice significantly predicted organization identification and employee engagement of 430 working adults in various locations across the United States and Canada.

Bass (1998) hypothesized the augmentation effect which stipulates that transformational leadership influences employee outcomes over and above transactional leadership. A meta-analysis by Judge and Piccolo (2004) demonstrated the augmentation effect on employee satisfaction and motivation. Rowold and Heinitz (2007) also supported the augmentation effect on objective performance as well. In short, these studies found that transformational leadership was more effective than transactional leadership in affecting employee behavior. Although studies have generally shown a significant

association between transformational leadership and work outcome, very few have investigated the role of transformational leadership in employee engagement. Secondly, very limited research that considered the psychological mechanism between leadership and employee engagement link. The psychological mechanism examined in this study was psychological safety. Hence, this study focused on the direct and indirect influence of transformational leadership and employee engagement.

2.4.3 Transformational Leadership and Psychological Safety

According to Kahn (1990), psychological safety is a psychological condition that can be influenced by external environments such as interpersonal relationship, management style and process, and organizational norms. Management that provides support is likely to enhance the experience of the psychological safety of employees (Kahn, 1990). Transformational leadership is a leadership style characterized by idealized influence, inspirational motivation, intellectual stimulation, and individual consideration, which presumably have an influence on employee experience of psychological safety. For example, Edmondson (2004) found that leader behaviors are the antecedent of psychological safety. Kahn (1990) contended that the quality of the relationship between colleagues and managers characterized by trust and support influences psychological safety of employees. May et al. (2004) discovered that psychological safety was positively related to a supportive supervisor. Tynan (2005) found that psychological safety was positively associated with both the likelihood that employees would express self-criticism when dealing with supportive supervisors and the likelihood that employees would express disagreement or criticism when dealing with insensitive or

unsupportive supervisors. These studies corroborated Kahn's observations and demonstrated the relationship between psychological safety and leadership style.

One of the important roles of a leader is to create and provide an environment that fosters psychological safety for individuals. Fenniman (2010) examined the feelings of self and other psychological safety and supervisors' listening behaviors. His study employed a non-experimental, correlational design by using two different instruments. The first instrument was the Dyadic Psychological Safety Scales for self-psychological safety and other psychological safety. The second instrument was the Active Empathetic Listening Scale that has three subscales including sensing, processing, and responding. Data were collected from 119 participants in a leading Internet-based research company headquartered in the Northeastern United States. The results found a significant and positive relationship between a subordinate's sense of self-psychological safety and his or her perception of the perceived empathetic listening of his or her supervisor. Also, a subordinate's sense of other psychological safety and his or her perception of the perceived empathetic listening supervisor were positively related.

Transformational leadership can internally motivate employees in a positive way so that they feel psychologically safe. Trust is an important aspect of psychological safety (Edmonson, 1999). Trust is defined as "the expectation that others' future actions will be favorable to one's interests, such that one is willing to be vulnerable to that action" (Edmonson, 1999). Trust manifests in a transparent relationship in which feelings, values, and deep thoughts are shared. A leader is transparent when he or she shared information and is open to giving and receiving feedback (Eggers, 2011; Edmondson, 1999). Walumbwa and Schaubroeck (2009) argued that leaders create an environment of

psychological safety for their employees through interpersonal trust, mutual respect as well as openness and trustfulness (Edmondson, 2004). When the subordinates can trust and believe in their leader, psychological safety will occur (Eggers, 2011).

In summary, the quality relationship between followers and transformational leaders engenders trust that results in psychological safety. However, May et al. (2004) noted that the antecedents of safety have received relatively little attention in the literature. Hence, this study was carried out to fill this gap.

2.4.4 Psychological Safety and Employee Engagement

Psychological safety has been widely examined in the humanistic psychological literature (Maslow, 1954; Rogers, 1961). It has been applied in workplace management (Drucker, 1954), performance (Likert, 1961), and the relationship between leader and coworker (McGregor, 1960). Maslow (1954) defined psychological safety as feelings of security, stability, dependency, protection, freedom from fear, the need for structure, order, law, and limits, strength in the protector and etc. Within the organizational behavior literature, psychological safety is the employee's sense of being able to show and employ one's self without fear of negative consequences to self-image, status, or career (Kahn, 1990).

Psychological safety has been found to improve engagement levels (Kahn, 1990; Dollard & Bakker, 2010; May et al., 2004; Kark & Carmeli, 2009). Kahn (1990) explored the linking between personal engagement and psychological safety by using descriptive statistics from the ratings of the group of 186 experiences. The results showed that a higher level of psychological safety had a stronger relationship with

personal engagement than with personal disengagement. Thus, he concluded that employees who were engaged felt more psychologically safe than employees who were disengaged.

Dollard and Bakker (2009), Eggers (2011), Dunne (2013), May et al. (2004), and Vogelgesang (2007) demonstrated that psychological safety positively affected employee engagement because it reflects the employees' belief that they may engage and employ their true selves at work without the fear of negative consequences. As discussed earlier, a few scholars have tested the relationship between psychological safety and engagement. Dollard and Bakker (2009) constructed a model of workplace psychosocial safety climate (PSC) to explain the origins of job demands and resources, worker psychological health, and employee engagement of Australian education workers. They found that psychosocial safety climate predicted a change in employee engagement. The relation with one's immediate manager can have a dramatic impact on an individual's perception of the safety of a work environment. A supportive, and not controlling, relation should foster perceptions of safety (Edmondson, 1999) and enhance employee engagement (Kahn, 1990; May et al., 2004).

Previous researchers have neglected to examine such psychological conditions (Brown, 1996; Fried & Ferris, 1987) even though the conditions could help us better understand how individuals engage at work. For example, employees who are self-determined experience a sense of choice in initiating and regulating one's own actions (Deci et al., 1989). These individuals are likely to feel safer to engage themselves more fully, try out novel ways of doing things, discuss mistakes, and learn from these behaviors when they are in such supportive environments (Edmondson, 1996, 1999).

2.4.5 Mediating Effect of Psychological Safety

According to Kahn (1990), personal engagement or disengagement can be mediated by three psychological conditions: meaningfulness, safety, and availability. In the present study, the mediating effect of psychological safety was the main focus. Kahn (1990) emphasized that individuals differentiate their personal engagement or disengagement regarding safety they perceive in a work environment. At the workplace, many unexpected events could happen (Edmondson, 2002). In this situation, individuals need to be sure that their reaction to these events, such as interaction with their colleagues, will not create an embarrassment to themselves which can be addressed by learning, asking question or help, or requiring feedback (Edmondson, 2002). However, if the individuals feel that getting involved in these activities may result in losing their face and might being looked like an incapable employee (Edmondson, 2002), they may choose to be disengaged (Edmondson, 2002). However, this fear of losing face can be reduced by creating an environment that supports the feeling or the experience of psychological safety (Edmondson, 1999, 2002). According to Kahn (1990), psychological safety supposes to have a mediation effect on the relationship between the external context and employee engagement when such environment is perceived as trustable which enables employees to feel free of being themselves. An external context such as the management style of a leader that provides support in promoting psychological safety could lead to employee engagement because employees will feel safe when they are in interpersonal relationships characterized by mutual support, openness, trust, genuineness, and flexibility.

Psychological safety is a psychological state that is still continuously developing (Kozlowski & Ilgen, 2006). Therefore, studies relating to the mediation effect of psychological safety are very limited (Hoenderdos, 2013). Even though Oliver and Rothman (2007), Phale (2008), Rothmann and Rothmann (2010), and Rothman and Welsh (2013) tried to examine the mediating effect of psychological safety on the relationship between the external environment and employee engagement, the psychological safety variable was excluded from further analyses due to a low coefficient of the Cronbach alpha. As a result, there is unclear of understanding of the mediating effect of psychological safety on the relationship between the working contexts and employee engagement. However, May et al. (2004) and Jacobs (2013) demonstrated that psychological safety was a mediator between work context and employee engagement. Therefore, based on May et al. (2004) and Jacobs (2013), it can be assumed that psychological safety will mediate the relationship between transformational leadership and employee engagement.

2.5 Literature Gaps

Based on the literature review, several research gaps were identified of employee engagement. First, this study examined the influence of personality on employee engagement. Personality refers to the relatively enduring personal characteristics in the sense of the generalized and basic conduct tendencies that reflect long-term, pervasive individual differences in emotional style and have a general influence on an emotional response (Warr, 1999). Furthermore, this study aimed to fulfill the theoretical gap of Kahn's employee engagement model that postulates that individual differences might influence employee engagement (CIPD, 2014; Kahn, 1990; Langelan

et al., 2006; Rich, 2006). Although many researchers found that personality variables significantly predicted behaviors and outcomes such as career success (De Fruyt & Salgado, 2003; Hogan & Ones, 1997; Roberts & Hogan, 2001), job performance (Hogan & Ones, 1997), employee behaviors and outcomes (Barrick, Mount, & Judge, 2001; Barrick & Mount, 1991, Deyoung et al., 2007; Hurtz & Donovan, 2000; Salgado, 1997), a few studies or models on the influence of personality on employee engagement have been published (Inceoglu & Warr, 2012; Kim et al., 2009; Langelaan et al., 2006; Wildermuth, 2008). Thus, this research tested the direct relationship between FFM and employee engagement. Even though FFM is an appropriate model for charting individual differences among adult populations, only a few studies have concentrated on all five dimensions of this model and employee engagement (Langelaan et al., 2004; Rich, 2006; Wildermuth, 2008). Therefore, the gap offered a good opportunity to explore the association between personality and employee engagement among private companies in Southern Thailand.

Secondly, this study investigated the influence of transformational leadership on employee engagement. Due to the growing number of mergers and acquisition, globalization, and uncertainty in stock markets, leaders who not only are self-reliant and have good management skill are needed, but, more importantly, have instilled inspiration and are committed to organizational objectives. Studies have demonstrated that transformational leadership influenced followers' commitment, loyalty, satisfaction, organizational citizenship behavior, attachment, turnover, service attitude, performance, trust, and employee engagement (Bartram & Casimar, 2007; Becker & Billings, 1993; Boerner, Eisenbeiss, & Griesser, 2007; Griffith, 2004; Humphreys, 2001; Macey &

Schneider, 2008; Salleh & Nasurdin, 2008; Shirey, 2006; Walumbwa et al., 2004). Moreover, transformational leadership is argued to be effective in meeting long-term objectives, developing an organizational vision, and in motivating their followers to take better responsibility (Avolio, Bass, & Jung, 1999). Furthermore, Bass (1985) suggested that due to the competitive challenges of an organization, leaders should be more transformational and less transactional. Even though transformational leadership has received much attention by leadership researchers in recent years (Judge & Bono, 2000; Wefald, 2008), inconsistent results on the effect of transformational leadership on employee engagement have been reported (Macey & Schneider, 2008; Shirey, 2006). Others found that the two was weakly related, suggesting a possible mediator at work (Christian et al., 2011). Hence, this study posited both direct and indirect relation between transformational leadership and employee engagement.

Thirdly, the mediating role of psychological safety between transformational leadership and employee engagement was tested in this study. Based on the literature review, when employees feel that they are psychologically safe, they tend to show a higher level of personal engagement (Kahn, 1990; May et al., 2004). It has also been proposed that leadership behavior not only produces psychological safety of follower, but psychological safety can as well be a mediator of the association between leaders and employee engagement (Kahn, 1990; May et al., 2004). Although scholars have begun to validate the relationship between psychological safety and engagement, the antecedents and outcomes of psychological safety have received relatively little attention in the literature to date (Christian et al., 2011; Karatepe & Olugbade, 2009; May et al., 2004; Saks, 2006).

Overall, to fulfill both the theoretical and empirical gaps, the main purpose of this study was to examine the influence of employee personality (i.e., extraversion, agreeableness, conscientiousness, openness, and neuroticism), transformational leadership and psychological safety on employee engagement. At the same time, it also considered psychological safety as the mediator between transformational leadership and employee engagement among employees of private companies in the South of Thailand.

2.6 Hypotheses Testing

2.6.1 Personality and Employee Engagement

There is overwhelming evidence on the influence of FFM on employee engagement (Achua & Lussier, 2010; Akhtar et al., 2014; Brief & Weiss, 2002; Gholipour, et al., 2011; Halbesleben et al., 2009; Inceoglu & Warr, 2012; Kim et al., 2009; Kim et al., 2007; Langelaan et al., 2006; Mostert & Rothmann, 2006; Rich, 2006; Wildermuth, 2008; Zaidi et al., 2012). Hence, it was hypothesized that:

Hypothesis 1a: Extraversion is positively influence to employee engagement.

Hypothesis 1b: Agreeableness is positively influence to employee engagement.

Hypothesis 1c: Conscientiousness is positively influence to employee engagement.

Hypothesis 1d: Openness to experience is positively influence to employee engagement.

Hypothesis 1e: Neuroticism is negatively influence to employee engagement.

2.6.2 Transformational Leadership on Employee Engagement

The literature indicates that leadership styles drive employee engagement, especially transformational leadership as the empirical evidence showed that this style tended to be more effective and satisfying than other leadership behaviors (Bass, 1990). Hence, it was found that this style could enhance the employee engagement (Bass, 1985; Breevaart, et al., 2014; Cartwright & Holmes, 2006; Christian et al., 2011; Hansen, 2009; Hassan & Ahmed, 2011; Macey & Schneider, 2008; Nohria, et al., 2008; Shuck, 2009; Tims, Bakker and Xanthopoulou, 2011; Zhu, Avolio, & Walumbwa, 2007; Zhu et al., 2009). Thus, it was hypothesized that:

Hypothesis 2: Transformational leadership is positively influence to employee engagement.

2.6.3 Transformational Leadership and Psychological Safety

Based on the literature, it is possible to theorize a positive link between transformational leadership and psychological safety. Hence, the following was hypothesized:

Hypothesis 3: Transformational leadership is positively influence to employee engagement.

2.6.4 Psychological Safety and Employee Engagement

Past research found a positive relationship between psychological safety and employee engagement (Allen & Rogelberg, 2013; Ariani, 2015; Dollard & Bakker, 2009; Jacobs, 2013; Kark & Carmeli, 2009; May, 2004). Thus, it was hypothesized that:

Hypothesis 4: Psychological safety is positively influence to employee engagement.

2.6.5 Mediating Effect of Psychological Safety on the Relationship between Transformational Leadership and Employee engagement

The literature review and empirical evidence indicated that psychological safety mediated the association between transformational leadership and employee engagement. (Allen & Rogelberg, 2013, Ariani, 2015; Jacobs, 2013; Kahn, 1990; May et al., 2004). Hence, the following hypothesis was offered:

Hypothesis 5: Psychological safety mediates the relationship between transformational leadership and employee engagement.

2.7 Theoretical Framework

The research framework to be examined in this study is illustrated in Figure 2.1. It demonstrates the relationship between personality dimensions of extraversion, agreeableness, conscientiousness, openness, and neuroticism (McCrae & John, 1992; Judge & Bono, 2000), transformational leadership, and employee engagement. In addition, psychological safety was expected to mediate the relationship between transformational leadership and employee engagement.

This study employed self-determination theory to explain the network of the relationships. Intrinsic and extrinsic motivation (personality traits and transformational leadership) play a critical role in generating autonomous motivation. Employee engagement is a form of an autonomous behavior that validates the sense of volition (Meyer & Gangé, 2008). This autonomous behavior is stimulated when the three basic psychological needs are satisfied by both the intrinsic and extrinsic motivation processes. One of the psychological needs is that the need for autonomy

which is a similar concept to Kahn (1990)'s psychological safety. This psychological need can be met by transformational leadership which can be considered intrinsic and extrinsic motivations (Kovjanic, 2013). However, according to Kahn (1990), psychological safety is presumed to be influenced by an external environment but not personal individual differences. Thus, transformational leadership would provide an impact on employee engagement through psychological safety. At the same time, personality traits as an intrinsic motivation would directly influence employee engagement.

Personality traits and transformational leadership may play both intrinsic and extrinsic motivational roles that might fulfill the psychological need which could produce work engagement.

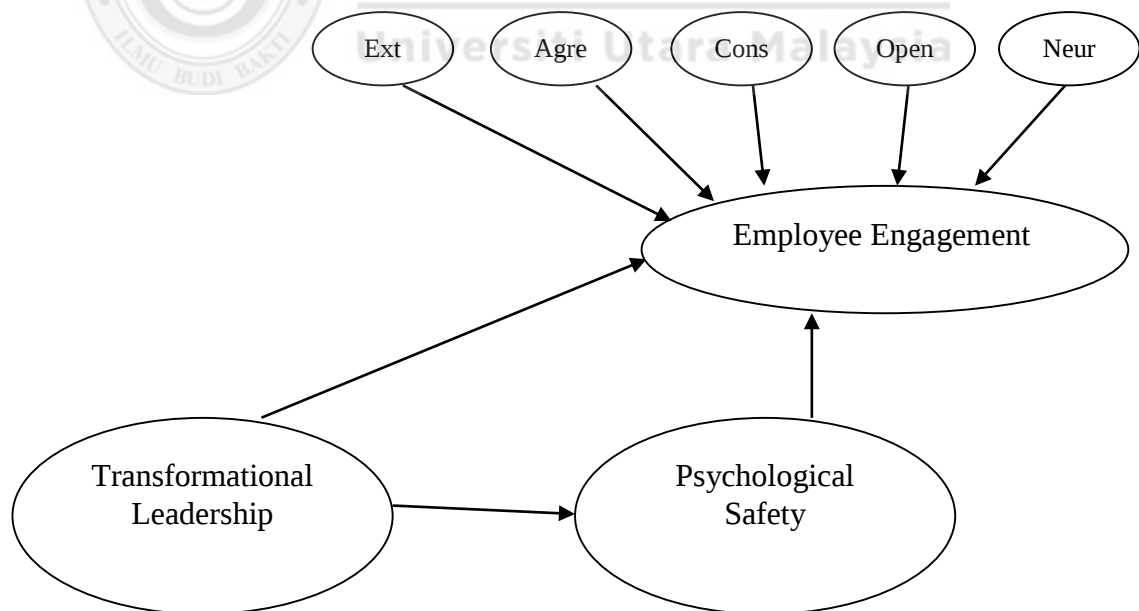


Figure 2.1
Theoretical framework of this study

2.8 Summary

This chapter discussed the past studies and theories and proposed a model based on the Five Factor Model and transformational leadership on employee engagement while psychological safety was postulated to mediate transformational leadership and employee engagement. The theoretical basis for the research model was self-determination theory. Based on the research model, five hypotheses were developed.



CHAPTER 3

METHODOLOGY

3.0 Introduction

This chapter explains the research methodology toward answering the research questions and meeting the research objectives. Specifically, the chapter discusses the research design, population and sampling design, questionnaire design, instrumentation, data collection, and data analysis.

3.1 Research Design

This study started by delineating the research questions and research objectives. The researcher carried out a literature review to determine the scope and the rationale of the study which led to the choice of a quantitative research methodology. There are three reasons for using the quantitative approach. Firstly, the quantitative method accurately measures something (Cooper & Schindler, 2011). This method is related to the deductive approach in that it involves hypotheses testing. Secondly, due to a large number of participants in this study, this method was suitable. Finally, many researchers have used this method because it is cost effective and time efficient. It also provides insight into the attitudes, thoughts, and opinions of populations (Brewer, 2009). Therefore, this study was performed quantitatively to examine the influence of personality and transformational leadership on employee engagement in private firms. The research also explored the mediator of psychological safety between employee engagement and transformational leadership.

3.2 Unit of Analysis and Population

The unit of analysis was individual. The target population was employees working in private sectors in southern Thailand. The target population consisted of full-time employees in these organizations. The researcher decided to select the Songkhla province in Southern Thailand for several reasons. Firstly, Songkhla has the biggest workforce in the Southern Thailand. As of 2012, the workforce was 134,838 employees (Department of Labour Protection and Welfare, Thailand, 2012) and it has one of the biggest workforces in Thailand. Secondly, Songkhla is the economic center of southern Thailand. Songkhla serves as the regional center and capital city for south of Thailand and is the administrative, educational and cultural center of the region (Alexander, 2006). Songkhla's commercial center especially Hatyai shares several similarities with Bangkok. Hatyai is often called Little Bangkok (Alexander, 2006). Hatyai is a center of business, commerce, and transportation and has the function of interconnecting border-trading points. Songkhla is a port city and administrative center. The Southern Industrial Estate is located in Hatyai, Songkhla province (Makishima & Somchai, 2003). Thirdly, Songkhla's strategic focuses are on developing a center of trade, investment, services and logistics of ASEAN. The Songkhla province has been designated as the Special Economic Zone, which is expected to help stimulate the local economy in southern Thailand. Private firms in Songkhla are projected to play a major role in facilitating the growth in trade between Thailand, Malaysia, and Singapore (NNT, 2015).

The Department of Labour Protection and Welfare, Thailand (2012) indicated a total of 7,986 private companies and 134,838 full-time employees as of 2012 -time employees in Songkhla. Table 3.1 shows the details.

Table 3.1

Number of Organization and Employees in Songkhla Province by Size of Organization in 2012

Size of Employees in Organization	Number of Organization	Number of Employees
1 - 49 employees	7,660	49,970
50 - 99 employees	133	9,335
more than 100 employees	193	75,533
Total	7,986	134,838

Source: Department of Labour Protection and Welfare, Thailand. (2012)

3.3 Sampling Size and Sampling Design

Sampling can be defined as a ration of the whole population or universe which represents the universe of the population (Kerlinger & Lee, 2000). The sampling technique used was probability sampling method. The probability sampling technique offers the opportunity to every individual to be equally selected as sample subjects (Sekaran, 2003). In order to determine the sample size, Krejcie and Morgan's (1970) criterion was used in which the confidence level was set at 95%. Since the population size was 134,838, the minimum sample required was 384 (Krejcie& Morgan, 1970) as illustrated in Table 3.2. According to Roscoe (1975), a sample size between 30 and 500 is appropriate for research.

Table 3.2
Determining Sample Size of a Given Population

Population	Sample Size
15000	375
20000	377
30000	379
40000	380
50000	381
75000	382
1000000	384

Source: Krejcie& Morgan (1970)

This study used a two-stage sampling. The first stage was stratified random sampling technique. Stratified random refers to categorizing the elements of sample into strata. The subjects in each stratum were selected by employing simple random sampling (Sekaran, 2003). The Department of Labour Protection and Welfare of Thailand categorizes the private companies in southern Thailand are classified based on size. The first group had less than 50 employees. The second group between 50 and 99 employees, and the final group more than 100 employees.

Stratified sampling was used for three reasons. Firstly, it increases the efficiency of the sample's statistic because stratified sampling adds the control to the sampling process by decreasing the amount of sampling error. Secondly, it gives sufficient data for evaluating the various strata. Finally, it allows different research methods and approaches to be used in different strata. When compared to simple random sampling, stratified sampling usually reduces both the amount of variability and the cost of data collection and analyses (Kerlinger & Lee, 2000). In this case, if the subjects are taken from each stratum based on a specific percentage, the stratified sampling is called

proportionate stratified sampling. At the second stage, simple random sampling was used to select the companies in each category.

This study adopted proportionate stratified sampling as shown in Table 3.3, in which the percentage of employees in each stratum and the proportionate sample size for each stratum were calculated. The minimum sample required for this research was 384 (Krejcie & Morgan, 1970) as illustrated in Table 3.2. Since studies in social research tended to get a response rate of 50% (Bambale, 2013), oversampling helps to make up the possible losses as a result of non-cooperative subjects and damages, hence, reducing non-response (Salkind, 1997).

Table 3.3
Proportion of Sample Size of Participants in Private Companies in Southern Thailand

Size of Employees in Organization	Number Employees	% employees	Proportionate Sampling	No. of Subjects In Sample
1 – 49 employees	49,970	37%	141	183
50 - 99 employees	9,335	7%	27	75
more than 100 employees	75,533	56%	214	350
Total	134,838	100%	382	608

3.4 Questionnaire Design and Instrumentation

The questionnaire consisted of items measuring eight variables. This study had six independent variables: extraversion, agreeableness, conscientiousness, openness, neuroticism, and transformational leadership. Psychological safety was treated as a mediator, and the dependent variable was employee engagement.

The questionnaire was developed in four steps, explained as follows:

1. The questions were developed from previous studies to measure the dependent, independent, and mediating variables (Bass & Avolio, 2000; Rich, 2006; Saucier, 1994; Shuck & Wollard, 2010). However, the items were adapted to suit the Thai context.
2. All survey items were translated into the Thai language so that participants would feel more comfortable in answering the questions in their native language. To validate the translation, the test of both semantic and content equivalences is suggested (Yu, Lee, & Woo., 2004). Thus, Brislin's translation model was used in this study (Brislin, 1986). The first step of the translation method was translating from the original version into the Thai version. Second, the Thai version instrument was reviewed a reviewer. The third step was the back translation by a bilingual person who was qualified enough to understand the instrument. The next step as comparing the original version and the back-translated version.
3. Specialists working at universities in Thailand, two persons in the department of human resource, and one person expert in measurement and evaluation in the education field (see Appendix B) were solicited to test the equivalences of both the semantic and the content. The scale's content validity was established by calculating the index of item objective congruence (IOC) in that an IOC value less than 0.49 was deleted. The results also proposed to drop five items to reduce confusions and redundancies when demonstrated in the Thai language. Five items were deleted from the employee engagement scale. Therefore, 78 items were used to measure the eight research variables where employee

engagement consisted of 13 items, personality 40 items (8 items for extraversion, 8 items for agreeableness, 8 items for conscientiousness, 8 items for openness to experience and 8 items for neuroticism), transformational leadership 20 items, and psychological safety 5 items. The instrument was later pilot tested.

4. A cover letter and detailed instructions were attached to each questionnaire. Participants were asked to give their opinion about employee engagement, psychological safety, personality based on Five Factor Personality, and transformational leadership style of their supervisors. In this study, the questionnaire was divided into five sections. Section A had demographic questions on gender, age, level of education, work experiences, the size of the organization, and type of organization. Section B included questions to measure employee engagement. Section C asked questions to measure employee personality. Section D had questions on transformational leadership style of participants' immediate supervisor. Finally, section E contained items pertaining to psychological safety. (see Appendix C and Appendix D)

A Likert scale with seven-point was chosen because a seven-point scale allows a greater differentiation in the statement of participants compared to a five-point scale (Mat, 2008). The psychometric literature claims that more scale points offer a better balance up until 11 points, after which the differentiation diminishes (Nunnally 1978). The seven-point scale is accepted to be a good balance because it could discriminate effectively the responses. The next section details each variable under study.

3.4.1 Employee Engagement

Employee engagement was assessed by employing the Rich Engagement Scale (2006). The instrument has 13 questions. A seven-point Likert scale, ranging from 1 to 7 (from strongly disagree to strongly agree) was used. Sample items include “I work with intensity on my job”, “I am enthusiastic about my job”, and “At work, I concentrate on my job”. Table 3.4 lists the items.

Table 3.4
Items to Measure Employee Engagement Construct

Construct	Operational Definition	Examples of Items	Source of Scale
Employee Engagement	The expression of task behavior and personal energy that showed fully role performance through appropriate condition that employees employ and express themselves physically, cognitively, and emotionally during role performances (Kahn, 1990).	1. I work with intensity on my job. 2. I exert my full effort to my job. 3. I devote a lot of energy to my job. 4. I try my hardest to perform well on my job 5. I am enthusiastic about my job. 6. I am interested in my job. 7. I am proud of my job. 8. I feel positive about my job. 9. I am excited about my job	Engagement Scale of Rich (2006)

Table 3.4 (Continued)

Construct	Operational Definition	Examples of Items	Source of Scale
		10. At work, I pay a lot of attention to my job	
		11. At work, I concentrate on my job.	
		12. I am absorbed by my job	
		13. At work, I devote a lot of attention to my job.	

3.4.2 Employee Personality

Employee personality was measured by using Saucier (1994) “mini-markers” of the Big Five Personality dimension. He began with Goldberg’s 100 Adjective Markers and reduced the list to 40 Adjective Markers that sought a short measure. Saucier also created an inventory that would minimize correlations among the subscale and had slightly easy words. The Big Five marker set comprises five dimensions: extroversion, agreeableness, conscientiousness, openness, and neuroticism. In this study, the survey had 40 items, which were measured on a seven-point Likert-type scale, ranging from 1 (extremely inaccurate) to 7 (extremely accurate). A higher level of personality trait was indicated by higher scores. Sample items include “How accurately can you describe yourself?” the list of traits is Creative, Sympathetic and Shy, etc. Table 3.5 lists the items.

Table 3.5
Items to Measure Employee Personality Constructs

Construct	Operational Definition	Examples of Items	Source of Scale
Employee Personality	Personality referred to Five Factor personality dimensions are divided into five factors: extraversion, agreeableness, conscientiousness, openness, and neuroticism (McCrae & John, 1992; Judge and Bono, 2000).	“How accurately can you describe yourself?” Extraversion: P 1.1 Talkative P 1.2 Extroverted P 1.3 Bold P 1.4 Energetic P 1.5 Shy P 1.6 Withdrawn P 1.7 Bashful P 1.8 Quiet Agreeableness: P 2.1 Sympathetic P 2.2 Warm P 2.3 Kind P 2.4 Cooperative P 2.5 Cold P 2.6 Unsympathetic P 2.7 Rude P 2.8 Harsh Conscientiousness : P 3.1 Organized P 3.2 Efficient P3.3 Systematic P 3.4 Practical P 3.5 Disorganized P 3.6 Sloppy P 3.7 Inefficient	Saucier (1994) “mini-markers”

Table 3.5 (Continued)

Construct	Operational Definition	Examples of Items	Source of Scale
		P 3.8 Careless	
		Openness :	
		P 4.1 Creative	
		P 4.2 Imaginative	
		P 4.3 Philosophical	
		P 4.4 Intellectual	
		P 4.5 Complex	
		P 4.6 Deep	
		P 4.7 Uncreative	
		P 4.8 Unintellectual	
		Neuroticism	
		P 5.1 Unenvious	
		P 5.2 Relaxed	
		P 5.3 Moody	
		P 5.4 Jealous	
		P 5.5 Temperamental	
		P 5.6 Envious	
		P 5.7 Touchy	
		P 5.8 Fretful	

3.4.3 Transformational Leadership

Transformational leadership of employees' immediate supervisor was assessed by adapting the Multifactor Leadership Questionnaire 5X of Bass and Avolio (2000) which is also known as the MLQ 5X. This version has been employed widely by researchers (Bass & Avolio, 2000). Today, the MLQ is comprehensively employed and is used to measure transformational leadership construct in leadership research. The survey had 20

items, which were measured on a seven-point Likert-type response format that varies from 1-none, 2-slight, 3-mild, 4-moderate, 5-severe, 6- very severe, and 7- maximal. Past research found that subordinates may inform more truthfully and accurately about the behaviors of leaders rather than the leaders themselves. That is, a leader self-report tends to be less accurate than subordinate perceptions of a leader behavior (Wohlers, Hall, & London, 1993). Table 3.6 lists the items.

Table 3.6
Items to Measure Transformational Leadership Construct

Construct	Operational Definition	Examples of Items	Source of Scale
Transformational Leadership	Defined as “leadership that improves the performance and develops followers to their fullest potential. Transformational leadership is known for moving and changing things in a big way by communicating to followers a special vision of the future, tapping into followers’ higher ideals and motives”. (Achua&Lussier, 2010).	My supervisor... 1. re-examine critical assumptions to question whether appropriate 2. talk about his/her most important values and beliefs 3. seek differing perspectives when solving problems 4. talk optimistically about the future 5. instill pride in others for being associated with him/her 6. talk enthusiastically about what needs to be accomplished	Bass & Avolio, 2000

Table 3.6 (Continued)

Construct	Operational Definition	Examples of Items	Source of Scale
		7. specify the importance of having a strong sense of purpose 8. spend time teaching and coaching 9. go beyond self-interest for the good of the group 10. treat others as an individual rather than just as a member of the group 11. act in ways that builds others' respect for him/her 12. consider the moral and ethical consequences of decisions 13. display a sense of power and confidence 14. articulate a compelling vision of the future 15. consider an individual as having different needs, abilities, and aspirations from others 16. get others to look at problems from many 17. help others to develop their strengths	

Table 3.6 (Continued)

Construct	Operational Definition	Examples of Items	Source of Scale
		19. emphasize the importance of having a collective sense of mission	
		20. express confidence that goals will be achieved	

3.4.4 Psychological Safety

The items for psychological safety scale were adapted from Shuck (2010), whose scale was based on May et al. (2004) and Kahn (1990). These items evaluate to what extent a person feels pleasant to be himself or herself and illustrate his or her point of view at work or whether there is a threatening environment at work. In this study, the survey had four questions measured on a seven-point Likert response format ranging from 1-strongly disagree to 7-strongly agree. Sample items include “I can be myself at work”.

Table 3.7
Items to Measure Psychological Safety Construct

Construct	Operational Definition	Examples of Items	Source of Scale
Psychological safety	Psychological Safety is described as the employee's sense of being able to show and employ one's self without fear of negative consequences to self-image, status, or career (Kahn, 1990).	1. I can be myself at work. 2. At work I can bring up problems and tough issues without fear of being teased or made fun of. 3. I feel physically safe at work. 4. At work, I know is expected of me every day. 5. Each day my work demands are consistent.	Shuck 2010

3.5 Pilot Study

All eight instruments were administered to 30 employees in private firms in Songkhla by using convenient sampling method. The employees were not part of the final survey. There were 78 items asked in the survey. In this pilot test, the key purpose was to make sure that participants correctly understood the instructions, questions, and response scales of the study by asking feedback about any redundant and unclear statements, etc. In addition, the pilot test was also to do a preliminary check on the instruments with regards to their internal consistency reliability by looking at the Cronbach's alpha coefficient. (See Appendix H)

3.5.1 Reliability

Reliability was tested for each of the group indicators by using Cronbach's alpha whose values represent internal consistency (Ho, 2006). The acceptable level of an alpha coefficient is 0.60 or above in social sciences (Nunnally, 1978; Robinson, Shaver, & Wrightsman, 1991). In this study, the Cronbach's coefficient alpha values ranged from 0.548 to 0.923 as shown in Appendix H. In Table 3.8, the reliability value of psychological safety showed 0.54, which was less than 0.6. One item, i.e., psy5, was removed. As a result, the Cronbach's coefficient alpha values ranged from 0.62 to 0.923, which were satisfactory. Table 3.9 shows the Cronbach's alpha values of all eight scales.

Table 3.8

Cronbach's Alpha Values of Psychological Safety before Item Removal

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total if Item Deleted	Alpha Correlation Deleted
Psy1	21.2667	7.9264	.3403	.4861
Psy2	21.8667	7.3609	.2027	.5459
Psy3	22.0333	6.5851	.4726	.3938
Psy4	21.8667	5.5678	.5868	.2923
Psy5	22.5667	7.1506	.0928	.6558

Reliability Coefficients N of Cases = 30.0 N of Items = 5 Alpha = .5408

Table 3.9

Cronbach's Alpha Values of the Scales in Pilot Test

Name of Scale	Numbers of Item	Cronbach's Alpha
Employee Engagement	13	0.88
Employee Personality	40	0.79
- Extraversion	8	0.82
- Agreeableness	8	0.62
- Conscientiousness	8	0.82
- Openness to Experience	8	0.75
- Neuroticism	8	0.72
Psychological Safety	4	0.66
Transformational Leadership	20	0.93
Total	77	0.83

3.6 Data Collection Procedure

Data were collected by using questionnaire. The researcher sent a formal letter (Appendix A) with a copy of the questionnaire to the human resource manager of the companies selected, who then informed the employees about the study. Then, 608 surveys were distributed to the employees as shown in Table 3.10. The cover letter

described the objectives, the requirements, the importance of the research, and ensured the confidentiality of the responses. Two weeks after the first set of questionnaires was mailed, a second set was sent to the participants to ask those who had not responded to do so. The researcher also thanked the subjects who had already responded to the second mail.

Table 3.10

Number of Questionnaires Distributed and Participant Response

Size of Employees in Organization	No. of the distributed questionnaires	No of Respondent	Respondent rate %
1 - 49 employees	183	150	82
50 - 99 employees	75	69	92
more than 100 employees	350	213	61
Total	608	422	69.4

Of 608 surveys distributed, 422 questionnaires were returned, but only 402 were usable. This represented 69.4% response rate. Babies (1973) argued that 50% response rate is regarded as an acceptable rate in social research surveys.

3.7 Data Analysis

The research applied PLS-SEM Smart PLS version 2.0 for data analysis. In addition, SPSS was used to analyze the data.

3.7.1 Structural Equation Modeling (SEM)

According to Lei and Wu (2007), structural equation modeling (SEM) is defined as a significant number of statistical models used to evaluate substantive theories' validity with empirical data (Lei & Wu, 2007). SEM is employed to describe the relationship between multiple variables. It is a branch of the statistical model.

This study applied SEM for model testing for several reasons. Firstly, SEM is influential and acceptable for theory testing and development. In SEM, confirmatory modeling usually begins with a hypothesis in a causal model. The relationship testing (cause and effect) between independent and dependent variables was the focus in this study. In order to know whether the model is an appropriate and fit the data, the measurement model was tested. Secondly, SEM can be flexible for latent variables that cannot be directly assessed. Moreover, it can estimate a model which contains all items assumed to represent the latent variables. Six groups of independent or exogenous latent variables, namely extroversion, agreeableness, conscientiousness, openness and neuroticism and transformational leadership, were explored. Psychological safety was presented as a mediating latent variable (endogenous latent variable) while the dependent or endogenous latent variable was employee engagement. Finally, SEM allows the research to use a combination of more than one technique, for example, factor and regression analysis.

Two approaches of SEM are available. They are the covariance-based SEM (CBSEM) which is available in software such as LISREL, AMOS, and EQS. The other approach is variance-based SEM (VBSEM) or partial least squares (PLS) available in software such as Smart-PLS and PLS-Graph. Table 3.11 compares PLS and the covariance approaches

of SEM. The researcher's objectives play a major role in selecting the most suitable approach.

The aim of a covariance-based approach is to estimate population parameters by trying to come up with a covariance matrix which matches closely to the actual covariance matrix showed by the data. The covariance-based SEM is appropriate, when the researcher wants to test and confirm a theory. It requires a normal data distribution. On the other hand, PLS does not focus on accounting for measurement item covariance (Chin et. al., 2010). The PLS approach is similar to using multiple regression analysis. PLS is a method particularly robust for conducting causal-predictive analysis in situations of high complexity but low theoretical information (Chin et al., 2010). Instead of describing all of the covariance's indicators in a model, PLS is employed in order to maximize prediction in the endogenous constructs (Falk & Miller, 1992).

PLS can be utilized to prevent the limitations of covariance-based SEM with requires distribution properties, measurement level, sample size, model complexity, identification, and factor indeterminacy (Chin, 1999; Fornell & Cha, 1994, Wetzels et al., 2009). Therefore, PLS was chosen as the key technique for data analysis in this study.

Table 3.11

Comparison of PLS and Covariance Approaches of SEM

Criterion	PLS	Covariance-based
Research Objective	Prediction oriented	Parameter oriented
Approach	Variance-based	Covariance-based
Assumption	Predictor specification (Nonparametric)	Typically multivariate normal distribution and independent observations(Parametric)
Implication	Optimal for prediction	Optimal for parameter estimation
Model complexity	Large complexity	Small to moderate complexity
Sample size	Minimum of 30-100	Base on power analysis
Epistemic relationship between an LV and its measures	Can be modeled in either formative or reflective mode	Typically only with reflective indicators. However, the formative is also supported.

Source: Chin and Newsted (1999)

3.7.2 Partial Least Squares (PLS)

The Partial Least Squares (PLS) approach is a second generation structural equation modeling (SEM). It is also called a soft model approach. It is regarded as a kind of regression-based methods. It is a useful and flexible for analysis and investigation of large and complex path models (Wold, 1985).

The researcher chose the PLS approach for its advantages over the covariance approach. PLS can be employed in order to confirm or develop a theory (Chin, 1999). The PLS approach matches the researcher's prediction-oriented objective. Normality problems can generally occur in the most studies in the field of social sciences (Osborne, 2010). PLS is nonparametric technique; therefore, the normality of data distribution and small sample sizes are not required (Chin & Newsted, 1999, Chin et al., 2010; Falk & Miller, 1992). Since the PLS factors are orthogonal, multicollinearity is not a problem in

PLS. Additionally, a model that employs formative and reflective indicators can be estimated by PLS (Hair, Christian, & Marko, 2011). The objective of PLS is to achieve determinate values for latent variables for predicting a dependent variable. PLS creates the component scores of a latent variable that employ the indicators' weighted sum (Chin & Newsted, 1999).

Two steps are required in the PLS approach. The first is to build and test a model's measurement, which illustrates the relationship between an unobserved variable (a latent variable or a construct) with a set of variables that are observed (indicators or measured variable or items). The analysis involves assessing the reliability and validity of the instruments. The second is to build and test a structural model or "path model", where causal relationships among latent variable are tested (Roy, Tarafdar, Ragu-Nathan, & Marsillac., 2012). The structural model is evaluated in relation to the meaningfulness and significance of the hypothesized relationships between the constructs.

Measurement Model Assessment

The model of measurement is assessed by testing construct reliability, or internal consistency, individual item reliability, average variance extracted analysis (AVE), and discriminant validity.

There are two kinds of measurement model: a reflective measurement model and a formative measurement model (Bollen & Lennox, 1991; Edwards & Bagozzi, 2000).

In a reflective model, the construct is regarded as the cause and the indicators its manifestations. Changing the latent construct is reflected by the changing of indicators

(Hair et al., 2014). Therefore, the construct specifies its indicators (Bollen & Lennox, 1991) as illustrated in Figure 3.1a. A reflective indicator is indicated by a single head arrow pointed from the latent construct outward to the indicator variables. The associated coefficients for these relationships are called outer loadings in PLS (Hair, et al., 2014).

In a reflective measurement model, the regression model consists of single regressions with each indicator being the dependent variable, whereas the latent construct the independent variable. Therefore, the individual item reliability is evaluated by examining the indicators' simple correlations with their particular latent variable or the loading. A reliability test is to find how consistently an instrument measuring the concept intended to measure. According to Hair, et al. (2011), standardized loadings should be greater than 0.70 or more. Validity assessment of a reflective model focuses on convergent validity and discriminant validity (Hair, Black, Babin, & Anderson, 2010).

In a formative measurement model, the indicators cause the construct (Bollen & Lennox, 1991). As shown in Figure 3.1b, single head arrows are pointed toward the latent construct inward from the indicator variables. The outer weights in PLS are the relationships of the associated coefficients (Hair, Hult, Ringle, & Sarstedt. 2014). The latent construct is employed to assume a formative measurement model and to estimate a multiple regression model as the dependent variable and the assigned indicators are regarded as independent variables. Therefore, the loadings among manifest variables within a block do not necessarily compare because in each block of the intraset correlations are never taken in to describe the approximation procedure.

The construct explanation in this technique should be on the basis of the weights that provide the explanation that relates to the contribution of the indicator or dimension to the respective construct. Additionally, formative indicators are regarded as error free (Hair et al., 2014). Accordingly, the notion of reliability in internal consistency and convergent validity are not significant with formative indicators (Hair et al., 2014). In addition, the significance of the indicator's weight is considered in the evaluation. Also, the process of bootstrapping lets the significance of formative indicators' coefficients factors to be tested (Hair et al., 2014).

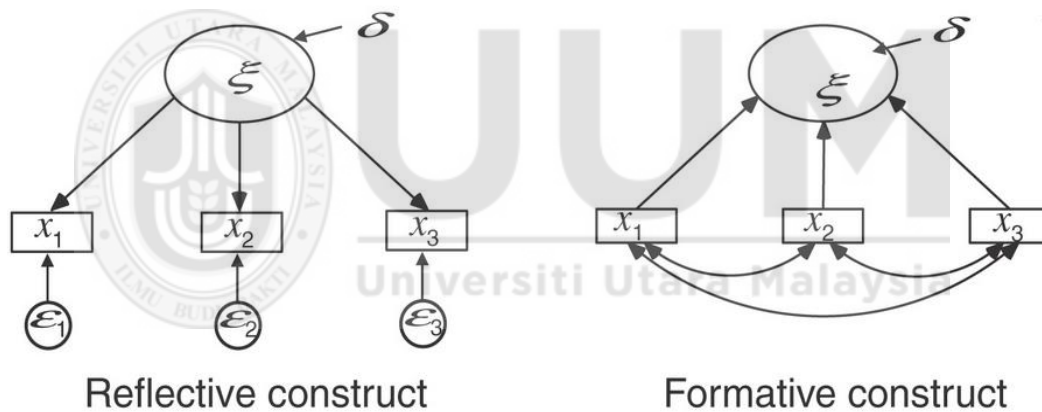


Figure 3.1
Formative and reflective factors of measurement models

Jarvis, Mackenzie, and Podsakoff (2003) created guidelines to decide whether a model of measurement should be interpreted as being reflective or formative. Table 3.12 presents the two different types of measurement models which are prevalent in the literature.

Table 3.12

Summary of the Jarvis, Mackenzie and Podsakoff (2003) Decision Rules

Criterion	Formative model	Reflective model
1. Direction of causality from construct to indicators implied by the conceptual definition	Direction of causality is form indicators to construct	Direction of causality is form construct to indicators
2. Interchangeability of the indicators	Indicators need not be interchangeable	Indicators should be interchangeable
3. Covariation among the indicator	Not necessary for indicators to covary with each other	Indicators are expect to covary with each other
4. Nomological net of the construct indicators	Nomological net of the indicators may differ	Nomological net of the indicators should not differ

Source: Matthias et al. (2010)

Reliability of Construct

Synonyms for reliability are stability, dependability, reproducibility, predictability, consistency, and lack of distortion (Kerlinger & Lee, 2000). Nunnally (1978) defined reliability as the instrument consistency in that it assesses the same object in the same way under the same condition in each time. To achieve the reliability of the instrument, the researcher tested composite reliability (Barrose, Carrion, & Roldan, 2010). The composite reliability concerns about the scope of a set of items, which consistently demonstrates the latent construct (Hair et al., 2010). The recommended value of composite reliability is 0.7, which indicates an acceptable convergent validity (Hair et al., 2014).

In PLS, individual items reliability is evaluated by examining the loadings, or indicators' simple correlations with their particular latent variable. According to Hair et al. (2014), standardized loadings should be greater than 0.70. However, indicators whose loading ranges between 0.40 and 0.70 should be considered for removal from the scale because the deletion will contribute to an increase in composite reliability above the threshold value Hair et al., 2014).

Convergent Validity

Convergent validity refers to the degree to which two measures of constructs that theoretically should be related are in fact related. It is ascertained by employing composite reliability (CR) and average variance extracted (AVE). Hair et al. (2014) recommended investigating the average variance extracted (AVE) for convergent validity, which is deemed sufficient if the AVE value is 0.50 or higher, which means that the latent variable describes more than half of its variance of the indicators. Also, the composite reliability is investigated as an aspect which is important to convergent validity. The composite reliability is defined as the area in which the latent construct is demonstrated consistently by a set of items (Hair et al., 2014). If the entire items are significantly important in assessing their constructs, the convergent validity can be ascertained when the CR values and AVE are at least 0.7 and 0.5, respectively (Hair et al., 2010).

Discriminant Validity

Discriminant validity is defined as differentiation within constructs for each item. It means that the items used to assess the construct do not overlap with the variance which is shared among each construct, and its assessment is higher than the variance

which is shared between the distinct constructs (Compeau, Higgins, & Huff, 1999). In order to investigate the measurement model's discriminant validity, the criterion proposed by Fornell and Larcker (1981) and cross-loadings were employed. The Fornell-Larcker's criterion indicates that the AVE square root of each latent construct should be greater than the cross-correlation of other latent constructs. The logic of this method is based on the idea that a construct shares more variance with its associated indicators than with any other construct.

Structural Model Assessment

After the measurement model has been assessed, the next stage PLS is to evaluate the structural model by investigating the inner model. A PLS model does not assume distributional normality in observations in its process for approximating parameters. Hence, the techniques based on traditional parametric for the test of significance are not suitable in PLS. A parameter which is non-significant illustrates the need to reformulate a model, which takes into account the theoretical basis. Therefore, the goodness of fit measures is about the capacity of the model to explain the covariance of the sample and accordingly it is concluded that the entire measures are reflective.

There are two important indexes in PLS for evaluation of the structural model: the variance which describes the endogenous variables (R^2) and the path coefficients. PLS is a nonparametric technique. Therefore, re-sampling should be employed. There are two approaches: jackknifing and bootstrapping that provide the standard errors and t-statistics of parameters. Bootstrapping is related to random sampling repetition with replacement from the original sample. The procedure concludes that

the distribution of the sample is a sensible representation of the intended population distribution. The bootstrap sample produces coefficients which are estimated in PLS to be tested for their significance (Henseler, Ringle, & Sinkovics, 2009).

Another criterion to assess the model's quality is the Q^2 test that is utilized to measure the relevance which can be predicted in endogenous constructs. This kind of test can be regarded as the indicator to assess how well the model and its parameter reproduce the observed values. The R^2 value is obtained by using a blindfolding procedure. This process is used only with endogenous latent constructs that comprise the specification of a reflective measurement model. There are two kinds of Q^2 , a cross-validated communality Q^2 and a cross-validated redundancy (Fornell & Cha, 1994). Q^2 more than 0 indicates predictive relevance of the model but Q^2 less than 0 suggests that the model does not have predictive relevance.

3.8 Proposed Structural Model of the Study

The authors used the Partial Least Square (PLS) to examine the hypotheses. The model in this study is a reflective measurement model. The reflective model specification is guided by conditions that each item all shares a general theme, particularly interchangeable in some degree but not cross in each construct. In addition, the indicators are caused by the latent variable.

Personality is a prominent construct in the psychological literature. It plays an important role in the prediction of behaviors and outcome. The Five Factor Model (FFM) can be used to examine personality-related issues (Mat, 2008; Steven & Ash, 2001). In this study, the researcher investigated personality traits of extraversion,

conscientiousness, openness, agreeableness, and neuroticism; transformational leadership, psychological safety, and employee engagement (see Figure3.2).

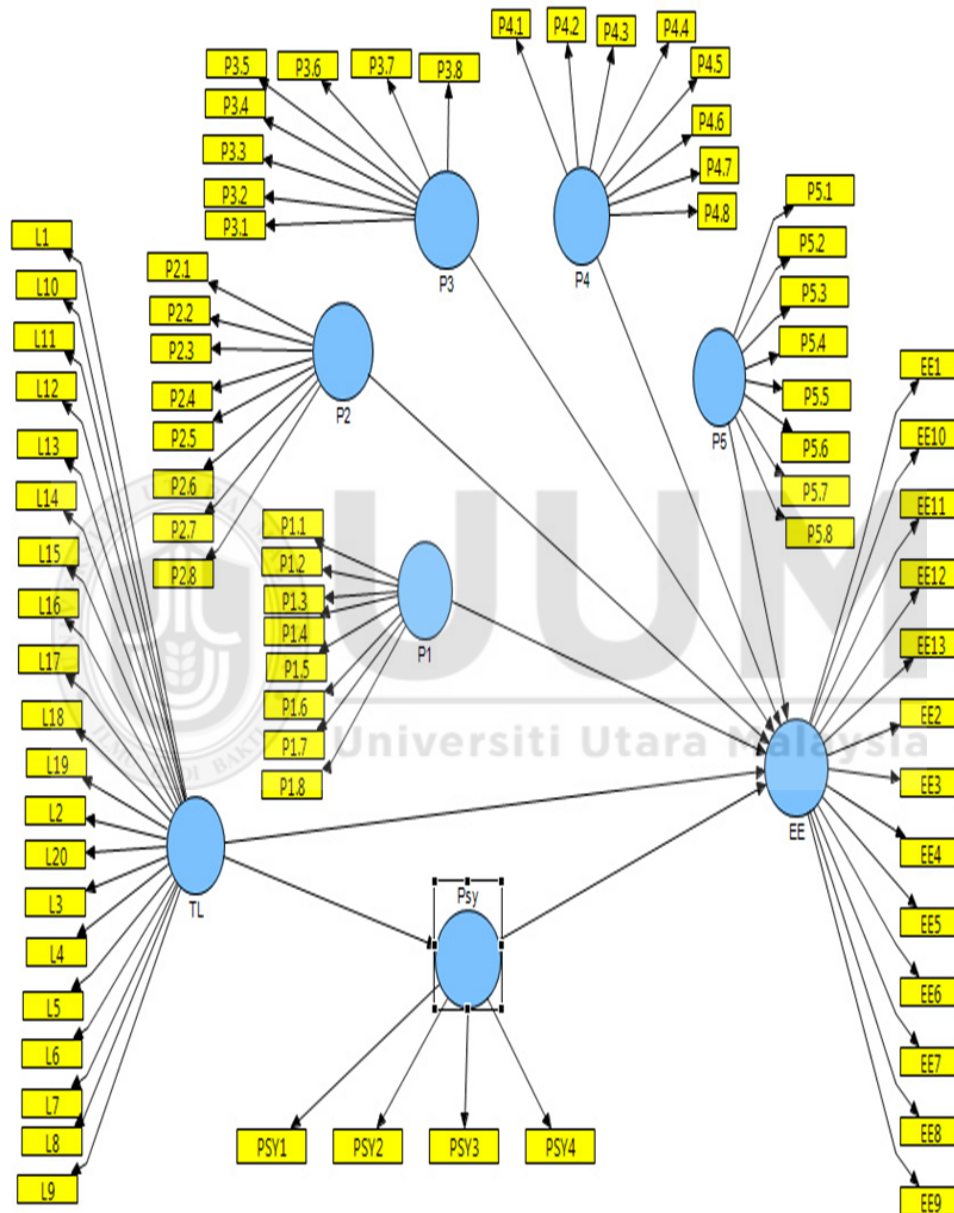


Figure 3.2

Research framework

Note. P1 = Extraversion, P2 = Agreeableness, P3 = Conscientiousness, P4 = Openness, P5 = Neuroticism, TL = Transformational Leadership, Psy = Psychological Safety, and EE = Employee Engagement

3.9 Summary

This chapter discussed the methodology used to answer the research questions and meet the research objectives. In particular, it explained the research design, sampling, data collection procedure, instrumentation, and data analysis. SPSS and Smart-PLS version 2.0 were employed to analyze the data. The PLS technique involves two stages of assessment: the measurement and the structural model. Each evaluation stage was described in this chapter. The next chapter presents the findings of the study.



CHAPTER 4

DATA ANALYSES AND RESULTS

4.0 Introduction

This chapter presents the results of the data analyses. The data were analyzed using SPSS (version 14.0) and Smart PLS version 2.0. The results in this chapter are presented in three main stages. First, the profile of participants is outlined in order to give a more detailed context for understanding the subsequent data presentation. The second stage is model evaluation in which the goodness of measure was established through construct validity and reliability. Third, the result of the research model testing is offered.

4.1 Profile of Participants

Of 608 employees in private companies invited to participate in this study, 422 responded. However, 20 responses were excluded from the analysis because of incomplete responses. Only 402 were usable and gave an effective response rate of 66.12%. Babies (1973) argued that a response rate of 50 % is acceptable for social research surveys. Hair et al. (2014) suggested that a sample size should be 10 times the number of the variables under study. In this study, there were eight variables. Hence, a sample of 80 is adequate for the analysis. Moreover, PLS requires only a minimum of 30 participants (Chin, 1998). Therefore, a total of 402 response rate is greatly adequate for this analysis.

4.2 Demographic Characteristics

This section describes the background information of the participants. Table 4.1 shows the participants were mostly female (61.9%). In terms of age, those who were between the age of 21 and 30 years old were 56.2% while 31.3% percent were between 31 and 40 years old. In terms of the level of education, the majority had a bachelor's degree (70.1%). In contrast, 2.7% had a postgraduate degree. Forty-five percent of the participants had worked in the organization less than 5 years. In addition, the participants who came from the organization that employed more than 100 employees were 48%, followed by those from the organization that had less than 50 employees (34.8%). With regards to the type of organization, almost half of the participants worked in the service sector (44.5%), followed by the production sector (37.3%). Only 18.2% worked in the trading sector. More details of all respondent profiles are shown in Appendix G.

Table 4.1
Demographic Characteristics of Participants

Variables	Description	Frequency	Percentage
Sex	Male	153	38.1
	Female	249	61.9
Age	Less than 21	11	2.7
	21-30 year	226	56.2
	31-40 year	126	31.3
	41-50 year	35	8.7
	51 or more	4	1.0

Table 4.1 (Continued)

Variables	Description	Frequency	Percentage
Level of education	High School	56	13.9
	Diploma	53	13.2
	Bachelor	282	70.1
	Post Graduate	11	2.7
Work experiences	Less than 5 years	181	45.0
	5 – 10 year	122	30.3
	More than 10 years	99	24.6
Size of organization	1 - 49 employees	140	34.8
	50 - 100 employees	69	17.2
	More than 100 employees	193	48.0
Type of organization.	Production Sector	150	37.3
	Trading Sector	73	18.2
	Service Sector	179	44.5

4.3 Data Screening

Before data could be analyzed, they should be screened first to eliminate spurious data that may affect the results. At this stage, data transformation, the accuracy of data, missing data, outliers, data distribution, and non-response bias were checked.

4.3.1 Data Transformation

Before performing the data screening, reverse-coding of some of the items was conducted in order to prevent response bias (Pallant, 2011). The negatively worded

items were in the five-factor model dimension of personality traits: extraversion (#P1.5 - #P1.8), agreeableness (#P2.5 - #P2.8), conscientiousness (#P3.5 - #P3.8), openness to experience (#P4.5 - #P4.8), neuroticism (#P5.3 - #P5.8).

4.3.2 Accuracy of Data Input

The accuracy of data input was examined with mean and standard deviations value. Upon a closer examination, the results showed that all responses to the variables under study were within the seven point scale. For demographic variables, it was found that all participants were within the plausible range.

4.3.3 Missing data

Missing data are often a problem in social science research because many projects obtain data using surveys. Missing data occur when a participant either purposely or inadvertently fails to answer one or more questions. When the number of missing data on a questionnaire exceeds 15%, the observation is typically removed from the data file (Hair, et al., 2014).

The researcher screened the data for missing values. This inspection showed a total of 16 cases in which participants did not answer all personality questions. Further inspection of the data revealed four cases in which participants did not respond to all items in the questionnaires. As mention earlier, 20 questionnaires were excluded in this study because the number of missing data on a questionnaire exceeded 15%. Finally, a total of 402 cases remained.

4.3.4 Outlier

An outlier is an extreme response to a particular question or extreme responses to all questions. The first step in dealing with outliers is to identify them. The researcher used z-scores to check the univariate outliers. The z-scores for each item must range between -3.29 and 3.29 (Tabachnick & Fidell, 2013). Based on the result, all the z-scores were between -3 and 3. Therefore, no univariate outliers existed as presented in Appendix I.

4.3.5 Normality test

PLS is a nonparametric statistical method. It does not require the data to be normally distributed. However, the data should not be too far from normality as extremely non-normal data prove problematic in the assessment of the parameters' significance (Hair, et al., 2014).

Normality is generally tested for items based on skewness, kurtosis, and their respective standardized value. Finney and Dstefano (2006) suggested that the absolute values of univariate skewness greater than ± 3.0 and univariate kurtosis greater than ± 7.0 seem to describe extremely skewed data sets. The highest univariate score of skewness was 1.769, which was below ± 3.0 . The univariate of kurtosis ranged from -0.936 to 2.345, which was still below ± 7.0 . Thus, univariate of skewness and kurtosis was acceptable according to the rule of thumb (see Appendix J).

4.3.6 Tests for Non-Response Bias

Non-response bias refers to a situation in which people who do not respond have opinions that are systematically different from the opinions of those who return the surveys. If there is no significant difference between the two groups, it means that non-response bias does not occur.

To test for non-response bias was to compare the responses of those who returned early before May 2013 and those who returned the questionnaire after May 2013. In this survey, 184 participants responded to the first mail (before May 2013) and 218 participants after May 2013. Table 4.2 shows the descriptive statistics for the early and late participants. More details of all respondent profiles are shown in Appendix F.

Table 4.2
Descriptive Statistics for Early and Late Participants

	Collection Period	N	Mean	Std. Deviation	Std. Error Mean
MEANEE	Early before May 2013	184	5.841	0.691	0.051
	Late after May 2013	218	5.774	0.717	0.049
MEANP	Early before May 2013	184	5.243	0.348	0.026
	Late after May 2013	218	5.215	0.380	0.026
MEANL	Early before May 2013	184	5.151	0.939	0.069
	Late after May 2013	218	5.083	1.093	0.074
MEANPSY	Early before May 2013	184	5.499	0.709	0.052
	Late after May 2013	218	5.446	0.834	0.056

Using independent samples t-test for equality of means, the researcher found that the groups' mean and standard deviation for early responses and late responses were apparently not different. As shown in Table 4.3, the t-test results demonstrated no

significant difference between the two groups employee engagement ($t = 0.942$, $p < 0.347$); employee personality ($t = 0.762$, $p < 0.446$); transformational leadership ($t = 0.664$, $p < 0.507$); and psychological safety ($t = 0.674$, $p < 0.501$). In sum, non-response bias did not occur in the study. Appendix G shows more details of the result.

Table 4.3
Independent Samples T-test for Equality of Means

		F	Sig.	t	Df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
										Lower Upper
MEANEE	Early before									
	May 2013	1.363	0.244	0.942	400	0.347	0.0665	0.07061	-0.0723	0.20532
	Late after									
	May 2013			0.945	393.094	0.345	0.0665	0.07038	-0.07186	0.20489
MEANP	Early before									
	May 2013	2.593	0.108	0.762	400	0.446	0.0279	0.03661	-0.04407	0.09987
	Late after									
	May 2013			0.768	397.253	0.443	0.0279	0.03634	-0.04355	0.09934
MEANL	Early before									
	May 2013	2.888	0.09	0.664	400	0.507	0.0681	0.10262	-0.13364	0.26985
	Late after									
	May 2013			0.672	399.867	0.502	0.0681	0.10132	-0.13108	0.26729
MEANPSY	Early before									
	May 2013	4.381	0.037	0.674	400	0.501	0.0525	0.07801	-0.10081	0.20589
	Late after									
	May 2013			0.683	399.972	0.495	0.0525	0.07695	-0.09874	0.20383

4.3.7 Common Method Variance

When eight attitude-based constructs are obtained from the same respondent, using the same instrument, at the same time, then the relationship between them is said to be influenced by Common Method Variance. Common method variance (CMV) is defined as the “variance that is attributable to the measurement method rather than to the construct of interest”(Bagozzi and Yi ,1991) . Moreover, CMV is said to introduce a spurious correlation between the variables of interest (Krishnaveni & Deepa, 2013).

Following the recommended remedy to control CMV , the study conducted Harman's single factor test to show that CMV did not have an impact on the correlation among constructs. This test is the widely used techniques to diagnose CMV. The test was performed through an exploratory factor analysis, using unrotated principle component factor solution using SPSS. From the output in Appendix K in the first row that Harman single factor technique estimates the common method variance to be 19.53% that is below the threshold of 50%. Hence the data in this study was likely not affected by common method variance.

4.4 Descriptive Statistics

The researcher divided the eight constructs into two categories. The first one contained employee engagement, transformational leadership, and psychological safety. The second category was extraversion, agreeableness, conscientiousness, openness, and neuroticism. Table 4.4 shows that the maximum of the mean value for the first category was 6.71 for employee engagement, followed by transformational leadership (mean = 5.35). The lowest mean value was psychological safety (mean = 4.88).

Table 4.4
Means and Standard Deviations of Variables under Study

Construct	Mean	Std.Dev
Employee Engagement	6.71	0.83
Transformational Leadership	5.35	1.06
Psychological Safety	4.88	0.74
Extraversion	4.97	0.86
Agreeableness	5.70	0.74
Conscientiousness	4.99	0.63
Openness	5.26	0.94
Neuroticism	4.22	0.68

Table 4.4 shows that highest score for the second category of personality was agreeableness (mean = 5.70), followed by openness to experience (mean = 5.26). The lowest mean value of 4.22 was neuroticism.

4.5 Model Evaluation: Partial Least Squares Analyses

The discussion in this section is presented in two steps. This first section presents the result of the measurement model or outer model, which provides the results of validity tests (convergent and discriminant validities) and reliability tests. The second section presents the structural model result, which involves the determination of path coefficients and hypotheses testing. Figure 4.1 recaps the proposed model.



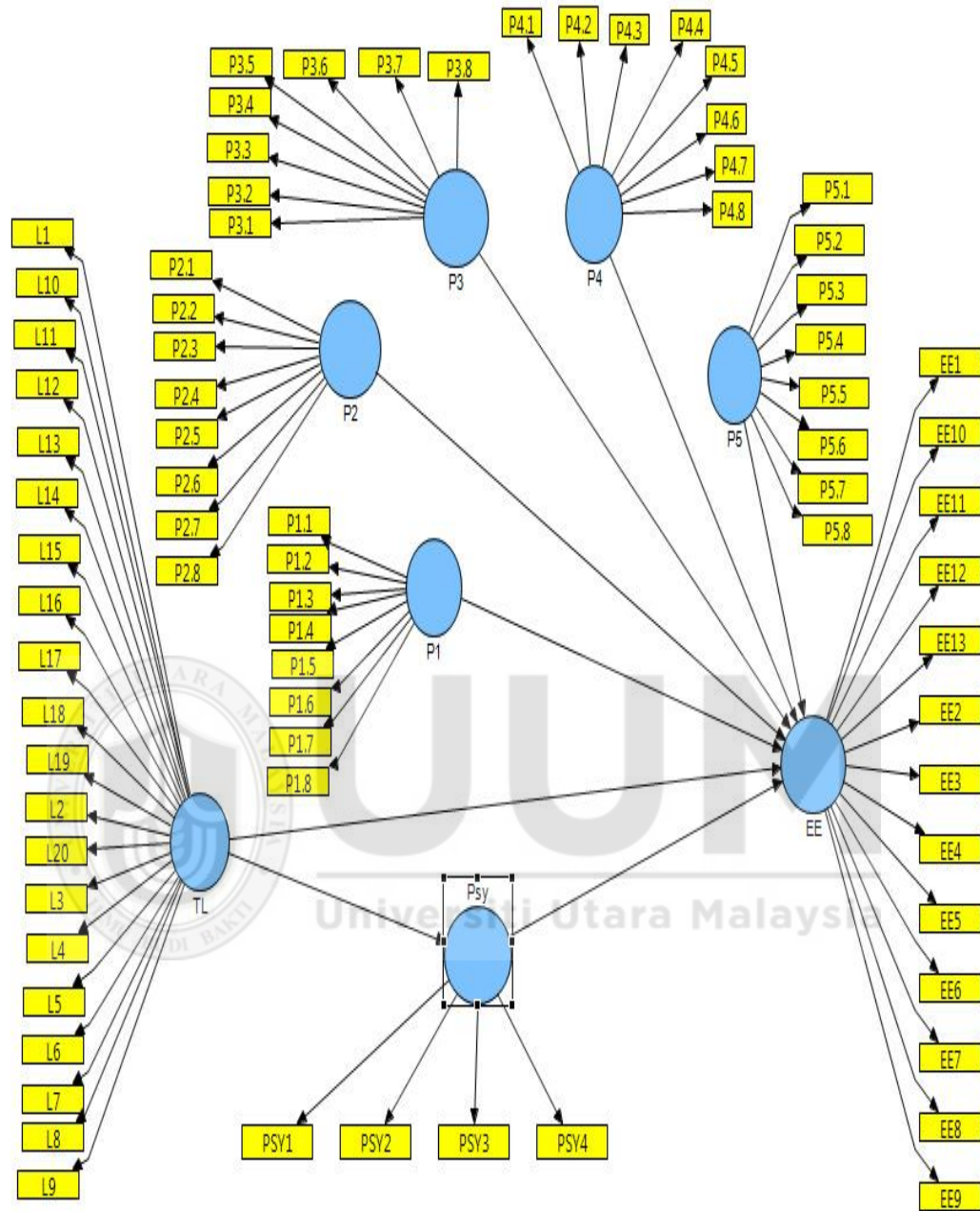


Figure 4.1

Proposed model

Note P1 = Extraversion, P2 = Agreeableness, P3 = Conscientiousness, P4 = Openness, P5 = Neuroticism, TL = Transformational Leadership, Psy = Psychological Safety, and EE = Employee Engagement

4.6 Measurement Model Results

This study used PLS structural equation modeling (SEM) that involves two important multivariate techniques including factor analysis and multiple regressions (Hair et al., 2010). PLS tool is used to analyze the main and mediating hypotheses.

The first step in evaluating a model is to analyze the measurement model (outer model) using confirmatory factor analysis (CFA) to determine how well the indicators (specific questions) load on the theoretically defined constructs. Examining the outer model ensures that the survey items are measuring the constructs they were designed to measure.

The proposed model in Figure 4.1 shows that this research had multiple items. All eight constructs relied primarily on a reflective measurement model which each indicator is individually a dependent variable, whereas the latent construct is the independent variable. The construct specifies its indicators. Hence, changing the latent construct is reflected by the changing of the indicators (Bollen & Lennox, 1991; Hair, et al., 2011).

A reflective measurement model should be evaluated by ascertaining internal consistency reliability and validity. The test of reliability attempts to examine how a measuring instrument is consistent with the idea that is supposed to measure, whereas validity assessment focuses on convergent validity and discriminant validity (Hair, et al., 2010).

4.6.1 Internal Consistency Reliability

Internal consistency reliability is evaluated as the first criterion. The traditional criterion for internal consistency is Cronbach's alpha, which assumes that all indicators are equally reliable. However, Cronbach's alphas are sensitive to the number of items in the scale and generally tend to underestimate the internal consistency reliability. But PLS-SEM prioritizes the indicators according to their individual reliability. Therefore, composite reliability (CR) was used to measure internal consistency reliability.

Composite reliability (CR) refers to the extent to which a set of items indicates the latent construct (Hair et al., 2010) consistently. As depicted in Table 4.5, the composite reliability of each construct ranged from 0.776 – 0.967, which was higher than the recommended value of 0.7. This showed support for the internal consistency reliability in this study.

4.6.2 Convergent Validity

Convergent validity means that the items that are indicators of a specific construct should converge or share a high proportion of a common variance. Several ways are available to estimate the relative amount of convergent validity among items measurement. To establish convergent validity, researchers consider the outer loadings of indicators and average variance extracted (AVE).

The outer loading on all items in the model to their respective constructs and standardized loadings should be greater than 0.70. However, indicators with loadings between 0.40 and 0.70 should only be considered for removal from the scale if deleting

them leads to an increase in composite reliability above the suggested threshold value. Indicators that present very low loadings of 0.4 and lower should delete (Hair et al., 2014).

In this study, 28 item presented loadings below the acceptable value. They were then deleted. There were 23 items from employee personality, one item from psychological safety, two items from leadership, and two items from employee engagement. Table 4.5 and Figure 4.2 present the remaining item loadings from the model. The remaining components met the 0.70 standardized loading defined by Hair et al. (2014). The remaining items are shown in Table 4.5 and Figure 4.2.

Next, convergent validity was considered by checking the range in which the measures of a variable were correlated. The average variance extracted (AVE) among a set of items was examined. In other words, AVE can be used to compare the variance captured by the assignable variance to the measurement errors. As suggested by Barclay, Thompson, & Higgins. (1995), the values of AVE which is higher than 0.5 can identify the set of items that has an adequate convergence in order to measure the concerned construct. Table 4.5 indicates that the values ranged between 0.537 and 0.682. Thus the measures of AVE met the standard value according to Barclay et al. (1995).

Table 4.5

Summary Results of the Reflective Measurement Model

Reflective Indicator	Loading	T-stat	CR	AVE
Employee Engagement			0.940	0.589
EE1 I work with intensity on my job.	0.759	26.124		
EE 2 I exert my full effort to my job.	0.792	38.554		
EE 3 I devote a lot of energy to my job.	0.710	22.952		
EE 4 I try my hardest to perform well on my job	0.761	24.963		
EE 5 I am enthusiastic about my job.	0.785	30.321		
EE 6 I am interested in my job.	0.835	45.223		
EE 7 I am proud of my job.	0.721	21.790		
EE 8 I feel positive about my job.	0.700	19.502		
EE 10 At work, I pay a lot of attention to my job	0.802	33.919		
EE 11 At work, I concentrate on my job.	0.786	30.419		
EE 13 At work, I devote a lot of attention to my job	0.779	33.331		
Transformational Leadership			0.967	0.619
L3 seek differing perspectives when solving problems	0.721	23.649		
L 4 talk optimistically about the future	0.739	22.046		
L 5 instill pride in others for being associated with him/her	0.752	26.237		
L 6 talk enthusiastically about what needs to be accomplished	0.756	27.472		
L 7 specify the importance of having a strong sense of purpose	0.700	16.682		
L 8 spend time teaching and coaching	0.784	36.910		
L 9 go beyond self-interest for the good of the group	0.790	32.131		

Table 4.5 (Continued)

Reflective Indicator	Loading	T-stat	CR	AVE
L 10 treat others as an individual rather than just as a member of the group	0.717	20.783		
L 11 act in ways that builds others' respect for him/her	0.835	49.722		
L 12 consider the moral and ethical consequences of decisions	0.814	38.879		
L 13 display a sense of power and confidence	0.703	16.492		
L 14 articulate a compelling vision of the future	0.845	47.687		
L 15 consider an individual as having different needs, abilities, and aspirations from others	0.815	37.104		
L 16 get others to look at problems from many different angles	0.793	28.924		
L 17 help others to develop their strengths	0.827	43.895		
L 18 suggest new ways of looking at how to complete assignments	0.856	56.686		
L 19 emphasize the importance of having a collective sense of mission	0.847	47.008		
L 20 express confidence that goals will be achieved	0.839	48.894		
Psychological Safety			0.797	0.566
Psy 1 I can be myself at work.	0.756	17.859		
Psy 2 At work I can bring up problems and tough issues without fear of being teased or made fun of.	0.769	20.634		
Psy 3 I feel physically safe at work.	0.732	18.029		

Table 4.5 (Continued)

Reflective Indicator	Loading	T-stat	CR	AVE
Personality				
Extraversion			0.797	0.571
P1.1: Talkative	0.787	20.843		
P1.2: Extraverted	0.840	33.037		
P 1.3: Bold	0.622	9.160		
Agreeableness			0.810	0.682
P2.1: Sympathetic	0.849	24.104		
P2.4: Cooperative	0.802	19.421		
Conscientiousness			0.809	0.515
P3.1: Organized	0.751	20.658		
P3.2: Efficient	0.670	15.719		
P3.3: Systematic	0.726	19.487		
P3.4: Practical	0.720	16.813		
Openness to Experience			0.856	0.546
P4.3: Philosophical	0.744	15.092		
P 4.4: Intellectual	0.667	10.937		
P4.5: Complex	0.803	20.412		
P 4.7: Uncreative	0.815	21.502		
P 4.8: Unintellectual	0.650	10.332		
Neuroticism			0.776	0.537
P5.4: Jealous	0.686	9.098		
P5.5: Temperamental	0.803	16.736		
P 5.8 Fretful	0.704	9.4441		

4.6.3 Discriminant Validity

Discriminant validity refers to the degree to which items can differentiate among the constructs. It means that the items measuring constructs do not overlap with the shared variance between each construct, and its measure is greater than the variance

shared among the distinct constructs (Compeau et al., 1999). To examine the discriminant validity of the measurement model, this study followed the criterion suggested by two measurements including the cross-loadings and Fornell and Larcker (1981).

The first criterion of discriminant validity is that an indicator's loading is highly loaded on its own construct than on other constructs. Moreover, all constructs share more variance with their measures than with other constructs as shown in Table 4.6.

Table 4.6
Results for Outer Model Loadings and Cross-Loadings

	EE	TL	P1	P2	P3	P4	P5	Psy
EE1	0.759	0.160	0.270	0.219	0.315	0.192	0.156	0.274
EE10	0.802	0.236	0.323	0.321	0.393	0.231	0.273	0.270
EE11	0.785	0.210	0.318	0.295	0.384	0.250	0.242	0.239
EE13	0.779	0.212	0.316	0.303	0.355	0.186	0.264	0.294
EE2	0.792	0.164	0.299	0.245	0.343	0.220	0.187	0.300
EE3	0.710	0.143	0.175	0.190	0.225	0.168	0.145	0.270
EE4	0.761	0.120	0.268	0.267	0.379	0.232	0.223	0.245
EE5	0.785	0.240	0.298	0.277	0.389	0.175	0.262	0.286
EE6	0.836	0.221	0.297	0.270	0.366	0.217	0.238	0.333
EE7	0.721	0.264	0.257	0.191	0.327	0.142	0.176	0.319
EE8	0.696	0.350	0.249	0.213	0.291	0.152	0.162	0.308
L10	0.164	0.717	0.081	0.079	0.073	-0.014	0.041	0.236
L11	0.232	0.835	0.137	0.091	0.122	0.017	0.078	0.340
L12	0.274	0.814	0.156	0.179	0.191	0.087	0.167	0.263
L13	0.234	0.703	0.174	0.122	0.133	-0.017	0.138	0.292
L14	0.205	0.845	0.126	0.150	0.076	-0.043	0.141	0.307

Table 4.6 (Continued)

	EE	TL	P1	P2	P3	P4	P5	Psy
L15	0.194	0.815	0.133	0.092	0.102	0.007	0.140	0.299
L16	0.148	0.793	0.136	0.098	0.124	-0.002	0.138	0.319
L17	0.196	0.827	0.106	0.110	0.112	0.008	0.122	0.321
L18	0.200	0.856	0.150	0.143	0.151	0.031	0.137	0.304
L19	0.188	0.847	0.110	0.121	0.121	0.000	0.106	0.318
L20	0.224	0.839	0.129	0.135	0.138	0.091	0.112	0.339
L3	0.223	0.721	0.109	0.134	0.141	0.000	0.101	0.216
L4	0.253	0.739	0.096	0.091	0.085	0.028	0.063	0.210
L5	0.198	0.752	0.107	0.071	0.100	0.014	0.085	0.208
L6	0.261	0.756	0.133	0.195	0.164	0.036	0.144	0.232
L7	0.261	0.700	0.142	0.193	0.133	-0.026	0.149	0.265
L8	0.198	0.784	0.134	0.090	0.097	-0.016	0.133	0.271
L9	0.254	0.790	0.103	0.103	0.112	-0.007	0.076	0.302
P1.1	0.305	0.126	0.787	0.324	0.365	0.102	0.259	0.242
P1.2	0.327	0.141	0.840	0.321	0.439	0.108	0.340	0.199
P1.3	0.164	0.089	0.622	0.257	0.209	-0.059	0.291	0.179
P2.1	0.292	0.150	0.402	0.849	0.400	0.233	0.471	0.172
P2.4	0.258	0.106	0.248	0.802	0.340	0.059	0.425	0.188
P3.1	0.298	0.101	0.365	0.310	0.751	0.188	0.296	0.153
P3.2	0.291	0.167	0.284	0.305	0.670	0.206	0.216	0.146
P3.3	0.354	0.027	0.323	0.322	0.726	0.061	0.312	0.175
P3.4	0.342	0.160	0.370	0.348	0.720	0.252	0.434	0.299
P4.3	0.112	0.049	0.027	0.048	0.192	0.744	0.123	-0.002
P4.4	0.139	-0.002	0.158	0.149	0.147	0.667	0.108	0.063
P4.5	0.187	-0.016	-0.008	0.059	0.199	0.803	0.079	0.010
P4.7	0.244	0.033	0.047	0.075	0.179	0.815	0.111	0.040
P4.8	0.211	-0.003	0.122	0.312	0.179	0.650	0.348	0.002
P5.4	0.172	0.129	0.326	0.384	0.380	0.052	0.686	0.208
P5.5	0.214	0.137	0.313	0.548	0.383	0.062	0.803	0.215

Table 4.6 (Continued)

	EE	TL	P1	P2	P3	P4	P5	Psy
P5.8	0.222	0.065	0.221	0.266	0.231	0.337	0.704	0.108
PSY1	0.340	0.194	0.233	0.200	0.257	0.082	0.177	0.756
PSY2	0.284	0.218	0.192	0.131	0.190	-0.015	0.143	0.769
PSY3	0.221	0.382	0.192	0.157	0.172	0.002	0.208	0.732

The second criterion of discriminant validity is the Fornell-Larcker's criterion (Fornell & Larcker, 1981) where the square root of the AVE of each latent construct should be greater than the cross-correlation with any other latent construct. Table 4.7 shows adequate discriminant validity.

Table 4.7

Results of the Discriminant Validity of Constructs

	EE		P1	P2	P3	P4	P5	Psy	TL
EE	0.589	0.767	0	0	0	0	0	0	0
P1	0.571	0.368	0.756	0	0	0	0	0	0
P2	0.682	0.334	0.40	0.826	0	0	0	0	0
P3	0.515	0.451	0.47	0.449	0.718	0	0	0	0
P4	0.546	0.258	0.09	0.183	0.243	0.739	0	0	0
P5	0.537	0.280	0.39	0.544	0.445	0.217	0.733	0	0
Psy	0.566	0.371	0.27	0.217	0.273	0.031	0.237	0.752	0
TL	0.619	0.277	0.16	0.156	0.155	0.015	0.148	0.360	0.787

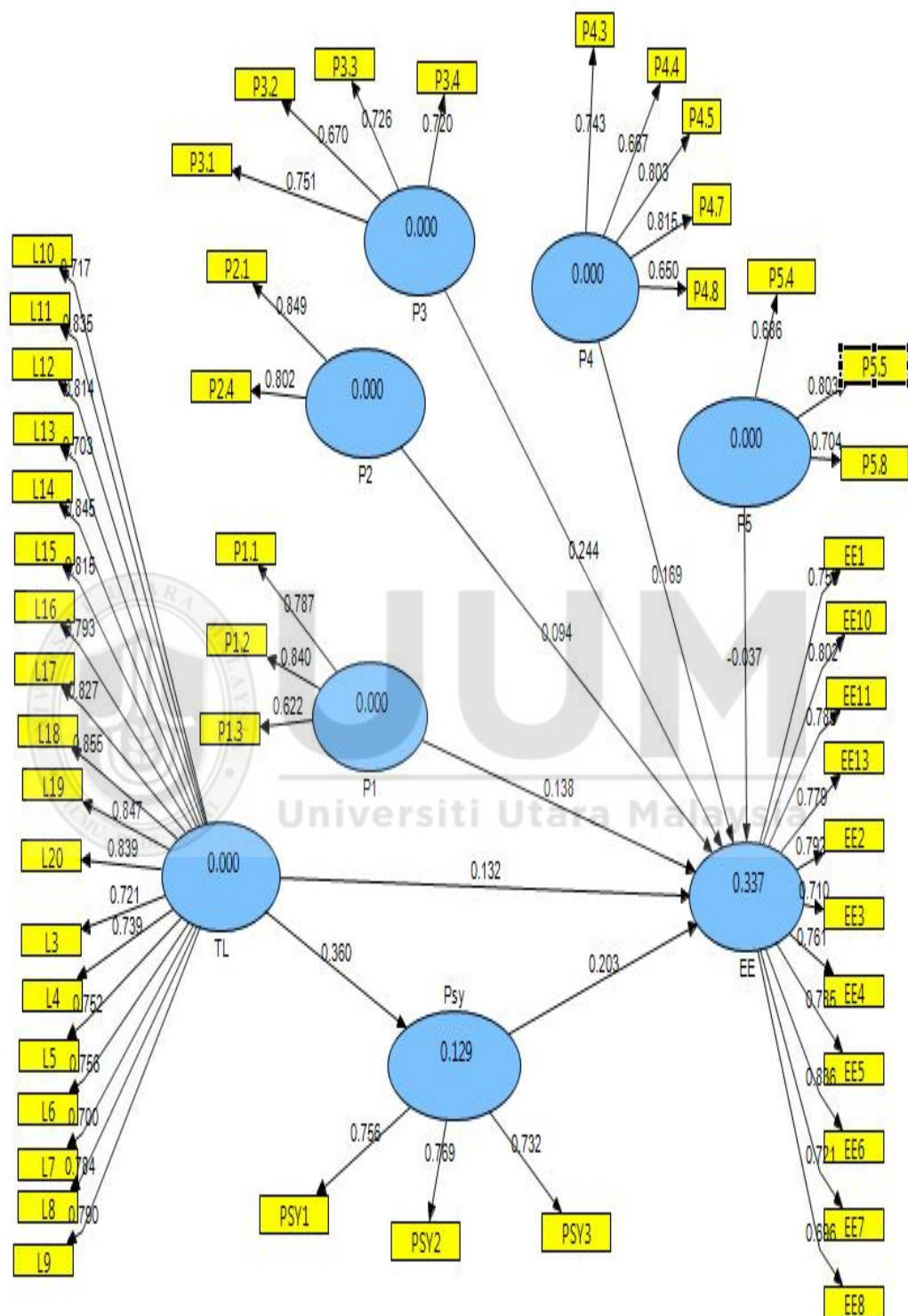


Figure 4.2
Path analysis results after revision

In sum, after CFA was run, the earlier proposed model in Figure 4.1 was revised because some indicators had been deleted. The result was the revised model shown in Figure 4.2. Table 4.5, 4.6, and 4.7 indicate that all eight constructs including extraversion, agreeableness, conscientiousness, openness, neuroticism employee engagement, transformational leadership, and psychological safety were reliable and valid. The next step is to present the results of the structural model evaluation.

4.7 Structural Model Results

After the reliability and validity of the measurement model were confirmed, the next step in the PLS analysis is to create a structural model by analyzing the inner model. This involves examining the model's predictive capabilities and the relationship between the constructs. A systematic approach to the assessment of a structural model includes collinearity examination, the coefficient of determination (R^2 value), blindfolding and predictive relevance, path coefficient assessment, and the relevance of significance of the relationships.

4.7.1 Collinearity Assessment

Collinearity results when the variables in the dataset are highly correlated (Tabachnick & Fidel, 2001). A high correlation means that two sets of variables measure the same thing. Collinearity can lead to being non-significant indicators. In order to specify redundancy, collinearity is tested by using the variance inflation factors (VIF) and tolerance. In the context of PLS-SEM, a tolerance value of 0.20 or lower and a VIF value of 5 and higher respectively indicate a potential collinearity problem (Hair, et al., 2011). Table 4.8 shows the VIF and tolerance values. The result shows that the tolerance value ranged from 0.570 to 0.875, and the variance inflation factor (VIF) value ranged

fallen between 1.143 and 1.755. All VIF values were below the threshold value of 5, and the tolerance values were higher than the threshold of 0.20. Therefore, collinearity among the predictor constructs was not an issue.

Table 4.8
Multicollinearity Test Based on Assessment of Tolerance and VIF Values

Variable	Tolerance	VIF
Extraversion	.721	1.387
Agreeableness	.570	1.755
Conscientiousness	.672	1.489
Openness	.581	1.722
Neuroticism	.869	1.151
Transformational Leadership	.875	1.143
Psychological safety	.778	1.285

*Dependent Variable: Employee Engagement

4.7.2 Coefficient of Determination (R^2)

R-square (R^2) assesses the predictive power of a specific model. It illustrates the value of the endogenous constructs or latent variables, as well as ascertaining the standard path coefficient for each relationship from the exogenous variables to the endogenous variables. The R^2 values mean the degree of variance in the construct described by the model (Barclay et al., 1995; Chin, 1998). Figure 4.2 and Table 4.9 show that the R^2 value of the employee engagement was 0.337, indicating that 33.7% of the variance in the employee engagement construct was explained by extraversion, agreeableness, conscientiousness, openness, neuroticism, transformational leadership, and psychological safety. On the other hand, the R^2 value of psychological safety was 0.13 indicating that 13% of the variance was explained by transformational leadership.

Table 4.9
Results of R^2

Endogenous Latent variable	R^2 Values
Employee Engagement	0.337
Psychological safety	0.13

4.7.3 Blindfolding and Predictive Relevance Q^2

The Stone-Geisser test of predictive relevance is used to assess model fit (Chin, 2010). Using PLS for prediction purposes requires a measure of predictive capability by the blindfolding approach. PLS estimates the omitted values in each block then predicts the omitted part based on the calculated parameters. Q^2 shows how well the data collected empirically can be reconstructed with the help of model and the PLS parameters (Fornell & Cha, 1994). If $Q^2 > 0$, the model has predictive relevance. Conversely, if $Q^2 < 0$ and $Q^2 = 0$, the model lacks predictive relevance.

The estimation of the omitted data can be done following one of two approaches (Fornell & Cha, 1994). The first one is cross-validated communality (H^2) where the missing values of the manifest data are estimated using the latent variables scores and factor loadings. Next is cross-validated redundancy (F^2) where the scores of the latent endogenous variables are estimated by the scores of the latent exogenous variables and the weights in the measurement model. Then, these newly estimated scores of latent exogenous variables are used to estimate the missing manifest variables scores.

The model in this study was predicted by seven latent variables. In Figure 4.3, the results showed that Q^2 (cross-validated communality: H^2) was 0.502 while Q^2 (cross-validated

redundancy: F^2) was 0.188. The value greater than zero indicates that the model had predictive relevance.

4.7.4 Goodness of Fit Measurement (GoF)

A goodness of fit measure (GoF) is used to evaluate the overall fit of the model (Tenenhaus, Amato, & Vinzi, 2004). As defined by Tenenhaus et al. (2004), GoF for PLS path modeling is the geometric mean of the average communality (outer measurement model) and average R^2 value for the endogenous constructs (Tenenhaus et al., 2004). To support the validity of the PLS model, GoF value was estimated according to the guidelines set up by Wetzels et al. (2009), who suggested that the closer the GoF to 1, the better the fit of the model under consideration $GoF = (0 < GoF < 1)$. Specifically, GoF for the model was calculated using the following formula:

$$GoF = \sqrt{AVE \times R^2}$$

In our study, the obtained GoF value was 0.367 (average R^2 was 0.233, average AVE was 0.578 that showed large effect sizes of R^2). The comparison was made with the baseline values of GoF (small = 0.1, medium = 0.25, large = 0.36) as suggested by Wetzels et al. (2009). The result provided evidence of adequate global PLS model validity.

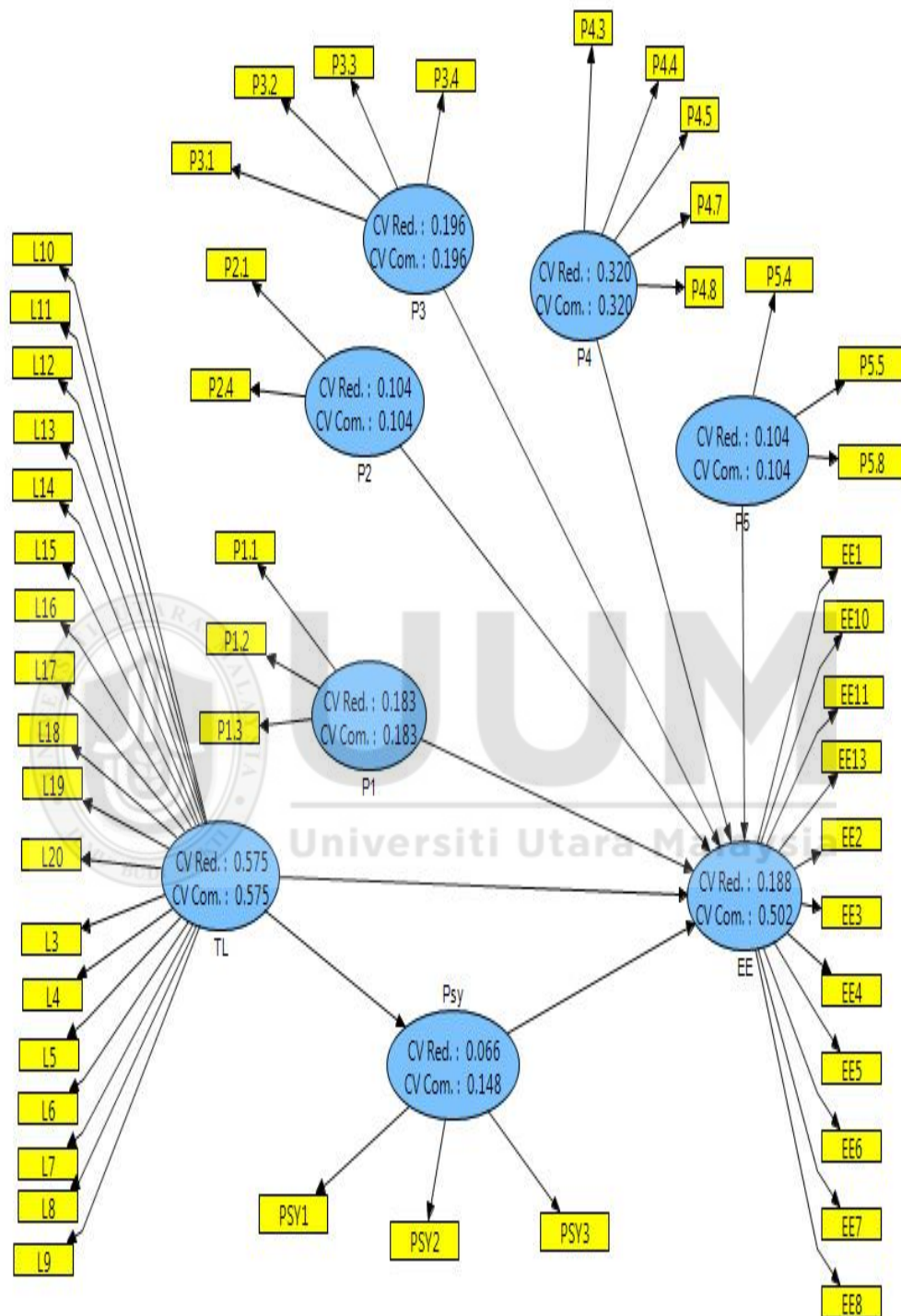


Figure 4.3
The Q^2 value of the model

4.7.5 Structural Model Path Coefficients and Hypotheses Testing

A PLS model does not follow distributional normality assumption of observations in its procedure for estimating parameters. Therefore, the traditional parametric-based techniques for significance testing are not appropriate in PLS. Therefore, to analyze the structural model, the researcher first examined the path loadings (path coefficients) of the constructs. To identify the significance using computed T-statistics, data were run using 5000 bootstrapped samples, with 402 cases per sample. Whereas path coefficients were estimated with each random sample, the mean parameter estimates and standard errors were computed across the total number of sampling. Table 4.10 presents the path coefficients (β), standard error, and the T-values.

Table 4.10
Results for Direct Relationship

Predictor Construct	Path coefficients (β)	Standard error	T value
P1 -> EE	0.138	0.0575	2.401*
P2 -> EE	0.094	0.0573	1.645
P3 -> EE	0.244	0.0466	5.227***
P4 -> EE	0.169	0.0457	3.703***
P5 -> EE	-0.037	0.0536	0.694
Psy -> EE	0.203	0.0476	4.261***
TL -> EE	0.132	0.0487	2.718*
TL -> Psy	0.360	0.0518	6.944***

Note.*** Indicates the item is significant at the $p < 0.001$. ** Indicates the item is significant at the $p < 0.01$. * Indicates the item is significant at the $p < 0.05$.

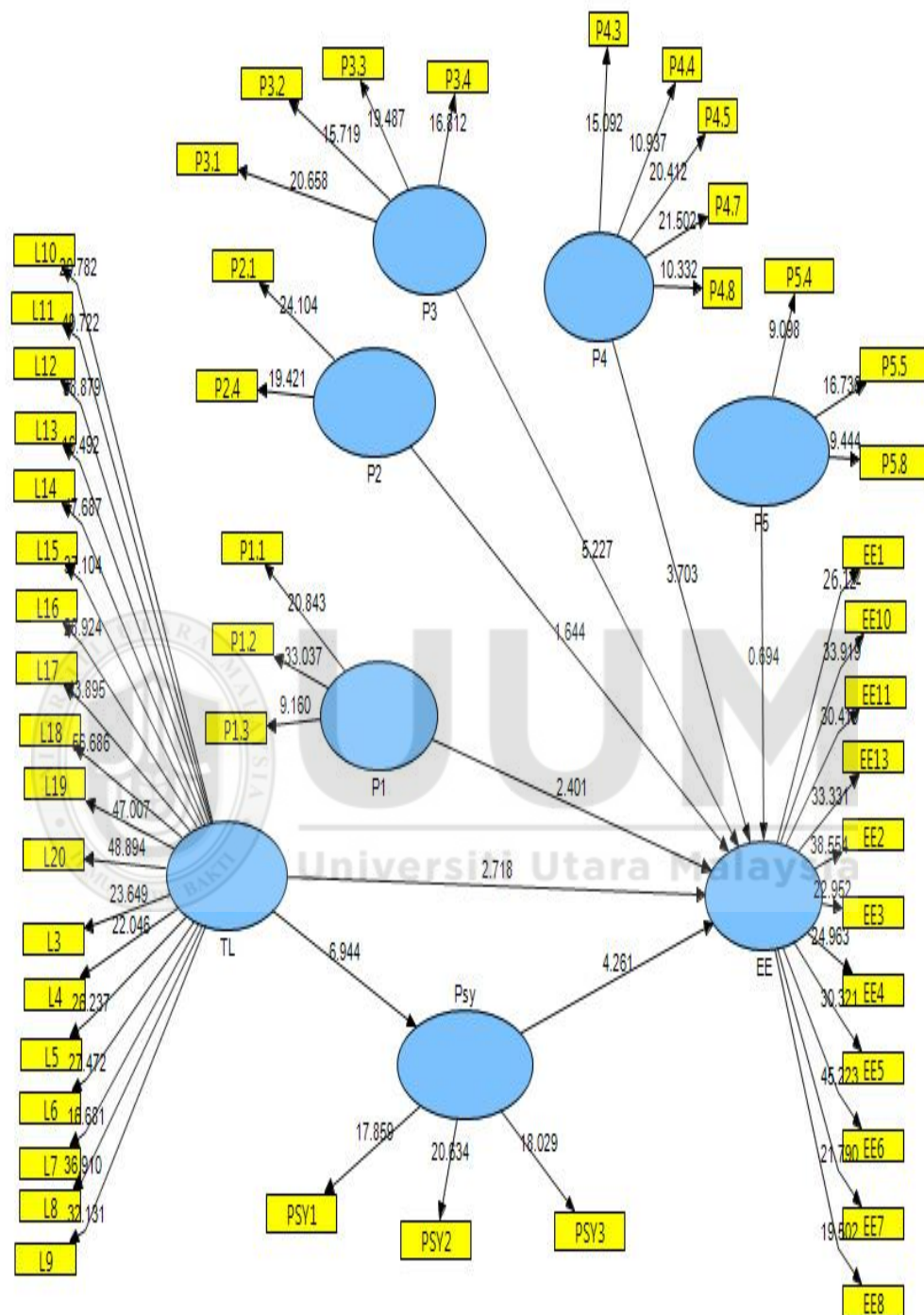


Figure 4.4
T-values for the path analysis

Table 4.10, Figure 4.2, and Figure 4.4 show the relative importance of the exogenous construct to employee engagement (EE). The results showed that of the seven direct relationships five demonstrated a significant and positive influence on employee engagement. Conscientiousness ($p3$) had the strongest influence on employee engagement ($\beta = 0.244$, $t\text{-value} = 5.227$, $p < 0.00001$), followed by psychological safety ($\beta = 0.203$, $t\text{-value} = 4.261$, $p < 0.00001$), openness to experience ($\beta = 0.169$, $t\text{-value} = 3.703$, $p < 0.0002$), transformational leadership ($\beta = 0.132$, $t\text{-value} = 2.718$, $p < 0.0068$), and extraversion ($\beta = 0.138$, $t\text{-value} = 2.401$, $p < 0.017$). Moreover, the results revealed that the pathway from transformational leadership and psychological safety was significant with a $t\text{-value}$ of 6.944, path coefficient of 0.360, and p value of 0.00001. It showed that transformational leadership positively influenced psychological safety.

Agreeableness ($\beta = 0.094$, $t\text{-value} = 1.645$, $p < 0.101$) and neuroticism ($\beta = -0.037$, $t\text{-value} = 0.694$, $p < 0.488$) did not produce significant effects on employee engagement.

4.7.6 Mediator Analysis

Analysis of the mediation effect is the assessment of the indirect effect of the independent variable on the dependent variable through a mediator variable. Additionally, a mediation effect is defined as a situation when, first, the predictor has a significant influence on the mediator. Second, the mediator has a significant influence on the criterion variable. Then, the predictor has a significant influence on the criterion variable in the absence of the mediator's influence. Finally, the effect of the predictor on the dependent variable decreases in value after the addition of the mediator.

These criteria can be used to judge informally whether or not mediation is occurring (Hayes & Preacher, 2010).

Hayes and Preacher (2010) observed that mediation analysis in multivariate analysis is achieved through many techniques including: (a) simple techniques that consist of the causal steps approach (Baron & Kenny, 1986) or the Sobel test (Sobel, 1982), and (b) newer approaches that demand just fewer unrealistic statistical assumptions. These include the distribution of the product method (MacKinnon, Lockwood, & Williams, 2004) and resampling approaches such as bootstrapping (Bollen & Stine, 1990; MacKinnon et al., 2004; Preacher & Hayes, 2004, 2008; Shrout & Bolger, 2002).

The significance of the mediation in the relationship between transformational leadership and employee engagement on psychological safety were examined using two paths both directed in and out of the mediating construct by using the bootstrapping method to get the path coefficients and standard error of latent variables. The next step involved using the Sobel (1982) test to estimate the standard error of latent variables. Then, the researcher used the bootstrapping method to get a critical value of the indirect estimate.

Table 4.11, Figure 4.5, Figure 4.6, Figure 4.7, and Figure 4.8 show the results. Psychological safety was tested as mediator because it had met the four conditions in that (a) the predictor (transformational leadership) had a significant influence on the mediator (psychological safety) ($\beta = 0.360$, $t = 6.944$, $p < 0.001$) (see Figure 4.7 and Figure 4.8) (b) the mediator (psychological safety) had a significant influence on the criterion variable (employee engagement) ($\beta = 0.203$, $t = 4.261$, $p < 0.001$) (see

Figure 4.7 and Figure 4.8); (c) the predictor (transformational leadership) had a significant influence on the criterion variable (employee engagement) in the absence of the mediator's influence (psychological safety) ($\beta = 0.200$ $t = 4.365$, $p < 0.001$) (see Figure 4.5 and Figure 4.6); and (d) the impact of the predictor (transformational leadership) on the criterion variable (employee engagement) was significantly less after controlling for the mediator (psychological safety) ($\beta = 0.132$, $t = 2.718$, $p < 0.01$) (see Figure 4.7 and Figure 4.8).

Table 4.11
Direct and Indirect Effects

Path	Beta	Standard Error	T Statistics
TL -> EE (with M)	0.132	0.049	2.718**
TL -> Psy	0.360	0.051	6.944***
PSY -> EE	0.203	0.048	4.261***
TL -> EE (without M)	0.200	0.045	4.365***

Note.*** Indicates the item is significant at the $p < 0.001$. ** Indicates the item is significant at the $p < 0.01$. * Indicates the item is significant at the $p < 0.05$.

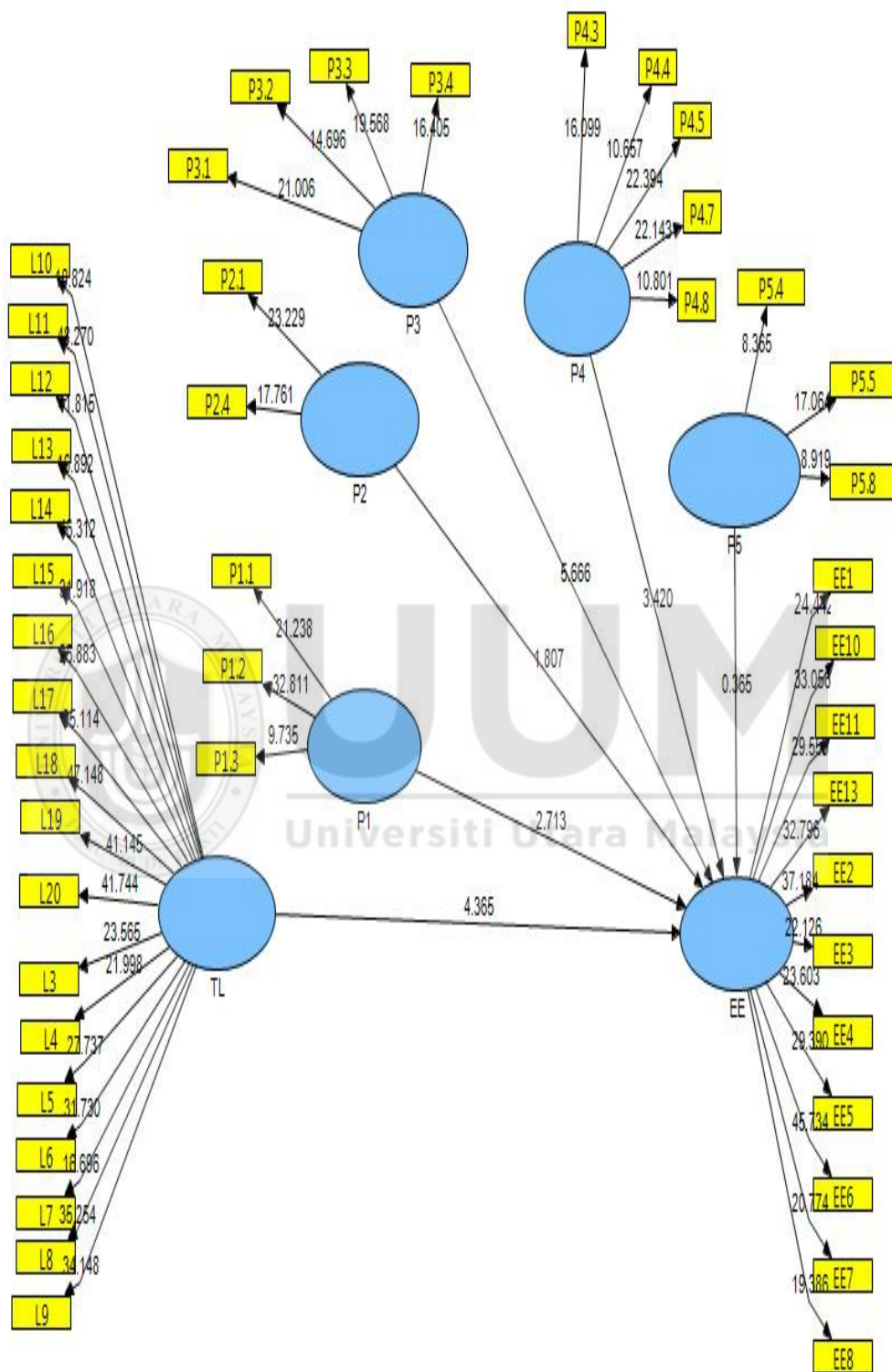


Figure 4.5
T-values for the path analysis (without psychological safety)

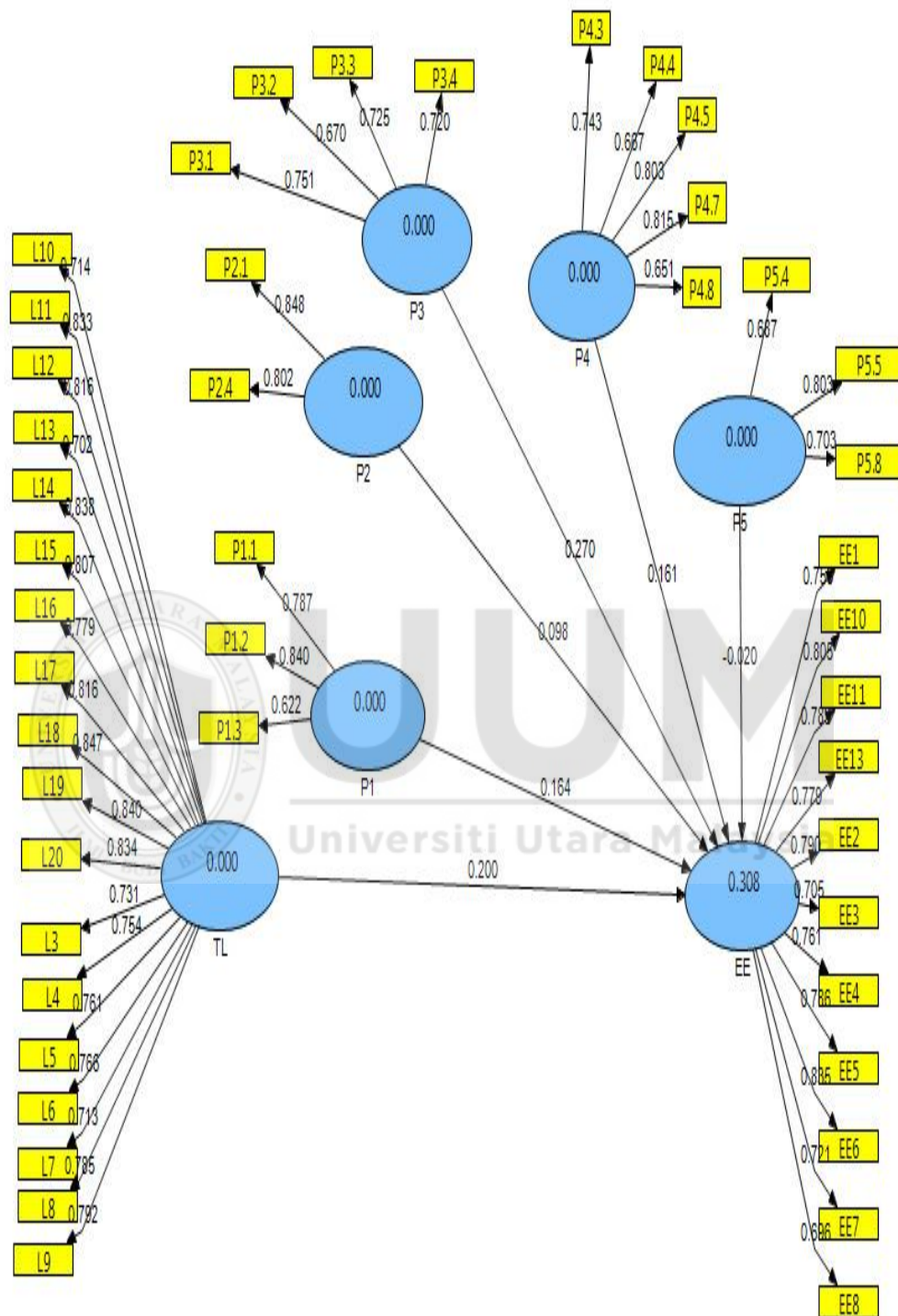


Figure 4.6
PLS algorithm for transformational leadership on employee engagement without psychological safety

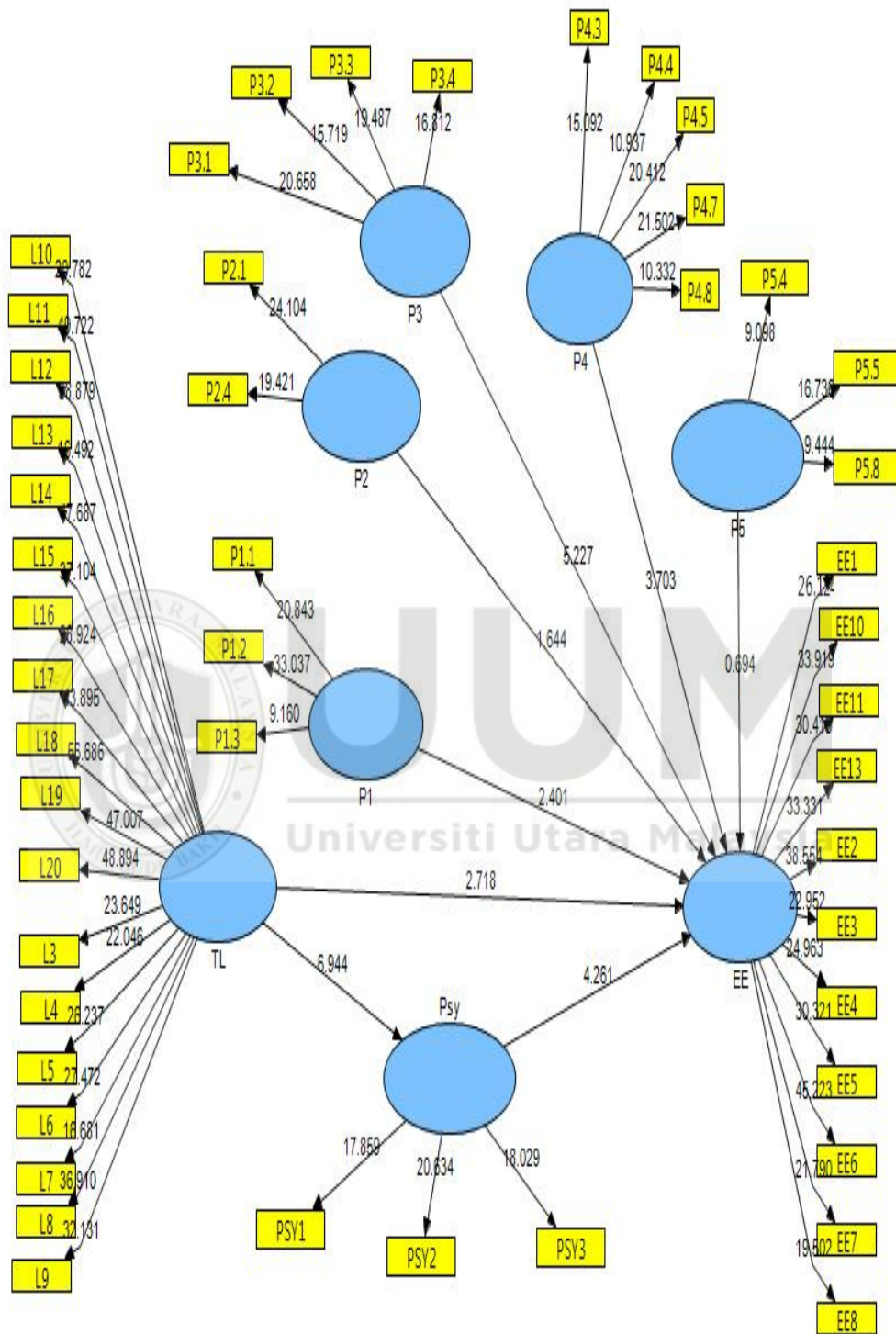


Figure 4.7
T-values for the path analysis (including psychological safety)

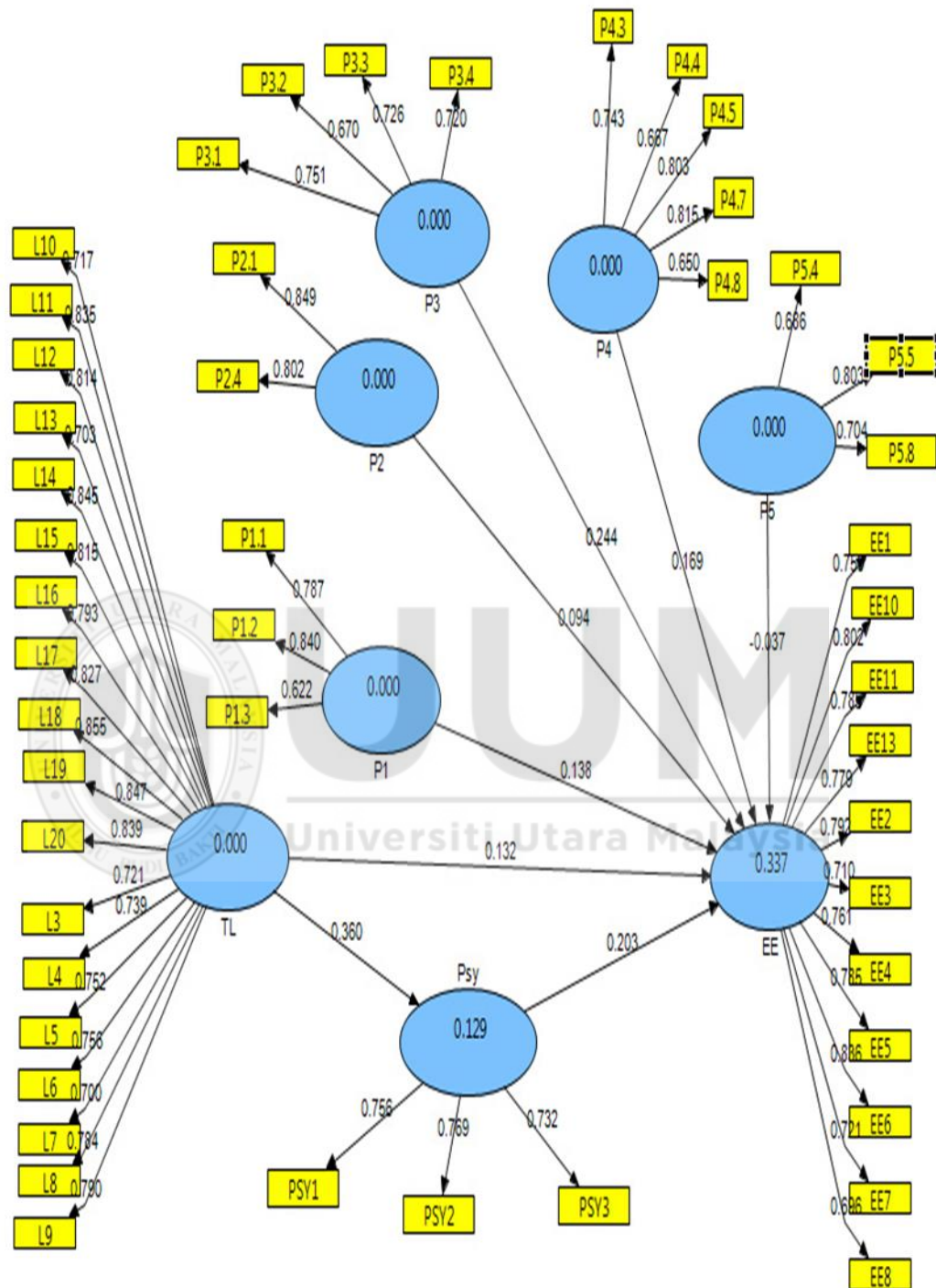


Figure 4.8
Path analysis results (including psychological safety)

Then, Sobel (1982) test to estimate the standard error of latent variables was used. Figure 4.9 shows the Sobel test for significance of mediation. The results showed that the indirect effect from transformational leadership to employee engagement through psychological safety was found to be significant as shown in Figure 4.9. Therefore, psychological safety was found to mediate between transformational leadership and employee engagement. In addition, the result showed that the effect of transformational leadership on employee engagement decreased in value after the addition of the mediator (T-value = 3.845, $p = 0.00012$). If the indirect effect was found to be significant and C' becomes insignificant, the mediator is called full mediator. If C' is still significant but with less effect, it is called partial mediator. In this study, we can conclude that psychological safety partially mediated between transformational leadership and employee engagement.

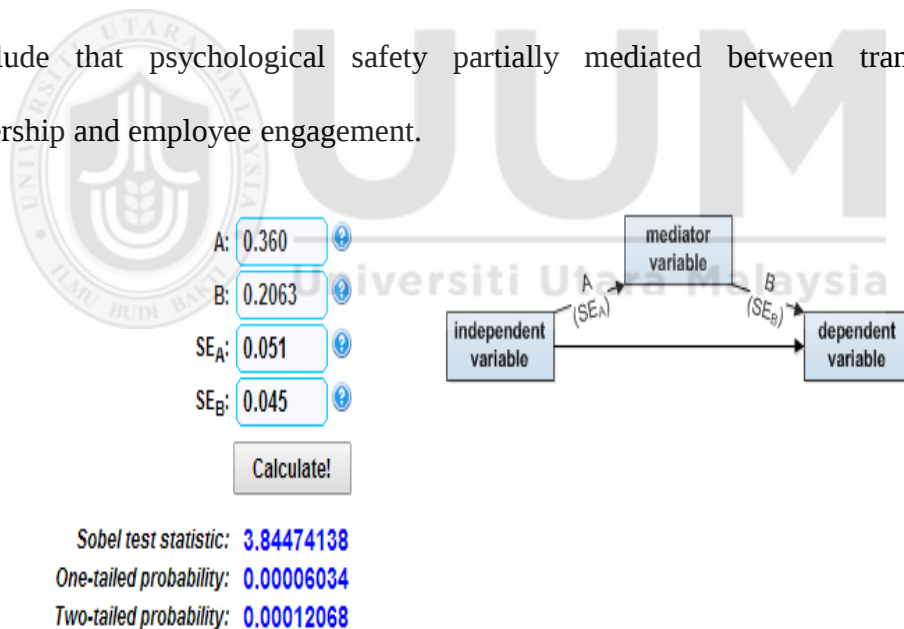


Figure 4.9
Sobel test calculator for significance of mediation

4.8 Summary

The results of this study showed that all personality traits influenced employee engagement except agreeableness and neuroticism. It was also found that psychological

safety partially mediated the relationship between transformational leadership and employee engagement. The R^2 value of employee engagement was 0.337 indicating that 33.7% of the variance in the employee engagement construct was explained by employee personality, transformational leadership, and psychological safety and psychological safety explained 13% of the variance in employee engagement. Table 4.12 summarizes the results of the hypotheses testing. In the next chapter, the findings will be discussed in greater detail.

Table 4.12
Summary of Hypotheses Testing

Hyp	Statement	Decision
H1a	Extraversion will be positively influence to employee engagement	Supported
H1b	Agreeableness will be positively influence to employee engagement	Not Supported
H1c	Conscientiousness will be positively influence to employee engagement	Supported
H1d	Openness to experience will be positively influence to employee engagement	Supported
H1e	Neuroticism will be negatively influence to employee engagement	Not Supported
H2	Transformational Leadership will be positively influence employee engagement.	Supported
H3	Transformational Leadership will be positively influence psychological safety.	Supported
H4	Psychological safety will be positively influence to employee engagement.	Supported
H5	Psychological safety mediates the relationship between transformational leadership and employee engagement.	Supported (partial mediator)

CHAPTER 5

DISCUSSION AND IMPLICATIONS

5.0 Introduction

The final chapter presents the discussion of the study results. It is classified into four major parts. First, the research results are reviewed. Second, a discussion on the findings is made in relation to the research objectives. Third, the implications for theory and practice are highlighted. Finally, the limitations, directions for future research, and conclusions are offered.

5.1 Review of the Research Results

The purpose of this study was to examine the influence of the five factors of personality traits, transformation leadership, and psychological safety on employee engagement. In addition, it investigated the mediation effect of psychological safety on the relationship between transformational leadership and employee engagement. Five specific objectives were developed: (a) to investigate the influence of employee personality on employee engagement, (b) to examine the influence of transformational leadership on employee engagement, (c) to study the influence of transformational leadership on psychological safety, (d) to analyze the influence of psychological safety on employee engagement, and (e) to examine the mediating role of psychological safety in the relationship between transformational leadership and employee engagement.

The results showed that extraversion, conscientiousness, and openness impacted positively and significantly employee engagement, but not agreeableness and

neuroticism. Transformational leadership positively influenced employee engagement. Also, psychological safety positively influenced employee engagement. The results also showed that psychological safety was a partial mediator of the relationship between transformational leadership and employee engagement.

5.2 Discussion of the Results

This section further discusses the findings. It is organized according to the objective of this research.

5.2.1 The Influence of Employee Personality on Employee Engagement.

The first research objective investigated the influence of employee personality on employee engagement. Personality is a pattern of dispositions or characteristics that measure the consistency of a person behavior (Feist & Feist, 2002), and it is expected to impact the way individual responds to most situations (McCrae, Costa, Ostendorf, Angleitner, Hrebickova, & Avia, 2000). Reasonably, therefore, personality could impact people's decisions to engage or disengage at work. The FFM of the personality of extraversion, agreeableness, conscientiousness, openness, and neuroticism (McCrae & John, 1992; Judge & Bono, 2000) provides a meaningful taxonomy for the study of individual differences. Kahn (1990) also presumed that individual differences are likely to give people's characters toward being engaged or disengaged. Based on the first objective of the study, five hypotheses were tested, and the results are as follows.

Extraversion and Employee Engagement

Hypothesis 1a states that extraversion will positively influence employee engagement. The result revealed that extraversion positively influenced employee engagement. The result of this study is consistent with previous works (Inceoglu & Warr, 2012; Kim et al., 2009; Langelan et al., 2006; Salanova et al., 2002; Wildermuth, 2008; Zaidi et al., 2012).

Extraversion is characterized by fun-loving, affectionate, sociable, talkative, friendly, cheerful (McCrae & Costa, 1983), enthusiastic, optimistic and energetic (McCrae & John, 1992) traits. An individual who has these characteristics are socially oriented and active person. Moreover, he/she has a tendency to express positive feelings, emotion and has many friends in the organization (Watson & Clark, 1997). An extrovert person would pay more attention to the value of a person in a group (Huitt, 2007). The result is also in accordance with need theory that postulates that belongingness and love need refers to the need to be affiliated to, have friends, and accepted by other people. Pulasinghange (2010) concluded that the needs are work group, family, affection, and relationship. Therefore, an employee who has extraversion trait can easily get happy and be engaged in the organization.

As participants in this study were employees of private companies, they must interact highly with co-workers, leaders, and clients to accomplish their job. Thus, extrovert employees could get support and encouragement from their co-workers, supervisors, and clients, leading them to be engaged at work. The result is also in agreement with Barrick and Mount (1991)'s research, which found that this trait was

more likely to communicate characteristics such as skills, knowledge, values, and interest effectively.

Agreeableness and Employee Engagement

Hypothesis 1b states that agreeableness is positively influence to employee engagement. The result showed that agreeableness did not relate significantly with employee engagement. The result is consistent with Wildermuth (2008) and Akhtar et al. (2015), but not with Kim et al. (2009), and Zaidi et al. (2013) who found a significant and positive relationship between agreeableness and engagement.

An agreeable individual has the tendency to be sympathetic, warm, and cooperative, helpful, and friendly. This trait is connected to harmony-seeking, service orientation, and propensity to defer to others. As such individual is sympathetic to others and has the desire to help others; he/she expects others to help in return (Costa & McCrae, 1992; Zaidi et al., 2013). These tendencies of agreeableness may seem to be preferably especially in work team player, however, when it comes to individuals' agreeableness also found to have disadvantages. Individual who high in agreeableness are seem to be more concern of inter personal relationship, low self-esteem, and likely to keep quiet and do not speak up what on their mind. This may result on organization in terms of unable to provide satisfaction to meet their need. And when the needs are not met employee would be less engaged in their job.

Another possible explanation for the non-significant result might be due to the participants' characteristics, who tend to avoid uncertainties and conflict. As a characteristic of Thai workers, they may not show their emotion and ideas in public

because they do not wish to be seen as being antagonistic if they have different opinions. Thai workers avoid giving a negative opinion to something that might affect themselves in negative ways, such as by losing a relationship. Moreover, the reason why agreeableness did not show significant relationship with employee engagement may be because agreeable people are very eager to avoid conflict, they will often leave the decision making to others when the decision seems to be difficult to make or may give an unpleasant outcome. Employee that avoid conflict can become liability and will often undermine their own professionalism and ability and when employee do not believe in their capability and feel less professional these may result to less engaged in their work.

Conscientiousness and Employee Engagement

Hypothesis 1c states that conscientiousness is positively influence to employee engagement. As expected, conscientiousness significantly influenced employee engagement which supported hypothesis 1c. This research model showed that conscientiousness was the strongest influence on employee engagement. The result is consistent with Kim et al. (2009). The result was not surprising because conscientiousness is required across occupations regardless of sectors. For instance, Hurtz and Donovan (2000) found that conscientiousness was the most important factor that correlated with job performance across all occupations. Rich (2006) also found a correlation between consolidation (conscientiousness) and engagement of firefighters. This finding is also in line with Hogan and Ones, (1997), McCrae and Costa (1987), Mostert and Rothmann (2006), Zaidi et al. (2013). Previous research also supported the usefulness of conscientiousness at work that can be linked to attendance at work (Judge,

et al., 1997), work behaviors (Hogan & Ones, 1997), job performance (Robertson et al., 2000), retention (Barrick, Mount, & Strauss, 1994), and engagement (Rich, 2006).

An individual who is conscientious is organized, careful, responsible, and hardworking. These are important attributes for accomplishing work tasks in a job. Costa and Widiger (2002) stated that employees who score highly on conscientiousness have a high aspiration level and work hard to achieve their goals. The result is also in accordance with the proposition by Maslow in that if employees have self-esteem, a sense of achievement, mastery, and managerial responsibility, they will have a positive attitude toward the organization. Therefore, it is not surprising that these characteristics contribute to the feeling of engagement in the organization.

Openness to Experience and Employee Engagement

Hypothesis 1d stated that openness to experience would positively influence employee engagement. A significant influence of openness to experience on employee engagement was found. Openness to experience is the degree to which an individual is philosophical, intellectual, complex, and creative. In addition, openness could be manifest in fantasy, actions, feelings, ideas, and values (McCrae & Costa, 1987). This personality trait tends to be associated with interests in a wider range of topic and theories (Wildermuth, 2008). Thus, individuals who score highly in this trait are expected to be engaged highly (McCrae & Costa, 1987). On the other hand, individuals who score low in openness tend to have limited interests or limited interests in the need for efficiency (Howard & Howard, 2001).

Previous studies showed that this trait forms the basis for such important social roles as entrepreneurs, architects, change agents, artists that most work in private companies. It may be concluded that openness trait is appropriate for employees in a private company operating in a competitive business environment, especially in southern Thailand which is expected to have a robust economic growth (Asian Development Bank, 2013). Indeed, the Thai government has supported investments in the southern border area to achieve international competitiveness (Makishima & Somchai, 2003).

Employees who score highly on this trait have broader interests in novelty and innovation. Kahn (1990), Macey and Schneider (2008) studied the link between engagement and innovation. Kahn (1990) stated that a person who is disengaged acts as a custodian rather than an innovator for the role he/she occupies. Moreover, Macey and Schneider (2008) contended that engaged employees work hard and tend to do their job differently.

Neuroticism and Employee Engagement

Hypothesis 1e states that neuroticism is negatively influence to employee engagement. No significant influence of neuroticism on employee engagement was found. The result is consistent with Zaidi et al.'s (2013) study, which investigated the relationship between the big five personality traits and work engagement of public sector university teachers in Lahore, Pakistan. Wildermuth (2008) and Akhtar et al. (2015) also reported a similar finding. But, the result is not consistent with previous studies which demonstrated a negative correlation with engagement (Anvari et al., 2011; Bozionelos, 2004; Inceoglu & Warr, 2012; Judge et al., 1997; Keyes et al., 2002; Langelaan et al., 2006; Wildermuth, 2008).

The non-significant result might be due to employee who is low neuroticism (emotionally stable) is relaxed, even tempered, and calm and can face the stressful situations without becoming upset. Meanwhile, an individual who high score on neuroticism he experiences negative emotions such as moody, get nervous easily, depressed, tense, and worries a lot (John, Naumann,& Soto, 2008). He/she may shows less satisfaction with life than most people. Employees who score highly in this trait tend to respond quickly to the tasks. They do not default to the assignments (Howard & Howard, 2001).

Another possible explanation, Pronpitakpan (1999) investigated how the culture affected business relationships between Thai, Japanese and American people. He showed that Thai and Japanese people belong to collectivist cultures with the focus on fitting in with other, social harmony, interpersonal sensitivity, and conformity. Moreover, Thais often avoid conflict with each other. They show respect and are able to control their emotion effectively. Thus, Thai employees who score highly or low in neuroticism may not feel engaged or disengaged in the organization (Akhtar, 2015).

5.2.2 The Influence of Transformational Leadership on Employee Engagement.

The finding showed that employee engagement was influenced positively by transformational leadership, which supported hypothesis 2. In the Thai culture, employees place a high value on relationships and on meeting the needs of a group (Bochner, 1994). A transformational leadership concentrates on team building, motivation and cooperation with employees in an organization and pushes them to higher performance levels (Yammarino et al., 1993) and subsequent engagement (Macey & Schneider, 2008; Shirey, 2006). Moreover, a transformational leader is able to

motivate employees by inspiring them and transforming their attitudes, beliefs, and values into a common vision and goals (Bass, 1990; Breevart et al., 2014). Similarly, supportive behavior for autonomy includes providing meaningful rationale and feedback, allowing choices on how to accomplish the desired results and building trust to increase motivation at work between leaders and followers (Gagné, et al., 2000; Gagné, 2003). Therefore, it is important for organizations to employ leaders who exhibit transformational leadership behavior so that employee engagement can be enhanced. The result is in agreement with previous studies (Attridge, 2009; Breevaart, et al., 2014; Cartwright & Holmes, 2006; Hoon Song, Kolb, Lee, & Kyoung, 2012; Macey & Schneider, 2008; Nohria, et al., 2008; Shuck (2009); Shuck & Herd, 2012; Tims, Bakker, & Xanthopoulou, 2011; Wang & Walumbwa, 2007; Zhu, et al., 2009).

5.2.3 The Influence of Transformational Leadership and Psychological Safety

The result showed a positive influence of transformational leadership on psychological safety. Therefore, hypothesis 3 was supported. The result is consistent with Kahn's (1990) employee engagement model, which proposes that the relationship between a leader and subordinates that is open, trusting, supportive, and not controlling (Edmondson, 1999) could improve employee creativity and psychological safety (Deci, Connell, & Ryan, 1989; Oldham & Cummings, 1996). This is because the leader can internally motivate the followers to feel psychologically safe. The finding is consistent with past literature (Edmondson, 2004; Egger, 2011; Vogelgesang, 2007).

One possible reason could be that the Thai culture emphasizes group orientation and teamwork. Being part of a group, Thai employees feel comfortable and secure when

the relationship with the managers is open, trusting, and supportive, and not controlling (Edmonson, 1999). So, when employees believe in their leader, they feel safe to take the risk.

5.2.4 The Influence of Psychological Safety and Employee Engagement

As expected, the result provided support for hypothesis 4 as it demonstrated a positive influence on psychological safety on employee engagement. When employees feel psychologically safe, they will ask questions, inquire feedback, report a mistake, or offer a new idea in their job (Edmondson, 1999) that make them proud of themselves and engaged in their job. This finding supports Kahn's (1990) engagement model that postulates that when employees feel safe for their career they are likely to be engaged in their tasks. Khan (1990), May et al. (2004), Egger (2011), Vogelgesangn (2007), and Robinson et al. (2004) demonstrated that psychological safety improved the employee engagement level.

5.2.5 Mediating Effect of Psychological Safety on the Relationship between Transformational Leadership and Employee engagement

The mediating effect of psychological safety on the relationship between transformational leadership and employee engagement was examined in the current study. The finding showed that the relationship between transformational leadership and employee engagement was partially mediated by psychological safety (hypothesis 5). It means that a transformational leadership style generates the feeling of employee engagement when employees are psychologically safe. However, psychological safety did not show a perfect mediation between transformational leadership and employee

engagement. This may be because the direct effect of transformational leadership on employee engagement is stronger with or without psychological safety.

The partial mediation effect of psychological safety on the relationship between transformational leadership and engagement exists when employees sense that they are able to show and employ themselves without fear of negative consequences to self-image, status, or career (Kahn, 1990). This leadership style allows employees to trust and believe that they can be themselves in this type of work context which when they perceive that the environment surrounding them is harmless, they will experience a sense of safety, making them engaged in their work. The result is consistent with the findings of Jacobs (2013).

5.3 Implications

This section presents important implications for theory, practice, and methodology.

5.3.1 Theoretical Implications

The purpose of this study was to determine the influence of personality traits and transformational leadership on employee engagement and the role of psychological safety as a mediator by developing a research model derived from previous research. This research expanded the current employee engagement conceptual framework of Kahn's (1990).

The big five-factor model of personality trait was selected to be the predictor of employee engagement because it could describe the basic dimensions of a normal personality (Mat, 2008; Steven & Ash, 2001). Besides, personality traits are considered

intrinsic (Komarraju, et al., 2009), which, according to Schaufeli and Bakker (2004), this sort of motivation can directly elicit the feeling of employee engagement.

Transformational leadership was included in the research framework because it can provide the satisfying and fulfilling aspects that an intrinsically motivated person is looking for (Kappen, 2010). Psychological safety was employed as a mediator in the relationship between transformational leadership and employee engagement because employee engagement is purported to be influenced by the external environment psychologically experienced perceived by the employee (Kahn, 1990). The findings of this study empirically supported the effect of personality traits and transformational leadership on employee engagement and partially supported the mediating effect of psychological safety on the relationship between transformational leadership and employee engagement. Therefore, this study has contributed further knowledge to the importance of personality traits, transformational leadership, and psychological safety as predictors of employee engagement.

In addition, this study has heightened the knowledge of the influence of individual differences in private sector workers' engagement by providing empirical evidence which indicated that private sector workers' engagement in Southern Thailand. The result indicated that a high level of extraversion, consciousness, and openness to experience would intrinsically motivate Thai employees to be engaged in their work. The findings of this study also partially support Kahn's (1990) conceptual framework of personal engagement in work activity that psychological safety can act as a psychological mechanism that mediates the relationship between transformational leadership and employee engagement.

This research has also provided empirical evidence to support self-determination theory (SDT), which speculates that individuals are autonomously engaged in activities when their basic psychological needs are met (Deci & Ryan, 2000). According to Deci and Ryan (2000), the psychological need can be satisfied by both extrinsic and intrinsic motivations. The results of the present study provided evidence for the SDT's assumption that employees are likely to exhibit excellent performance when the extrinsic and intrinsic motivations are available.

The research gave insight into the role of psychological safety as a mediator in determining the effectiveness of leadership styles in increasing employee engagement. According to self-determination theory, intrinsic motivation can be seen as a continuum in which intrinsic motivation becomes more internalized (Gagné & Deci, 2005). By promoting satisfaction of the psychological needs, intrinsic motivation becomes increasingly autonomous, which means that one acts with a sense of volition, engagement, and the experience of choice, and this emerges from a sense of the self (Decy & Ryan, 2000; Gagné & Deci, 2005; Stone, et al., 2009). One of the psychological needs is that the need for autonomy which has a similar concept to Kahn (1990)'s psychological safety. This psychological need can be met by transformational leadership that is perceived to be intrinsically motivating (Kappen, 2010). Transformational leaders are able to motivate employees by inspiring them to transform their attitudes and beliefs. They also make employees feel psychologically safe, leading the employees to be engaged in their job.

5.3.2 Practical Implications

The findings of this study provide some useful guidelines to the Thai private companies to achieve employee engagement in the workplace. This is critical because private sector enterprises are currently facing low employee engagement when the business environment is characterized by intense competition which requires that companies respond quickly to the environmental changes.

The present study highlighted the critical roles of individual personality traits, transformational leadership, and psychological safety in the development of employee engagement. The finding is useful particularly for human resources management in terms of the selection of employees. This finding suggests that companies should prepare a description of characteristics of employee they need, that is, those who are self-disciplined, hard work, and highly focused on goal setting and achievement (McCrae & Costa 1987). In short, it is important for private companies to conduct a personality test in human resource selection. Hogan (1994) suggested that the selection process should be made on a broad range of personal integrity, cultural background, and personality. Researchers have found that when selection processes work well, there is less employee turnover, and training efforts are more effective (Cran, 1994).

The results of this study showed that transformational leadership could potentially influence both psychological safety and employee engagement. The findings of the present study indicated that transformational leadership had an impact on psychological safety and employee engagement. Therefore, human resources (HR) practitioners in private companies would be wise to focus on leadership training and development programs because using appropriate leadership styles can improve

employee psychological safety and engagement. A leadership program should provide an understanding of the important role and impact leaders have on employees in terms of building psychological safety and employee engagement. Companies should coach managers to take an active role in building engagement with their employees.

The findings of the present study indicated that psychological safety partially mediated the relationship between transformational leadership and employee engagement. Hence, it is important for human resource managers to keep in mind that maintaining the environment that encourages employees to be fearless of being themselves is necessary because providing such a harmonious work environment will enable employees to speak out without fear of losing their image, subsequently enhancing their experience of safety. When employees feel psychologically safe, they are likely to be creative, perform better, and share knowledge.

Finally for policy makers, this research emphasizes the importance of employee engagement for organizational successes in Thailand. The findings suggest the need for a national policy to encourage employers to develop engagement of their workforce seriously as it affects the costs of human resource development in Thailand. Moreover, it leads to increased productivity and the nation's global competitiveness.

5.3.3 Methodological Implications

This research was conducted on employee engagement construct in a Thai cultural context which is different from the context in previous research. Most of the past studies on employee engagement were carried out in the Western countries. However, this study was carried out in Thailand. As Thai people speak Thai, the instruments had to be

translated. However, they had been tested for the internal consistency reliability of Cronbach's alpha coefficient and were found to be reliable. Such endeavor provided validation for using the instruments in the Thai language.

5.4 Limitations and Future Research

Notwithstanding the contributions of this study, it is worth to mention several limitations. First, this study only concentrated on private companies (production sector, service sector, and trading sector) and did not include employees belonging to other industries such as financing and educational industries. Therefore, the results of this study may not be generalized to employees in other industries as they might have different work cultures which require distinct types of personality traits and leadership style in order to increase employee engagement.

The second limitation is that this study was cross-sectional. This type of research is bound to have several disadvantages. Particularly, cross-sectional data limit the ability to establish a fundamental relationship of all the variables in the study. Future research should consider a longitudinal study to validate the current findings and provide additional support for the connection of personality traits, transformational leadership, psychological safety, and employee engagement construction.

Third, although the study found that personality traits and transformation leadership were viable tools for increasing employee engagement in private companies, it did not look at the effects of such engagement on organizational consequences such as job satisfaction, organizational commitment, and intention to stay. Future studies should continue to explore the implications of employee engagement.

The fourth limitation is that even though the questions in the questionnaire were carefully translated from English to the Thai language, it was impossible to get a perfect translation due to the cultural nuances. For instance, the personality questionnaire used mini-markers that are short words for the list of traits, such as philosophical, systematic, deep, and complex, etc. These words may cause confusion when presented in the Thai language. Therefore, some items were deleted based on the result of the pilot test and factor analysis.

5.5 Summary

The present research was conducted to investigate the influence of employee personality, transformational leadership, and employee engagement in southern Thailand. The mediating effect of psychological safety was examined on the relationship between transformational leadership and employee engagement. The research assessed the factors that contribute to employee engagement via a survey of employees in private firms located in southern Thailand. The research results showed that of the five personality traits, agreeableness and neuroticism were found not significant in impact employee engagement. These research findings expanded the work of Kahn (1990) by examining the influence of individual differences on employee engagement by employing the Big Five Factor Model. Generally speaking, the present study was able to accomplish the research objectives established earlier. This study also was able to fill the gap in the engagement literature by exploring the relationship between transformational leadership and psychological safety, and transformational leadership and employee engagement. This study also provided empirical support for the mediating role of

psychological safety in the link between transformational leadership and employee engagement.

In addition, the results of this study validated the propositions by self-determination theory in explaining the development of employee engagement by satisfying the need of employees for psychological safety, which will prompt the feeling of autonomy and subsequent engagement at work.

The research results provide a human resource management perspective to leaders, policy makers and practitioners practically in the private sector about the importance of enhancing the factors that contribute to employee engagement. The limitations of the study and future research directions are also highlighted in this study.



REFERENCES

- Achua, C. F., & Lussier, R. N. (2010). *Effective Leadership*, South-Western Cengage Learning: Canada.
- Aguilar, A., & Salanova, M. (2005). Leadership styles and its relationship with subordinate wellbeing (Manuscript submitted for publication).
- Ahmad, J., Ather, M.R., & Hussain, M. (2014). Impact of Big Five personality traits on job performance (Organizational commitment as a mediator). Management, Knowledge and Learning International Conference 2014, June 25-27, Portorož, Slovenia.
- 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.
- Alagaraja, M., Shuck, B. (2015). Exploring linkages between organizational alignment, employee engagement, and impact on individual performance: A conceptual model. *Human Resource Development Review*, 14(1), 17-37.
- Albrecht, S. L., & Andreetta, M. (2011). The influence of empowering leadership, empowerment and engagement on affective commitment and turnover intentions in community health service workers: Test of a model. *Leadership in Health Services*, 24(3), 228-237.
- Alexander, E.R. (2006) "Evolution and status: where is planning evaluation today and how did it get here?" in E. R. Alexander (ed.), *Evaluation and Planning, evolution and prospects*, Ashgate, Aldershot, 3-16.
- Alfes, K., Truss, C., Soane, E.C., Rees, C. and Gatenby, M. (2010). *Creating an engaged workforce*. London: Chartered Institute of Personnel and Development. Retrieved from http://www.cipd.co.uk/subjects/empreltns/general/_creating_engaged_workforce.htm
- Allen, J. A., & Rogelberg, S. G. (2013). Manager-Led Group Meetings A Context for Promoting Employee Engagement. *Group & Organization Management*, 38(5), 543-569.
- Allport, G. W., & Odbert, H. S. (1936). Trait names: A psycho-lexical study. *Psychological Monographs*, 47(1), 1-171.
- Ang, S., Van Dyne, L., Koh, C. K. S., Ng, K.Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review*, 3, 335-371.

- Arnett, D.B., Laverie D. A., & Meiers, A. (2003). Developing parsimonious retailer equity indexes using partial least squares analysis: a method and applications. *Journal of Retailing*, 79, 161-170.
- Anvari, M. R., Seyed, K. N., & Gholipour, A. (2011). How does personality affect on job burnout. *International Journal of Trade, Economics and Finance*, 2(2), 115-119.
- AonHewitt. (2013). *2013 Trends in global employee engagement. Consulting performance, reward & talent*. Retrieved from: http://www.aon.com/attachments/human-capital-consulting/2013_Trends_in_Global_Employee_Engagement_Report.pdf.
- AonHewitt. (2014). *2014 Trends in global employee engagement. Consulting performance, reward & talent*. Retrieved from <http://www.aon.com/attachments/human-capital-consulting/2014-trends-in-global-employee-engagement-report.pdf>.
- Ariani, D.W. (2015). Relationship with supervisor and co-workers, psychological condition and employee engagement in the workplace. *Journal of Business and Management*, 4(3), 34-47.
- 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.
- Attridge, M. (2009) 'Measuring and managing employee work engagement: A review of the research and business literature', *Journal of Workplace Behavioral Health*, 24(4), 383-398.
- Asian Development Bank (2013a). *Thailand: Country Partnership Strategy*. Retrieved from <http://www.adb.org/documents/thailand-country-partner-ship-strategy-2013-2016>.
- Asian Development Bank (2013b). *Thailand: Private sector Assessment 2013*. Retrieved from <http://www.adb.org/documents/thailand-private-sector-assessment-2013>.
- Avery, D. R., McKay, P. F., & Wilson, D. C. (2007). Engaging the aging workforce: The relationship between perceived age similarity, satisfaction with coworkers, and employee engagement. *The Journal of Applied Psychology*, 92(6), 1542-1556.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Reexamining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Organizational and Occupational Psychology*, 72(4), 441-462.

- Avolio, B.J., Walumbwa, F.O. and Weber, T.J. (2009), Leadership: current theories, research, and future directions, *Annual Review of Psychology*, 60(1), 421-449.
- Avolio BJ, Zhu W, Koh W, Bhatia P (2004). Transformational leadership and organizational commitment: mediating role of psychological empowerment and moderating role of structural distance. *Journal Organizational Behavior*, 25, 951-968.
- Aydin, A., Sarier, Y., & Uysal, S. (2013). The effect of school principals' leadership Styles on teachers' organizational commitment and job satisfaction. *Educational Sciences: Theory and Practice*, 13(2), 806-811.
- Baard, P. P., Deci, E. L., Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology*, 34, 2045-2068.
- Babbie, E. R. (1973). *Survey research methods*. Belmont, CA: Wadsworth.
- Badal, S., & Harter, J. K. (2014). Gender diversity, business-unit engagement, and performance. *Journal of Leadership & Organizational Studies*, 21(4), 354-365.
- Bagozzi, R. P., & Yi, Y. (1991). Multitrait-multimethod matrices in consumer research. *Journal of Consumer Research*, 17, 426-439.
- Bakar, R.A. (2013). *Understanding factors influencing employee engagement: A study of the financial sector in Malaysia*. Published thesis, RMIT University.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, 29, 147-154.
- Bakker, A. B., Van Der Zee, K., & Lewig, & Dollard, M. (2006). The relationship between the big five personality factors and burnout. *The Journal of Social Psychology*, 146(1), 31-50.
- Bambale, A. J. (2013). *The mediating effect of psychological ownership on the relationship between servant leadership and organizational citizenship behaviours in Kano, Nigeria*. A thesis submitted to the Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia, in fulfilment of the requirement for the Degree of Doctor of Philosophy. Malaysia.

- Bandura, A. (1978). The self system in reciprocal determinism. *American Psychologist*, 33, 344-358.
- Bank of Thailand (2015). Thailand: Annual Report 2015. Retrieved from https://www.bot.or.th/Thai/ResearchAndPublications/Report/DocLib_/Report_2558.pdf.
- Barclay, D., Thompson, R., and Higgins, C. (1995). The Partial Least Squares (PLS) approach to causal modeling: Personal computer adoption and use an illustration. *Technology Studies*, 2(2), 285-309.
- Barrick, M.R. & Mount, M.K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26.
- Barroso, C., Carrion, G.C., Roldan, J. L. (2010). Applying maximum likelihood and PLS on different sample size: Studies on SERVQUAL model and employee behavior model. In Vinzi, V.E., Chin, W.W., Henseler, J., Wang, H. (Ed.), *Handbook of partial least squares*. Concept, methods and applications. Berlin: Springer, S, 427-447.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1-26.
- Barrick, M. R., Mount, M. K., & Strauss, J. P. (1994). Antecedents of involuntary turnover due to a reduction in force. *Personnel Psychology*, 47(3), 515-536.
- Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment*, 9, 9-30.
- Bartram, T., & Casimir, G. (2007). The relationship between leadership and follower in-role performance and satisfaction with the leader: The mediating effects of empowerment and trust in the leader. *Leadership and Organisational Development Journal*, 28(1), 4-20.
- Bass, B. M. (1985). *Leadership & performance beyond expectations*. Free Press, New York.
- Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics*, 18 (3), 19-31.
- Bass, B. M. (1997). Does the transactional-transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist*, 52, 130-139.

- Bass, B. M. (1998). *Transformational leadership: Industrial, military, and educational impact*. Mahwah, NJ: Erlbaum.
- Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage.
- Bass, B.M. (1997). Does the transactional/transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist*, 52, 130–139.
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2), 207-218.
- Bass, B. M., & Avolio, B. J. (2000). *MLQ-Multi-factor leadership questionnaire, technical report*. Redwood City, CA: Mind Garden.
- Bates, S. (2004). Getting engaged. *HR Magazine*, 49(2), 44-51.
- Baumruk, R. (2004). The missing link: the role of employee engagement in business success. *Workspan*, 47(11), 48-52.
- Becker, T.E., & Billings, R.S. (1993). Profiles of commitment: An empirical test. *Journal of Organizational Behavior*, 14(2), 177-190.
- Berry, M.L., & Morris, M.L. (2008). To leave or not to leave: The impact of employee engagement factors and job satisfaction on turnover intentions. In Chermack, T. (Ed.), *Proceedings of the 2008 AHRD International Research Conference*, Panama City, FL.
- Bhattacharya, Y. (2015). Employee Engagement as a Predictor of Seafarer Retention: A Study among Indian Officers. *The Asian Journal of Shipping and Logistics*, 31(2), 295-318.
- Binti Rusbadrol, N., Mahmud, N., & Arif, L. S. M. (2015). Association between Personality Traits and Job Performance among Secondary School Teachers. *International Academic Research Journal of Social Science*, 1(2), 1-6.
- Black, A. E., & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education*, 84, 740-756.
- Blessing White. (2006). Employee engagement report 2006. BlessingWhite, Inc. Princeton, New Jersey. Retrieved from <http://blessingwhite.com>
- Blessing White (2008). The state of employee engagement: Asia-Pacific overview. Retrieved from <http://blessingwhite.com>.

- Bochner, A. (1994). Perspectives on inquiry II: Theories and stories. In M. Knapp & G. R. Miller (Eds.), *Handbook of interpersonal communication*. Thousand Oaks, CA: Sage.
- Boerner, S., Eisenbeiss, S. A., & Griesser, D. (2007). Follower behavior and organizational performance: The impact of transformational leaders. *Journal of Leadership and Organizational Studies*, 13(3), 15-26.
- Bolger, N., & Schilling, E. A. (1991). Personality and problems of everyday life: The role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality*, 59, 356–386.
- Bollen, K., & Lennox, R. (1991) Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*, 110 (2), 305-314.
- Bollen, K. A., & Stine, R. (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological Methodology*, 20, 115–140.
- Bozionelos Nikos. (2004). The big five of personality and work involvement. *Journal of Managerial Psychology*, 19(1), 69 – 81.
- Breevaart, K., Bakker, A., Hetland, J., Demerouti, E., Olsen, O. K., & Espevik, R. (2014). Daily transactional and transformational leadership and daily employee engagement. *Journal of Occupational & Organizational Psychology*, 87(1), 138-157.
- Brewer, W. E. (2009). Conducting survey research in education handbook of research on e-learning applications for career and technical education: technologies for vocational training .University of Tennessee, USA.
- Brief A, Weiss H (2002). Organizational behavior: Affect in the workplace. *Ann. Rev. Psychol*, 53, 279-307.
- Brislin R.W. (1986). The wording and translation of research instrument. In W. J. Lonner & J. W. Berry, (eds.), *Field methods in cross-cultural research*, 137-64. Beverly Hills: Sage.
- Broucek, W. G. (2011). An examination of organizational citizenship behavior in an academic setting from the perspective of the five factor model. *International Business & Economics Research Journal (IBER)*, 2(1).
- Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin*, 120, 235–255.
- Brown D, Armstrong M (1999), *Paying for contribution: real performance-related pay strategies*, London: Kogan Page.
- Bryman, A. (1992). *Charisma and leadership in Organizations*. London: Sage.

- Buhler, K. E., & Land, T. (2003). Burnout and personality in intensive care: An empirical study. *Hospital Topics: Research and Perspectives on Health Care*, 81, 5-12.
- Burns, J. M. (1978). *Leadership*. New York: Free Press.
- Bushra, F., Ahmad, U., & Naveed, A. (2011). Effect of transformational leadership on employees' job satisfaction and organizational commitment in banking sector of Lahore (Pakistan). *International journal of Business and Social science*, 2(18), 261-267.
- Cartwright, S., & Holmes, N. (2006). The meaning of work: The challenge of regaining employee engagement and reducing cynicism. *Human Resource Management Review*, 16(2), 199-208.
- Chandel, J. K., Muscat, S. O. O., Sharma, D. S. K., & Bansal, D. (2011). Linking the 'Big Five' personality domains to organizational commitment. *Chief Patron*, 1(3), 24-29.
- Chen, M. C., & Piedmont, R. (1999). Development and validation of the NEO PI-R for a Taiwanese sample. In T. Sugiman, M. Karasawa, J. H. Liu, & C. Ward (Eds.), *Progress in Asian social psychology*, 2, 105-119. Seoul: Kyoyook- Khahak-Sa.
- Chiaburu, D. S., Oh, I. S., Berry, C. M., Li, N., & Gardner, R. G. (2011). The five-factor model of personality traits and organizational citizenship behaviors: a meta-analysis. *Journal of Applied Psychology*, 96(6), 1140-1166.
- Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In George A. Marcoulides (Ed.), *Modern Methods for Business Research*, Lawrence Erlbaum Associates, Lawrence Erlbaum Associates, 295-336. Mahwah, NJ.
- Chin, W. W. (2010). How to write up and report PLS analyses, in Handbook of Partial Least Squares: Concepts, Methods and Application. Esposito Vinzi, V, Chin, W.W, Henseler, J.; Wang, H. (Eds.), *Springer, Germany*, 645-689.
- Chin W., Newsted (1999). "Structural Equation Modeling Analysis with Small Samples Using Partial Least Squares", in Rick Hoyle (Ed.), *Statistical Strategies for Small Sample Research*, Sage Publications, 307-341.
- Choi, D., Oh, I. S., & Colbert, A. E. (2015). Understanding organizational commitment: A meta-analytic examination of the roles of the five-factor model of personality and culture. *Journal of Applied Psychology*, 100(5), 1542-1567.

- 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.
- CIPD. (2014). Developing managers to manage sustainable employee engagement, health and well-being. *Research insight November 2014*, Retrieved from https://www.cipd.co.uk/binaries/developing-managers_2014.pdf.
- Clark, L. A., & Watson, D. (1999). Temperament: A new paradigm for trait psychology. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality*. (pp.399-423). New York: Guilford Press.
- Clifton, J. K.(2008). Engaging your employees: six keys to understanding the new workplace.2002 SHRM Foundation Thought Leaders Remarks. *Society for Human resource Management*.
- Compeau, D. R., Higgins, C. A., & Huff, S. (1999). Social cognitive theory and individual reaction to computing technology: A longitudinal study. *MIS Quarterly*, 23(2), 145-158.
- Cooper, D.R. & Schindler, P. S (2011). *Business Research Methods* (11th ed.). New York: McGraw-Hill Higher Education.
- Costa, P. T., Jr., & McCrae, R. R. (1992). Revised NEO personality inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual. Odessa, FL: *Psychological Assessment Resources*.
- Costa, P.J., & Widiger, T.A.(2002). Personality disorders and the five-factor model of personality. Washington, DC: *American Psychological Association*.
- Cran, D. J. 1994. Forwards validation of the service orientation construct. “The services. *Industries Journal*, 14 (1), 34-45.
- Cupani, M., & Pautassi, R. M. (2013). Predictive contribution of personality traits in a sociocognitive model of academic performance in mathematics. *Journal of Career Assessment*, 21(3), 395-413.
- Daneshfard, K. (2012). The relationship between managers’ personality characteristics and organizational commitment, and its dimension in Islamic Azad University employees (Faculty and non- faculty members). *Inerdisciplinary Journal of Contemporary Research in Business*, 4(7), 742-751.
- DDI (2005). Employee engagement: The key to realizing competitive advantage. Retrieved from http://www.ddiworld.com/DDIWorld/media/monographs/employeeengagement_mg_ddi.pdf?ext=.pdf.

- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74, 580–590.
- Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior. *Journal of Personality and Social Psychology*, 53, 1024–1037.
- Deci, E.L. & Ryan, R.M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55 (1), 68 – 78.
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Komazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin*, 27(8), 930-942.
- De Fruyt, F., & Salgado, J. F. (2003). Applied personality psychology: Lessons learned from the IWO field. *European Journal of Personality*, 17, 123–131.
- Department Employee of Thailand. (2012). Report of survey labour demand and labour shortages.
- Department of Labour Protection and Welfare, Thailand. (20012) Report of survey employees in private companies.
- Devi V. R. (2009). Employee engagement is a two – way street. *Human Resource Management International Digest*. 17(2), 3-4.
- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domain: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, 93(5), 880–896.
- Dhammika, K. A. S., Ahmad, F. B., & Sam, T. L. (2013). Transactional, transformational, union and organizational commitment: An examination of the effect flaws. *International Journal of Business and Social Science*, 4(6), 103-111.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology*. (pp 213–29). New York: Russell Sang Foundation.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41, 417-440.
- Dijkstra, T. (1983). Some comments on maximum likelihood and partial least squares methods. *Journal of Econometrics*, 22, 67-90.

- Dollard, M.F. & Bakker, A.B. (2009). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of Occupational and Organizational Psychology*, 83, 579-599.
- Dollard, M.F., Bakker, A.B., (2010). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of Occupational and Organizational Psychology*, 83, 579-599.
- Drucker, P. (1954). *The practice of management*. New York, NY: Harper and Row.
- Dubrin, A. J. (2001). *Leadership: Research findings, practice, skills* (3rd ed.). Boston: Houghton Mifflin.
- Dunne, B.j.(2013). *The employee psyche at work: A model of how psychological contracts moderate the relationship between psychological safety and engagement*. D.B.A., ST. Ambrose University.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44. 350-383. Ithaca, N.Y.: Johnson at Cornell University.
- Edmondson, A. (2003). Managing the risk of learning: Psychological safety in work teams. In M. A. West, D. Tjosvold, & K. G. Smith (Eds.) *International handbook of organizational teamwork and cooperative working* (pp. 255-275). New York: John Wiley & Sons, Ltd.
- Edmondson, A. C. (2004). Psychological safety, trust, and learning in organizations: A group-level lens. In R. Kramer & K. Cook (Eds.), *Trust and distrust in organizations: Dilemmas and approaches* (pp. 239-272). New York, NY: Russell Sage Foundation.
- Edmondson, A. (2002). The local and variegated nature of learning in organizations: a group level perspective. *Organization Science*, 13(2), 128-146.
- Edwards, J. R. (2001). Multidimensional constructs in organizational behavior research: An integrative analytical framework. *Organizational Research Methods*, 4 (2), 144-192.
- Edwards, J. R., & Bagozzi, R. P. (2000). On the nature and direction of relationships between constructs and measures. *Psychological Methods*, 5 (2), 155-174.
- Eggers (2011). Psychological safety influences relationship behavior. *Corrections Today*, 73 (1), 60-61.

- Elanain, H. A. (2007). Relationship between personality and organizational citizenship behavior: Does personality influence employee citizenship. *International Review of Business Research Papers*, 3(4), 31-43.
- Emery, C. R., & Barker, K. J. (2007). The effect of transactional and transformational leadership styles on the organizational commitment and job satisfaction of customer contact personnel. *Journal of Organizational Culture, Communication and Conflict*, 11(1), 77-90.
- Falk R. F. & Miller, N. B. (1992). *A Primer for soft modeling*. Akron, Ohio: The University of Akron Press.
- Fan, L., Javed, M. F., & Akhtar, W. (2014). Influence of personality on organizational citizenship behavior. *International Journal of Education and Research*, 2(11), 225-240.
- Feist, Jess & Feist, Gregory. (2002). *Theories of personality* (5th Ed). McGraw-Hill companies, Inc.,
- Fenniman, A. (2010). *Understanding Each Other at Work: An Examination of the Effects of Perceived Empathetic Listening on Psychological Safety in the Supervisor-Subordinate Relationship*. (Ph.D.), George Washington University.
- Ferrer, J. (2005). Employee Engagement: Is it Organisational Commitment Renamed?, *Working Paper*. Victoria University, Melbourne, Australia.
- Fiedler, F. E. (1967). *A Theory of Leadership Effectiveness*. New York: McGraw-Hill.
- Finney, S. J., & DiStefano, C. (2006). Non-normal and categorical data in structural equation modeling. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: A second course* (pp. 269–314). Greenwich, CT: Information Age Publishing.
- Fornell, C., and J. Cha (1994), "Partial Least Squares", in *advanced methods of marketing research*, R. P. Bagozzi, ed. Oxford: Blackwell, 52-78.
- Fornell, C., Larcker, D.F., (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18 (1), 39-50.
- Fried, Y. & Ferris, G.R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, 40, 281-322.
- Funder, D. C. (2007). *The personality puzzle* (4th edition). New York: W.W. Norton & Company.

- Furnham, A., Eracleous, A., & Chamorro-Premuzic, T. (2009). Personality, motivation and job satisfaction: Hertzberg meets the Big Five. *Journal of managerial psychology*, 24(8), 765-779.
- Gagné, M., Chemolli, E., Forest, J., & Koestner, R. (2008). A temporal analysis of the relation between organisational commitment and work motivation. *Psychologica Belgica*, 48, 219-241.
- Gagné, M. & Deci, E.L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26 (4), 331 – 362.
- Gagne, M. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of Applied Sport Psychology*, 15(4), 372-390.
- Gagné, M., Koestner, R., & Zuckerman, M. (2000). Facilitating acceptance of organizational change: The importance of self-determination. *Journal of Applied Social Psychology*, 30, 1843-1852.
- Gagnon, M.A., and Michael, J.H. (2003). Employee strategic alignment at a wood manufacturer: An exploratory analysis. *Forest Products Journal*, 53(10): 24-29.
- Gagnon, M. A., & Michael, J. H. (2004). Outcomes of perceived supervisor support for wood production employees. *Forest Products Journal*, 54(12), 172-177.
- Gallup (2004). All Eyes on Ohio. *Gallup Management Journal*. Retrieved from <http://gmj.gallup.com/content/12295/all-eyes-ohio.aspx>.
- Gallup (2013). "The state of the global workplace," Gallup Consulting, 2013. Retrieved from http://ihrim.org/Pubonline/Wire/Dec13/Global Workplace Report_2013.pdf.
- Gholipour, A., Akhavan Anvari, M. R., Seyed, K. N., & Yazdani, H .R. (2011). Investigation of the effects of the big five personality model on job burnout: Survey in an Iranian hospital. *International Conference on Economics and Finance Research (ICEFR)*, 4.
- Ghorpade, J., Lackritz, J., & Singh, G. (2007). Burnout and personality: Evidence from academia. *Journal of Career Assessment*, 15(2), 240-256.
- Glass, A. (2007). Understanding generational differences for competitive success. *Industrial and Commercial Training*, 39(2), 98-103.
- Griffith, J. (2004). Relation of principal transformational leadership to school staff job satisfaction, staff turnover, and school performance. *Journal of Educational Administration*, 42(3), 333-356.

- 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.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the big-five personality domains. *Journal of Research in Personality*, 37(6), 504-528
- Gumusluoglu, L., Karakitapoğlu-Aygün, Z., & Hirst, G. (2013). Transformational leadership and R&D workers' multiple commitments: Do justice and span of control matter?. *Journal of Business Research*, 66(11), 2269-2278.
- Hackney, Cynthia Ward, (2012). *Personality, Organizational Commitment, and Job Search Behavior: A Field Study*. PhD diss., University of Tennessee,
- Hair, J.F. Jr., Black, W.C., Babin, J.B., & Anderson, R.E., (2010). *Multivariate Data Analysis : A global perspectives (8th Ed)*. Upper Saddle River, NJ: Prentice Hall.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks, CA: Sage.
- Halbesleben, J.R.B., Harvey, J., & Bolino, M.C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *Journal of Applied Psychology*, 94, 1452-1465.
- Hansen, A. M., (2009). Employee engagement: Interpersonal Leadership Predictors and Identification. *Department of Psychology*. Colorado State University.
- 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.
- Hassan, A. & Ahmed, F. (2011). Authentic leadership, trust and work engagement. *International Journal of Human and Social Sciences*, 6(3), 164-170.
- Hater, J.J. & Bass, B. M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. *Journal of Applied Psychology*, 73, 695—702.
- Hayes, A. F., & Preacher, K. J. (2010). Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behavioral Research*, 45(4), 627-660.
- Henseler, J., Ringle, C. M., Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. In: Sinkovics, R. R., Ghauri, P. N. (Eds.), *Advances in International Marketing*, (pp. 277-320). Bingley: Emerald.

- Hills, H., & Norvell, N. (1991). An examination of hardiness and neuroticism as potential moderators of stress outcomes. *Behavioral Medicine*, 17, 31–38.
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. Boca Raton, FL: Taylor and Francis Group.
- Hoenderdos, J. W. (2013). *Towards an observational measure for team psychological safety*. University of Twente, The Netherlands
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. London: SAGE.
- Hogan, J., & Hogan, R. (1993). The ambiguities of conscientiousness. *Paper presented at the 8th Annual Conference of the Society for Industrial and Organizational Psychologists, Inc.*, San Francisco.
- Hogan, R. (2005). In defense of personality measurement. *Human Performance*, 18, 331–341.
- Hogan, R., & Ones, D. 1997. Conscientiousness and integrity at work. In: Hogan, R., Johnson, J., Briggs, S. (Eds.), *Handbook of Personality Psychology*, (pp. 849–870). NY: Academic Press.
- Hoon Song, J., Kolb, J. A., Hee Lee, U., & Kyoung Kim, H. (2012). Role of transformational leadership in effective organizational knowledge creation practices: Mediating effects of employees' work engagement. *Human Resource Development Quarterly*, 23(1), 65-101.
- Howard, P. J., & Howard, J. M. (2001). *The workplace big five professional manual*. Austin, TX: Bard Press.
- Howard, P. J., & Howard, J. M. (2001b). *Professional manual for the workplace big five profile*. Charlotte, NC: Center for Applied Cognitive Studies.
- Huitt, W. (2007). Maslow's hierarchy of needs. Educational Psychology Interactive. Valdosta, GA: Valdosta State University. Retrieved from, <http://www.edpsycinteractive.org/topics/regsys/maslow.html>.
- Humphreys, H.J. (2001). Transformational and transactional leader behavior. *Journal of Management Research*, 1(3), 149-159.
- Hurtz, G. M., & Donovan, J. J. (2000). Personality and job performance: The big five revisited. *Journal of Applied Psychology*, 85(6), 869-879.
- Ijaz, M. & Khan, A. (2015). The relationship of big five personality traits with job satisfaction among banking employees: A case study of Askari bank in District Peshawar. *Journal of Applied Environmental and Biological Sciences*, 5(5), 129-138.

- Inceoglu, I., & Warr, P. (2012). Personality and Job Engagement. *Journal of Personnel Psychology*, 1-9.
- Ismail, A., Mohamad, M., Mohamed, H., Rafiuddin, N., & Zhen, K. (2010). Transformational and transactional leadership styles as a predictor of individual outcomes. *Theoretical & Applied Economics*, 17(6), 89-104.
- ISR. (2003). *International Survey Research*. Retrieved from: <http://www.isrsurveys.com>.
- Jacobs, H. (2013). *An examination of psychological meaningfulness, safety, and availability as the underlying mechanisms linking job features and personal characteristics to work engagement*. Florida International University, Miami, Florida
- Jarvis, C., Scott B. MacKenzie, & Philip M. Podsakoff (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30(2), 199-218.
- John OP, Naumann LP, Soto CJ (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. In RWOP John, *Handbook of personality, Theory Res.* (pp.114-158). New York: Guilford Press.
- John OP, Srivastava S (1999). The Big Five trait taxonomy: History, measurement and theoretical perspectives. In: Pervin LA, John OP (Eds.), *Handbook of personality: Theory and research (2nd ed.)*, (pp.102-138). New York: Guilford
- Judge, T.A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology*, 85(5), 751-765.
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, 87(4), 765–780.
- Judge. T.A., Higgins, C.A., Thoresen, C.J. & Barrick, M.R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology*, 52, 621-652
- Judge, T. A., Martocchio, J. J., & Thoresen, C. J. (1997). Five-factor model of personality and employee absence. *Journal of Applied Psychology*, 82(5), 745-755.
- Judge, T. A. & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89, 755-768.
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692 - 724.
- Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology*, 67, 341–349.

- Kappagoda, S. (2013). The impact of five-factor model of personality on organizational commitment of English teachers in Sri Lankan Government Schools. *International Journal of Physical and Social Sciences*, 3(1), 1-10.
- Kappen, F. (2010). Leadership and motivation: How leadership-styles contribute to employees' intrinsic and extrinsic motivation. Bachelor Thesis Organization & Strategy, Tilburg University.
- Karatepe, O.M. & Olugbade, O.A. (2009). The effect of job and personal resources on hotel employees' work engagement. *International journal of Hospitality Management*, 28, 504-512.
- Kark, R., & Carmeli, A. (2009). Alive and creating: The mediating role of vitality and aliveness in the relationship between psychological safety and creative work involvement. *Journal of Organizational Behavior*, 30, 785-804.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th Ed.). Orlando, FL: Harcourt Brace.
- Keyes C, Shmotkin D, Ryff C (2002). Optimizing well-being: The empirical encounter of two traditions. *J. Pers. Soc. Psychol*, 82(6), 1007-1022.
- Kim, H. J., Shin, K. H., & Swanger, H. (2009). Burnout and engagement: A comparative analysis using the Big Five personality dimensions. *International Journal of Hospitality Management*, 28(1), 96-104.
- Kim, W., Kolb, J. A., & Kim, T. (2012). The relationship between work engagement and performance: a review of empirical literature and a proposed research agenda. *Human Resource Development Review*, 23(1), 65-101.
- Kim, S. G., & Kim, J. (2014). Integration strategy, transformational leadership and organizational commitment in Korea's corporate split-offs. *Procedia-Social and Behavioral Sciences*, 109, 1353-1364.
- Kim, H.J., Shin, K.H. & Umbreit, W.T. (2007). Hotel job burnout: The role of personality characteristics. *Hospitality Management*, 26, 421-434.
- Kieres, K. H. (2012). *A study of the value added by transformational leadership practices to teachers' job satisfaction and organizational commitment*. (Doctoral Dissertation). Seton Hall University.
- Klang, A. (2012). *The relationship between personality and job performance in sales: A replication of past research and an extension to a Swedish context*. (Master's thesis). Faculty of Social Sciences, Department of Psychology, Stockholm University.

- Knipper, M. R., (2012). *Supervisory ethical leadership: How does it affect employee work engagement? The mediating role of psychological safety*. (Master's thesis). School of business and Economics, Maastricht University.
- Komarraju, M., Karau, S. J., & Schmeck, R. R. (2009). Role of the big five personality traits in predicting college students' academic motivation and achievement. *Learning and individual differences*, 19(1), 47-52.
- Kozlowski, S. W., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological science in the public interest*, 7(3), 77-124.
- Krejcie, R.V., & Morgan D.W. (1970). Determining sample size for research activities. *Education and Psychological measurement*, 30(3), 607 - 610.
- Krishnaveni, R. & Deepa, R. (2013). Controlling common method variance while measuring the impact of emotional intelligence on well-being, *Vikalpa*, 38(1), 41-47.
- Krug, R. M. (2008). Fulfilling the promise of personal engagement: Recognizing realistic process requirements. *Organization Development Journal*, 26(1), 63-68.
- Kumar, K., & Bakhshi, A. (2010). The five-factor model of personality and organizational commitment: Is there any relationship. *Humanity and Social Sciences Journal*, 5(1), 25-34.
- Kuoppala, J., Lamminpa a, A., Liira, J. and Vainio, H. (2008), "Leadership, job well-being, and health effects—a systematic review and a meta-analysis", *Journal of Occupational and Environmental Medicine/American College of Occupational and Environmental Medicine*, 50 (8), 904-15.
- Langelaan, S., Bakker, A. B., Van Doornen, L. J. P., & Schaufeli, W. B. (2004). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40(2006), 521-532.
- Langelaan, S., Bakker, A.B., Van Doornen, L.J.P., & Schaufeli, W. B. (2006). Burnout and engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40, 521-531.
- Lättman, K. (2012). *Personality measures as predictors of job satisfaction from a frame-of-reference perspective*. Blekinge Institute of Technology.
- Lawler, E. E., III, & Hall, D. T. (1970). Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied Psychology*, 54, 305–312.
- Lee, C. K., Chou, S. K. & Chang, T. Y. (2006) Transnational corporations' R&D localization in a developing nation—A game theory analysis. *The Business Review*, 6(1), 62-69.

- Lee Junghoon. (2012). *Antecedents and consequences of employee engagement: Empirical study of hotel employees and managements*. (Doctor dissertation). Human Ecology Kansas State University Manhattan, Kansas.
- Lei, P.W., & Wu, Q. (2007). Introduction to structural equation modeling: Issues and practical considerations. *Educational Measurement: Issues and Practices (ITEMS module)*, 26(3), 33-43.
- LePine, J. A., LePine, M., & Jackson, C. L. (2004). Challenge and hindrance stress: Relationships with exhaustion, motivation to learn, and learning performance. *Journal of Applied Psychology*, 89, 883-891.
- Lewis, R., Donaldson-Filder, E. and Tharani, T. (2011). Management competencies for enhancing employee engagement. *Research insight*. London: Chartered Institute of Personnel and Development.
- Likert, R. (1961). *New patterns of management*. New York, NY: McGraw-Hill.
- Lim, B.C., & Ployhart, R.E. (2004). Transformational leadership: Relations to the five-factor model and team performance in typical and maximum contexts. *Journal of Applied Psychology*, 89(4), 610-621.
- Little, B., & Little, P. (2006). Employee engagement : Conceptual issues. *Journal of Organizational Culture, Communications Conflict*, 10 (1), 111 – 120.
- Liu, W., Lepak, D. P., Takeuchi, R., & Sims, Jr., H. P. (2003). Matching leadership styles with employment modes: Strategic human resource management perspective. *Human Resource Management Review*, 13(1), 127-152.
- Lockwood, M., A. (2008). *The relationship of self-efficacy, perceptions of supervisor leadership styles and blue-collar employee engagement*. Unpublished doctoral dissertation, University of Phoenix.
- Lodahl, T., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology*, 49(1), 24-33.
- Lussier, R, N. & Achua, C.F. (2010). *Effective Leadership* (4th ed.). Singapore: Thomas/South-western.
- Luthans, F., & Peterson, S. J. (2002). Employee engagement and manager self-efficacy. *Journal of Management Development*, 21(5/6), 376-386.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1(1), 3-30.

- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39, 99–128.
- Macleod, D. & Clarke, N. (2009). *Engaging for success: enhancing performance through employee engagement*. London: Office of Public Sector Information. Retrieved from <http://www.bis.gov.uk/files/file52215.pdf>.
- Mahmoud, A. H. (2008). A study of nurses' job satisfaction: the relationship to organizational commitment, perceived organizational support, transactional leadership, transformational leadership, and level of education. *European journal of scientific research*, 22(2), 286-295.
- Makishima, M., & Somchai, S. (2003). Toward a knowledge-based economy: Southern Thailand, Human resource development toward a knowledge- knowledge-based economy, *The case of Thailand*. Bangkok: Thailand.
- Maslach, C., & Leiter, M. P. (1997). *The truth about burnout*. San Francisco: Jossey-Bass.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of psychology*, 52, 397-422.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *The Maslach burnout inventory manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslow, A. H. (1954). *Personality and motivation*. New York, NY: Harper.
- Maslow, A. H. (1998). *Maslow on management*. New York, NY: John Wiley.
- Mat, Norazuwa. (2008). *Personality, Job Characteristics and Teaching Effectiveness: Moderating Effect of Experience*. Unpublished Doctoral Dissertation, Universiti Sains Malaysia.
- Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experimental value: conceptualization, measurement and application in the catalog and Internet shopping environment. *Journal of Retailing*, 77, 39-54.
- Matin, H. Z., Jandaghi, G., & Ahmadi, F. (2010). A comprehensive model for identifying factors impacting on development of organizational citizenship behavior. *African Journal of Business Management*, 4(10), 1932.
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational & Organizational Psychology*, 77(1), 11-37.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20, 709–734.

- Meyer, John P & Smith, Catherine A. (2000), HRM practices and organizational commitment: Test of a mediation model, *Canadian Journal of Administrative Sciences*, 17(4), 319-331.
- McBain, R. (2007). The practice of engagement. *Strategic HR Review*, 6(6), 16-19.
- 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.
- 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.
- McCrae, R.R., & Costa, P.T. (1997) Personality trait structure as a human universal. *American Psychologist*, 52(5), 509-516.
- McCrae, R. R., & Costa, P. T., Jr. (2004). A contemplated revision of the NEO Five Factor Inventory. *Personality and Individual Differences*, 36(3), 587-596.
- McCrae, R.R., & John, O.P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*: 60(2), 175–215.
- McCrae, R. R., Costa, P. T., Ostendorf, F., Angleitner, A., Hrebickova, M., & Avia, M. D. (2000). Nature over nurture: Temperament, personality, and life span development. *Journal of Personality and Social Psychology*, 78(1), 173-186.
- McGregor, D. (1960). *The human side of enterprise*. New York: McGraw-Hill, Inc.
- Ministry of Industry Thailand. (2010). *Labour Market Research*. Thailand. Retrieved from: <http://www.doe.go.th>.
- Mohamed, L. M. (2016). Assessing the effects of transformational leadership: A study on Egyptian hotel employees. *Journal of Hospitality and Tourism Management*, 27, 49-59.
- Moody, M. C. (2007). *Adaptive behavior in intercultural environments: The relationship between cultural intelligence factors and big five personality traits*. (Doctoral dissertation). Available from ProQuest Dissertations & Theses. (AAT 3279483).
- Mosalaie, H., Nikbakhsh, R., & Tojari, F. (2014). The relationship between personality traits and organizational citizenship behavior on athletes. *Bulletin of Environment, Pharmacology and Life Sciences*, 3, 11-15.
- Moss, S.A. & Ngu, S. (2006). “The relationship between personality and leadership preferences”, *Current Research in Social Psychology*, 11, 70-91.

- Mostert K, Rothmann S (2006). Work-related well-being in the South African Police Service. *J. Crim. Justice*, 34(5), 479-491.
- Mount, M. K., & Barrick, M. R. (1995). The big five personality dimensions: Implications for research and practice in human resource management. *Research in Personnel and Human Resource Management*, 13, 153-200.
- Munir, R. I. S., Rahman, R. A., Malik, A. M. A., & Ma'amor, H. (2012). Relationship between transformational leadership and employees' job satisfaction among the academic staff. *Procedia-Social and Behavioral Sciences*, 65, 885-890.
- Muchinsky, P. M. (2003). *Psychology applied to work: An introduction to industrial and organizational psychology* (7th ed.). Thousand Oaks, CA: Sage.
- Muchinsky, P.M. (2003). *Psychology applied to work*. (7th Ed.), Wadsworth, Belmont.
- National Economic and Social Development Board. (2011). *Economic and social development plan: Summary of the eleventh national economic and social development plan (2012-2016)*. Retrieved from http://www.Economic and Social Development Plan _ Royal Thai Embassy to Belgium and Luxembourg.html .
- Naik, A. R. (2015). The Relationship between personality factors and organizational commitment among university employees. *The International Journal of Indian Psychology*, 2(4), 2349-3429
- Ngodo, O. E. (2008). Procedural justice and trust: The link in the transformational leadership–organizational outcomes relationship. *International Journal of Leadership Studies*, 4(1), 82-100.
- Nielsen, K., Yarker, J., Randall, R. and Munir, F. (2009). The mediating effects of team and self-efficacy on the relationship between transformational leadership, and job satisfaction and psychological well-being in healthcare professionals: a cross-sectional questionnaire survey. *International Journal of Nursing Studies*, 46 (9), 1236-1244.
- NNT (2015). Special report: Special economic zones in the deep south to help improve local economy. *National news bureau of Thailand*. Retrieved from http://thainews.prd.go.th/website_th/news/news_detail/WNPOL5802180010007.
- Nohria, N., Groysberg, B., & Lee, L. (2008). Employee motivation: A powerful new model. *Harvard Business Review*, 86, 78-84.
- Norman, W. T. (1963). "Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings". *Journal of Abnormal and Social Psychology*, 66 (6), 574–583.
- Northouse, G. (2007). *Leadership theory and practice* (3rd ed.). Thousand Oak, London, New Delhe, Sage Publications, Inc.

- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Nowack, K. (2008). Employee engagement, job satisfaction, retention and stress.
Retrieved from [http:// www.envisialearning.com](http://www.envisialearning.com).
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, 39, 607–634
- Olivier, A., & Rothmann, S. (2007). Antecedents of work engagement in a multinational oil company. *Journal of Industrial Psychology*, 33, 49-56.
- Osborne, J. W. (2010). Improving your data transformations: Applying the box-cox transformation. *Practical Assessment, Research & Evaluation*, 15(12), 1-9.
- Otis, N., & Pelletier, L. G. (2005). A motivational model of daily hassles, physical symptoms, and future work intentions among police officers. *Journal of Applied Social Psychology*, 35, 2193-2214.
- Pallant, Y. (2011). *SPSS Survival Manual: A step by step guide to data analysis using SPSS for windows* (3rd ed.). England: McGraw Hill Open University Press.
- Pandey, N. S., & Kavitha, M. (2015). Relationship between big five personality and job satisfaction of private high school teachers, in Puducherry region: An empirical analysis. *International Journal of Research in Economics and Social Sciences*, 5(8), 245-253.
- Panaccio, A., & Vandenberghe, C. (2012). Five-factor model of personality and organizational commitment: The mediating role of positive and negative affective states. *Journal of vocational behavior*, 80(3), 647-658.
- Patki, S. M., & Abhyankar, S. C. (2016). Big five personality factors as predictors of organizational citizenship behavior: A complex interplay. *The International Journal of Indian Psychology*, 3, 2349 -3429.
- Pati, S.P., & Kumar, P.(2010). Employee engagement: Role of self-efficacy, organizational support & supervisor support. *Indian Journal of Industrial Relations*, 46, 126-137.
- Pervin, A. L., & Cervone, D. (2010). *Personality: Theory and Research*. (11th Ed.). International Student version. John Wiley & Sons, Inc.
- Phale, M.M. (2008). *Work-related well-being of employees in a South African parastatal*. (Doctoral dissertation) .Industrial Psychology at the Potchefstroom Campus. North-West University.

- Phipps, S. T., Prieto, L. C., & Deis, M. H. (2015). The role of personality in organizational citizenship behavior: Introducing counterproductive Work Behavior and Integrating Impression Management as a Moderating Factor. *Journal of Organizational Culture, Communication and Conflict*, 19(1), 176.
- Piccolo, R.F. and Colquitt, J.A. (2006). Transformational leadership and job behaviors: the mediating role of core job characteristics. *Academy of Management Journal*, 49(2), 327-340.
- Pierce, J. L., & Newstrom, J. W. (2011). *Leaders and the leadership process: Readings, self assessments and applications*. Singapore: McGraw-Hill.
- Podsakoff, P.M., MacKenzie, S.B., Paine, J.B., Bachrach, D.G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513–563.
- Podsakoff, P. M., Mackenzie, S. B., & Boomer, W. (1996). A meta - analysis of the relationships between Kerr and Jermier's substitutes for leadership and employee job attitudes, role perceptions, and performance. *Journal of Applied Psychology*, 81, 380 -399.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Prayitno, H., & Suwandi, T. (2016). Organizational commitment mediating the effects of big five personality compliance to occupational safety standard operating procedure. *International Journal of Evaluation and Research in Education*, 5(1), 14-21.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717–731.
- Pulasinghage C. (2010). Employee motivation: what factors motivate employees to work in nongovernmental organizations (NGO) in Sri Lanka: A study According to Maslow's hierarchy of need model. *The International Journal of Interdisciplinary Social Sciences*, 5(4), 197 – 212.
- Rafferty, A.M., Maben, J., West, E., Robinson, D. (2005). *What makes a good employer? Issue paper 3*, The global nursing review initiative. International Council of Nurses, Geneva.
- Rashid, N. M., Sah, N. F. M., Ariffin, N. M., Ghani, W. S. W. A., & Yunus, N. S. N. M. (2016). The Influence of Bank's frontlines' personality traits on job performance. *Procedia Economics and Finance*, 37, 65-72.

- Raja, U., & Johns, G. (2010). The joint effects of personality and job scope on in-role performance, citizenship behaviors, and creativity. *Human relations*, 63(7), 981 – 1005.
- Ram P. & Prabhakar, G. (2011). The role of employee engagement in work-related outcomes. *Interdisciplinary Journal of Research in Business*, 1(3), 47-61.
- Rammstedt, B., Kemper C.J. (2011). Measurement equivalence of the big five: shedding further light on potential causes of the educational bias. *Journal of Research in Personality*, 45, 121-125.
- Rich, B. L. (2006). *Job engagement: Construct validation and relationships with job satisfaction, job involvement, and intrinsic motivation*. (Doctoral Dissertation). University of Florida, USA
- Richer, S. F., Blanchard, C., & Vallerand, R. J. (2002). A motivational model of work turnover. *Journal of Applied Social Psychology*, 32, 2089–2113.
- Roberts, B. W., & Hogan, R. (Eds.). (2001). *Personality psychology in the workplace: Decade of behavior*. Washington, DC: American Psychological Association.
- Robertson, I.T., Baron, H., Gibbons, P., MacIver, R., & Nyfield, G. (2000). Conscientiousness and managerial performance. *Journal of Occupational and Organizational Psychology*, 73, 171-180.
- Robertson, I.T. and Birch, A.J. (2010). *The role of psychological well-being in employee engagement*. Paper presented at British Psychological Society Occupational Psychology Conference, Brighton.
- Robbins, S.P. & Judge, T.A. (2009). *Organizational behavior*. Upper Saddle River, NJ: Pearson/Prentice Hall. Retrieved from University of Phoenix, CJA-473 Managing Criminal Justice Personnel.
- Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press.
- Robinson, D., Perryman, s. & Hayday, S. (2004). The drive of employee engagement. Institute for Employment Studies, Brighton. *IES Report*, 1-87.
- Rodger, w. Griffeth, Peter, W. Hom. (2001). *Retaining Valued Employees*. California: Sage. Publications, Inc., Thousand Oaks, CA.
- Rogers, C. (1961). *On becoming a person: A therapist's view of psychotherapy*. New York, NY: Houghton Mifflin.
- Rothmann, S. & Rothmann Jr, S. (2010). Factor associated with employee engagement in South Africa. *Journal of Industrial Psychology*, 36(2), 1-12.

- Rothmann, S., & Welsh, C. (2013). Employee engagement: the role of psychological conditions. *Management Dynamics: Journal of Southern African Institute for Management Scientists*, 22(1), 14-25.
- Roscoe, J. T. (1975). *Fundamental Research Statistics for the Behavioral Sciences*. New York: Holt, Rinehart and Winston, Inc.
- Rothbard, N.P. (2001), "Enriching or depleting? The dynamics of engagement in work and family roles", *Administrative Science Quarterly*, 46, 655-84.
- Rowold, J. & Heinitz, K. (2007). Transformational and Charismatic Leadership: Assessing the convergent, divergent and criterion validity of the MLQ and the CKS, *Leadership Quarterly*, 8, 121-133.
- Roy, S., Tarafdar, M., Ragu-Nathan, T. and Marsillac, E. (2012). The Effect of Misspecification of Reflective and Formative Constructs in Operations and Manufacturing Management Research, *Electronic Journal of Business Research Methods*, 10(1), 34-52.
- Rurkkhum, S. (2010). *The relationship between employee engagement and organizational behavior*. Unpublished doctoral dissertation. The University of Minnesota, Minneapolis.
- Russell, J. A., & Carroll, J. M. (1999). On the bipolarity of positive and negative affect. *Psychological Bulletin*, 125, 3-30.
- Saeedy, S., & Rastgar, A. A. (2015). Study of the Role of Personality Factors in Organizational Citizenship Behaviors. *Trends Journal of Sciences Research*, 2(2), 50-55.
- Sahoo, C. K., & Sahu, G. (2009). Effective employee engagement: The mantra of achieving organizational excellence. *Management and Labour Studies*, 34(1), 73-84.
- Saks, A.M (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619.
- Salanova, M., Agut, S., & Peiro, J, M., (2005) Linking Organizational Resources and Work Engagement to Employee Performance and Customer Loyalty: The Mediation of Service Climate. *Journal of Applied Psychology*, 90(6), 1217-1227.
- Salanova, M., Lorente, L., Chambel, M. J., & Martínez, I. M. (2011). Linking transformational leadership to extra role behavior: The mediating role of self-efficacy and work engagement. *Journal of Advanced Nursing*, 67, 2256-2266
- Saleem, H. (2015). The impact of leadership styles on job satisfaction and mediating role of perceived organizational politics. *Procedia-Social and Behavioral Sciences*, 172, 563-569.

- Salgado, J. F. (1997). The five factor model of personality and job performance in the European Community. *Journal of Applied Psychology*, 82(1), 30-43.
- Salgado, J.F. (2003). Predicting job performance using FFM and non-FFM personality measures. *Journal of Occupational and Organizational Psychology*, 76(3), 323-346
- Salgado, J.F., Viswesvaran, C. & Ones, D.S. (2001). Predictors used for personnel selection: an overview of construct, methods and techniques. In N. Anderson, D.S. Ones, H.K. Sinangil & C. Viswesvaran (Eds.). *Handbook of Industrial, Work and Organizational Psychology*, 1, 165-199. London: Sage
- Salgado, J.F. & De Fruyt, F. (2005). Personality in personnel selection. In A. Evers, O. Schmit-Voskuyl & N. Anderson (Eds.). *Handbook of personnel selection*. Oxford, UK: Blackwell.
- Salkind, N. J. (1997). *Exploring research*. (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- Salleh, S. B. & Mohd Nasurdin, A. B. (2008). Transformational leadership, emotional intelligence and organizational citizenship behavior. *National HR Management Conference*.
- Sally, A. S., Natalie J, Clair D, (2014), "Employee engagement and autoethnography: being and studying self", *Journal of Workplace Learning*, 26 (3/4), 172 – 187.
- Saucier G. (1994) Mini-Markers: A brief version of Goldberg's unipolar big-five markers. *Journal of Personality Assessment*, 63(3), 506–516.
- Schaufeli, W.B. and Bakker, A.B. (2004), "Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study", *Journal of Organizational Behavior*, 25(3), 293-315.
- Schaufeli, W. B., Salanova, M., Gonzalez –Roma, 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.
- 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*, 5. Managing social and ethical issues in organizations. Greenwich, CT: Information Age Publishers.
- Scheepers, R. A., Arah, O. A., Heineman, M. J., & Lombarts, K. M. (2016). How personality traits affect clinician-supervisors' work engagement and subsequently their teaching performance in residency training. *Medical Teacher*, 1-7.

- Schneider, B., Macey, H., Barbera, M., & Martin, N. (2009). Driving customer satisfaction and financial success through employee engagement. *People and Strategy*, 32(2), 22-27.
- Schultz, D. P., & Schultz, S. E. (2009). *Theories of Personality* (9th ed.). Belmont, CA: Wadsworth/Cengage Learning.
- Scottish Executive Social Research (2007). Employee Engagement in the Public Sector a Review of Literature. Office of Chief Researcher.
- Searle, W., & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, 14, 449-464.
- Sekaran, U. (2003). *Research methods for business* (4th ed.). Hoboken, NJ: John Wiley & Sons.
- Shin, S.J. & Zhou, J. (2003). Transformational leadership, conservation, and creativity: evidence from Korea. *Academy of Management Journal*, 46 (6), 703-714.
- Shirey, M.R. (2006). Authentic leaders creating healthy work environments for nursing practice. *American Journal of Critical Care*, 15(3), 256-268.
- Shirom, A. (2003). Job-related burnout: A review. In Quick, J.C. & Tetrick L.E. (Eds.), *Handbook of occupational health psychology*. Washington, DC: American Psychological Association.
- Shrout, Patrick E., & Niall Bolger. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422-445.
- Shuck, M. B. (2009). Engagement leadership: A new developmental model. In M. S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), *Proceedings of the Eighth Annual College of Education & GSN Research Conference* (pp. 126-132). Miami: Florida International University.
- Shuck, B., & Wollard, K. (2010). Employee engagement and HRD: A seminal review of the foundations. *Human Resource Development Review*, 9(1), 89-110.
- Shuck, B., & Herd, A. (2012). Employee engagement and leadership: Exploring the convergence of two frameworks and implications for leadership development in HRD. *Human Resource Development Review*, 11(2), 156-181.
- Shurbagi, A. M. A. (2014). The relationship between transformational leadership style job satisfaction and the effect of organizational commitment. *International Business Research*, 7(11), 126.

- Skakon, J., Nielsen, K., Borg, V. and Guzman, J. (2010). Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. *Work & Stress*, 24(2), 107-39.
- Slatten, T., & Mehmetoglu, M. (2011). Antecedents and effects of engaged frontline employees: A study from the hospitality industry. *Managing Service Quality*, 21(1), 88-107.
- Smith, T.A., (2012). *A study of ethnic minority college students: A relationship among the big five personality traits, cultural intelligence, and psychological Well-Being*. Doctoral Dissertations and Projects. Liberty University.
- Smith, G.R., & Markwick, C (2009). Employee engagement a review of current thinking. *Institute for Employment Studies Report*, 469, 1-65.
- Smythe, J. (2007). Employee engagement – its real essence. *Human Resource Management International Digest*, 15(7), 11-13.
- Sobel, M. E., (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology*, 290–312.
- Social Security Office of Songkhla (2012). *Report of number of Establishments in Songkhla province of Thailand*. Thailand
- Social Security Office Misnistry of Labour Thailand (2012). *Social Security statistics 2012*. Thailand.
- Song, J.H., & Kim, H.M., (2009). The integrative structure of employee commitment: The influential relations of individuals' characteristics in a supportive learning culture. *Leadership and Organization Development Journal*, 30(3), 240–255.
- Song, J. H., Kolb, J. A., Lee, U. H., & Kyoung, K. H.(2012). Role of transformational leadership in effective organizational knowledge creation practices: Mediating effects of employees' work engagement. *Human Resource Development Quarterly*, 23(1), 65-101.
- Stevens, C.D., & Ash, R.A. (2001). Selecting employees for fit: personality and preferred managerial style. *Journal of Managerial*, 13(4), 500–517.
- Stone, D.N., Deci, E.L. & Ryan, R.M. (2009). Beyond talk: Creating autonomous motivation through self-determination theory. *Journal of General Management*, 34 (3), 75 -91.

- Sulea, C., Van Beek, I., Sarbescu, P., Virga, D., & Schaufeli, W. B. (2015). Engagement, boredom, and burnout among students: Basic need satisfaction matters more than personality traits. *Learning and Individual Differences*, 42, 132-138.
- Suls J. (2001). Affect, stress, and personality. In: Forgas JP, editor. *Handbook of affect and social cognition*. Mahwah, NJ: Erlbaum.
- Syed, N., Saeed, A., & Farrukh, M. (2015). Organization commitment and five factor model of personality: Theory recapitulation. *Journal of Asian Business Strategy*, 5(8), 183.
- Symonds-Brown, Holly J., & Milner, Margaret F. (2015). Breaking from Tradition: Transforming Leadership Education in Nursing. *Quality Advancement in Nursing Education - Avancées en formation infirmière*, 1(3), 1-15.
- Tabachnick, B.G., & Fidell, S. L. (2013). *Using multivariate statistics*. Boston: Pearson Education.
- Templer, K. J. (2012). Five-factor model of personality and job satisfaction: The importance of agreeableness in a tight and collectivistic asian society. *Applied Psychology*, 61(1), 114-129.
- Tenenhaus, M., Amato, S., and Esposito Vinzi, V. (2004). A global goodness-of-fit index for PLS structural equation modelling. *Proceedings of the XLII SIS Scientific Meeting, Contributed Papers, CLEUP, Padova*, 739-742.
- Teven, J. J. (2007). Teacher temperament: Correlates with teacher caring, burnout, and organizational outcomes. *Communication Education*, 56(3), 382.
- Thamrin, H. M. (2012). The influence of transformational leadership and organizational commitment on job satisfaction and employee performance. *International Journal of Innovation, Management and Technology*, 3(5), 566-572.
- Tims, M., Bakker, A. B., & Xanthopoulou, D. (2011). Do transformational leaders enhance their followers' daily work engagement? *The Leadership Quarterly*, 22(1), 121-131.
- Tokar, D. M., Fischer, A. R., & Subich, L. M. (1998). Personality and vocational behavior: A selected review of the literature, 1993-1997. *Journal of Vocational Behavior*, 53, 115-153.
- Top, M., Akdere, M., & Tarcan, M. (2015). Examining transformational leadership, job satisfaction, organizational commitment and organizational trust in Turkish hospitals: public servants versus private sector employees. *The International Journal of Human Resource Management*, 26(9), 1259-1282.

- Tower perrin (2003). Working Today: Understanding What Drives Employee Engagement. *Towers Perrin Talent Report, US Report*, 1-37.
- Tynan, R. (2005). The effects of threat sensitivity and face giving on dyadic psychological safety and upward communication. *Journal of Applied Social Psychology*, 35, 223-247.
- Ulrich, D. (2007). The talent trifecta. *Workforce Management*, 86, 32-33.
- Van Dierendonck, D., Schaufeli, W., & Buunk, B.P.(1996). Inequity among human service professionals: Measurement and relation to burnout. *Basic and Applied Social Psychology*, 18(4), 429-451.
- Van Heck, G. L. (1997). Personality and physical health: Toward an ecological approach to health-related personality research. *European Journal of Personality*, 11, 415-443.
- Vanam, S. (2009). *Job engagement: examining the relationship with situational and personal factors*. (Master's Theses). San José State University.
- Vogelgesang, G. (2007). *How leaders interactional transparency can impact follower psychological safety and role engagement*. Unpublished Doctoral Dissertation. University of Nebraska, Lincoln.
- Walumbwa, F. O., & Hartnell, C. A. (2011). Understanding transformational leadership employee performance links: The role of relational identification and self-efficacy. *Journal of Occupational & Organizational Psychology*, 84(1), 153-172.
- Walumbwa, F.O., Orwa, B., Wang, P & Lawler, J. J. (2015). Transformational leadership, organizational commitment, and job satisfaction: A comparative study of Kenyan and U.S. financial firms. *Human Resource Development Quarterly*, 16(2), 235–256.
- Walumbwa, F.O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and workgroup psychological safety. *Journal of Applied Psychology*, 94, 1275-1286.
- Walumba, F.O., & Wang, P., & Lawler, J.J., & Shi, K. (2004). The role of collective efficacy in the relations between transformational leadership and work outcome. *Occupational and Organizational Psychology*, 77(4), 515-530.
- Wang, P. and Walumbwa, F. O. (2007) 'Family-friendly programs, organizational commitment, and work withdrawal: The moderating role of transformational leadership, *Personnel Psychology*, 60(2), 397-427.

- Ward, C., Leong, C.-H., & Low, M., (2004). Personality and sojourner adjustment: An exploration of the Big Five and the cultural fit proposition. *Journal of Cross-Cultural Psychology*, 35(2), 137-151.
- Warr, P. (1999). Well-being and the workplace. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology*. New York: Russell Sage Foundation Press.
- Watson Wyatt (2007) , Thailand to night. Retrieved from <http://thailandtonight.blogspot.com/2007/11/staff-turnover-hurts-thai-firms.html>.
- Watson, D. (2002). Positive affectivity: The disposition to experience pleasurable emotional states. In C. R. Snyder & S. J. Lopez (Eds.), *The handbook of positive psychology* (pp. 106- 119). New York: Oxford University Press.
- Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 767-793). San Diego, CA: Academic Press.
- Wefald, A. J. (2008). *An examination of job engagement, transformational leadership, and related psychological constructs*. Doctor of Philosophy Research. Kansas State University.
- Wefald, A.J., Reichard, R.J., Serrano, S. (2011). Fitting engagement into a nomological network: The relationship of engagement to leadership and personality. *Journal of Leadership and Organizational Studies*, 18(4), 522-537.
- Weick, K. E., & Sutcliffe, K. M. (2001). *Managing the unexpected*. San Francisco, CA: Jossey-Bass.
- Wetzels Martin., Odekerken-Schroder, Gaby., & Van Pppen, Claudia. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly*, 33 (1), 177-195.
- 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.
- Wiley, J. (2008). *Engaging the employee*. Kenexa Research Institute.
- Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: A test of self-determination theory. *Journal of Personality and Social Psychology*, 70, 767– 779.
- Wohlers, A.J., Hall, M.J., & London, M. (1993). Subordinates rating managers: Organizational and demographic correlates of self/subordinate agreement. *Journal of Occupational and Organizational Psychology*, 66, 263-275.

- Wold H (1985). Partial Least Squares. In S Kotz, NL Johnson (eds.), *Encyclopedia of Statistical Sciences*, 6,581–591.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E. & Schaufeli, W.B. (2009a). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Organizational and Occupational Psychology*, 82(1), 183-200.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E. & Schaufeli, W.B. (2009b). Reciprocal relationships between job resources, personal resources and work engagement. *Journal of Vocational Behavior*, 74, 235-244.
- Yahya, K. K., Isa, N., Johari, J., (2012). Employees' perception on engagement and its relationship to HRM practices. *3rd Internal Conference On Business And Economic Research (3rd ICBER 2012)* Proceeding. UUM Sintok Kedah, Malaysia.
- Yahaya, A., Yahaya, N., Bon, A. T., Ismail, S., & Noor, N. M. (2012). The relationship between big five personality with work motivation, competitiveness and job satisfaction. *Elixir Psychology*, 44, 7454-7461.
- Yammarino, F. J., Spangler, W. D. & Bass, B. M. (1993). Transformational leadership and performance: A longitudinal investigation. *Leadership Quarterly*, 4(1), 81-102.
- Yeh, H., & Hong, D. (2012). The mediating effect of organizational commitment on leadership type and job performance. *The Journal of Human Resource and Adult Learning*, 8(2), 50.
- Yu, D. S. F., Lee, D. T. F., & Woo, J. (2004). Issues and challenges of instrument translation. *Western Journal of Nursing Research*, 26(3), 301-320.
- Yucel, I., McMillan, A., & Richard, O. C. (2014). Does CEO transformational leadership influence top executive normative commitment? *Journal of Business Research*, 67(6), 1170-1177.
- Zaidi, N. R., Wajid, R. A., Zaidi, F. B., & Zaidi, G. B. (2013). The big five personality traits and their relationship with work engagement among public sector university teachers of Lahore. *African Journal of Business Management*, 7(15), 1344–1353.
- Zeigler-Hill, V., Besser, A., Vrabel, J., & Noser, A. E. (2015). Would you like fries with that? The roles of servers' personality traits and job performance in the tipping behavior of customers. *Journal of Research in Personality*, 57, 110-118.
- Zellars, K L., Perrew, P.L., & Hochwarter, W.A. (2000). Burnout in health care: The role of the five factor of personality. *Journal of Applied Social Psychology*, 30, 1570-1598.

- Zellars, K. L., Hochwarter, W. A., Perrewé, P. L., Hoffman, N., & Ford, E. W. (2004). Experiencing job burnout: The roles of positive and negative traits and states. *Journal of Applied Social Psychology*, 34(5), 887-911.
- Zhang, Tanyu. (2010). *The relationship between perceived leadership styles and employee engagement: the moderating role of employee characteristics*. (Doctoral Dissertation). Macquarie University Sydney, Australia.
- Zhou, M. (2012). *The Factors Effect of Transformational and Transactional Leadership and Organizational Commitment on The Employee's Job Satisfaction and Job Performance*. (Doctoral dissertation). University of the Thai Chamber of Commerce.
- Zhu, W., Avolio, B. J., & Walumbwa, F. O. (2009). Moderating role of follower characteristics with transformational leadership and follower work engagement. *Group and Organization Management*, 34(5), 590–619.
- Zhu, W., Avolio, B. J., & Walumbwa, F. O. (2007, April). *The effect of transformational leadership on follower work engagement*. Presented at The SIOP Annual Conference, New York.





February 18, 2013

To Whom It May Concern.

SEEKING INFORMATION FOR DBA RESEARCH

This is to inform that I am Dr. Norazuwa binti Mat, thesis supervisor for Mrs Parichat Jansriboot (Metrics Number : 92583). She is a Doctoral of Business Administration (DBA) student at Othman Yeop Abdullah Graduate School of Business (OYAGSB), Universiti Utara Malaysia. The title of her DBA thesis is "The Effect of Employee Personality and Transformational Leadership on Employee Engagement".

Currently, she is in the process of data collection. Therefore, she needs your cooperation to allow her to distribute questionnaires to your employees. The data gathered is important for her DBA research and for academic purpose only. Should you have any questions concerning this matter, I can be reached at email: norazuwa@uum.edu.my.

Thank you for your consideration and co-operation.

Yours Sincerely,

Dr. Norazuwa binti Mat
Senior Lecturer/Thesis Supervisor



February 18, 2013

Dr. Suthinee Rurkkhum
Faculty of Management Sciences,
Prince of Songkla University

Dear Dr Suthinee Rurkkhum

**INVITATION TO BECOME AN EXPERT FOR MRS. PARICHAT
JANSRIBOOT**

The above person is a DBA student with University Utara Malaysia. She is doing her research on "The Effect of Employee Personality and Transformational Leadership on Employee Engagement" under my supervision.

Currently she is doing her pilot study and in the process of validating her questionnaire instrument. As part of the validation process experts in the fields of human resource are required. We have identified you to become one of the experts.

We would appreciate your assistance in making study a success.

Thank you.

Yours faithfully,

(DR.NORAZUWA MAT)
Senior Lecturer/ DBA Supervisor

February 18, 2013

Dr Chetsada Noknoi
Faculty of Economics and Business Administration,
Thaksin University

Dear Dr Jassada Noknoi

**INVITATION TO BECOME AN EXPERT FOR MRS. PARICHAT
JANSRIBOOT**

The above person is a DBA student with University Utara Malaysia. She is doing her research on "The Effect of Employee Personality and Transformational Leadership on Employee Engagement" under my supervision.

Currently she is doing her pilot study and in the process of validating her questionnaire instrument. As part of the validation process experts in the fields of human resource are required. We have identified you to become one of the experts.

We would appreciate your assistance in making study a success.

Thank you.

Yours faithfully,



(DR.NORAZUWA MAT)
Senior Lecturer/ DBA Supervisor



February 18, 2013

Dr Chetsada Noknoi
Faculty of Economics and Business Administration,
Thaksin University

Dear Dr Rujirapan Kongchoy

**INVITATION TO BECOME AN EXPERT FOR MRS. PARICHAT
JANSRIBOOT**

The above person is a DBA student with University Utara Malaysia. She is doing her research on "The Effect of Employee Personality and Transformational Leadership on Employee Engagement" under my supervision.

Currently she is doing her pilot study and in the process of validating her questionnaire instrument. As part of the validation process experts in the fields of human resource are required. We have identified you to become one of the experts.

We would appreciate your assistance in making study a success.

Thank you.

Yours faithfully,

(DR. NORAZUWA MAT)
Senior Lecturer/ DBA Supervisor

Appendix C: English Version Questionnaire

QUESTIONNAIR

Dear respected respondent:

Thank you for your participation in this survey. You are invited to participate in a doctoral research by Parichat Jansriboot. I would like to ask you a few questions about yourself on your personality, your supervisor style, your feelings about psychological safety, and your work engagement. It is important that you understand that your responses will be kept confidential and will not be shown to your supervisor or coworkers.

Please respond to every item in this questionnaire as the instruction in every section that it is divided into five sections. There are categorized from section A to E. There are no rights or wrong answers. Therefore, please answer as truly as possible.

Instructions: Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by circling the appropriate number.

Section A: Respondent Profiles

(This section intends to get on information about the respondents' demographic background). Please tick in the best answer according to your information.

1. Gender

☐ Male

☐ Female

2. Age

☐ Less than 21 years old

☐ 21 – 30 years

☐ 31 – 40 years

☐ 41 – 50 years

☐ 51 years or older

3. Level of Education

☐ High School

☐ Bachelor

☐ Diploma

☐ Post Graduate

4. Work Experience

☐ Less than 5 years

☐ 5 – 10 years

☐ More than 10 years

5. Size of Organization

- ☐ 1 - 49 employees
- ☐ 50 - 100 employees
- ☐ More than 100 employees

6. Type of organization

- ☐ Production Sector ☐ Trading Sector
- ☐ Service Sector

Section B: Please indicate your level of agreement by circling the number that best reflects your feelings.

Employee Engagement

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1. I work with intensity on my job						
2. I exert my full effort to my job						
3. I devote a lot of energy to my job						
4. I try my hardest to perform well on my job						
5. I am enthusiastic about my job						
6. I am interested in my job						
7. I am proud of my job						
8. I feel positive about my job						
9. I am excited about my job						
10. At work, I pay a lot of attention to my job						
11. At work, I concentrate on my job						
12. At work, I am absorbed by my job						
13. At work, I devote a lot of attention to my job						

Section C: Please write down the number that best reflects your personality. There will be no right or wrong answer.

Personality

1	2	3	4	5	6	7
Extremely Inaccurate	Very Inaccurate	Slightly Inaccurate	Moderate	Slightly Accurate	Very Accurate	Extremely Accurate

Bashful		Energetic		Moody		Systematic	
Bold		Envious		Organized		Talkative	
Careless		Extraverted		Philosophical		Temperamental	
Cold		Fretful		Practical		Cooperative	
Complex		Harsh		Quiet		Disorganized	
Touchy		Inefficient		Rude		Unintellectual	
Deep		Intellectual		Shy		Unsympathetic	
Warm		Sloppy		Uncreative		Jealous	
Efficient		Kind		Sympathetic		Withdrawn	
Relaxed		Imaginative		Uncreative		Unenvious	

Section D: Please indicate your level of agreement by circling the number that best reflects your supervisor style.

Transformational Leadership

0	1	2	3	4	5	6				
None	Slight	Mild	Moderate	Severe	Very Severe	Maximal				
My supervisor...										
1. re-examine critical assumptions to question whether appropriate				1	2	3	4	5	6	7
2. talk about his/her most important values and beliefs				1	2	3	4	5	6	7
3. seek differing perspectives when solving problems				1	2	3	4	5	6	7
4. talk optimistically about the future				1	2	3	4	5	6	7
5. instill pride in others for being associated with him/her				1	2	3	4	5	6	7
6. talk enthusiastically about what needs to be accomplished				1	2	3	4	5	6	7
7. specify the importance of having a strong sense of purpose				1	2	3	4	5	6	7
8. spend time teaching and coaching				1	2	3	4	5	6	7
9. go beyond self-interest for the good of the group				1	2	3	4	5	6	7
10. treat others as an individual rather than just as a member of the group				1	2	3	4	5	6	7
11. act in ways that builds others' respect for him/her				1	2	3	4	5	6	7
12. consider the moral and ethical consequences of decisions				1	2	3	4	5	6	7

My supervisor...							
13. display a sense of power and confidence	1	2	3	4	5	6	7
14. articulate a compelling vision of the future	1	2	3	4	5	6	7
15. consider an individual as having different needs, abilities, and aspirations from others	1	2	3	4	5	6	7
16. get others to look at problems from many different angles	1	2	3	4	5	6	7
17. help others to develop their strengths	1	2	3	4	5	6	7
18. suggest new ways of looking at how to complete assignments	1	2	3	4	5	6	7
19. emphasize the importance of having a collective sense of mission	1	2	3	4	5	6	7
20. express confidence that goals will be achieved	1	2	3	4	5	6	7

Section E: Please indicate your level of agreement by circling the number that best reflects your feelings.

Psychological Safety

1	2	3	4	5	6	7				
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree				
1. I can be myself at work.				1	2	3	4	5	6	7
2. At work I can bring up problems and tough issues without fear of being teased or made fun of.				1	2	3	4	5	6	7
3. I feel physically safe at work.				1	2	3	4	5	6	7
4. At work, I know is expected of me every day.				1	2	3	4	5	6	7

Thank you for your time, attention, and effort

Parichat Jansriboot

Appendix D: Thai Version Questionnaire

แบบสอบถาม (QUESTIONNAIRE)

เรียนผู้ตอบแบบสอบถามทุกท่าน

แบบสอบถามฉบับนี้เป็นส่วนหนึ่งของงานวิจัยในระดับชั้นปริญญาเอก จัดทำขึ้นโดยนักศึกษาระดับปริญญาเอก ภาควิชาจิตวิทยา จุฬาลงกรณ์มหาวิทยาลัย ผู้วิจัยขอขอบคุณทุกท่านที่ให้ความร่วมมือตอบแบบสอบถามฉบับนี้ ซึ่งเป็นการเก็บข้อมูลด้านบุคลิกภาพของตัวท่าน ลักษณะการทำงานของหัวหน้าท่าน ความรู้สึกของท่านด้านความปลอดภัยทางจิตใจ และความผูกพันต่อองค์กร ขอให้ท่านเชื่อมั่นว่าผู้วิจัยให้ความสำคัญต่อการเก็บคำตอบของท่านเป็นความลับอย่างยิ่ง ไม่มีการเปิดเผยต่อหัวหน้างานหรือเพื่อนร่วมงานของท่านแต่อย่างใด

กรุณาตอบแบบสอบถามให้ครบทุกข้อซึ่งคำถามแบ่งออกเป็น 5 ส่วน ไม่มีคำตอบใดถูกหรือผิด เพราะฉะนั้นกรุณาตอบตามความรู้สึกที่แท้จริงของท่านให้มากที่สุดเท่าที่จะทำได้

ส่วนที่ 1 แบบสอบถามข้อมูลพื้นฐาน (Respondent Profiles)

(แบบสอบถามส่วนนี้ขึ้นเพื่อเก็บข้อมูลพื้นฐานของผู้ตอบแบบสอบถาม) กรุณาทำเครื่องหมาย / ในช่อง ☐ หน้า ☐ ที่ตรงกับข้อมูลของท่าน

1. เพศ (Gender)

☐ ชาย (Male)

☐ หญิง (Female)

2. อายุ (Age)

☐ น้อยกว่า 21 ปี (Less than 21 years old)

☐ 21 – 30 ปี (years)

☐ 31 – 40 ปี (years)

☐ 41 – 50 ปี (years)

☐ 51 ปีขึ้นไป (51 years or older)

3. ระดับการศึกษา (Level of Education)

☐ มัธยมศึกษา (High School) ☐ ปริญญาตรี (Bachelor)

☐ ประกาศนียบัตร (Diploma) ☐ ปริญญาโท หรือ มากกว่า (Post Graduate)

4. ประสบการณ์การทำงาน (Work Experience)

☐ น้อยกว่า 5 ปี (Less than 5 years) ☐ 5 – 10 ปี (years)

☐ มากกว่า 10 ปี (More than 10 years)

5. ขนาดขององค์กร (Size of Organization)

☐ มีพนักงาน 1- 49 คน (1 - 49 employees)

☐ มีพนักงาน 50 – 100 คน (50 - 100 employees)

☐ มีพนักงานมากกว่า 100 คน (More than 100 employees)

6.ประเภทขององค์กร (Type of organization)

☐ ด้านการผลิต (Production Sector) ☐ ด้านการค้า (Trading Sector)

☐ ด้านการให้บริการ (Service Sector)

ส่วนที่ 2 กรุณาวางกลม O หมายเลขที่สะท้อนได้ดีที่สุดว่าท่านเห็นด้วยในระดับใด

1	2	3	4	5	6	7				
ไม่เห็นด้วย อย่างยิ่ง (Strongly Disagree)	ไม่เห็นด้วย (Disagree)	ไม่เห็นด้วย เล็กน้อย (Slightly Disagree)	เฉยๆ (Neither Agree nor Disagree Agree)	เห็นด้วย เล็กน้อย (Slightly Agree)	เห็นด้วย (Agree)	เห็นด้วยอย่าง ยิ่ง (Strongly Agree)				
1. ฉันทำงานอย่างเอาใจจริงจัง 1. I work with intensity on my job				1	2	3	4	5	6	7
2. ฉันเพียรพยายามทำงานอย่างสุดความสามารถ 2. I exert my full effort to my job				1	2	3	4	5	6	7
3. ฉันทุ่มเทพลังงานอย่างมากในการทำงาน 3. I devote a lot of energy to my job				1	2	3	4	5	6	7
4. ฉันพยายามอย่างเต็มที่ที่สุดเพื่อให้งานออกมาดี 4. I try my hardest to perform well on my job				1	2	3	4	5	6	7
5. ฉันกระตือรือร้นในการทำงาน 5.I am enthusiastic about my job				1	2	3	4	5	6	7
6. ฉันมีความสนใจในงานที่ทำ 6. I am interested in my job				1	2	3	4	5	6	7
7. ฉันภูมิใจต่องานที่ทำ 7. I am proud of my job				1	2	3	4	5	6	7

8. ฉันรู้สึกดีต่องาน 8. I feel positive about my job	1	2	3	4	5	6	7
9. ฉันรู้สึกตื่นเต้นกับงาน 9. I am excited about my job	1	2	3	4	5	6	7
10. ฉันใส่ใจในงานที่ทำเป็นอย่างมาก 10. At work, I pay a lot of attention to my job	1	2	3	4	5	6	7
11. ฉันมีสมาธิจดจ่อกับงานที่ทำ 11. At work, I concentrate on my job	1	2	3	4	5	6	7
12. ฉันหมกมุ่นอยู่กับงาน 12. At work, I am absorbed by my job	1	2	3	4	5	6	7
13. ฉันทุ่มเทความใส่ใจให้กับงานที่ทำเป็นอย่างมาก 13. At work, I devote a lot of attention to my job	1	2	3	4	5	6	7

ส่วนที่ 3 กรุณาใส่หมายเลขที่สะท้อนบุคลิกภาพของท่านได้ใกล้เคียงที่สุด ไม่มีคำตอบใดถูกหรือผิด เช่น 5 รือร้น
หมายความว่า ท่านมีความคิดเห็นถูกต้องเล็กน้อยว่าตัวท่านมีบุคลิกกระตือรือร้น

1	2	3	4	5	6	7
ไม่ถูกต้องอย่างยิ่ง (Extremely Inaccurate)	ค่อนข้างไม่ถูกต้อง (Very Inaccurate)	ไม่ถูกต้องเล็กน้อย (Slightly Inaccurate)	ปานกลาง (Moderate)	ถูกต้องเล็กน้อย (Slightly Accurate)	ค่อนข้างถูกต้อง (Very Accurate)	ถูกต้องอย่างยิ่ง (Extremely Accurate)

เขินอาย Bashful		กระตือรือร้น Energetic		ขี้หงุดหงิด Moody		เป็นระบบ Systematic	
กล้าหาญ Bold		อยากเป็นเหมือนคนอื่น Envious		เป็นระเบียบ Organized		ช่างพูด Talkative	
สะเพร่า Careless		ชอบสังสรรค์ Extraverted		มีปรัชญา Philosophical		อารมณ์แปรปรวน Temperamental	
เย็นชา Cold		จู้จี้จุกจิก Fretful		เน้นการใช้ประโยชน์ใช้สอยได้จริง Practical		ให้ความร่วมมือ Cooperative	
ซับซ้อน Complex		กระด้าง Harsh		เงียบๆ Quiet		ไม่เป็นระเบียบ Disorganized	
จุนเจือง่าย Touchy		ไม่มีประสิทธิภาพ Inefficient		หยาบคาย Rude		ไม่มีปัญญารอบรู้ Unintellectual	
ลึกซึ้ง Deep		มีปัญญารอบรู้ Intellectual		ขี้อาย Shy		ไม่เห็นอกเห็นใจ Unsympathetic	
อบอุ่น Warm		ทำงานลวกๆ Sloppy		มีความคิดสร้างสรรค์ creative		จ้องฉลาด Jealous	

มีประสิทธิภาพ Efficient		ใจดี Kind		เห็นอกเห็นใจ Sympathetic		เก็บเนื้อเก็บตัว Withdrawn	
ผ่อนคลาย Relaxed		ช่างจินตนาการ Imaginative		ไม่สร้างสรรค์ Uncreative		ไม่ขี้อิจฉา Unenvious	

ส่วนที่ 4 กรุณาวงกลม O หมายเลขที่ตรงกับความคิดเห็นของท่านซึ่งสะท้อนลักษณะการทำงานของหัวหน้างานของท่านได้ตรงที่สุด

1	2	3	4	5	6	7
ไม่มีเลย None	น้อยมาก Slight	ค่อนข้างน้อย Mild	ปานกลาง Moderate	ค่อนข้างมาก Severe	มาก Very Severe	มากที่สุด Maximal

หัวหน้าของท่าน..... My supervisor...							
1. พิจารณาความคิดเห็นเชิงวิจารณ์ต่างๆ ที่กำลังเป็นประเด็นปัญหากันอยู่ ว่ามีความเหมาะสมหรือไม่ 1. re-examine critical assumptions to question whether appropriate	1	2	3	4	5	6	7
2. พูดถึงความเชื่อและคุณค่าที่เขาเชื่อว่าเป็นสิ่งสำคัญที่สุด 2. talk about his/her most important values and beliefs	1	2	3	4	5	6	7
3. ค้นหามุมมองที่แตกต่างออกไปยามที่แก้ปัญหา 3. seek differing perspectives when solving problems	1	2	3	4	5	6	7
4. พูดถึงอนาคตในแง่ดี 4. talk optimistically about the future	1	2	3	4	5	6	7
5. ทำให้ผู้อื่นค่อยๆ ก่อให้เกิดความรู้สึกภูมิใจเมื่อได้เข้าร่วมงานด้วย 5. instill pride in others for being associated with him/her	1	2	3	4	5	6	7
6. พูดถึงงานที่ต้องทำให้สำเร็จได้ด้วยความรู้สึกระหือรือ 6. talk enthusiastically about what needs to be accomplished	1	2	3	4	5	6	7
7. บ่งชี้ให้เห็นถึงความสำคัญของการมีความมุ่งมั่นในเป้าหมายของตน 7. specify the importance of having a strong sense of purpose	1	2	3	4	5	6	7
8. ใช้เวลาในการสอนและฝึกงานแก่ลูกน้อง 8. spend time teaching and coaching	1	2	3	4	5	6	7
9. เห็นแก่ประโยชน์ส่วนรวมมากกว่าประโยชน์ส่วนตัว 9. go beyond self-interest for the good of the group	1	2	3	4	5	6	7
10. ปฏิบัติต่อผู้อื่นในฐานะที่เป็นปัจเจกบุคคลมากกว่าการเป็นเพียงแค่สมาชิกคนหนึ่งในกลุ่มเท่านั้น 10. treat others as an individual rather than just as a member of the group	1	2	3	4	5	6	7

หัวหน้าของฉัน..... My supervisor...							
11. ปฏิบัติตนเป็นที่เคารพต่อผู้อื่น 11. act in ways that builds others' respect for him/her	1	2	3	4	5	6	7
12. คำนึงถึงผลที่ตามมาด้านศีลธรรมและจริยธรรมประกอบการตัดสินใจ 12. consider the moral and ethical consequences of decisions	1	2	3	4	5	6	7
13. แสดงให้เห็นถึงอำนาจและความเชื่อมั่นของเขา 13. display a sense of power and confidence	1	2	3	4	5	6	7
14. พูดอย่างชัดเจนในการแสดงให้เห็นวิสัยทัศน์ที่เปี่ยมไปด้วยพลังขับเคลื่อน 14. articulate a compelling vision of the future	1	2	3	4	5	6	7
15. คำนึงถึงความต้องการ ความสามารถและแรงบันดาลใจที่แตกต่างกันในแต่ละบุคคล 15. consider an individual as having different needs, abilities, and aspirations from others	1	2	3	4	5	6	7
16. ทำให้ผู้อื่นมองปัญหาต่างๆด้วยมุมมองที่หลากหลาย 16. get others to look at problems from many different angles	1	2	3	4	5	6	7
17. ช่วยให้ผู้อื่นพัฒนาจุดแข็งของพวกเขา 17. help others to develop their strengths	1	2	3	4	5	6	7
18. แนะนำให้ใช้มุมมองใหม่ๆในการทำงานที่ได้รับมอบหมายให้สำเร็จ 18. suggest new ways of looking at how to complete assignments	1	2	3	4	5	6	7
19. เน้นย้ำให้เห็นถึงความสำคัญของการมีส่วนร่วมในการกิจต่างๆ 19. emphasize the importance of having a collective sense of mission	1	2	3	4	5	6	7
20. แสดงความเชื่อมั่นว่าสามารถทำงานได้สำเร็จตามเป้าหมาย 20. express confidence that goals will be achieved	1	2	3	4	5	6	7

ส่วนที่ 5 กรณาวารกลม ○ หมายเลขที่สะท้อนความรู้สึกของท่านได้ดีที่สุด

1	2	3	4	5	6	7
ไม่เห็นด้วย อย่างยิ่ง (Strongly Disagree)	ไม่เห็นด้วย (Disagree)	ไม่เห็นด้วย เล็กน้อย (Slightly Disagree)	เฉยๆ (Neither Agree nor Disagree Agree)	เห็นด้วย เล็กน้อย (Slightly Agree๗)	เห็นด้วย (Agree)	เห็นด้วยอย่าง ยิ่ง (Strongly Agree)

1. ฉันเป็นตัวของตัวเองในที่ทำงาน 1. I can be myself at work.	1	2	3	4	5	6	7
2. ฉันสามารถหยิบยกประเด็นที่เป็นปัญหาหาพูดได้โดยไม่กลัวการ เสียดสี 2. At work I can bring up problems and tough issues without fear of being teased or made fun of.	1	2	3	4	5	6	7
3. ฉันรู้สึกปลอดภัยทางกายภาพในสถานที่ทำงาน 3. I feel physically safe at work.	1	2	3	4	5	6	7
4. ฉันรู้ว่าฉันถูกคาดหวังว่าต้องทำงานอะไรบ้างในแต่ละวัน 4. At work, I know is expected of me every day.	1	2	3	4	5	6	7

ขอขอบคุณทุกท่านที่สละเวลาอันมีค่าตอบแบบสอบถามนี้

ปรีชาดิ จันทร์ศรีบุตร

นักศึกษาระดับปริญญาเอก (Doctor of Business Administration: DBA)

University Utara Malaysia (UUM)

Appendix E: Certification of Questionnaire Translators



UNIVERSITY OF LONDON

The School of Oriental and African Studies

Philip Charles Halson

having completed the approved course of study and passed the examinations has this day been admitted by The School of Oriental and African Studies to the University of London Degree of

BACHELOR OF ARTS

with Second Class Honours (Upper Division)
in the following Field of Study : Thai

*Director and Principal, The School of
Oriental and African Studies*

Vice-Chancellor



Thammasat University
(Formerly : University of Moral and Political Sciences)
Bangkok, Thailand.

July 8, 2012

TO WHOM IT MAY CONCERN :

This is to certify that MISS PATTARIN SUWANNARAT
has completed all the requirements for the Master of Arts (Teaching English as a Foreign
Language), a program taught entirely in English.

The degree was officially conferred on May 31, 2012.

Somkiat Worapunyaanun

Asst. Prof. Dr. Somkiat Worapunyaanun

Registrar

NOT VALID WITHOUT SEAL

Admission no. 5121032030

Appendix F: Descriptive Statistics for Early and Late Respondents

Descriptive Statistics for Early and Late Respondents

	Collection Period	N	Mean	Std. Deviation	Std. Error Mean
MEANEE	Early before May 2013	184	5.841	0.691	0.051
	Late after May 2013	218	5.774	0.717	0.049
MEANP	Early before May 2013	184	5.243	0.348	0.026
	Late after May 2013	218	5.215	0.380	0.026
MEANL	Early before May 2013	184	5.151	0.939	0.069
	Late after May 2013	218	5.083	1.093	0.074
MEANPSY	Early before May 2013	184	5.499	0.709	0.052
	Late after May 2013	218	5.446	0.834	0.056

Independent Samples T-test for Equality of Means

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
										Lower Upper
MEANEE	Early before May 2013	1.363	0.244	0.942	400	0.347	0.0665	0.07061	-0.0723	0.20532
	Late after May 2013			0.945	393.094	0.345	0.0665	0.07038	-0.07186	0.20489
MEANP	Early before May 2013	2.593	0.108	0.762	400	0.446	0.0279	0.03661	-0.04407	0.09987
	Late after May 2013			0.768	397.253	0.443	0.0279	0.03634	-0.04355	0.09934
MEANL	Early before May 2013	2.888	0.09	0.664	400	0.507	0.0681	0.10262	-0.13364	0.26985
	Late after May 2013			0.672	399.867	0.502	0.0681	0.10132	-0.13108	0.26729
MEANPSY	Early before May 2013	4.381	0.037	0.674	400	0.501	0.0525	0.07801	-0.10081	0.20589
	Late after May 2013			0.683	399.972	0.495	0.0525	0.07695	-0.09874	0.20383

Appendix G: Demographic statistics for T-test and Anova

Demographic statistics for T-test and Anova

Item	N	Mean	Std. Deviation	Std. Error	F	Sig.
Sex						
Male	153	5.7344	0.701	0.057	0.001	0.117
Female	249	5.8481	0.706	0.045		
Age						
less than 21 years old	11	6.058	0.758	0.228	0.952	0.434
21-30 year	226	5.759	0.680	0.045		
31-40 year	126	5.856	0.707	0.063		
41-50 year	35	5.805	0.787	0.133		
51 years or older	4	6.114	1.165	0.583		
Total	402	5.805	0.705	0.035		
Level of Education						
high school	56	5.925	0.688	0.092	1.374	0.250
Diploma	53	5.655	0.816	0.112		
Bachelor's Degree	282	5.807	0.682	0.041		
Master's Degree	11	5.868	0.781	0.236		
Total	402	5.805	0.705	0.035		
Work experiences						
less than 5 year	181	5.743	0.710	0.053	1.275	0.281
5-10 year	122	5.857	0.654	0.059		
more than 10 year	99	5.854	0.754	0.076		
Total	402	5.805	0.705	0.035		
Size of organization						
1-49 employees	140	5.674	0.801	0.068	3.803	0.023
50-100 employees	69	5.904	0.678	0.082		
more than 100 employees	193	5.865	0.628	0.045		
Total	402	5.805	0.706	0.035		

Item	N	Mean	Std. Deviation	Std. Error	F	Sig.
Type of Organization						
Production sector	150	5.792	0.681	0.056		
Trading Sector	73	5.685	0.650	0.076		
Service Sector	179	5.864	0.743	0.056		
Total	402	5.805	0.705	0.035	1.724	0.180



UUM
Universiti Utara Malaysia

Appendix H: Pilot Test

Pilot Test

***** Method 1 (space saver) will be used for this analysis *****

-

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
EE1	69.8667	51.7747	.4461	.8790
EE2	69.6000	50.4552	.5557	.8745
EE3	69.9333	51.0299	.6006	.8740
EE4	69.6000	50.7310	.5755	.8742
EE5	69.7000	49.9414	.6181	.8721
EE6	69.6333	47.2057	.7624	.8639
EE7	70.1000	47.1276	.7045	.8661
EE8	70.0000	47.1724	.6880	.8668
EE9	70.6333	48.4471	.2908	.9023
EE10	69.6667	48.9195	.7063	.8682
EE11	70.0000	47.5172	.7822	.8637
EE12	70.5667	42.3230	.6537	.8726
EE13	69.9000	48.9207	.5349	.8749

Reliability Coefficients

N of Cases = 30.0

N of Items = 13

Alpha = .8820

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
P1.5	36.6333	47.8954	.4282	.8084
P1.1	35.6333	47.9644	.6321	.7888
P1.3	36.2000	40.2345	.7654	.7571
P1.4	35.7333	46.2713	.5300	.7950
P1.6	36.1333	43.9126	.5003	.8011
P1.7	36.1333	48.0506	.2864	.8359
P1.8	35.4333	42.1851	.5982	.7847
P1.2	35.3333	46.5747	.7266	.7784

Reliability Coefficients

N of Cases = 30.0

N of Items = 8

Alpha = .8155

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
P2.1	39.8000	23.3379	.3674	.5847
P2.6	40.6000	18.8000	.5453	.5144
P2.5	40.6000	19.1448	.3793	.5724
P2.7	39.8333	21.2471	.3287	.5867
P2.8	39.7000	21.5966	.3584	.5782
P2.2	41.1333	26.3954	-.0788	.7039
P2.3	39.9667	23.0678	.3788	.5811
P2.4	40.1333	22.0506	.4520	.5617

Reliability Coefficients

N of Cases = 30.0 N of Items = 8 Alpha = .6217

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
P3.1	43.1667	12.7644	.2637	.8367
P3.2	42.9000	11.4034	.6527	.7799
P3.3	43.0333	12.1023	.4431	.8089
P3.4	43.0667	12.4782	.5561	.7965
P3.5	43.0000	12.6897	.3369	.8226
P3.6	42.6000	10.5241	.6676	.7747
P3.7	42.6000	10.7310	.7825	.7598
P3.8	42.4000	11.1448	.6698	.7763

Reliability Coefficients

N of Cases = 30.0 N of Items = 8

Alpha = .8169

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
P4.4	37.0000	43.4483	.5834	.7159
P4.5	38.5333	32.8092	.8446	.6362
P4.6	38.9667	40.7230	.3380	.7530
P4.7	37.7667	39.4954	.4927	.7174
P4.8	36.9667	43.8954	.4263	.7316
P4.1	37.9667	48.0333	.1513	.7691
P4.2	37.7667	46.1161	.1385	.7854

P4.3 38.8333 34.2126 .7561 .6579

Reliability Coefficients

N of Cases = 30.0 N of Items = 8 Alpha = .7520

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
P5.1	41.0667	13.9954	.4131	.7077
P5.2	41.2333	13.9092	.2731	.7217
P5.3	41.5000	11.3621	.6008	.6569
P5.4	41.5667	11.9782	.4393	.6925
P5.5	41.5000	11.9828	.6060	.6632
P5.6	41.6000	12.7310	.3083	.7215
P5.7	40.9333	12.5471	.3467	.7129
P5.8	41.2333	11.0126	.4570	.6924

Reliability Coefficients

N of Cases = 30.0 N of Items = 8

Alpha = .7248

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
PSY1	21.2667	7.9264	.3403	.4861

PSY2	21.8667	7.3609	.2027	.5459
PSY3	22.0333	6.5851	.4726	.3938
PSY4	21.8667	5.5678	.5868	.2923
PSY5	22.5667	7.1506	.0928	.6558

Reliability Coefficients N of Cases = 30.0 N of Items = 5 Alpha = .5408

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)
Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
PSY1	16.4333	5.3575	.4212	.6127
PSY2	17.0333	4.5161	.3242	.6765
PSY3	17.2000	4.3724	.4941	.5489
PSY4	17.0333	3.6885	.5593	.4917

Reliability Coefficients N of Cases = 30.0 N of Items = 4 Alpha = .6558

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)
Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
L1	98.1333	208.3264	.5069	.9287
L2	98.2000	215.1310	.4119	.9299
L3	98.0000	206.6897	.6683	.9250
L4	98.1333	209.0161	.6354	.9257
L5	98.6333	209.5506	.5180	.9282
L6	97.8000	210.9931	.6261	.9260
L7	97.6333	208.2402	.7880	.9235
L8	98.5667	204.3920	.6637	.9250
L9	97.6000	210.7310	.5093	.9282
L10	98.2667	210.4782	.4907	.9288
L11	97.6000	208.3172	.6731	.9250
L12	97.7333	208.8230	.7184	.9244

L13	97.6667	214.2989	.4077	.9303
L14	97.6333	210.7230	.5937	.9265
L15	98.1000	214.0241	.4105	.9303
L16	98.0667	208.8230	.6604	.9252
L17	97.7667	205.7023	.6908	.9245
L18	97.4667	202.6023	.7944	.9224
L19	97.3333	201.1954	.7677	.9227
L20	97.3000	204.4241	.7999	.9226

Reliability Coefficients

N of Cases = 30.0

N of Items = 20

Alpha = .9296

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Item-total Statistics				
	Scale	Scale	Corrected	
	Mean	Variance	Item-	Alpha
	if Item	if Item	Total	if Item
	Deleted	Deleted	Correlation	Deleted
P5.1	220.4333	246.8747	-.0103	.7917
P5.2	220.6000	245.0759	.0719	.7908
P5.3	220.8667	244.3264	.0684	.7915
P5.4	220.9333	243.4437	.0919	.7911
P5.5	220.8667	242.7402	.1584	.7891
P5.6	220.9667	239.2747	.2370	.7870
P5.7	220.3000	240.0103	.2147	.7876
P5.8	220.6000	237.4207	.2410	.7868
P1.5	222.2000	239.3379	.1376	.7912
P1.1	221.2000	232.9931	.4223	.7812
P4.3	222.0333	218.2402	.5232	.7731
P1.2	220.9000	236.3000	.3053	.7848
P4.4	220.2000	238.0276	.2668	.7861
P1.3	221.7667	232.9437	.2438	.7874
P1.4	221.3000	235.4586	.2348	.7872
P4.5	221.7333	214.5471	.6025	.7687
P2.5	221.2333	222.5989	.4461	.7773
P4.6	222.1667	224.2126	.3579	.7820
P3.1	220.8000	243.1310	.1258	.7899
P3.2	220.5333	246.6023	-.0066	.7925
P3.3	220.6667	246.2989	.0040	.7925
P3.4	220.7000	242.1483	.2634	.7875
P3.5	220.6333	248.7920	-.1046	.7947
P3.6	220.2333	235.4954	.4108	.7826
P3.7	220.2333	238.1161	.3746	.7844

P3.8	220.0333	243.8954	.1105	.7901
P2.1	220.4333	238.5989	.2804	.7859
P2.6	221.2333	223.7023	.5182	.7751
P1.6	221.7000	229.9414	.2810	.7859
P4.7	220.9667	219.9644	.5198	.7737
P2.7	220.4667	224.0506	.5177	.7752
P1.7	221.7000	234.7690	.1766	.7914
P2.8	220.3333	236.0920	.2469	.7866
P2.2	221.7667	240.4609	.1052	.7928
P4.8	220.1667	231.5230	.3965	.7812
P2.3	220.6000	242.3862	.1315	.7899
P2.4	220.7667	237.7713	.2696	.7860
P1.8	221.0000	219.6552	.5012	.7744
P4.1	221.1667	238.0057	.2107	.7879
P4.2	220.9667	245.0678	-.0154	.8002

Reliability Coefficients

N of Cases = 30.0 N of Items = 40 Alpha = .7903

***** Method 1 (space saver) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 30.0 N of Items = 77

Alpha = .8287

Appendix I: Outlier Results

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
0.20	0.06	0.29	-0.21	1.37	0.02	-1.98	-0.78	-0.22	0.17	0.46	0.98	0.42
1.42	1.27	0.29	-0.21	1.37	0.02	0.12	0.28	0.70	1.37	0.46	0.98	0.42
1.42	1.27	0.29	1.10	0.17	0.02	0.12	0.28	1.62	1.37	0.46	0.98	1.49
0.20	0.06	0.29	-0.21	-1.04	-1.24	0.12	-0.78	-0.22	-1.04	-0.65	0.09	0.42
0.20	0.06	0.29	1.10	1.37	1.28	0.12	0.28	0.70	0.17	0.46	0.09	0.42
1.42	0.06	0.29	1.10	0.17	1.28	0.12	0.28	-0.22	0.17	1.57	0.09	0.42
0.20	1.27	0.29	1.10	0.17	1.28	0.12	0.28	1.62	1.37	1.57	1.86	1.49
0.20	0.06	0.29	-0.21	0.17	0.02	1.17	0.28	0.70	0.17	0.46	0.09	0.42
0.20	0.06	-0.98	1.10	-1.04	0.02	0.12	0.28	-0.22	-1.04	-0.65	0.09	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	-0.65	0.09	-0.66
0.20	0.06	0.29	-0.21	-1.04	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	-0.66
0.20	0.06	1.57	1.10	0.17	1.28	1.17	1.35	0.70	1.37	0.46	0.98	0.42
0.20	1.27	0.29	1.10	1.37	1.28	1.17	1.35	0.70	0.17	0.46	0.09	0.42
0.20	1.27	1.57	1.10	0.17	0.02	0.12	0.28	0.70	0.17	0.46	-2.56	0.42
0.20	1.27	0.29	-1.53	1.37	0.02	-0.93	-0.78	-0.22	0.17	0.46	0.09	0.42
1.42	1.27	1.57	1.10	-1.04	0.02	0.12	0.28	-0.22	0.17	-1.75	0.09	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	-1.68	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	1.17	1.35	1.62	1.37	0.46	-1.68	-0.66
0.20	-1.16	0.29	1.10	0.17	0.02	1.17	-1.85	-1.15	-1.04	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	1.28	1.17	1.35	1.62	1.37	1.57	0.98	1.49
0.20	1.27	0.29	1.10	0.17	0.02	0.12	-0.78	1.62	0.17	-0.65	0.98	0.42
-2.24	-2.37	-2.26	-1.53	0.17	0.02	-1.98	0.28	-0.22	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	-0.93	-0.78	-1.15	0.17	-0.65	-0.79	-0.66
0.20	0.06	-0.98	-0.21	0.17	0.02	0.12	-0.78	-0.22	0.17	0.46	0.09	-0.66
-1.02	0.06	-2.26	-0.21	1.37	1.28	0.12	0.28	-1.15	-1.04	-0.65	-0.79	-1.73
-1.02	-1.16	-0.98	-0.21	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	-2.56	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	-0.78	-0.22	-1.04	-0.65	0.09	-0.66
0.20	1.27	-0.98	-0.21	0.17	0.02	1.17	0.28	-1.15	-1.04	0.46	0.09	0.42
1.42	0.06	0.29	1.10	0.17	0.02	1.17	1.35	0.70	1.37	1.57	0.98	1.49
-1.02	-1.16	-0.98	-1.53	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	1.27	-0.98	1.10	0.17	0.02	0.12	0.28	0.70	0.17	1.57	0.09	0.42
0.20	0.06	0.29	1.10	-1.04	0.02	-0.93	-0.78	-0.22	-1.04	0.46	0.09	-0.66
0.20	0.06	0.29	1.10	-1.04	0.02	-0.93	-0.78	-0.22	-1.04	0.46	0.09	-0.66
1.42	1.27	1.57	1.10	1.37	1.28	0.12	0.28	1.62	1.37	1.57	1.86	1.49
0.20	0.06	1.57	1.10	0.17	0.02	0.12	-0.78	-0.22	0.17	0.46	0.09	0.42
0.20	0.06	-0.98	1.10	1.37	0.02	1.17	0.28	1.62	1.37	1.57	-0.79	1.49
0.20	0.06	0.29	1.10	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	-0.66
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	0.98	1.49
0.20	1.27	1.57	1.10	0.17	0.02	0.12	-0.78	-1.15	0.17	0.46	0.98	1.49
0.20	1.27	0.29	-0.21	0.17	0.02	1.17	0.28	-0.22	0.17	-0.65	0.09	-0.66
0.20	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	0.46	0.98	1.49
0.20	0.06	0.29	1.10	0.17	-1.24	-0.93	-1.85	-1.15	-2.25	-0.65	0.09	0.42
1.42	1.27	1.57	1.10	1.37	1.28	0.12	0.28	0.70	1.37	1.57	0.98	1.49
0.20	0.06	0.29	1.10	0.17	1.28	0.12	0.28	-0.22	0.17	-0.65	-0.79	-0.66

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
-1.02	0.06	-2.26	1.10	0.17	0.02	0.12	-0.78	-1.15	-1.04	-0.65	-0.79	1.49
1.42	0.06	0.29	1.10	0.17	-1.24	0.12	0.28	-0.22	0.17	0.46	0.09	-0.66
0.20	1.27	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	1.37	0.46	0.09	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
1.42	1.27	0.29	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	0.98	0.42
0.20	-1.16	-0.98	-0.21	0.17	0.02	1.17	-0.78	1.62	-1.04	-1.75	-0.79	-1.73
0.20	0.06	0.29	1.10	0.17	0.02	0.12	0.28	-0.22	1.37	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	1.28	0.12	0.28	0.70	1.37	0.46	0.98	0.42
0.20	-1.16	-0.98	-0.21	-1.04	0.02	-0.93	-0.78	-0.22	-1.04	-0.65	0.09	-0.66
0.20	0.06	0.29	1.10	1.37	1.28	1.17	0.28	1.62	1.37	0.46	0.98	0.42
1.42	1.27	0.29	1.10	0.17	1.28	0.12	0.28	-0.22	0.17	0.46	-0.79	-0.66
0.20	0.06	0.29	-0.21	-1.04	1.28	-0.93	-1.85	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	-2.49	-1.98	-1.85	-1.15	-1.04	-0.65	-0.03	-0.66
0.20	0.06	0.29	1.10	1.37	1.28	0.12	0.28	-0.22	1.37	1.57	0.09	-0.66
-1.02	0.06	-0.98	-0.21	0.17	0.02	-0.93	-0.78	-0.22	0.17	-0.65	0.09	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	-0.93	0.28	-0.22	0.17	-0.65	-0.79	-0.66
0.20	0.06	-0.98	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	0.09	0.42
1.42	1.27	1.57	-0.21	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
-1.02	0.06	-0.98	-0.21	-1.04	-1.24	-0.93	0.28	0.70	0.17	-0.65	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	-1.98	-1.85	-1.15	-1.04	-0.65	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	1.35	0.70	0.17	0.46	0.98	0.42
-1.02	-1.16	-0.98	-1.53	-2.24	-2.49	-0.93	-1.85	-0.22	-2.25	-0.65	-0.79	-0.66
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
0.20	1.27	0.29	-0.21	1.37	1.28	0.12	1.35	0.70	1.37	0.46	0.98	-0.66
0.20	1.27	0.29	1.10	0.17	1.28	0.12	0.28	1.62	1.37	0.46	1.86	0.42
0.20	0.06	-0.98	-0.21	0.17	0.02	0.12	0.28	-1.15	0.17	0.46	-0.79	-1.73
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-2.24	-1.16	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	-0.79	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	-0.93	0.28	-1.15	0.17	-0.65	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	0.09	-0.66
-1.02	-2.37	-0.98	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	-0.66
1.42	0.06	0.29	1.10	0.17	0.02	1.17	-0.78	-0.22	0.17	1.57	0.98	0.42
1.42	0.06	0.29	1.10	1.37	1.28	-0.93	0.28	-0.01	1.37	0.46	0.09	1.49
-1.02	1.27	1.57	1.10	-1.04	0.02	0.12	0.28	-0.22	1.37	0.46	-2.56	1.49
0.20	1.27	0.29	-0.21	1.37	1.28	1.17	1.35	1.62	0.17	0.46	0.98	0.42
0.20	0.06	-0.98	-2.84	-1.04	-1.24	-1.98	-1.85	-1.15	-1.04	-1.75	-1.68	-1.73
0.20	0.06	-0.98	1.10	1.37	1.28	-0.93	0.28	-0.04	1.37	0.46	0.09	1.49
0.20	1.27	0.29	1.10	0.17	0.02	1.17	0.28	-0.22	0.17	1.57	1.86	1.49
0.20	1.27	0.29	-0.21	0.17	1.28	-0.93	-0.78	0.70	0.17	0.46	0.98	1.49
0.20	1.27	0.29	-0.21	0.17	1.28	-0.93	-0.78	0.70	0.17	0.46	0.98	1.49
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	-0.06	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	0.42

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	0.42
-2.24	0.06	0.29	-0.21	-2.24	0.02	-1.98	-1.85	-1.15	0.17	0.46	-0.79	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	-1.04	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	-0.66
0.20	0.06	-0.98	-0.21	1.37	-1.24	1.17	0.28	-2.99	0.17	1.57	-2.56	-1.73
0.20	1.27	0.29	1.10	0.17	1.28	0.12	0.28	0.70	1.37	0.46	-0.79	0.42
0.20	-1.16	-0.98	-0.21	-1.04	0.02	0.12	-0.78	-0.22	0.17	-0.65	0.09	-0.66
-1.02	0.06	-0.98	-1.53	-1.04	0.02	0.12	0.28	0.70	-1.04	-0.65	-0.79	-0.66
-1.02	0.06	-0.98	-1.53	0.17	0.02	-1.98	-1.85	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	-1.16	-2.26	-0.21	0.17	-1.24	-0.93	-0.78	0.70	0.17	0.46	0.09	-0.66
-2.24	0.06	-0.98	-1.53	1.37	-1.24	-0.93	-1.85	-1.15	-2.25	-1.75	-1.68	-1.73
0.20	1.27	0.29	1.10	0.17	1.28	0.12	0.28	0.70	1.37	0.46	0.98	1.49
-1.02	0.06	-0.98	-0.21	-2.24	-2.49	-1.98	-1.85	-1.15	0.17	-0.65	-0.79	-1.73
-1.02	-2.37	-2.26	-1.53	-1.04	-1.24	-1.98	-1.85	-1.15	-1.04	-1.75	-0.79	-1.73
-1.02	-1.16	-0.98	-0.21	-2.24	-1.24	-1.98	-1.85	-2.07	-2.25	-1.75	-1.68	-1.73
0.20	-1.16	-0.98	-0.21	-1.04	-1.24	0.12	0.28	-1.15	0.17	0.46	-0.79	-0.66
-1.02	0.06	-0.98	-0.21	0.17	0.02	1.17	0.28	0.70	1.37	0.46	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	0.42
0.20	-1.16	-0.98	-0.21	0.17	-1.24	0.12	0.28	-0.22	-1.04	-0.65	0.09	-0.66
-1.02	0.06	0.29	1.10	1.37	1.28	1.17	0.28	0.70	0.17	0.46	-0.79	-0.66
0.20	0.06	0.29	1.10	0.17	0.02	1.17	1.35	0.70	1.37	0.46	0.09	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	-0.79	0.42
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	0.09	-0.66
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	0.09	-0.66
1.42	1.27	1.57	1.10	0.17	0.02	-0.93	1.35	1.62	0.17	-0.65	-0.79	-0.66
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	0.09	1.49
0.20	0.06	-0.98	-0.21	0.17	0.02	0.12	1.35	0.70	-1.04	-0.65	-0.79	-0.66
-2.24	-2.37	-2.26	-2.84	-2.24	-1.24	-1.98	-1.85	-1.15	-2.25	-1.75	-0.79	-1.73
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	-0.79	-1.73
-1.02	-1.16	-0.98	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	0.09	-0.66
-1.02	-1.16	-0.98	-1.53	-2.24	-1.24	-0.93	-1.85	-1.15	-1.04	-0.65	-0.79	-1.73
-1.02	0.06	1.57	1.10	-1.04	-2.49	-0.93	-0.78	-1.15	0.17	-0.65	-1.68	-0.66
-1.02	0.06	0.29	-0.21	-1.04	0.02	-0.93	-0.78	-0.22	0.17	-0.65	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	-0.03	1.49
1.42	0.06	0.29	1.10	0.17	0.02	0.12	1.35	0.70	0.17	0.46	0.98	0.42
1.42	1.27	1.57	-2.84	1.37	1.28	1.17	1.35	0.70	0.17	-0.65	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	0.09	0.42
0.20	1.27	1.57	1.10	0.17	1.28	1.17	1.35	0.70	0.17	0.46	0.98	0.42
-2.24	-1.16	-0.98	-1.53	-1.04	-1.24	0.12	-0.78	-0.22	-2.25	-1.75	-0.79	-1.73
-1.02	-1.16	-0.98	-1.53	-1.04	0.02	0.12	-1.85	-0.22	-1.04	-0.65	0.09	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	-0.66
-1.02	-1.16	0.29	-0.21	-1.04	0.02	0.12	0.28	-1.15	0.17	0.46	-0.79	0.42
0.20	0.06	-0.98	-0.21	-1.04	-1.24	1.17	0.28	-0.22	0.17	0.46	0.09	0.42
-2.24	-2.37	-0.06	-2.84	-2.24	-2.49	-1.98	-0.78	-1.15	-2.25	-1.75	-2.56	-1.73

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
1.42	1.27	-0.98	-0.21	1.37	0.02	0.12	0.28	-0.22	-1.04	-0.65	-0.79	-0.66
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	-0.22	0.17	0.46	0.09	0.42
-2.24	-0.04	-0.06	1.10	-1.04	-1.24	1.17	1.35	-0.22	-1.04	-1.75	-1.68	-1.73
0.20	0.06	0.29	1.10	0.17	0.02	1.17	0.28	-0.22	0.17	0.46	-0.79	0.42
0.20	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
-2.24	-1.16	-0.98	-1.53	-2.24	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	-0.79	-0.66
0.20	1.27	0.29	-0.21	1.37	1.28	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-1.02	-1.16	-2.26	-1.53	-1.04	-1.24	-0.93	-0.78	0.70	-1.04	-0.65	0.09	-0.66
0.20	0.06	0.29	-1.53	-1.04	0.02	-0.93	-0.78	-1.15	-1.04	0.46	0.09	-0.66
1.42	0.06	0.29	1.10	0.17	0.02	-1.98	-1.85	-1.15	0.17	1.57	1.86	0.42
-1.02	0.06	-0.98	-1.53	-1.04	-1.24	0.12	0.28	-0.22	-1.04	-0.65	0.09	-0.66
0.20	-1.16	0.29	-0.21	-1.04	0.02	1.17	0.28	-0.22	0.17	0.46	0.09	0.42
1.42	1.27	0.29	1.10	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.98	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	0.09	1.49
0.20	0.06	0.29	-0.21	0.17	0.02	1.17	0.28	-0.22	0.17	-0.65	0.09	-0.66
0.20	0.06	0.29	1.10	0.17	1.28	1.17	1.35	0.70	1.37	1.57	-0.79	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	0.70	1.37	1.57	1.86	1.49
1.42	1.27	0.29	-0.21	1.37	1.28	1.17	0.28	0.70	1.37	1.57	0.98	1.49
0.20	0.06	-0.98	-0.21	0.17	0.02	0.12	-0.78	-0.22	0.17	1.57	0.98	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
0.20	-1.16	-0.98	1.10	-1.04	0.02	1.17	1.35	1.62	0.17	-0.65	0.09	0.42
1.42	0.06	-2.26	-2.84	-2.24	1.28	1.17	-1.85	-1.15	1.37	0.46	-0.79	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	1.17	0.28	0.70	0.17	0.46	-0.79	0.42
0.20	1.27	0.29	1.10	0.17	0.02	-0.93	-0.78	-0.22	1.37	-0.65	0.09	1.49
1.42	1.27	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	1.37	1.57	0.98	1.49
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	0.42
0.20	-1.16	0.29	1.10	0.17	0.02	1.17	0.28	-1.15	-2.25	-1.75	-0.79	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-1.02	-2.37	-0.98	-0.21	0.17	-1.24	0.12	-0.78	-1.15	-1.04	-1.75	0.09	-1.73
-2.24	-1.16	-2.26	-1.53	-1.04	-0.07	-1.98	-2.91	-0.22	0.17	-1.75	0.09	-2.80
0.20	0.06	0.29	-0.21	-1.04	1.28	1.17	1.35	1.62	1.37	-0.65	0.98	0.42
-0.06	-1.16	-0.09	-0.21	-2.24	-1.24	-0.93	-0.78	-1.15	0.17	0.46	-2.56	-0.02
-0.06	-1.16	-0.09	-0.21	-2.24	-1.24	0.12	-0.78	-0.22	-2.25	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	1.17	0.28	-0.22	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	-1.04	0.02	0.12	-1.85	-1.15	0.17	0.46	-0.79	-0.66
0.20	0.06	-0.98	-0.21	0.17	0.02	1.17	0.28	-1.15	0.17	0.46	-0.79	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	-0.22	1.37	1.57	-0.79	1.49
0.20	0.06	-0.98	-0.21	0.17	0.02	-0.93	-1.85	-1.15	-1.04	0.46	0.98	-0.66
1.42	1.27	1.57	1.10	0.17	1.28	0.12	1.35	-0.22	0.17	0.46	0.09	1.49
0.20	-1.16	-0.98	-0.21	-2.24	-2.49	-1.98	-1.85	-2.07	-0.05	-1.75	-1.68	-1.73
0.20	0.06	0.29	-0.21	-1.04	-1.24	-0.93	-0.78	-1.15	0.17	0.46	-0.79	-0.66
-1.02	-1.16	-0.98	-1.53	0.17	0.02	0.12	-0.78	-0.22	0.17	0.46	0.09	0.42
-1.02	0.06	1.57	-0.21	0.17	0.02	-0.93	-0.78	-1.15	0.17	-0.65	0.09	0.42
-1.02	-1.16	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	-0.65	-0.79	-0.66
0.20	-1.16	0.29	-0.21	0.17	-2.49	-1.98	-1.85	-1.15	-1.04	-0.65	-1.68	0.42
0.20	0.06	0.29	-0.21	-1.04	0.02	-0.93	-0.78	-1.15	-1.04	-0.65	-1.68	-1.73
-1.02	0.06	-0.06	-0.21	-1.04	-1.24	-0.93	-0.78	-2.99	0.17	0.46	-0.03	-0.66

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
-1.02	-1.16	0.29	-1.53	-2.24	-0.07	-0.02	0.28	-0.22	-2.25	-1.75	0.98	-1.73
-2.24	1.27	-0.98	-0.21	1.37	-1.24	0.12	-0.78	-1.15	1.37	-0.65	-0.79	1.49
-1.02	-1.16	0.29	-1.53	-1.04	-1.24	0.12	0.28	1.62	-1.04	-0.65	0.98	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	-2.56	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	0.98	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	-1.68	-1.73
0.20	0.06	0.29	1.10	-1.04	-1.24	0.12	0.28	0.70	-1.04	-0.65	0.09	-0.66
0.20	1.27	0.29	1.10	1.37	1.28	0.12	0.28	0.70	0.17	0.46	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	-1.98	-1.85	-1.15	0.17	0.46	-0.79	0.42
0.20	1.27	0.29	1.10	0.17	1.28	1.17	1.35	0.70	0.17	0.46	0.98	0.42
-1.02	-1.16	0.29	1.10	-1.04	0.02	0.12	-0.78	0.70	0.17	-0.65	0.09	0.42
0.20	1.27	0.29	1.10	1.37	1.28	0.12	-1.85	-3.91	1.37	1.57	0.98	-1.73
0.20	0.06	-0.98	-0.21	0.17	0.02	0.12	0.28	-1.15	0.17	-0.65	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.09	-0.66
1.42	0.06	0.29	1.10	1.37	1.28	0.12	0.28	0.70	0.17	0.46	0.09	-0.66
0.20	1.27	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	1.28	1.17	0.28	0.70	0.17	0.46	0.98	1.49
0.20	0.06	0.29	1.10	0.17	1.28	1.17	0.28	0.70	1.37	0.46	0.98	0.42
-1.02	-1.16	-0.98	-0.21	-1.04	0.02	0.12	0.28	-0.22	-1.04	-1.75	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	-0.65	-0.79	0.42
0.20	0.06	0.29	-0.21	-1.04	0.02	0.12	-0.78	-0.22	0.17	-1.75	0.09	-1.73
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-1.75	-1.68	-0.66
-1.02	-1.16	0.29	-1.53	-2.24	-2.49	-0.93	-0.78	-1.15	-1.04	-0.65	0.98	-1.73
-1.02	0.06	0.29	-1.53	-1.04	-1.24	-0.93	0.28	-0.22	-1.04	-1.75	-0.79	0.42
0.20	0.06	0.29	-0.21	0.17	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	1.37	1.28	1.17	1.35	-0.22	0.17	0.46	-0.79	0.42
0.20	0.06	-0.98	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-1.75	0.98	-0.66
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	0.46	-0.79	0.42
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	0.46	-0.79	-0.66
0.20	0.06	0.29	-0.21	-1.04	-1.24	-0.93	-0.78	0.70	-2.25	-0.65	-0.79	-1.73
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	-0.79	0.42
0.20	1.27	0.29	1.10	1.37	1.28	1.17	1.35	0.70	1.37	0.46	0.09	0.42
-1.02	-1.16	0.29	-1.53	-1.04	-1.24	-0.93	0.28	-0.22	-1.04	-1.75	-0.79	-0.66
0.20	0.06	0.29	-0.21	1.37	0.02	0.12	0.28	1.62	1.37	-2.86	-0.79	0.42
0.20	0.06	1.57	-0.21	0.17	1.28	1.17	1.35	0.70	0.17	0.46	0.09	1.49
0.20	-1.16	0.29	-0.21	0.17	0.02	-0.93	-1.85	-1.15	0.17	1.57	0.98	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	0.46	0.98	0.42
-1.02	-1.16	-0.98	-0.21	0.17	0.02	-0.93	0.28	-0.22	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	-1.04	0.46	0.09	0.42
1.42	1.27	1.57	1.10	1.37	1.28	-0.93	1.35	0.70	1.37	1.57	0.09	1.49
-1.02	1.27	1.57	-0.21	0.17	1.28	1.17	-0.78	-0.22	0.17	-0.65	0.09	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
-2.24	-0.04	-2.26	-1.53	-2.24	-2.49	-0.93	-0.78	-1.15	-1.04	-0.65	-1.68	-0.66
1.42	1.27	0.29	1.10	0.17	1.28	1.17	0.28	-0.22	1.37	-0.65	-0.79	1.49

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
0.20	0.06	1.57	1.10	0.17	0.02	-0.93	-0.78	-0.22	-1.04	0.46	0.98	0.42
-1.02	1.27	0.29	1.10	1.37	1.28	1.17	0.28	-0.22	0.17	0.46	-0.79	0.42
0.20	0.06	-0.98	1.10	0.17	0.02	0.12	0.28	0.70	0.17	0.46	-0.79	-0.66
0.20	0.06	0.29	-1.53	0.17	0.02	-0.93	-0.78	-0.22	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	1.10	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	-1.04	0.02	0.12	1.35	1.62	0.17	-0.65	0.98	0.42
0.20	1.27	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	-1.04	-0.65	0.09	-0.66
0.20	0.06	-0.98	-0.21	-1.04	-1.24	0.12	0.28	-0.22	-1.04	-0.65	-0.79	-0.66
0.20	0.06	-0.98	-0.21	-1.04	0.02	0.12	0.28	0.70	0.17	0.46	0.09	-0.66
0.20	0.06	0.29	1.10	1.37	0.02	0.12	-0.78	0.70	0.17	0.46	0.98	0.42
-2.24	-1.16	-0.98	-1.53	-1.04	-1.24	0.12	-1.85	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	-0.78	-0.22	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	-1.24	-0.93	-0.78	-0.22	-1.04	0.46	0.09	-0.66
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	-1.15	1.37	1.57	0.09	0.42
0.20	0.06	0.29	-0.21	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
0.20	0.06	0.29	-0.21	0.17	-1.24	-0.93	-0.78	-0.22	0.17	0.46	0.09	-0.66
-1.02	-1.16	0.29	1.10	-2.24	-1.24	0.12	0.28	-1.15	0.17	-0.65	0.09	0.42
0.20	-1.16	-0.98	-0.21	0.17	-1.24	0.12	-0.78	0.70	0.17	-0.65	0.98	-0.66
-2.24	-2.37	-2.26	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	-1.68	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	0.46	1.86	1.49
0.20	0.06	0.29	-0.21	1.37	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	0.42
0.20	0.06	0.29	1.10	0.17	1.28	1.17	0.28	-0.22	1.37	1.57	0.09	0.42
-2.24	-2.37	-0.06	1.10	0.17	0.02	0.12	-0.78	-1.15	-1.04	-0.65	-0.79	-1.73
1.42	1.27	1.57	1.10	1.37	1.28	-1.98	-0.05	-0.04	-0.05	-1.75	1.86	1.49
1.42	-1.16	-0.98	-0.21	1.37	1.28	-0.93	-0.78	-0.22	-1.04	-0.65	-0.79	-1.73
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	-0.65	0.09	-0.66
-2.24	-2.37	-2.26	-2.84	-2.24	-2.49	-1.98	-1.85	-1.15	-2.25	-1.75	-0.79	-1.73
0.20	0.06	0.29	-0.21	-2.24	-1.24	-3.03	-0.78	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	1.10	0.17	1.28	-0.93	0.28	-0.22	1.37	0.46	0.98	1.49
0.20	-1.16	0.29	-1.53	-2.24	-1.24	-1.98	-1.85	-1.15	-2.25	-0.65	-1.68	-1.73
0.20	0.06	-0.98	1.10	1.37	0.02	1.17	1.35	0.70	0.17	0.46	0.98	1.49
0.20	0.06	0.29	-0.21	1.37	1.28	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-2.24	-2.37	-0.98	-0.21	0.17	1.28	-0.93	0.28	-0.22	0.17	-0.65	0.09	0.42
-2.24	-2.37	-2.26	-1.53	-1.04	-1.24	-0.93	-1.85	-1.15	-1.04	-0.65	-2.56	-1.73
0.20	0.06	1.57	-0.21	-1.04	0.02	0.12	-0.78	-1.15	0.17	0.46	-0.79	-0.66
1.42	1.27	0.29	1.10	0.17	0.02	1.17	1.35	-1.15	1.37	0.46	-0.79	0.42
-2.24	-1.16	-0.98	-0.21	-1.04	-0.07	1.17	1.35	-0.22	-2.25	-0.65	-2.56	-2.80
0.20	0.06	0.29	-0.21	0.17	0.02	-0.93	-0.78	-0.22	0.17	-1.75	-0.79	-1.73
0.20	1.27	0.29	-0.21	0.17	0.02	-0.93	-0.78	-1.15	0.17	-0.65	-1.68	0.42
1.42	1.27	1.57	1.10	1.37	1.28	-1.98	-1.85	-2.07	1.37	1.57	-0.79	-0.66
1.42	0.06	1.57	1.10	0.17	0.02	0.12	1.35	-0.22	0.17	1.57	-0.79	0.42
-2.24	-2.37	0.29	-1.53	-2.24	1.28	0.12	1.35	0.70	-2.25	0.46	0.09	-0.66
-1.02	0.06	1.57	1.10	0.17	0.02	1.17	0.28	-0.22	0.17	-0.65	0.09	0.42

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	0.98	1.49
-1.02	-1.16	-0.98	-0.21	0.17	0.02	-1.98	-1.85	-1.15	-2.25	-1.75	-0.79	-1.73
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-1.98	-1.85	-1.15	-1.04	-1.75	-1.68	-0.66
-1.02	-1.16	0.29	-0.21	0.17	1.28	0.12	0.28	-0.22	0.17	-0.65	-0.79	0.42
1.42	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-2.24	-2.37	-2.26	-2.84	-2.24	-2.49	-1.98	-1.85	-1.15	-2.25	-1.75	-0.79	-1.73
-2.24	-2.37	-2.26	-0.21	-2.24	-1.24	0.12	-0.78	-1.15	-1.04	-1.75	-1.68	-1.73
-0.06	-0.04	-0.06	-0.04	-0.02	-0.07	-3.03	-0.05	-2.07	-0.05	-2.86	-1.68	-2.80
-0.06	-0.04	-0.06	-0.04	-2.24	-0.07	-3.03	-0.05	-2.99	-0.05	-0.03	-2.56	-0.02
-1.02	-1.16	-0.98	-1.53	-1.04	0.02	1.17	1.35	-0.22	-1.04	-0.65	0.09	-0.66
-1.02	-1.16	-0.98	-0.21	0.17	0.02	0.12	0.28	1.62	0.17	-0.65	-1.68	0.42
0.20	0.06	-0.98	-1.53	-1.04	0.02	1.17	0.28	-2.07	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	1.10	0.17	0.02	1.17	1.35	-0.22	0.17	0.46	0.09	0.42
-2.24	-1.16	-0.98	-0.21	0.17	-1.24	0.12	1.35	-0.22	1.37	0.46	0.09	0.42
0.20	0.06	-0.98	-0.21	0.17	-1.24	-0.93	-1.85	-1.15	-2.25	-1.75	-0.79	-0.66
-2.24	-2.37	-2.26	-2.84	-1.04	0.02	1.17	1.35	-1.15	-2.25	-0.65	-1.68	-0.66
0.20	0.06	0.29	-0.21	-1.04	0.02	-1.98	-0.05	-0.22	0.17	-0.65	-0.79	0.42
0.20	1.27	-0.98	1.10	1.37	-1.24	-0.93	0.28	-0.22	0.17	0.46	-0.79	-0.66
-2.24	-1.16	0.29	-0.21	0.17	0.02	0.12	-1.85	-1.15	0.17	0.46	-0.79	-1.73
0.20	0.06	0.29	1.10	1.37	1.28	1.17	1.35	0.70	1.37	0.46	0.09	0.42
1.42	1.27	-0.98	1.10	1.37	1.28	1.17	1.35	-1.15	1.37	1.57	0.09	1.49
0.20	0.06	-0.98	-1.53	0.17	-1.24	-0.93	0.28	-2.99	-1.04	-0.65	-1.68	-0.66
0.20	0.06	-0.98	-0.21	0.17	-1.24	0.12	1.35	0.70	0.17	-0.65	0.09	0.42
-2.24	-1.16	-2.26	-1.53	-1.04	-1.24	0.12	1.35	0.70	-0.05	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	1.37	0.46	-0.79	0.42
0.20	0.06	0.29	-0.21	0.17	1.28	1.17	1.35	0.70	0.17	0.46	-0.79	-0.66
-2.24	-1.16	-2.26	-1.53	-2.24	-2.49	-0.93	-1.85	-2.07	-1.04	-2.86	-0.79	-1.73
0.20	0.06	-0.98	1.10	-1.04	-1.24	-0.93	-0.78	-0.22	-1.04	0.46	-0.79	-0.66
0.20	1.27	0.29	1.10	1.37	1.28	1.17	0.28	0.70	1.37	1.57	0.98	1.49
-1.02	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	-1.04	0.46	0.09	0.42
-1.02	-1.16	-0.98	-1.53	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	1.17	0.28	1.62	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	1.37	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-1.02	-1.16	-0.98	-0.21	0.17	0.02	1.17	-0.78	0.70	1.37	0.46	0.09	0.42
0.20	1.27	0.29	1.10	0.17	0.02	0.12	0.28	0.70	1.37	1.57	0.98	0.42
0.20	0.06	-0.98	-0.21	-1.04	-1.24	0.12	-0.78	-0.22	0.17	-0.65	0.98	-0.66
0.20	0.06	-0.98	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	0.98	-0.66
-2.24	-2.37	-2.26	-0.21	1.37	-2.49	-0.93	-0.78	-1.15	0.17	-0.65	-0.79	-0.66
-1.02	0.06	0.29	-0.21	1.37	0.02	1.17	0.28	0.70	0.17	0.46	1.86	0.42
0.20	1.27	0.29	1.10	-1.04	0.02	1.17	0.28	-0.22	1.37	0.46	0.98	0.42
-0.06	1.27	-0.98	1.10	0.17	0.02	1.17	1.35	-1.15	1.37	-1.75	-0.03	-0.66
1.42	1.27	0.29	1.10	1.37	1.28	1.17	0.28	0.70	0.17	1.57	0.09	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	0.70	0.17	0.46	1.86	0.42
-1.02	0.06	-0.98	-0.21	-1.04	0.02	1.17	0.28	-0.22	0.17	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.98	0.42

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
0.20	0.06	0.29	-0.21	0.17	0.02	-1.98	-1.85	-1.15	0.17	0.46	-1.68	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	-0.93	-1.85	0.70	0.17	-0.65	0.09	0.42
0.20	0.06	0.29	-0.21	-1.04	0.02	-0.93	0.28	-0.22	0.17	-0.65	0.98	0.42
-1.02	-1.16	-0.98	1.10	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	-1.68	-0.66
0.20	1.27	1.57	-0.21	-1.04	1.28	1.17	0.28	-0.22	1.37	1.57	0.98	1.49
1.42	1.27	1.57	1.10	0.17	0.02	0.12	0.28	1.62	0.17	-0.65	-0.79	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
0.20	1.27	0.29	1.10	0.17	0.02	1.17	1.35	0.70	0.17	1.57	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-1.02	-1.16	-0.98	-1.53	-2.24	-1.24	-1.98	-0.78	-1.15	-1.04	-0.65	-0.79	-1.73
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	-0.78	-1.15	-1.04	-0.65	0.98	0.42
-0.06	-2.37	-2.26	-2.84	-0.02	-0.07	-3.03	-1.85	-2.07	-0.02	-2.86	-1.68	-2.80
-2.24	-2.37	-2.26	-0.21	-2.24	-1.24	-1.98	-0.78	-1.15	-1.04	-0.65	-0.79	-1.73
-2.24	-2.37	-2.26	-0.04	-0.02	-0.07	-0.02	-1.85	-2.07	-2.25	-0.03	-0.79	-1.73
-1.02	-1.16	-0.98	-1.53	0.17	0.02	0.12	0.28	0.70	-1.04	-1.75	0.09	0.42
-2.24	-1.16	-0.98	-0.21	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	0.09	-0.66
0.20	-1.16	-0.98	-2.84	-1.04	-1.24	-0.93	-0.78	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	1.27	1.57	-0.21	1.37	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
1.42	0.06	0.29	1.10	-1.04	0.02	0.12	0.28	1.62	0.17	1.57	0.98	1.49
-2.24	-2.37	-2.26	-1.53	-1.04	0.02	1.17	-2.91	-2.07	-1.04	-1.75	0.98	-0.66
-1.02	-2.37	-0.98	1.10	0.17	-2.49	-1.98	-0.78	-2.07	-1.04	-2.86	-0.79	0.42
0.20	0.06	1.57	-1.53	-1.04	-2.49	-0.93	-1.85	-0.22	1.37	-0.65	0.09	-1.73
-1.02	-2.37	0.29	-2.84	1.37	-2.49	0.12	-2.91	-0.22	-2.25	-0.65	-0.79	0.42
0.20	0.06	0.29	1.10	0.17	0.02	1.17	0.28	-0.22	0.17	-0.65	0.09	0.42
0.20	0.06	0.29	-0.21	0.17	0.02	-0.93	-0.78	-0.22	-1.04	-0.65	-0.79	-1.73
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	-2.25	0.46	-0.79	0.42
0.20	-1.16	0.29	-0.21	-1.04	0.02	1.17	1.35	-0.22	-1.04	0.46	-0.79	-0.66
0.20	0.06	-0.98	-1.53	-1.04	0.02	0.12	0.28	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	1.10	0.17	0.02	0.12	0.28	-0.22	0.17	0.46	0.09	0.42
1.42	0.06	1.57	1.10	0.17	1.28	1.17	1.35	0.70	0.17	0.46	0.98	0.42
1.42	0.06	0.29	-0.21	0.17	1.28	1.17	1.35	0.70	0.17	0.46	-0.79	-0.66
0.20	0.06	0.29	1.10	0.17	0.02	0.12	0.28	1.62	0.17	0.46	0.98	0.42
0.20	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	0.28	0.70	0.17	0.46	0.98	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
1.42	1.27	1.57	-0.21	1.37	1.28	0.12	0.28	0.70	1.37	0.46	-0.79	-0.66
-1.02	0.06	0.29	-0.21	-1.04	-1.24	0.12	0.28	-1.15	0.17	-0.65	0.09	-0.66
0.20	0.06	0.29	-0.21	0.17	1.28	1.17	1.35	0.70	0.17	1.57	0.98	0.42
0.20	0.06	0.29	-0.21	-1.04	-1.24	-0.93	-0.78	-0.22	-2.25	-1.75	-0.79	-1.73
-2.24	-1.16	-0.98	-1.53	-1.04	-1.24	-1.98	-1.85	-1.15	-1.04	-1.75	-0.79	-1.73
1.42	0.06	0.29	1.10	0.17	0.02	1.17	-1.85	-1.15	0.17	1.57	-0.79	1.49
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	1.62	1.37	1.57	1.86	1.49
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-0.93	0.28	0.70	0.17	-1.75	0.09	0.42
1.42	1.27	1.57	1.10	0.17	0.02	0.12	0.28	-0.22	0.17	-0.65	-1.68	0.42
0.20	1.27	1.57	1.10	1.37	0.02	0.12	1.35	0.70	0.17	0.46	0.98	1.49
0.20	0.06	0.29	-0.21	0.17	1.28	0.12	0.28	-0.22	0.17	-2.86	0.09	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	0.28	-0.22	0.17	-0.65	0.98	1.49
0.20	-1.16	0.29	-0.21	0.17	0.02	1.17	1.35	1.62	0.17	0.46	0.98	0.42

ZEE1	ZEE2	ZEE3	ZEE4	ZEE5	ZEE6	ZEE7	ZEE8	ZEE9	ZEE10	ZEE11	ZEE12	ZEE13
0.20	-1.16	0.29	-0.21	-1.04	-2.49	-1.98	-0.78	-1.15	-2.25	-0.65	-0.79	-1.73
0.20	1.27	0.29	1.10	0.17	-1.24	-0.93	-0.78	0.70	0.17	-1.75	0.09	0.42
0.20	1.27	-0.98	1.10	0.17	0.02	-1.98	-1.85	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	0.06	-0.98	-0.21	0.17	-1.24	-0.93	0.28	-1.15	-1.04	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	0.17	0.02	-0.93	0.28	-1.15	0.17	-0.65	-0.79	0.42
-1.02	-1.16	-0.98	-1.53	-1.04	-1.24	-1.98	-0.78	-0.22	-1.04	-1.75	0.98	-0.66
0.20	1.27	0.29	1.10	0.17	0.02	0.12	0.28	0.70	0.17	-0.65	0.09	0.42
0.20	0.06	-0.98	1.10	0.17	1.28	0.12	-0.78	-0.22	0.17	0.46	0.98	0.42
1.42	0.06	0.29	1.10	1.37	1.28	1.17	-0.78	1.62	1.37	0.46	0.98	1.49
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	-1.15	0.17	0.46	0.98	0.42
-2.24	-1.16	-2.26	-0.21	-1.04	-1.24	-1.98	-0.78	-1.15	0.17	0.46	-0.79	-1.73
1.42	1.27	1.57	1.10	0.17	0.02	1.17	1.35	-0.04	-1.04	-0.65	-0.79	-2.80
0.20	0.06	-0.98	-0.21	1.37	0.02	1.17	-1.85	-2.07	-2.25	-0.65	-0.79	-0.66
0.20	0.06	0.29	-0.21	-1.04	-1.24	0.12	0.28	-0.22	-2.25	-1.75	0.09	-0.66
-1.02	0.06	-0.98	-1.53	-2.24	-1.24	-0.93	-0.78	-1.15	-1.04	-1.75	-0.79	-1.73
0.20	0.06	0.29	-0.21	0.17	0.02	0.12	0.28	0.70	0.17	-0.65	0.98	-0.66
0.20	0.06	-0.98	-0.21	-1.04	-1.24	0.12	0.28	-0.22	-1.04	0.46	0.09	-0.66
-2.24	-2.37	-2.26	-2.84	-2.24	-2.49	-1.98	-1.85	-1.15	-2.25	-1.75	-0.79	-1.73
0.20	0.06	0.29	1.10	0.17	1.28	1.17	1.35	0.70	1.37	0.46	0.09	0.42
0.20	1.27	0.29	1.10	0.17	0.02	1.17	1.35	0.70	0.17	0.46	0.98	0.42
1.42	1.27	1.57	1.10	1.37	1.28	1.17	1.35	-1.15	1.37	1.57	0.98	1.49
0.20	1.27	0.29	-0.21	0.17	1.28	1.17	0.28	0.70	0.17	0.46	0.98	0.42
1.42	0.06	0.29	1.10	0.17	1.28	1.17	0.28	0.70	0.17	0.46	1.86	1.49
0.20	-1.16	-0.98	-0.21	0.17	1.28	0.12	1.35	0.70	1.37	1.57	0.98	0.42
1.42	1.27	-2.26	1.10	1.37	1.28	1.17	1.35	-1.15	1.37	0.46	-2.56	1.49
1.42	1.27	0.29	1.10	1.37	1.28	0.12	0.28	0.70	1.37	0.46	0.09	0.42
0.20	0.06	0.29	1.10	0.17	0.02	0.12	0.28	0.70	0.17	0.46	0.98	0.42
-1.02	-2.37	-0.98	-0.21	0.17	-1.24	1.17	-0.78	0.70	0.17	-0.65	1.86	-0.66

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
-0.30	-0.18	0.76	-0.57	-0.90	-0.92	-1.22	-0.80
-0.30	0.69	0.76	0.70	-0.90	-0.37	-1.22	-2.00
-1.18	-0.18	-0.58	0.06	-0.28	-0.92	0.00	-0.80
0.58	-0.18	-0.58	-1.84	0.96	-0.92	1.22	0.99
-0.30	0.69	0.76	0.06	-0.90	0.19	-1.22	0.39
0.58	1.56	0.76	-0.57	-0.28	-1.48	0.00	-0.21
-1.18	-0.18	-0.58	0.06	0.96	-0.92	0.61	-0.80
1.46	0.69	1.43	1.33	1.59	1.31	1.22	0.99
1.46	-0.18	0.09	0.70	-1.53	-0.37	0.00	0.39
1.46	0.69	1.43	-0.57	-0.28	-0.37	-1.22	-0.80
-0.30	-0.18	-0.58	-0.57	-0.28	-0.37	-0.61	-0.21
-1.18	-1.05	0.09	-0.57	-0.28	-0.92	-0.61	0.99
-2.06	0.69	0.76	0.06	0.96	0.75	0.61	0.39
1.46	1.56	1.43	-0.57	1.59	1.31	1.22	0.99
1.46	-0.18	0.76	0.70	-0.28	0.75	-1.22	0.99
-1.18	-1.05	0.09	-0.57	0.34	0.75	-0.61	-0.80

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
1.46	0.69	1.43	0.06	0.96	1.31	1.22	0.99
0.58	1.56	1.43	1.33	1.59	1.31	1.22	0.99
0.58	1.56	0.76	1.33	-0.28	1.31	-0.61	0.99
0.58	0.69	0.09	-0.57	0.96	-0.37	0.61	-0.80
-0.30	-1.05	0.09	1.33	-0.90	1.31	-0.61	-0.80
-0.30	1.56	-0.58	1.33	-0.28	-0.37	-0.61	0.99
-1.18	-1.92	1.43	-0.57	-0.90	0.19	-1.22	-0.80
0.58	0.69	-1.91	0.06	0.34	-0.92	0.00	0.99
1.46	-0.18	-1.91	-0.57	-0.28	1.31	-0.61	-0.21
0.58	-1.05	-0.58	-0.57	0.96	-0.37	1.22	-0.80
-1.18	-1.05	-0.58	-2.48	0.96	0.75	0.61	0.99
0.58	1.56	0.76	0.70	0.34	0.19	0.61	0.99
0.58	0.69	-0.58	1.33	-0.28	-0.92	-0.61	0.99
1.46	0.69	-0.58	1.33	1.59	0.75	1.22	0.99
1.46	0.69	-0.58	1.33	1.59	0.75	1.22	0.99
1.46	0.69	0.76	-0.57	0.96	0.19	0.61	0.99
-1.18	0.69	-2.58	-0.57	-0.28	-2.04	1.22	0.39
-1.18	0.69	-2.58	-0.57	-0.28	-2.04	0.00	0.39
0.58	0.69	0.09	0.06	-0.90	0.75	-1.22	-0.21
1.46	-0.18	0.09	0.06	-0.28	1.31	-1.22	0.99
1.46	1.56	1.43	0.06	1.59	1.31	1.22	0.99
0.58	1.56	1.43	1.33	1.59	0.75	1.22	0.99
0.58	1.56	0.09	1.33	0.96	-2.04	0.61	-2.00
0.58	0.69	1.43	0.06	0.34	1.31	1.22	0.99
0.58	0.69	-1.25	-1.21	-0.28	0.19	-0.61	0.99
0.58	0.69	0.09	1.33	-0.28	-0.37	-0.61	-0.80
0.58	0.69	0.76	-0.57	-0.28	-1.48	0.61	-1.40
1.46	1.56	0.76	0.70	-1.53	0.75	-1.83	0.39
0.58	0.69	0.76	1.33	0.96	-0.37	-0.61	0.99
0.58	-1.05	-0.58	-2.48	-1.53	-1.48	-1.83	-1.40
0.58	-0.18	-0.58	-1.21	-1.53	-1.48	-0.61	-2.00
1.46	-0.18	-1.91	-0.57	-0.28	0.19	0.61	0.99
0.58	1.56	1.43	1.33	-0.28	0.75	-0.61	0.99
1.46	1.56	-2.58	-2.48	1.59	-0.37	1.22	-0.80
-1.18	-1.05	-1.25	0.06	-0.28	-0.37	-0.61	-0.80
0.58	1.56	1.43	1.33	-0.28	0.75	-0.61	0.99
0.58	0.69	0.76	0.06	-0.90	-0.92	0.00	0.39
-1.18	-0.18	-2.58	0.06	-0.28	-0.37	-0.61	-0.80
-0.30	0.69	0.09	0.06	-0.90	-0.92	-1.22	-1.40
0.58	0.69	0.09	-0.57	0.34	0.19	0.00	0.99
-1.18	-1.05	0.09	1.33	-0.28	-0.37	-0.61	-0.80
0.58	-1.05	0.76	0.70	-0.28	0.75	-0.61	-2.00
0.58	-1.05	0.09	0.06	-0.28	0.75	-0.61	-2.00
-1.18	-0.18	0.09	-0.57	-0.28	0.75	0.61	-1.40
-1.18	0.69	-0.58	-0.57	-0.28	0.75	-0.61	0.99
0.58	0.69	0.76	0.70	0.34	1.31	0.00	0.99
0.58	0.69	0.76	0.70	-0.28	0.19	-1.22	0.39

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
-0.30	0.69	0.76	1.33	-0.28	-1.48	1.22	-0.80
0.58	0.69	0.09	1.33	-1.53	-0.92	-1.22	-0.80
-0.30	-0.18	0.76	-1.21	-0.28	0.75	-0.61	-0.80
0.58	-1.05	-0.58	-0.57	-0.28	-0.37	0.61	0.39
-0.30	-0.18	0.09	-0.57	-0.28	0.19	0.00	0.99
0.58	0.69	-0.58	1.33	-0.90	-0.37	-2.44	0.99
1.46	0.69	1.43	1.33	-0.28	1.31	1.22	0.99
0.58	0.69	-0.58	0.06	-0.28	-0.37	0.00	0.99
-1.18	0.69	-0.58	-0.57	-0.90	-0.92	-1.22	-0.21
-1.18	-1.92	-2.58	-1.84	0.34	-0.92	0.61	-2.60
1.46	1.56	1.43	1.33	1.59	1.31	1.22	0.99
-0.30	0.69	-0.58	0.70	-0.28	1.31	-0.61	0.99
0.58	1.56	0.76	0.70	1.59	1.31	-1.83	-0.21
0.58	0.69	0.09	0.70	0.96	0.75	0.61	0.99
0.58	0.69	0.76	-0.57	1.59	0.75	0.61	0.39
-0.30	0.69	0.09	0.70	-0.90	0.75	-0.61	0.39
-1.18	-1.05	-1.91	-0.57	-0.90	-1.48	-1.83	-0.80
0.58	0.69	0.09	0.06	-0.90	-1.48	1.22	-1.40
0.58	1.56	0.76	0.70	-0.28	0.75	0.61	0.99
-0.30	-1.05	-1.91	0.06	-0.90	-1.48	-0.61	-0.80
0.58	0.69	0.09	-0.57	-0.28	0.19	-0.61	-0.80
-2.06	-1.05	-1.91	0.06	0.96	0.75	-0.61	-0.21
0.58	1.56	0.76	0.70	-0.28	0.75	0.61	0.99
1.46	1.56	1.43	1.33	1.59	-0.37	1.22	0.99
-0.30	0.69	0.76	0.70	0.34	0.19	1.22	0.99
-0.30	0.69	-0.58	0.70	0.34	0.19	0.61	0.99
0.58	-0.18	-0.58	-0.57	-0.90	0.19	0.00	-0.21
0.58	-1.05	1.43	0.70	-0.28	1.31	1.22	0.99
0.58	0.69	0.09	0.06	-0.28	-1.48	-1.22	-0.80
0.58	-1.05	1.43	-0.57	1.59	1.31	1.22	0.99
-1.18	-0.18	-0.58	0.70	1.59	0.19	1.22	0.99
0.58	0.69	0.76	0.70	1.59	0.75	-1.83	-2.00
1.46	-1.05	0.09	0.06	-0.28	1.31	-2.44	-2.00
0.58	-1.05	-0.58	-0.57	-0.28	-1.48	0.00	-0.80
-0.30	0.69	-1.91	-0.57	1.59	0.19	0.61	-0.80
1.46	0.69	-2.58	-1.84	-0.28	-2.04	-0.61	-0.80
-1.18	1.56	1.43	0.06	-0.90	-0.37	-0.61	-0.80
1.46	-0.18	1.43	0.70	-1.53	0.19	-1.83	-0.21
0.58	0.69	1.43	1.33	-0.28	1.31	-0.61	0.99
1.46	0.69	0.09	-0.57	-1.53	-1.48	0.61	-1.40
-0.30	-1.05	-1.91	1.33	-1.53	-2.04	-0.61	0.99
0.58	0.69	0.76	0.06	0.96	-1.48	0.00	0.99
0.58	-1.05	-0.58	0.70	-0.28	-1.48	-0.61	-2.00
-1.18	-1.05	-1.25	-1.21	-0.28	-0.92	-0.61	-0.80
-0.30	-1.05	-1.91	1.33	0.34	-0.92	0.61	-1.40
-0.30	-0.18	-0.58	-0.57	0.34	-0.37	0.61	-0.21
-0.30	-0.18	0.09	0.06	-0.28	-0.92	-0.61	0.39

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
0.58	0.69	-0.58	0.70	-0.28	-0.92	-1.22	-1.40
-0.30	-0.18	-1.25	0.70	-1.53	-0.92	-1.22	-0.80
0.58	-0.18	-0.58	0.06	0.34	-0.37	-0.61	0.99
1.46	-1.05	-1.25	0.70	-0.28	1.31	1.22	0.99
-0.30	-0.18	-1.91	-0.57	-0.90	-0.92	-1.22	-1.40
0.58	0.69	1.43	1.33	1.59	1.31	1.22	0.99
0.58	0.69	-0.58	0.70	-0.90	-0.37	0.61	0.39
-0.30	-1.05	1.43	0.70	-1.53	-0.37	-0.61	-2.00
-0.30	-1.05	-0.58	0.70	1.59	0.19	0.61	-1.40
0.58	-0.18	0.09	1.33	-0.28	-0.92	-0.61	-1.40
-1.18	-1.05	-0.58	-0.57	-0.28	0.75	-0.61	-0.80
-0.30	-0.18	-0.58	0.06	-0.28	-0.37	0.00	-0.80
-0.30	-0.18	-0.58	-0.57	0.96	-0.37	0.61	-0.80
-1.18	-1.05	-1.25	-1.21	-0.28	0.19	0.00	-0.21
0.58	-0.18	-0.58	1.33	-0.28	-1.48	-0.61	-2.00
0.58	0.69	0.76	0.06	0.96	0.75	0.61	0.39
0.58	0.69	0.76	0.70	1.59	1.31	1.22	0.99
-1.18	0.69	-0.58	1.33	-0.28	-0.92	0.00	0.99
1.46	1.56	-0.58	1.33	1.59	-0.92	1.22	-0.80
-2.94	-2.80	-0.58	0.70	-0.28	0.75	-0.61	0.39
0.58	-0.18	1.43	0.70	0.34	1.31	0.00	0.99
0.58	-1.92	-0.58	0.06	-0.90	-0.92	-1.22	0.39
-0.30	-1.05	0.09	-1.21	0.34	0.19	1.22	0.99
-1.18	-1.05	-1.25	0.06	-0.90	0.19	-1.22	-0.80
-1.18	-1.92	0.09	-1.21	-2.15	-0.37	-1.83	-0.80
-1.18	-0.18	0.09	0.70	-1.53	1.31	-1.22	0.99
-2.94	-1.05	-0.58	-0.57	1.59	-0.37	1.22	0.39
0.58	-1.05	0.09	1.33	0.34	1.31	1.22	0.99
0.58	0.69	0.09	-1.84	0.96	0.75	0.61	-2.00
-1.18	-1.05	-0.58	-0.57	1.59	1.31	1.22	0.99
0.58	0.69	1.43	0.06	0.96	1.31	0.61	0.99
-0.30	-1.05	-0.58	0.06	-0.28	1.31	1.22	0.99
-0.30	-1.05	-0.58	1.33	-0.28	-0.37	-0.61	-0.80
0.58	0.69	1.43	0.06	0.96	1.31	0.61	0.99
1.46	1.56	1.43	1.33	-0.90	-2.04	-1.22	-2.00
-1.18	1.56	1.43	-0.57	-1.53	-0.37	-0.61	-1.40
-0.30	-0.18	-0.58	-0.57	-0.90	0.75	-1.22	-0.21
-0.30	-1.05	-0.58	-1.21	-0.28	-0.92	-0.61	-0.80
0.58	-1.05	0.76	-2.48	0.96	-0.37	-1.83	0.99
0.58	0.69	0.76	0.70	-0.90	-0.37	-0.61	-1.40
-0.30	-1.05	-0.58	-0.57	-0.28	-0.92	-0.61	-0.80
-1.18	0.69	1.43	-0.57	-0.28	0.75	-0.61	0.99
1.46	0.69	0.09	-0.57	0.34	0.19	0.61	-0.80
-0.30	0.69	0.76	-0.57	-0.28	-0.37	1.22	-1.40
1.46	0.69	0.76	-0.57	1.59	0.75	0.61	0.39
1.46	-0.18	0.76	1.33	0.96	1.31	0.61	0.99
1.46	0.69	1.43	1.33	1.59	1.31	1.22	0.99

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
0.58	0.69	-0.58	1.33	-1.53	-2.04	-2.44	0.39
1.46	1.56	-0.58	0.06	-0.28	-0.37	-0.61	-0.80
-0.30	0.69	0.09	-1.84	-1.53	0.75	0.61	0.39
1.46	1.56	-0.58	-0.57	-0.28	-0.37	-0.61	-0.80
0.58	-0.18	0.09	-0.57	0.34	0.75	0.00	-0.21
-0.30	-1.05	0.09	-0.57	0.34	-0.37	0.00	-0.21
0.58	0.69	-0.58	-0.57	-0.28	-0.37	-1.22	0.39
0.58	1.56	1.43	1.33	0.34	-0.37	1.22	0.99
0.58	0.69	-0.58	-0.57	-0.28	0.19	0.61	0.39
-0.30	0.69	0.09	0.06	-0.90	-0.92	-0.61	0.99
-0.30	-2.80	-0.58	0.70	1.59	-0.92	-1.22	-2.00
-0.30	-0.18	0.09	1.33	-0.28	-0.37	0.00	-0.80
1.46	1.56	1.43	1.33	1.59	1.31	1.22	0.99
-0.30	0.69	0.09	-1.84	-1.53	0.75	0.61	0.39
-0.30	0.69	0.09	-1.84	-1.53	0.75	0.61	0.39
1.46	-0.18	0.76	-0.57	-0.28	-0.37	-0.61	-0.21
0.58	-0.18	0.76	0.06	-0.28	0.75	0.61	0.99
-1.18	-1.05	-0.58	1.33	-0.28	1.31	-0.61	-0.80
0.58	1.56	1.43	1.33	1.59	-0.37	1.22	0.99
0.58	0.69	0.09	1.33	-0.90	1.31	0.61	0.39
0.58	1.56	1.43	1.33	-0.90	1.31	1.22	0.99
0.58	-1.05	0.76	1.33	-0.28	-0.37	-0.61	-0.80
-0.30	-1.05	-1.25	1.33	-2.15	-1.48	-1.83	-0.21
-1.18	-0.18	-0.58	-0.57	-0.90	-0.92	-1.22	-2.00
0.58	-1.05	0.09	-1.84	1.59	-0.37	1.22	0.99
0.58	0.69	0.76	0.70	-0.28	0.75	0.00	0.39
-1.18	-1.05	-1.91	0.06	-0.28	-1.48	-0.61	-0.80
-0.30	-0.18	-0.58	0.70	-0.28	0.19	0.00	0.99
1.46	1.56	1.43	1.33	1.59	0.19	1.22	0.99
0.58	0.69	0.76	1.33	-2.15	1.31	-2.44	0.99
0.58	0.69	-1.25	1.33	-0.28	-2.04	-0.61	-0.80
-0.30	-0.18	-0.58	0.70	-0.28	0.19	0.00	0.99
-0.30	-0.18	-0.58	0.70	-0.28	0.19	0.00	0.99
1.46	1.56	-0.58	0.06	-0.28	-0.37	-0.61	0.99
-0.30	-0.18	-0.58	0.70	-0.28	0.19	0.00	0.99
-1.18	-1.05	-1.91	0.06	-0.28	-1.48	-0.61	-0.80
0.58	-1.05	-1.91	0.06	-0.28	-0.92	0.00	0.39
-1.18	0.69	0.09	0.70	-0.90	0.75	-1.22	-0.80
-1.18	-1.05	-0.58	-0.57	0.34	-0.37	0.00	-0.80
-1.18	-1.05	-0.58	1.33	0.34	-1.48	0.00	0.39
0.58	0.69	0.76	-2.48	0.96	0.75	0.61	0.99
0.58	-0.18	-0.58	1.33	-0.28	0.19	-0.61	-2.00
-3.82	1.56	0.09	0.06	-1.53	1.31	1.22	0.99
-0.30	-0.18	-0.58	-0.57	0.96	-0.37	0.61	-0.21
0.58	0.69	1.43	0.70	0.96	1.31	1.22	0.99
-0.30	-0.18	0.76	1.33	0.34	-0.92	1.22	0.99
-0.30	-0.18	0.09	-0.57	-1.53	-0.92	-0.61	-0.80

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
-2.94	-1.92	-1.91	-0.57	-0.90	0.75	0.61	-1.40
1.46	1.56	0.76	0.06	-0.28	-0.37	-0.61	-1.40
-1.18	-1.05	-0.58	-0.57	-0.28	-0.37	0.61	-0.80
-0.30	-0.18	-2.58	-0.57	1.59	-0.92	-1.22	-1.40
-1.18	-2.80	-0.58	-0.57	0.96	-0.37	0.61	-0.80
-1.18	-1.05	1.43	-0.57	1.59	1.31	1.22	0.99
-2.94	-1.05	-0.58	-0.57	0.34	-0.37	0.61	0.99
-0.30	-1.05	-0.58	-0.57	-0.28	-0.37	1.22	-0.80
-1.18	-1.05	-0.58	-0.57	0.34	1.31	-0.61	0.99
-0.30	-0.18	-0.58	-1.84	0.96	0.75	1.22	0.99
0.58	0.69	0.09	-0.57	0.96	0.19	1.22	0.39
-1.18	-1.05	0.76	-0.57	1.59	0.75	1.22	-0.80
0.58	1.56	1.43	0.06	1.59	0.75	1.22	0.39
-0.30	-1.05	-0.58	-0.57	0.96	-0.37	1.22	-0.80
-1.18	-1.05	-1.91	-0.57	0.96	1.31	0.61	-0.80
0.58	-0.18	1.43	0.06	-0.90	0.75	1.22	0.39
0.58	-1.05	1.43	0.70	1.59	1.31	1.22	0.99
-1.18	-1.05	-2.58	-0.57	-0.28	-1.48	1.22	-0.80
1.46	-1.05	0.09	-1.84	-0.90	-0.37	-0.61	-0.80
-0.30	-1.05	-0.58	-0.57	-1.53	-0.37	-1.83	-0.21
-0.30	-1.05	-0.58	-0.57	-0.28	-0.37	-0.61	0.39
0.58	0.69	0.76	0.70	-0.28	-0.92	1.22	0.99
0.58	-0.18	0.09	-0.57	-1.53	-0.37	-1.22	-0.80
-0.30	0.69	0.76	0.70	1.59	-0.37	1.22	0.99
1.46	1.56	1.43	0.70	0.96	-0.37	0.61	0.99
-1.18	-1.05	0.09	-1.21	0.96	0.75	1.22	0.39
1.46	-0.18	1.43	1.33	-2.15	-2.04	-1.22	0.99
-0.30	0.69	1.43	0.70	1.59	0.75	1.22	0.99
0.58	-0.18	-0.58	0.06	-0.28	0.75	0.00	0.99
-1.18	-1.05	0.76	1.33	-0.90	-0.37	-1.22	-0.21
0.58	0.69	0.09	-0.57	1.59	1.31	0.61	0.39
0.58	-1.05	0.09	1.33	-0.28	-1.48	0.00	0.39
0.58	-1.05	-0.58	-0.57	0.34	0.19	0.61	-0.80
0.58	0.69	-0.58	0.70	-1.53	0.75	-1.83	0.99
-0.30	-0.18	0.09	-1.21	-0.90	-1.48	0.00	-0.21
-0.30	-0.02	-1.25	0.06	-1.53	1.31	1.22	-2.00
-1.18	-1.05	0.76	1.33	-1.53	1.31	-2.44	-0.80
0.58	-1.05	0.09	-0.57	-0.90	1.31	0.61	0.39
0.58	0.69	1.43	0.70	1.59	1.31	1.22	0.99
-1.18	-0.18	0.76	1.33	-0.28	-1.48	0.61	-0.80
-1.18	-1.05	-0.58	-2.48	1.59	1.31	-0.61	0.39
-0.30	0.69	0.76	0.06	-0.28	-1.48	0.61	-0.80
-0.30	-1.05	-0.58	-0.57	-0.90	0.75	-0.61	-0.80
-0.30	0.69	-0.58	0.06	1.59	-0.37	1.22	-0.80
1.46	-0.18	1.43	1.33	-0.90	0.75	-0.61	-0.80
1.46	-0.18	0.09	1.33	0.34	0.75	0.00	-0.21
0.58	0.69	0.76	0.06	-0.28	0.75	-0.61	0.39

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
-1.18	-0.18	-1.25	1.33	-1.53	-1.48	-1.22	-2.00
-0.30	0.69	1.43	-0.57	-0.90	-0.37	0.00	-0.21
-2.06	-1.05	-0.58	1.33	-0.28	0.19	-0.61	-0.80
0.58	-1.05	0.09	-0.57	-0.28	-1.48	-0.61	-0.80
-0.30	0.69	0.76	1.33	0.34	-1.48	0.61	-0.80
0.58	0.69	0.09	0.70	-0.28	0.19	0.61	-0.80
-0.30	-1.05	-0.58	-0.57	-0.90	-0.37	-0.61	-0.21
-0.30	-1.05	-0.58	0.70	0.96	1.31	0.61	0.99
1.46	-0.18	1.43	0.70	0.34	0.75	0.00	0.39
-0.30	1.56	1.43	-2.48	1.59	-2.04	1.22	-2.60
-0.30	-0.18	0.76	-1.21	-1.53	-1.48	-1.22	-0.21
0.58	0.69	1.43	-0.57	1.59	-0.37	-0.61	-0.80
0.58	-1.05	0.76	0.70	-2.15	0.75	-0.61	-1.40
-0.30	-0.18	0.76	-0.57	-0.90	0.75	0.61	0.99
1.46	0.69	1.43	1.33	1.59	0.75	0.61	0.39
-2.06	-0.18	0.09	0.70	-0.28	-0.37	-0.61	0.39
0.58	0.69	0.76	1.33	0.96	1.31	1.22	0.99
-0.30	-1.05	0.76	1.33	0.34	1.31	1.22	0.99
-0.30	-1.92	0.09	0.70	-0.90	-0.37	-0.61	0.39
-0.30	-1.05	0.76	0.70	0.34	1.31	1.22	0.99
0.58	0.69	0.76	0.70	-0.28	0.75	-0.61	-2.00
0.58	0.69	-0.58	0.06	-0.28	0.75	0.00	0.99
0.58	-1.92	-1.91	-1.21	-0.90	-2.04	0.00	0.39
-1.18	-0.18	0.09	0.70	0.96	1.31	1.22	0.99
0.58	-1.05	-0.58	-1.21	-0.28	-0.37	-0.61	0.99
0.58	1.56	0.76	-0.57	-1.53	0.75	-1.22	0.39
-0.30	1.56	0.09	0.06	-0.28	-0.37	0.00	0.99
-1.18	-1.92	-1.91	1.33	-2.15	0.75	0.00	-2.60
-1.18	-1.05	-0.58	-0.57	-0.28	1.31	-0.61	-0.21
1.46	0.69	1.43	1.33	1.59	1.31	1.22	0.99
-0.30	0.69	0.76	1.33	-0.28	0.75	0.00	-0.80
-1.18	-1.92	-0.58	-0.57	-1.53	0.19	-1.22	0.99
-0.30	-1.05	0.76	-1.84	0.96	0.75	1.22	0.99
1.46	1.56	1.43	-1.21	-1.53	-2.04	-1.22	0.39
-0.30	-1.05	-0.58	0.06	-0.28	-2.04	-0.61	0.99
-1.18	0.69	0.76	0.06	-0.28	-0.37	-0.61	-0.80
1.46	0.69	0.76	0.70	-0.90	-0.37	-0.61	-0.80
1.46	0.69	0.76	0.70	-0.90	-0.37	-0.61	-0.80
-1.18	-1.05	-0.58	0.06	-0.28	0.19	1.22	-1.40
-1.18	-0.18	-0.58	-0.57	-0.28	-0.92	0.61	0.99
0.58	0.69	0.76	0.06	-0.90	-1.48	-1.83	-1.40
0.58	-0.18	1.43	-1.21	0.96	-2.04	0.61	0.99
-0.30	-1.05	0.09	-0.57	-0.90	-0.37	-2.44	0.39
-1.18	-1.92	-1.25	0.06	-1.53	-0.37	-1.22	-0.21
-1.18	-1.05	-1.91	-0.57	-0.28	-0.37	-0.61	-0.80
-1.18	-0.02	-2.58	0.70	-2.15	-2.04	-2.44	0.39
-1.18	-1.05	0.09	-0.57	-0.28	-0.37	-0.61	0.99

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
0.58	-1.05	-0.58	-0.57	-0.28	-0.37	0.61	0.39
0.58	0.69	0.76	0.70	1.59	1.31	1.22	0.99
1.46	1.56	-1.25	-2.48	1.59	0.19	1.22	-0.21
-0.30	-0.18	-0.58	-0.57	-0.90	0.19	-1.22	0.99
0.58	0.69	1.43	0.70	0.96	0.75	0.61	0.39
0.58	-0.18	0.09	0.06	-0.28	0.75	0.61	0.99
1.46	-1.05	-0.58	-0.57	-0.28	-0.37	-0.61	0.99
0.58	0.69	0.09	0.70	0.96	-0.37	0.61	0.99
-1.18	-0.18	0.09	0.06	0.34	-0.37	0.00	0.99
-0.30	-0.18	0.09	-0.57	-0.90	0.19	1.22	0.39
0.58	0.69	-0.58	-0.57	1.59	-0.37	0.00	-1.40
-0.30	-1.05	0.09	0.06	-0.28	0.19	0.61	0.99
-0.30	-0.18	0.76	0.06	0.34	1.31	1.22	-0.21
-0.30	-1.05	-1.25	-0.57	1.59	1.31	1.22	0.99
-1.18	0.69	0.76	0.70	-0.28	1.31	1.22	-0.21
-0.30	0.69	-0.58	-0.57	0.34	1.31	0.61	0.99
-1.18	-1.05	0.09	0.06	1.59	1.31	1.22	0.99
0.58	-0.18	1.43	-2.48	-0.28	1.31	-0.61	0.99
0.58	0.69	0.09	0.70	1.59	-0.37	-0.61	0.99
-0.30	-0.18	-0.58	-0.57	0.34	-0.37	1.22	0.39
-0.30	-1.05	0.09	-0.57	0.34	-0.92	-1.22	0.99
-1.18	-0.18	-0.58	-0.57	-0.28	-0.37	-0.61	0.99
-2.06	-0.18	-1.25	-0.57	-0.28	-0.37	0.61	0.39
0.58	1.56	-1.25	0.06	1.59	0.19	1.22	-2.00
0.58	0.69	0.76	0.70	-0.28	-0.37	-0.61	-0.80
0.58	-1.05	-1.25	0.70	-0.28	1.31	1.22	0.99
0.58	-0.18	0.76	0.70	-0.90	-0.37	-1.22	0.39
-0.30	-0.18	0.09	-2.48	-0.28	0.75	0.00	0.39
-0.30	0.69	-0.58	-0.57	0.34	0.75	-0.61	0.99
-1.18	0.69	0.76	1.33	0.96	1.31	1.22	0.99
0.58	0.69	0.76	1.33	0.34	1.31	1.22	0.99
0.58	-0.18	-0.58	0.06	-0.28	-0.37	-0.61	-1.40
-0.30	-1.05	-1.25	-0.57	-0.28	-0.37	0.61	0.39
0.58	0.69	0.76	1.33	0.34	1.31	1.22	0.99
1.46	1.56	0.76	0.06	1.59	-0.92	1.22	0.39
-0.30	0.69	0.76	1.33	-0.28	0.75	-0.61	0.39
0.58	0.69	0.76	-2.48	1.59	-0.37	-0.61	0.99
-0.30	-1.05	0.76	0.70	-0.90	-2.04	0.00	-1.40
-1.18	-0.18	0.09	-0.57	0.96	-1.48	0.61	-0.80
-1.18	-2.80	-0.58	-0.57	-0.28	1.31	-0.61	-0.80
-2.06	-2.80	-1.91	-0.57	0.34	-1.48	0.61	-0.80
-1.18	-0.18	-0.58	-0.57	0.96	-1.48	0.61	-0.80
0.58	-1.92	-0.58	-0.57	0.34	-0.37	-1.83	-1.40
0.58	-0.18	0.09	0.70	-0.28	-0.37	0.61	-0.80
-0.30	0.69	0.09	-0.57	-0.28	-0.92	1.22	-0.80
-1.18	-1.05	0.09	0.70	-0.90	-0.92	0.61	-0.21
-0.30	-1.05	0.09	0.70	-1.53	-1.48	-1.83	0.39

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
-2.94	1.56	0.09	-0.57	-0.90	-0.37	-1.22	-1.40
-2.06	1.56	1.43	0.70	0.96	0.19	0.61	0.39
-2.94	0.69	1.43	1.33	-0.28	0.19	1.22	-0.21
0.58	-1.05	-1.25	1.33	-1.53	-2.04	0.00	-0.80
-0.30	-1.92	-0.58	1.33	-0.28	-0.37	-1.83	-2.60
-1.18	-0.18	0.76	-1.21	-0.28	0.19	-0.61	0.99
-1.18	-1.05	-0.58	-0.57	-0.28	-1.48	-1.83	-1.40
1.46	-0.18	-0.58	-2.48	-0.90	1.31	1.22	0.99
1.46	-0.18	1.43	0.70	-0.28	1.31	0.61	0.99
-0.30	-0.18	0.09	-0.57	-0.90	-0.37	-1.22	-0.21
1.46	1.56	0.76	0.70	1.59	0.75	1.22	0.99
1.46	-0.18	-0.58	-2.48	-0.90	1.31	1.22	0.99
-0.30	1.56	0.76	0.06	1.59	1.31	1.22	0.99
-1.18	1.56	1.43	0.06	1.59	1.31	1.22	0.99
-1.18	-0.18	-0.58	-1.21	-0.28	0.75	0.61	-0.80
1.46	1.56	1.43	1.33	-0.28	0.75	-0.61	0.99
0.58	1.56	1.43	-0.57	1.59	1.31	1.22	0.99
-0.30	0.69	-0.58	0.06	0.34	0.19	1.22	0.99
0.58	0.69	0.76	0.70	1.59	1.31	1.22	0.99
-1.18	-1.05	-0.58	-0.57	-0.28	0.75	0.00	-0.80
-1.18	-0.18	-1.25	0.06	0.34	-0.92	-0.61	-2.00
0.58	-1.05	-1.91	-0.57	-2.15	-1.48	-2.44	-1.40
1.46	-0.18	-0.58	1.33	0.34	-1.48	-0.61	-0.80
-0.30	-0.18	0.76	-1.21	-0.90	1.31	1.22	0.99
1.46	1.56	0.09	0.70	1.59	1.31	-1.83	0.99
-0.30	-1.05	0.76	-0.57	-0.28	0.75	-0.61	0.99
0.58	0.69	0.76	0.70	0.96	1.31	1.22	0.99
-0.30	0.69	0.09	0.06	-0.28	1.31	1.22	-0.21
-0.30	0.69	-0.58	-0.57	0.96	0.19	-0.61	-0.80
-1.18	-1.05	-0.58	0.06	-0.90	-1.48	-1.83	-0.80
-1.18	0.69	1.43	0.70	-0.28	1.31	1.22	0.99
0.58	0.69	-0.58	-2.48	-0.90	-1.48	-0.61	0.99
-1.18	-0.18	-0.58	-1.21	1.59	-1.48	1.22	0.99
0.58	-1.05	1.43	1.33	1.59	1.31	1.22	0.99
-1.18	-0.02	1.43	1.33	1.59	-1.48	1.22	0.99
-0.30	-0.18	-0.58	-1.84	-1.53	-0.37	-1.22	-0.80
-1.18	-0.18	-1.91	-1.21	0.34	-0.92	0.61	-0.21
1.46	1.56	1.43	-1.84	-0.90	0.75	1.22	0.99
-1.18	-1.05	-0.58	-1.21	1.59	0.19	0.61	-0.80
-0.30	-1.05	-0.58	-1.21	-0.28	0.19	0.61	-0.80
-0.30	0.69	1.43	0.70	-0.28	-0.37	0.61	0.39
-1.18	1.56	-0.58	0.70	1.59	1.31	-0.61	0.99
1.46	1.56	-1.25	0.06	1.59	-0.37	0.00	0.99
-1.18	-1.92	-0.58	-0.57	1.59	0.19	-0.61	0.99
-1.18	-1.05	-0.58	-0.57	-0.28	-0.37	-0.61	-0.80
-0.30	-1.05	0.76	-1.84	-0.28	-1.48	-1.83	-2.00
-1.18	-1.05	-0.58	-0.57	-2.15	-0.37	-0.61	-0.80

ZP1.1	ZP1.2	ZP1.3	ZP1.4	ZP1.5	ZP1.6	ZP1.7	ZP1.8
-0.30	0.69	0.09	-0.57	-0.28	-0.37	-0.61	0.99
-1.18	-1.05	0.76	-2.48	1.59	1.31	1.22	-2.60
1.46	0.69	-1.25	-0.57	1.59	1.31	1.22	0.99
0.58	-0.18	-1.91	-0.57	-1.53	-2.04	-1.83	-2.00
0.58	0.69	-0.58	-0.57	-0.28	-0.92	0.61	0.39
-0.30	-1.05	-2.58	-1.84	-1.53	-2.04	-2.44	-0.80
0.58	-1.05	-0.58	1.33	-0.28	0.19	0.00	0.99
1.46	1.56	0.09	-1.84	1.59	-1.48	1.22	-1.40
0.58	-0.18	0.76	-1.84	-0.28	-0.37	0.61	0.39
-1.18	-0.18	0.76	-1.21	-1.53	0.19	-1.22	-0.80

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
-0.12	0.00	1.07	-0.63	-0.19	-1.35	-1.33	-0.14
-0.12	0.00	0.15	-0.63	-0.79	-0.58	-0.30	-0.54
0.94	0.82	1.07	0.34	-0.79	-0.58	-0.30	-0.54
-0.12	0.00	0.15	-1.60	1.02	0.18	0.73	0.67
-0.12	0.00	0.15	0.34	-0.19	0.18	-1.33	-0.54
-0.12	0.82	1.07	1.32	-0.79	0.18	-1.33	-0.54
-0.12	0.82	1.07	0.34	-0.79	0.18	-0.30	-0.54
-0.12	0.82	0.15	0.34	1.02	0.95	0.73	0.67
0.94	0.82	1.07	1.32	-0.79	-0.58	-0.07	-1.75
-1.18	0.00	1.07	1.32	-0.19	-1.35	-0.30	-0.54
-1.18	0.00	0.15	0.34	-0.19	-0.58	-0.30	-0.54
-2.24	-0.82	-1.70	-1.60	-1.39	-1.35	-2.36	0.67
0.94	0.82	1.07	1.32	1.02	0.95	0.73	0.67
0.94	-0.04	-1.70	-0.10	-0.79	0.95	0.73	0.67
0.94	1.63	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	0.82	0.15	0.34	-0.79	0.18	-2.36	0.67
0.94	0.82	1.07	1.32	1.02	0.95	0.73	0.67
0.94	0.82	1.07	1.32	1.02	0.95	0.73	0.67
0.94	0.00	-0.78	-0.63	1.02	0.95	0.73	0.67
0.94	0.82	0.15	0.34	-1.39	0.18	0.73	-0.54
0.94	1.63	0.15	0.34	1.02	-0.03	-0.16	0.67
0.94	0.82	1.07	-0.63	-1.39	0.95	0.73	0.67
-0.12	-0.82	1.07	0.34	1.02	0.95	0.73	-0.54
-0.12	-0.82	-1.70	0.34	1.02	0.95	0.73	0.67
0.94	0.82	1.07	0.34	1.02	0.95	-0.30	0.67
-0.12	-0.82	-0.78	-0.63	0.41	0.95	0.73	0.67
-0.12	-0.82	0.15	0.34	0.41	0.95	0.73	0.67
-0.12	1.63	1.07	1.32	1.02	-1.35	0.73	0.67
0.94	1.63	1.07	1.32	0.41	0.18	-2.36	0.67
0.94	-1.64	-2.62	0.34	0.41	-0.58	0.73	0.67
0.94	-1.64	-0.78	0.34	0.41	-0.58	0.73	0.67
0.94	0.82	0.15	-0.63	1.02	0.95	0.73	0.67
-2.24	-2.46	-1.70	-1.60	1.02	-1.35	-0.30	-2.96
-2.24	-0.82	-1.70	-1.60	-2.60	-1.35	0.73	0.67
0.94	0.82	0.15	0.34	-1.39	0.18	0.73	0.67

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
0.94	0.00	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	-0.82	1.07	-0.63	1.02	0.95	0.73	0.67
0.94	0.00	1.07	0.34	0.41	0.95	0.73	0.67
-0.12	0.82	1.07	-2.58	1.02	0.18	0.73	0.67
-0.12	0.82	0.15	1.32	1.02	0.95	0.73	0.67
0.94	0.82	1.07	-1.60	0.41	0.95	0.73	0.67
-0.12	-0.82	0.15	0.34	-0.79	-0.58	-2.36	-0.54
-0.12	1.63	1.07	1.32	-0.79	-0.58	-0.30	-0.54
0.94	1.63	1.07	1.32	1.02	0.95	0.73	0.67
0.94	0.82	0.15	-0.63	1.02	0.95	0.73	0.67
-2.24	0.00	1.07	1.32	1.02	0.95	0.73	0.67
0.94	-0.82	-0.78	-0.63	-0.79	-1.35	-0.30	0.67
0.94	0.82	1.07	0.34	1.02	0.95	0.73	0.67
0.94	-0.82	-1.70	0.34	-1.39	0.18	0.73	0.67
0.94	0.82	-1.70	-1.60	1.02	0.95	0.73	0.67
-1.18	-1.64	-1.70	-1.60	-0.79	-1.35	-2.36	-2.96
0.94	-0.82	-1.70	0.34	-1.39	0.18	0.73	0.67
0.94	0.82	1.07	-0.63	1.02	0.18	-1.33	-1.75
-0.10	-0.82	0.15	-1.60	-0.79	-1.35	-2.36	-0.54
0.94	0.82	1.07	0.34	-1.39	-0.58	-1.33	-0.34
-0.12	0.82	0.15	0.34	0.41	0.95	0.73	0.67
-1.18	0.82	0.15	0.34	0.41	-0.58	-0.30	-0.54
-0.12	0.82	0.15	-1.60	-0.19	-1.35	-2.36	0.67
-0.12	-0.82	-1.70	-1.60	-0.19	0.95	-0.30	-0.54
-0.12	0.82	0.15	0.34	-0.79	0.18	-0.30	-0.54
0.94	-0.82	1.07	1.32	0.41	0.18	0.73	0.67
-0.12	-1.64	-0.78	-1.60	-0.79	-2.12	0.73	0.67
-2.24	0.82	-0.78	0.34	-1.99	-1.35	-2.36	-0.54
-2.24	-2.46	0.15	-1.60	-0.79	-0.58	-0.30	-0.14
-0.12	1.63	1.07	0.34	-0.79	-2.88	-0.16	0.67
-0.12	-0.82	0.15	0.34	0.41	0.18	-2.36	-0.54
-2.24	-0.82	0.15	0.34	1.02	-1.35	0.73	0.67
-0.12	-0.82	0.15	0.34	0.41	0.95	0.73	-0.54
-0.12	0.82	1.07	1.32	1.02	0.95	0.73	0.67
0.94	0.00	1.07	1.32	1.02	0.95	0.73	0.67
0.94	0.82	1.07	0.34	1.02	0.95	0.73	0.67
-0.12	-0.82	-1.70	-1.60	-0.79	-0.58	0.73	0.67
-0.12	-0.82	0.15	-1.60	1.02	-1.35	-2.36	0.67
0.94	0.82	-1.70	-1.60	1.02	0.95	0.73	0.67
-0.12	0.82	-0.78	-0.63	-0.79	-1.35	0.73	-2.96
-0.12	-2.46	1.07	0.34	1.02	0.95	0.73	0.67
-0.12	-1.64	-0.78	0.34	0.41	0.18	-0.30	-0.54
-0.12	0.00	-0.78	-0.63	1.02	0.18	-0.30	0.67
-0.12	0.82	0.15	0.34	1.02	0.95	0.73	-0.54
-0.12	0.82	0.15	0.34	0.41	0.95	0.73	0.67
0.94	-0.82	0.15	0.34	-0.79	-1.35	-0.30	-0.54
0.94	-0.82	1.07	1.32	1.02	-0.58	0.73	0.67

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
0.94	0.82	0.15	0.34	-1.99	0.18	0.73	-0.54
0.94	0.00	-0.78	0.34	-0.19	-1.35	-2.36	-0.54
0.94	-0.82	1.07	0.34	0.41	0.18	-0.30	-0.54
0.94	-0.82	1.07	1.32	1.02	-0.58	0.73	0.67
0.94	1.63	0.15	0.34	-0.79	-1.35	-2.36	-0.34
-0.12	0.00	0.15	1.32	-0.79	-0.58	0.73	0.67
-0.12	1.63	1.07	1.32	-1.39	-0.58	0.73	0.67
-1.18	-0.82	-1.70	-1.60	0.41	0.18	-0.30	-0.54
0.94	0.00	1.07	0.34	0.41	0.95	0.73	0.67
-0.12	0.82	-0.78	0.34	-0.19	-1.35	-0.30	-0.54
-0.12	-0.82	0.15	-1.60	1.02	0.95	0.73	0.67
-0.12	0.82	0.15	0.34	1.02	0.95	0.73	0.67
-0.10	-2.46	0.15	-0.07	0.41	0.18	-0.30	-0.34
0.94	-0.04	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	-0.82	-1.70	-1.60	-0.79	-2.88	-0.30	-1.75
0.94	0.00	0.15	0.34	-0.19	0.95	0.73	-1.75
-0.12	-0.82	0.15	-0.63	1.02	0.18	0.73	0.67
-0.12	-0.82	0.15	-1.60	1.02	0.95	0.73	0.67
0.94	-1.64	0.15	0.34	-0.79	-2.12	-0.16	0.67
0.94	1.63	0.15	0.34	-2.60	0.95	0.73	0.67
0.94	-0.82	0.15	0.34	-1.39	-1.35	0.73	0.67
0.94	1.63	1.07	-1.60	-0.19	0.95	0.73	0.67
0.94	0.00	1.07	1.32	-0.19	0.95	0.73	0.67
-0.12	0.82	1.07	0.34	0.41	0.95	0.73	0.67
-2.24	-0.82	-1.70	-0.63	-1.39	-0.58	0.73	-2.96
-0.12	-0.82	-2.62	-1.60	0.41	-0.58	-0.30	-0.54
-0.12	0.00	-0.78	-0.63	-0.19	-0.58	0.73	-0.54
-0.12	0.00	0.15	0.34	0.41	-0.58	0.73	0.67
-1.18	0.82	0.15	0.34	-0.79	-1.35	-1.33	-0.14
-1.18	0.00	0.15	-0.63	-0.79	-0.58	-0.30	-0.54
0.94	-0.82	0.15	0.34	1.02	0.95	0.73	0.67
0.94	0.82	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	-0.82	0.15	-0.63	-1.39	-2.12	-1.33	-0.54
0.94	1.63	1.07	0.34	1.02	-2.12	-0.30	0.67
-1.18	-0.82	0.15	-0.63	-0.19	-1.35	-0.30	-0.54
0.94	0.82	1.07	0.34	1.02	-1.35	-2.36	-0.14
-0.12	-0.82	-0.78	-0.63	-1.99	-1.35	-2.36	-0.54
-0.12	0.00	1.07	0.34	-0.79	-2.12	-2.36	-2.96
-0.12	-0.82	-1.70	-1.60	0.41	0.95	-0.30	0.67
-2.24	0.00	-0.78	-0.63	-0.79	-1.35	-1.33	-1.75
-0.12	-0.82	0.15	0.34	-0.79	-0.58	-0.30	-0.54
-1.18	-1.64	-1.70	-1.60	-0.19	-0.58	-0.30	-0.54
-1.18	-0.82	-0.78	0.34	-1.99	-0.58	-0.30	0.67
0.94	0.00	0.15	-0.63	0.41	0.18	-0.30	-0.54
-0.12	0.00	-0.78	-0.63	1.02	0.95	0.73	0.67
0.94	0.82	-1.70	0.34	-0.79	0.18	-2.36	-0.54
0.94	1.63	1.07	1.32	-1.99	0.95	-0.30	0.67

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
-0.12	1.63	1.07	1.32	-1.39	0.18	-0.30	0.67
0.94	0.00	1.07	0.34	1.02	0.18	0.73	-0.42
-0.12	0.82	1.07	1.32	1.02	0.95	0.73	0.67
-2.24	-0.82	-2.62	-2.58	-0.79	0.95	0.73	0.67
-1.18	-0.82	1.07	-1.60	-0.79	-0.58	-1.33	-2.96
-0.12	0.82	1.07	1.32	-1.99	-0.58	-2.36	-2.96
-0.12	0.00	-0.78	-0.63	-0.19	0.95	0.73	0.67
-0.12	0.82	0.15	0.34	-1.39	0.18	0.73	0.67
0.94	-0.82	0.15	0.34	1.02	0.95	0.73	0.67
-0.12	-2.46	1.07	0.34	0.41	0.18	-0.30	-0.54
-2.24	-0.82	-1.70	0.34	1.02	0.95	0.73	-0.34
0.94	0.00	0.15	1.32	1.02	0.95	0.73	0.67
-0.12	-0.82	-1.70	-0.63	1.02	0.95	0.73	0.67
0.94	-0.82	0.15	0.34	-0.19	-0.58	0.73	-0.54
0.94	0.00	0.15	1.32	1.02	0.95	0.73	0.67
0.94	0.82	1.07	1.32	-1.99	-1.35	-0.30	0.67
0.94	1.63	1.07	1.32	1.02	0.95	0.73	0.67
-1.18	0.00	-0.78	-0.63	0.41	0.18	-0.30	-0.14
-2.24	0.00	-1.70	-0.63	0.41	0.18	-0.30	-1.75
-0.12	-0.82	1.07	0.34	0.41	-0.58	0.73	0.67
-0.12	-1.64	-0.78	-2.58	-0.19	-1.35	-2.36	-1.75
-2.24	0.00	-1.70	-0.63	0.41	0.18	0.73	0.67
-0.12	0.82	1.07	0.34	-0.19	-0.58	-2.36	0.67
0.94	1.63	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	-0.82	-0.78	-0.63	1.02	0.95	0.73	0.67
-0.12	-0.82	-0.78	0.34	1.02	0.18	0.73	-0.54
0.94	1.63	1.07	1.32	0.41	0.95	0.73	0.67
0.94	1.63	1.07	0.34	1.02	0.95	0.73	0.67
-0.12	0.82	1.07	1.32	-1.99	0.95	0.73	0.67
0.94	1.63	1.07	1.32	-1.99	-1.35	-0.16	-0.42
-0.12	-1.64	0.15	0.34	0.41	0.18	-0.30	-0.54
0.94	1.63	1.07	0.34	-0.79	-1.35	-0.07	-2.96
-0.12	-0.82	-1.70	0.34	1.02	0.95	-0.30	0.67
0.94	-0.82	-0.78	-0.63	-1.39	-1.35	-0.30	0.67
0.94	1.63	0.15	1.32	1.02	0.95	0.73	0.67
0.94	1.63	-1.70	1.32	1.02	-1.35	0.73	0.67
0.94	1.63	1.07	1.32	1.02	-1.35	0.73	-2.96
-0.12	0.82	0.15	0.34	0.41	0.18	0.73	0.67
-0.02	-1.64	0.15	-1.60	-0.19	-2.12	-0.16	-0.34
-0.12	0.00	0.15	-0.63	-0.79	0.18	-0.30	-0.14
0.94	0.00	-2.62	0.34	1.02	0.95	-0.30	0.67
-0.12	-1.64	0.15	0.34	0.41	0.18	-0.30	-0.54
-0.12	-1.64	0.15	0.34	0.41	0.18	-0.30	-0.54
0.94	0.00	0.15	0.34	0.41	0.18	-0.30	0.67
0.94	0.82	0.15	-0.07	0.41	0.18	-0.30	0.67
-0.12	-2.46	1.07	0.34	1.02	0.95	0.73	0.67
0.94	-0.82	-1.70	0.34	-1.39	0.18	0.73	0.67

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
-0.12	-0.82	0.15	-0.63	-0.79	0.95	0.73	0.67
-0.12	0.00	1.07	1.32	0.41	-0.03	-2.36	0.67
-1.18	0.00	0.15	0.34	-1.39	-1.35	-0.30	-1.75
-0.12	0.00	0.15	0.34	0.41	-0.58	-1.33	0.67
-1.18	0.82	0.15	0.34	-0.79	-0.58	0.73	-1.75
0.94	-0.82	1.07	0.34	1.02	0.95	0.73	0.67
-0.12	1.63	1.07	-0.63	1.02	0.95	-0.30	0.67
-2.24	-0.82	0.15	0.34	-1.39	0.18	0.73	0.67
-0.12	-0.82	0.15	0.34	-0.79	-0.58	-0.30	-0.54
0.94	0.82	1.07	1.32	1.02	0.95	0.73	0.67
0.94	-0.82	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	-1.64	0.15	0.34	-1.99	-2.12	-0.07	-2.96
-0.12	-0.82	0.15	0.34	-0.79	-0.58	-0.30	-0.54
-0.12	-0.82	0.15	0.34	-0.79	-0.58	-0.30	-0.54
0.94	1.63	1.07	1.32	1.02	-1.35	0.73	-0.42
-0.12	-0.82	0.15	0.34	-0.79	-0.58	-0.30	-0.54
-2.24	-0.82	0.15	0.34	-1.39	0.18	0.73	0.67
0.94	-0.82	0.15	0.34	1.02	0.95	0.73	0.67
-0.12	-0.82	0.15	-1.60	1.02	0.18	0.73	-0.54
-2.24	-0.82	1.07	-0.63	0.41	-0.58	-0.30	-0.54
-0.12	-0.82	0.15	-0.63	0.41	0.18	-2.36	-0.54
0.94	-0.82	1.07	1.32	-0.79	0.18	-0.30	0.67
-0.12	-0.82	0.15	0.34	-0.79	-0.58	0.73	-0.54
0.94	1.63	0.15	1.32	-1.39	0.95	-2.36	0.67
-0.12	0.00	0.15	0.34	-1.99	0.95	0.73	-0.54
0.94	-0.82	0.15	-1.60	1.02	0.95	0.73	0.67
-0.12	-0.82	0.15	1.32	1.02	0.95	0.73	0.67
-1.18	0.00	-0.78	-0.63	-1.39	-2.12	-1.33	-1.75
-1.18	0.82	-0.78	-1.60	1.02	0.18	-0.30	-0.34
0.94	0.82	0.15	0.34	-0.79	-0.58	0.73	0.67
-0.12	-0.82	-1.70	-1.60	1.02	0.95	0.73	0.67
-0.12	0.82	-0.78	-0.63	1.02	0.95	0.73	-0.34
-0.12	-0.82	-1.70	-1.60	0.41	0.95	-0.30	0.67
-0.12	-0.82	-1.70	-1.60	1.02	0.95	0.73	0.67
-0.12	-0.82	-1.70	0.34	1.02	0.95	-0.30	0.67
-2.24	-0.82	-1.70	-1.60	-0.79	0.95	0.73	0.67
0.94	-0.82	-0.78	-1.60	1.02	0.95	0.73	0.67
-0.12	-0.82	-1.70	-1.60	1.02	0.95	0.73	-0.34
-1.18	0.00	0.15	0.34	1.02	0.95	0.73	0.67
-0.12	-0.82	-1.70	-1.60	1.02	0.95	-0.30	0.67
0.94	-0.82	1.07	1.32	1.02	0.95	0.73	-2.96
-0.12	-0.82	-1.70	-1.60	1.02	0.95	0.73	0.67
-1.18	-0.82	-1.70	-1.60	1.02	0.95	0.73	0.67
0.94	-0.82	-1.70	-0.63	1.02	0.95	0.73	-2.96
0.94	1.63	1.07	1.32	1.02	0.95	0.73	-0.34
-0.12	-0.82	-1.70	-1.60	0.41	0.95	0.73	0.67
-4.36	0.82	0.15	-0.63	-1.99	0.18	-2.36	-0.34

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
-2.24	1.63	1.07	1.32	-0.19	-0.58	-0.30	0.67
-2.24	-0.82	-0.78	-0.63	1.02	0.95	0.73	-0.54
0.94	0.82	1.07	1.32	-0.79	0.95	0.73	0.67
-0.12	-0.82	1.07	0.34	-1.39	-1.35	-0.30	-1.75
-0.12	-0.82	-0.78	-0.63	0.41	-1.35	0.73	0.67
0.94	0.00	1.07	1.32	1.02	0.95	0.73	0.67
-2.24	-0.04	-0.78	-0.63	0.41	-0.58	0.73	-0.14
0.94	0.82	1.07	1.32	1.02	0.95	0.73	-0.42
0.94	-1.64	-1.70	0.34	0.41	-0.58	-2.36	-1.75
0.94	-0.82	-0.78	0.34	1.02	0.95	0.73	0.67
0.94	-0.82	-0.78	1.32	1.02	0.95	0.73	0.67
-0.12	0.82	0.15	0.34	1.02	0.95	0.73	-0.54
-0.12	-0.82	-0.78	-1.60	0.41	0.95	-0.30	0.67
0.94	-0.82	0.15	1.32	0.41	0.18	0.73	0.67
-0.12	0.00	1.07	0.34	0.41	0.95	0.73	0.67
-1.18	-0.82	1.07	-1.60	-0.19	-0.58	-0.30	-0.14
-0.10	-2.46	-1.70	-0.07	-1.39	-2.88	0.73	-2.96
0.94	0.00	1.07	-0.63	-0.19	-2.12	0.73	0.67
-0.10	0.82	0.15	0.34	0.41	0.18	0.73	0.67
-0.12	-0.82	0.15	-0.63	1.02	0.95	0.73	0.67
-1.18	0.00	0.15	0.34	-0.79	-1.35	-2.36	-0.54
-0.12	-0.82	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	0.00	0.15	0.34	1.02	-1.35	-2.36	-0.54
-2.24	-0.82	-1.70	-1.60	-0.79	0.18	-1.33	-0.54
0.94	0.82	1.07	1.32	1.02	0.95	0.73	0.67
0.94	-0.82	-1.70	-1.60	-1.99	0.18	-1.33	-0.54
0.94	0.00	-0.78	-0.63	-1.39	0.18	0.73	0.67
-0.12	0.82	0.15	0.34	-0.19	-1.35	0.73	0.67
-0.12	0.00	0.15	0.34	-0.79	0.18	-0.30	0.67
-1.18	1.63	1.07	-2.58	-0.19	-0.58	-1.33	-1.75
-2.24	-1.64	-1.70	-1.60	-1.39	-1.35	-2.36	-1.75
-0.12	0.82	0.15	0.34	-1.99	0.18	0.73	-0.54
0.94	1.63	1.07	1.32	-0.79	0.95	-0.16	0.67
-0.12	0.82	0.15	0.34	-0.19	-1.35	-1.33	-0.54
-0.12	0.00	-0.78	-0.63	-0.79	-1.35	-0.30	0.67
0.94	-0.82	0.15	0.34	-0.79	0.95	0.73	0.67
-0.12	0.82	1.07	0.34	0.41	0.18	0.73	-0.54
-1.18	-0.04	1.07	-0.63	-2.60	-0.03	-0.16	-0.42
-0.12	-0.82	0.15	0.34	0.41	-0.58	0.73	0.67
-2.24	-0.82	-1.70	-1.60	1.02	-1.35	-2.36	-2.96
-1.18	0.82	0.15	-0.63	-0.19	-1.35	-0.30	-0.54
-1.18	0.00	-0.78	-0.63	-0.79	-0.58	0.73	-0.54
0.94	1.63	1.07	1.32	0.41	0.18	0.73	-0.54
-1.18	0.82	1.07	0.34	-1.99	-0.58	-1.33	0.67
0.94	1.63	1.07	1.32	1.02	0.95	0.73	0.67
0.94	0.82	1.07	0.34	-0.19	0.18	0.73	0.67
0.94	0.00	1.07	1.32	-0.79	0.18	0.73	0.67

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
-1.18	0.82	0.15	-0.63	1.02	0.95	-0.30	0.67
0.94	-0.82	1.07	0.34	-0.79	-2.12	-0.30	-0.54
0.94	1.63	1.07	0.34	1.02	0.95	-0.30	0.67
0.94	1.63	-1.70	-0.63	-2.60	0.18	0.73	0.67
-0.12	0.82	1.07	0.34	1.02	0.95	0.73	0.67
0.94	0.82	0.15	0.34	1.02	0.18	-1.33	0.67
-0.12	-0.82	1.07	1.32	0.41	0.95	0.73	0.67
0.94	0.82	1.07	-1.60	1.02	0.95	0.73	0.67
0.94	0.00	1.07	1.32	-1.39	-0.58	-0.07	-0.34
-0.12	0.00	0.15	0.34	0.41	0.95	0.73	0.67
0.94	0.00	1.07	1.32	-0.79	0.95	0.73	0.67
0.94	1.63	1.07	1.32	1.02	0.95	-0.30	0.67
-0.12	0.00	-1.70	-1.60	1.02	0.95	0.73	0.67
0.94	-0.82	0.15	-0.63	1.02	0.95	0.73	0.67
0.94	0.00	1.07	1.32	0.41	0.18	-0.16	0.67
-1.18	1.63	1.07	1.32	1.02	0.18	0.73	0.67
-0.12	0.82	0.15	1.32	1.02	0.18	-0.30	0.67
-0.12	0.82	0.15	0.34	-0.19	-1.35	-2.36	-2.96
-0.12	0.82	0.15	0.34	-0.19	-1.35	-2.36	-2.96
-2.24	-2.46	1.07	-0.10	-0.79	-2.88	-1.33	-0.14
0.94	1.63	1.07	-0.10	0.41	0.95	0.73	0.67
-0.12	1.63	0.15	-0.63	-1.39	-2.88	-0.07	-0.34
-0.12	1.63	0.15	0.34	-0.79	0.95	0.73	0.67
-0.12	0.82	0.15	-1.60	-2.60	-0.03	-0.07	-0.54
-1.18	-0.82	-0.78	-0.63	-0.79	-1.35	-1.33	-2.96
-2.24	-2.46	-0.78	-1.60	0.41	-1.35	-2.36	-0.54
-0.02	-0.82	0.15	0.34	-0.79	-2.12	-0.30	-0.54
0.94	-0.82	-0.78	0.34	-0.79	-1.35	0.73	-0.54
-2.24	-0.82	-1.70	-1.60	0.41	0.18	-0.30	-0.54
0.94	1.63	0.15	1.32	0.41	0.95	0.73	0.67
-0.12	0.00	0.15	0.34	1.02	0.95	-0.30	-0.34
-0.12	0.00	0.15	-0.63	-0.79	0.18	-0.30	0.67
-0.12	0.82	0.15	-0.63	-1.39	-0.58	-1.33	-0.14
-0.12	0.82	-0.78	-0.07	0.41	0.18	-0.30	0.67
0.94	-0.82	-1.70	-1.60	-0.19	-1.35	-0.30	0.67
0.94	1.63	0.15	0.34	0.41	0.18	-0.30	0.67
-1.18	0.00	0.15	-1.60	-0.79	0.18	-2.36	0.67
-0.12	-0.82	-0.78	-0.63	1.02	0.95	0.73	-0.14
0.94	-0.82	-0.78	-0.63	-2.60	-2.12	-0.30	-0.54
-0.12	-0.82	-0.78	-0.63	0.41	0.95	0.73	0.67
-0.12	0.00	1.07	1.32	1.02	0.95	0.73	0.67
-2.24	0.00	-0.78	-0.63	1.02	0.95	0.73	0.67
0.94	-0.04	1.07	1.32	1.02	0.95	0.73	0.67
-1.18	0.00	0.15	0.34	1.02	0.95	0.73	0.67
-2.24	0.00	-1.70	-0.63	1.02	0.95	0.73	0.67
0.94	0.82	1.07	0.34	1.02	0.18	-0.30	0.67
-0.12	0.00	1.07	0.34	1.02	0.95	0.73	0.67

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
-0.12	0.00	-1.70	0.34	-0.19	0.95	0.73	0.67
-0.12	0.00	-0.78	0.34	-0.19	0.95	0.73	0.67
0.94	1.63	1.07	-0.07	-0.79	-1.35	0.73	0.67
-1.18	0.82	-0.78	-0.63	0.41	-0.58	-0.30	0.67
0.94	-0.82	1.07	0.34	1.02	0.18	0.73	0.67
0.94	0.82	0.15	0.34	0.41	-0.58	0.73	-0.34
0.94	-0.82	1.07	0.34	-2.60	-0.58	0.73	-0.42
-0.12	0.82	1.07	-0.63	-1.39	-1.35	0.73	0.67
-0.12	-0.82	-0.78	1.32	-1.39	0.18	0.73	0.67
-0.12	-0.82	-1.70	-0.63	0.41	0.18	0.73	0.67
-0.12	0.00	0.15	-1.60	0.41	0.95	0.73	0.67
-0.12	0.00	0.15	-1.60	0.41	0.95	0.73	0.67
0.94	0.82	1.07	1.32	-0.79	-0.58	-1.33	-1.75
0.94	-0.82	-0.78	-0.63	-0.79	0.18	-0.30	-0.54
-0.12	0.00	0.15	-1.60	0.41	0.95	0.73	0.67
0.94	0.00	0.15	-0.63	1.02	0.95	0.73	0.67
-0.12	0.82	-2.62	-0.63	0.41	0.18	0.73	0.67
0.94	0.82	0.15	0.34	1.02	0.95	0.73	0.67
-0.12	-0.82	0.15	0.34	-1.39	-2.88	-0.30	-2.96
-0.10	0.82	0.15	-0.63	0.41	0.18	-2.36	-0.54
-0.12	0.00	-1.70	0.34	-1.99	-0.58	-0.30	-0.54
0.94	-0.82	0.15	0.34	1.02	0.18	-0.30	-0.54
-0.12	0.00	0.15	0.34	0.41	0.18	-0.30	-0.54
-2.24	-1.64	0.15	-1.60	-0.79	-0.58	-0.07	-2.96
-1.18	0.00	0.15	0.34	-0.19	0.18	-0.30	-0.54
-2.24	0.00	-0.78	-0.63	0.41	0.18	0.73	0.67
-0.12	0.00	0.15	-1.60	1.02	0.18	0.73	0.67
-0.12	1.63	1.07	1.32	-0.19	-1.35	0.73	0.67
0.94	1.63	1.07	0.34	-2.60	-0.58	-0.30	-0.54
0.94	0.82	0.15	-2.58	0.41	-1.35	-0.30	-0.54
-0.12	0.82	0.15	-1.60	0.41	-1.35	-0.30	-0.54
0.94	0.00	1.07	0.34	-0.79	0.18	0.73	0.67
0.94	1.63	1.07	1.32	1.02	0.95	0.73	0.67
-0.12	-0.82	-1.70	-0.63	-0.79	-0.58	-1.33	-0.54
-1.18	-0.82	-1.70	-0.63	-1.39	-1.35	-2.36	-2.96
0.94	0.82	0.15	0.34	0.41	0.95	0.73	0.67
0.94	1.63	1.07	1.32	1.02	0.95	0.73	-0.54
-0.12	0.00	-1.70	-1.60	-0.19	0.18	-1.33	-0.54
-0.12	-0.82	0.15	0.34	-0.19	-1.35	0.73	0.67
0.94	0.82	0.15	0.34	0.41	0.95	0.73	0.67
-0.12	0.82	0.15	0.34	1.02	0.95	0.73	0.67
0.94	0.82	1.07	0.34	1.02	0.95	0.73	0.67
-0.12	0.00	-0.78	0.34	1.02	0.95	-0.30	0.67
0.94	1.63	1.07	1.32	1.02	-1.35	0.73	0.67
0.94	-0.82	-1.70	-1.60	1.02	-1.35	0.73	0.67
-0.12	0.82	0.15	0.34	0.41	-2.88	0.73	0.67
0.94	1.63	1.07	0.34	1.02	0.95	0.73	0.67

ZP2.1	ZP2.2	ZP2.3	ZP2.4	ZP2.5	ZP2.6	ZP2.7	ZP2.8
-0.12	-2.46	-1.70	-0.07	0.41	0.18	-0.30	-2.96
-0.12	0.00	0.15	0.34	-0.79	-2.12	-2.36	-0.54
-0.12	-0.82	0.15	0.34	-1.99	0.95	0.73	0.67
0.94	-1.64	-1.70	0.34	1.02	0.95	0.73	0.67
-1.18	0.00	-0.78	0.34	0.41	0.95	0.73	0.67
0.94	-0.82	1.07	1.32	-0.19	0.95	0.73	-0.34
-0.12	0.82	-1.70	-0.63	-0.79	0.18	-1.33	-0.54
0.94	-0.82	0.15	0.34	1.02	0.95	0.73	0.67
0.94	1.63	1.07	1.32	-0.19	0.95	0.73	0.67
-0.12	0.00	1.07	-0.63	0.41	-0.58	-2.36	-0.54
-0.12	0.82	0.15	1.32	0.41	0.18	0.73	0.67
0.94	0.82	0.15	1.32	1.02	0.18	-0.30	0.67
-0.12	0.00	0.15	0.34	-0.79	0.95	0.73	0.67
-0.12	0.82	-0.78	-1.60	0.41	0.18	-0.30	0.67
0.94	-0.82	0.15	0.34	0.41	0.95	-1.33	0.67
0.94	-0.82	1.07	0.34	-0.79	0.95	0.73	0.67
0.94	0.00	0.15	0.34	0.41	0.18	0.73	0.67
-2.24	0.00	-1.70	-1.60	-0.19	-1.35	-0.30	-0.54
0.94	0.82	1.07	1.32	0.41	0.18	-0.30	0.67
-1.18	-0.82	-1.70	-0.63	-0.79	-1.35	-1.33	-0.54
-2.24	-0.82	-0.78	-0.63	0.41	-1.35	-1.33	-0.54
0.94	-0.82	0.15	-2.58	-0.79	-0.58	-1.33	-0.14
-2.24	-0.82	-1.70	-1.60	1.02	0.95	-0.07	-2.96
-2.24	0.82	0.15	-0.10	-0.79	-0.58	-2.36	0.67
-0.02	1.63	0.15	-0.07	-0.19	-0.58	-1.33	-0.14
-2.24	-0.82	-1.70	-1.60	-0.79	-1.35	-2.36	-2.96
-2.24	-0.82	-1.70	-0.63	-1.99	-1.35	-0.30	-0.54
-2.24	-0.82	-1.70	-1.60	-0.79	-1.35	-2.36	-2.96
0.94	0.00	0.15	0.34	-0.19	0.95	0.73	0.67
-0.10	-0.04	1.07	1.32	-2.60	0.95	0.73	-2.96
-0.12	-0.82	0.15	0.34	0.41	0.95	0.73	0.67
0.94	0.82	0.15	0.34	-1.99	0.18	0.73	0.67
0.94	-0.82	0.15	0.34	0.41	0.18	0.73	0.67
0.94	-0.82	1.07	1.32	-0.79	0.95	0.73	0.67
0.94	-0.82	0.15	1.32	1.02	0.95	0.73	0.67
0.94	1.63	1.07	0.34	0.41	0.95	0.73	0.67
-0.12	0.00	0.15	-0.63	0.41	0.18	0.73	-0.54
-2.24	-1.64	-0.78	1.32	-0.79	0.18	-2.36	-0.34
ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
-0.32	0.73	-0.27	-0.53	-0.56	-2.13	-2.79	0.73
1.43	0.73	1.39	0.46	-1.24	0.08	-0.08	-0.01
0.56	-0.10	0.56	0.46	0.79	0.08	-0.08	-0.01
-1.19	1.56	-1.09	-1.52	1.47	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	-0.56	-0.66	-0.08	-0.01
1.43	1.56	1.39	0.46	-1.24	0.08	-0.98	0.73
-0.32	-0.10	0.56	-0.53	0.79	0.08	-0.08	-0.75

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
0.56	0.73	0.56	0.46	0.79	0.82	0.82	-0.75
0.56	0.73	-0.27	1.44	-1.24	0.08	-0.08	0.73
1.43	-0.10	1.39	1.44	0.11	0.08	-0.08	-0.01
-0.32	-0.10	-0.27	-0.53	-0.56	-0.66	-0.98	1.47
-0.32	-0.10	-1.09	-1.52	-0.56	-2.13	-1.88	1.47
-0.32	-0.10	-0.27	0.46	-0.56	0.08	0.82	-0.75
1.43	1.56	-1.09	-1.52	-0.56	0.82	0.82	-0.75
-1.19	-0.92	-2.75	-0.53	-1.92	-2.13	-0.10	2.95
0.56	0.73	1.39	0.46	0.79	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	-0.56	0.82	0.82	-0.75
0.56	-0.92	1.39	1.44	-0.56	0.82	0.82	-0.75
-0.32	-1.75	-0.27	-0.53	-1.24	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	0.11	0.08	-0.08	-0.75
-2.07	-0.92	1.39	-1.52	-2.60	-1.39	0.82	2.95
0.56	-0.92	0.56	1.44	1.47	0.82	0.82	-0.75
0.56	-0.92	1.39	-1.52	-0.56	0.08	-0.08	-0.75
1.43	1.56	1.39	1.44	1.47	0.82	0.82	-0.75
0.56	1.56	0.56	-0.53	0.79	0.08	0.82	-0.01
-2.94	1.56	0.56	-0.53	0.79	0.82	0.82	-0.75
-0.32	-0.92	0.56	0.46	0.79	-1.39	0.82	-0.75
1.43	1.56	1.39	1.44	0.11	0.08	0.82	-0.01
0.56	0.73	1.39	0.46	-0.56	0.82	0.82	-0.75
1.43	-0.10	0.56	1.44	0.79	0.82	0.82	-0.75
1.43	-0.10	0.56	1.44	0.79	0.82	0.82	-0.75
0.56	0.73	-0.27	0.46	1.47	0.82	0.82	-0.75
-1.19	-1.75	-1.09	0.46	1.47	-0.66	0.82	-0.01
-1.19	-1.75	-1.09	0.46	1.47	-0.66	0.82	-0.01
0.56	0.73	0.56	0.46	1.47	0.82	-0.08	-0.75
-0.32	1.56	1.39	1.44	1.47	0.82	0.82	-0.75
-1.19	0.73	-1.09	0.46	0.11	0.82	0.82	-0.75
1.43	-0.10	0.56	0.46	0.11	0.82	0.82	-0.75
1.43	0.73	1.39	0.46	0.11	-2.13	-0.98	-0.01
0.56	0.73	-1.92	0.46	0.11	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	0.11	0.82	0.82	-0.75
-0.32	-0.92	0.56	0.46	-0.56	0.08	-0.08	-0.01
0.56	-0.92	-1.09	-0.53	-0.56	-0.66	-2.79	0.73
1.43	1.56	0.56	1.44	1.47	0.82	0.82	-0.75
0.56	0.73	-0.27	0.46	0.79	0.82	0.82	-0.75
1.43	1.56	1.39	1.44	0.11	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	-0.56	0.82	0.82	-0.75
0.56	1.56	1.39	0.46	0.79	0.82	0.82	-0.75
-1.19	1.56	-1.09	-1.52	-1.24	0.82	-0.08	-0.75
1.43	0.73	1.39	0.46	1.47	0.82	0.82	-0.75
0.56	-0.92	0.56	-1.52	-1.24	-1.39	-0.98	1.47
-1.19	1.56	-1.09	-1.52	-1.24	0.82	-0.08	-0.75
0.56	0.73	0.56	0.46	0.11	-0.66	-0.08	-0.01
1.43	0.73	-1.09	0.46	0.79	-1.39	-1.88	1.47

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
-0.32	-0.92	1.39	0.46	-1.24	-1.39	-0.08	-0.01
1.43	0.73	0.56	0.46	0.79	0.82	-0.08	-0.75
-1.19	-0.92	-2.75	-1.52	0.79	-0.66	-1.88	-0.75
0.56	-0.92	0.56	0.46	-0.56	-1.39	-1.88	2.95
-1.19	-0.92	0.56	-0.53	-0.56	0.08	0.82	-0.75
0.56	0.73	0.56	0.46	0.11	-0.66	-0.08	-0.01
1.43	0.73	0.56	0.46	-1.24	0.82	-0.08	-0.75
-0.32	-2.58	-0.27	-1.52	-1.24	0.82	-0.08	-0.75
-0.32	-0.92	-0.27	-0.53	-0.56	-1.39	-0.10	0.73
0.56	0.73	0.56	1.44	-0.56	0.82	0.82	1.47
-1.19	-1.75	-0.27	0.46	-0.56	-1.39	-2.79	1.47
0.56	-2.58	-1.09	-1.52	-0.56	-1.39	-1.88	2.21
-0.32	-0.92	-1.09	-0.53	0.79	0.82	0.82	-0.75
-1.19	-0.92	-1.09	-1.52	-0.56	0.08	0.82	-0.01
-0.32	-0.92	0.56	0.46	0.79	0.82	-2.79	-0.75
1.43	-0.10	1.39	1.44	0.11	0.82	0.82	-0.75
0.56	0.73	1.39	0.46	0.11	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	0.79	0.82	-0.08	-0.75
1.43	0.73	-0.27	-0.53	1.47	0.82	0.82	-0.75
1.43	-0.92	1.39	1.44	1.47	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	-0.56	0.82	-1.88	-0.01
0.56	0.73	0.56	1.44	0.79	0.82	0.82	2.95
-0.32	-0.10	0.56	0.46	0.11	0.08	-0.08	-0.01
0.56	0.73	0.56	0.46	0.79	0.08	-0.08	-0.01
0.56	-0.10	0.56	-0.53	0.11	0.08	-0.08	2.21
-0.32	0.73	-0.27	0.46	-1.24	0.82	0.82	-0.75
1.43	0.73	0.56	0.46	-1.24	-1.39	-0.08	1.47
-1.19	-0.10	1.39	0.46	-0.56	0.82	0.82	-0.75
-1.19	-0.10	-0.27	0.46	0.79	0.08	-0.08	-0.01
-0.32	0.73	0.56	0.46	-0.56	-2.13	-0.08	-0.01
0.56	0.73	-1.09	-1.52	0.79	0.08	-0.08	-0.01
-1.19	-0.10	1.39	0.46	-0.56	0.82	0.82	-0.75
0.56	-0.92	0.56	0.46	-0.56	-1.39	-0.08	-0.75
0.56	0.73	1.39	-0.53	-1.24	-0.66	-0.98	1.47
0.56	0.73	1.39	-0.53	-1.92	-0.66	-0.98	-0.75
0.56	-1.75	-0.27	-1.52	0.11	0.08	-0.08	0.05
1.43	-0.92	0.56	0.46	0.79	0.82	0.82	-0.75
0.56	0.73	1.39	0.46	0.79	0.08	-0.08	-0.01
-2.94	-0.92	-1.09	-1.52	1.47	0.82	0.82	-0.75
-0.32	-0.10	0.56	0.46	1.47	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	-1.24	0.08	0.82	2.95
1.43	1.56	-1.09	-0.06	1.47	0.82	0.82	2.95
-0.32	-0.92	0.56	0.46	-0.56	0.08	0.82	-0.01
1.43	-0.92	1.39	1.44	1.47	0.82	0.82	0.73
1.43	0.73	-0.27	-0.53	1.47	0.82	0.82	-0.01
0.56	-0.10	-1.09	-0.53	0.11	-2.13	-0.08	-0.75
-2.07	-1.75	-1.09	-0.53	-1.92	-1.39	-1.88	2.21

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
-1.19	-0.92	0.56	1.44	-1.24	-1.39	0.82	-0.75
0.56	1.56	0.56	-0.53	-1.24	0.08	-0.98	-0.75
-0.32	1.56	0.56	1.44	0.79	0.82	0.82	-0.75
0.56	-0.10	0.56	1.44	1.47	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	0.79	0.82	0.82	-0.75
-1.19	-0.92	-1.09	-1.52	-0.56	-1.39	-0.98	0.73
-0.32	-0.10	-1.09	-0.53	0.11	0.08	-0.08	0.73
0.56	0.73	-0.27	0.46	0.79	0.08	-0.08	-0.75
0.56	0.73	-0.27	0.46	0.11	0.82	-0.08	-0.75
-1.19	-0.10	-1.09	0.46	-0.56	-0.66	-0.98	0.73
-0.32	0.73	-1.09	-0.53	-0.56	-0.66	-0.98	-0.01
-0.32	0.73	0.56	-0.53	1.47	0.82	0.82	-0.75
-1.19	-0.92	0.56	1.44	1.47	0.82	0.82	-0.75
-0.32	-0.10	0.56	0.46	-1.24	-0.66	-0.08	-0.01
0.56	-0.92	-0.27	0.46	1.47	0.82	0.82	-0.01
-0.32	-0.10	-0.27	-0.53	-0.56	0.08	-0.08	-0.01
-0.32	0.73	-1.09	-0.53	-1.24	-2.13	0.82	1.47
0.56	1.56	1.39	0.46	0.79	0.08	-0.08	-0.01
-1.19	-0.10	0.56	-0.53	-0.56	-1.39	-1.88	1.47
-1.19	-0.92	-1.09	-1.52	-0.56	0.08	0.82	-0.75
-1.19	-0.10	-0.27	-1.52	-0.56	0.08	-1.88	1.47
-0.32	0.73	-0.27	-0.53	0.79	0.08	-0.08	-0.01
0.56	-0.92	-1.92	-1.52	0.79	0.82	-0.08	-0.01
0.56	-0.10	0.56	0.46	-0.56	-1.39	-0.08	-0.01
-0.32	-0.10	-0.27	-0.53	-0.56	0.08	-0.08	-0.01
-0.32	0.73	-0.27	-0.53	1.47	0.82	0.82	-0.75
-1.19	-0.92	-0.27	-1.52	0.11	0.08	-0.08	-0.01
0.56	0.73	1.39	1.44	0.79	0.82	0.82	-0.75
-1.19	0.73	0.56	0.46	-2.60	0.08	-0.08	-0.75
0.56	-0.10	-0.27	1.44	-0.56	-0.66	-0.98	-0.01
-0.32	-0.10	-0.27	-0.53	-1.24	0.08	-0.98	-0.75
-1.19	-1.75	-1.09	-1.52	0.79	0.82	0.82	-0.75
-1.19	-0.92	-1.09	-1.52	-1.24	-1.39	-0.98	0.73
-1.19	0.73	0.56	-1.52	-0.56	-1.39	-0.98	1.47
-1.19	-0.92	-1.09	-0.53	-1.24	0.82	0.82	-0.01
-0.32	0.73	-0.27	-0.53	1.47	0.82	0.82	-0.75
-0.32	0.73	-0.27	-0.53	0.79	0.82	0.82	-0.75
0.56	-0.10	-1.92	-0.06	0.79	0.08	-0.08	2.95
-1.19	-0.92	0.56	-1.52	0.79	0.82	0.82	-0.75
-0.32	-0.92	-0.27	0.46	-0.56	0.82	0.82	-0.01
-1.19	-0.92	-0.27	-1.52	1.47	0.82	0.82	-0.75
0.56	-0.10	0.56	-0.53	-0.56	-1.39	-0.98	-0.01
-0.32	-0.92	-0.27	0.46	-0.56	0.82	0.82	-0.01
-2.07	-0.92	1.39	1.44	-1.24	-1.39	0.82	0.73
1.43	0.73	-1.09	1.44	1.47	0.82	-0.98	-0.75
0.56	-0.10	-1.09	-0.53	0.11	0.08	-0.08	0.73
-0.32	-0.92	-1.09	-0.53	-0.56	-0.66	-0.08	-0.01

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
0.56	0.73	-0.27	0.46	0.11	0.82	-0.08	-0.75
-0.32	-0.10	-1.09	-0.53	-0.56	-0.66	-0.98	2.21
0.56	0.73	0.56	0.46	0.11	0.82	0.82	-0.01
0.56	1.56	-1.09	-0.53	0.79	0.08	0.82	-0.01
1.43	1.56	1.39	0.46	0.79	0.82	0.82	-0.75
-0.05	-0.10	-0.27	-0.53	-1.24	0.82	0.82	-0.75
1.43	1.56	0.56	0.46	1.47	0.82	0.82	-0.01
1.43	1.56	1.39	1.44	0.11	0.82	0.82	-0.75
1.43	0.73	0.56	1.44	1.47	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	-0.56	0.82	0.82	-0.75
1.43	1.56	1.39	1.44	-1.24	-2.87	-0.08	-0.75
0.56	-0.10	-0.27	-0.53	-0.56	0.08	-0.08	-0.01
1.43	0.73	-1.09	1.44	-1.24	-3.61	-0.98	2.21
1.43	0.73	-0.27	0.46	1.47	0.08	0.82	-0.75
0.56	-0.10	0.56	0.46	0.11	-1.39	-0.08	-0.75
1.43	1.56	1.39	1.44	-0.56	0.82	0.82	-0.75
1.43	-0.92	1.39	1.44	-1.24	0.82	0.82	-0.75
1.43	1.56	1.39	1.44	-0.56	-1.39	-0.98	-0.01
0.56	0.73	0.56	0.46	0.79	0.82	-0.08	-0.75
-1.19	-0.10	1.39	-2.51	-0.56	-2.13	-0.10	2.21
-1.19	-1.75	-0.27	-1.52	-1.92	-2.87	-0.08	0.73
-2.07	-1.75	-1.92	-2.51	-1.92	-1.39	-0.08	0.73
0.56	-0.10	-0.27	-0.53	-0.56	0.08	-0.08	-0.01
0.56	-0.10	-0.27	-0.53	-0.56	0.08	-0.08	-0.01
0.56	1.56	0.56	-0.53	0.79	0.82	-0.98	-0.75
0.56	0.73	0.56	0.46	0.79	0.82	-0.08	-0.75
-2.94	-0.92	-0.27	-1.52	0.79	-1.39	0.82	-0.75
0.56	-0.10	0.56	0.46	0.79	0.82	0.82	-0.75
0.56	-0.92	1.39	-0.53	0.11	0.82	0.82	-0.75
1.43	1.56	-2.75	0.46	-0.56	0.08	-0.10	0.01
-0.32	0.73	-0.27	-1.52	-1.92	-0.66	-0.98	-0.01
-1.19	-0.92	-1.09	-0.53	-0.56	-0.66	-0.98	-0.01
-0.32	-0.92	-0.27	-0.53	-0.56	-1.39	-0.98	-0.75
0.56	0.73	0.56	-0.53	0.79	0.82	0.82	-0.75
0.56	0.73	0.56	1.44	0.11	0.08	0.82	-0.01
-1.19	-1.75	-1.09	-1.52	-0.56	-1.39	-0.98	0.73
-0.32	-0.10	-1.09	-0.53	-0.56	0.08	-1.88	-0.01
1.43	1.56	1.39	1.44	1.47	0.82	0.82	-0.75
-1.19	-0.10	-0.27	-1.52	-2.60	-1.39	-1.88	-0.01
1.43	-2.58	1.39	1.44	1.47	-2.87	-1.88	-0.75
-0.32	-0.10	-1.09	-0.53	-0.56	0.08	-1.88	-0.01
-0.32	-0.10	-1.09	-0.53	-0.56	0.08	-1.88	-0.01
1.43	-0.92	1.39	1.44	1.47	0.82	0.82	-0.75
-0.32	-0.10	-1.09	-0.53	-0.56	0.08	-1.88	-0.01
-1.19	-1.75	-1.09	-1.52	-0.56	-1.39	-0.98	0.73
-0.32	0.73	-1.09	-0.53	0.11	0.08	-0.08	-0.01
-0.32	-0.10	0.56	-1.52	-0.56	-0.66	-0.08	0.73

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
-1.19	-1.75	0.56	0.46	0.79	-0.66	0.82	-0.75
-1.19	-0.92	-1.09	-0.53	-0.56	0.08	-0.08	-0.01
0.56	0.73	-1.09	1.44	0.79	0.08	-0.08	-0.75
-1.19	0.73	0.56	0.46	-0.56	0.08	-0.08	-0.01
-1.19	-0.02	1.39	0.46	-2.60	-2.87	-0.10	0.73
-0.32	-0.92	0.56	0.46	0.11	-0.66	-0.08	-0.01
-1.19	0.73	-1.09	-1.52	-0.56	-1.39	0.82	-0.01
1.43	1.56	0.56	0.46	0.79	0.82	0.82	-0.75
-0.32	0.73	-0.27	-0.53	-1.24	-0.66	-1.88	1.47
-2.07	0.73	-1.09	0.46	-0.56	-0.66	0.82	2.21
0.56	1.56	0.56	0.46	-1.24	0.08	-0.98	-0.01
-0.05	-0.92	-1.09	-1.52	1.47	0.82	0.82	-0.75
-1.19	-0.10	-1.09	-0.53	1.47	0.82	0.82	1.47
-1.19	-0.92	-1.09	-0.53	0.79	-1.39	-1.88	-0.01
0.56	-0.92	0.56	0.46	-1.24	0.82	0.82	-0.75
-0.32	-2.58	0.56	0.46	0.79	0.82	-1.88	-0.01
-0.32	0.73	0.56	-1.52	0.11	0.82	0.82	-0.01
-0.32	-0.92	-1.09	-1.52	0.79	0.82	0.82	2.21
-1.19	-0.92	-1.09	0.46	0.79	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	0.79	0.82	0.82	-0.75
-0.32	0.73	-1.09	-1.52	1.47	0.82	0.82	-0.01
1.43	1.56	1.39	-1.52	1.47	0.82	0.82	-0.75
-0.32	-0.92	-0.27	-1.52	-0.56	0.82	0.82	-0.01
-1.19	-0.92	-1.09	-1.52	0.79	0.82	0.82	-0.01
-0.32	-0.92	-1.09	0.46	0.11	0.82	0.82	2.21
-2.07	1.56	-1.09	1.44	1.47	0.82	0.82	-0.75
-1.19	-0.92	-1.09	-1.52	0.79	0.82	0.82	-0.01
-1.19	-0.10	0.56	-0.53	-0.56	-2.87	-0.08	2.21
-0.32	0.73	0.56	-0.53	-0.56	0.82	0.82	-0.01
-1.19	-0.92	-1.09	-1.52	0.11	-1.39	-0.08	-0.01
-0.32	-0.92	-0.27	0.46	-0.56	0.82	0.82	0.73
0.56	-0.10	-0.27	-0.53	-0.56	-1.39	-0.98	-0.01
0.56	0.73	0.56	-0.53	-0.56	-2.13	0.82	-0.75
1.43	0.73	1.39	1.44	0.79	0.82	0.82	-0.75
-2.07	1.56	-2.75	0.46	0.79	0.82	-1.88	-0.75
-1.19	-0.92	0.56	-0.53	1.47	0.82	0.82	-0.75
0.56	-0.10	-0.27	-0.06	-0.56	-0.66	-2.79	2.95
0.56	0.73	0.56	-1.52	0.79	0.82	0.82	-0.75
-1.19	-0.92	-1.09	-0.53	1.47	0.82	0.82	-0.75
1.43	0.73	-1.09	0.46	1.47	0.82	0.82	-0.75
0.56	-0.10	-0.27	-0.53	0.11	0.82	0.82	-0.01
0.56	-0.10	-1.09	-1.52	-0.56	0.82	0.82	-0.75
-0.32	0.73	-0.27	0.46	-0.56	0.82	0.82	-0.75
-0.32	-0.10	-0.27	-1.52	0.11	-1.39	-0.08	-0.01
-1.19	-0.10	0.56	-0.53	-2.60	0.08	-0.08	1.47
-1.19	-0.92	-1.09	-1.52	-0.56	-0.66	-0.98	0.73
-1.19	-0.92	-1.09	0.46	0.79	0.08	-0.08	-0.01

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
0.56	1.56	-0.27	-0.53	0.11	0.82	-0.08	-0.75
-1.19	-0.92	-0.27	-0.53	-0.56	-1.39	-1.88	1.47
-1.19	-0.92	0.56	-0.53	0.11	0.82	0.82	-0.75
0.56	-0.92	0.56	-0.53	-0.56	-1.39	-1.88	1.47
-1.19	-0.92	-0.27	-0.53	-0.56	0.08	-0.98	-0.01
0.56	0.73	0.56	1.44	1.47	0.82	0.82	-0.75
-0.05	0.73	0.56	-0.53	-0.56	0.08	-0.98	-0.01
0.56	1.56	0.56	0.46	1.47	0.82	0.82	-0.75
-0.32	-0.10	0.56	0.46	0.79	-1.39	-1.88	-0.01
0.56	0.73	0.56	-1.52	-1.92	0.82	-1.88	1.47
0.56	-0.10	-0.27	1.44	-0.56	-0.66	-0.98	0.73
-0.32	-2.58	-1.09	-1.52	0.11	-0.66	-1.88	0.73
0.56	0.73	0.56	-0.53	-1.24	0.08	0.82	-0.01
0.56	1.56	0.56	0.46	-0.56	0.82	-0.08	-0.75
0.56	-1.75	0.56	0.46	-0.56	-1.39	-1.88	1.47
0.56	0.73	-0.27	0.46	0.79	0.82	0.82	-0.75
-0.32	0.73	-1.09	0.46	0.79	0.82	0.82	-0.75
-0.32	-0.10	0.56	-0.53	-0.56	-0.66	-1.88	-0.01
-0.05	-0.02	1.39	1.44	-0.56	-0.01	-2.79	-0.75
-0.32	-2.58	0.56	-1.52	-0.56	0.08	-0.98	-0.01
-1.19	-0.10	-0.27	-1.52	-2.60	-1.39	-1.88	1.47
-2.07	-0.92	-1.92	-0.06	-1.24	0.08	-0.98	-0.01
-0.32	-0.10	0.56	-0.53	-0.56	0.08	-0.08	-0.01
0.56	0.73	0.56	1.44	0.79	0.08	0.82	-0.75
-1.19	-0.92	-0.27	1.44	0.11	-0.66	-0.98	-0.01
1.43	1.56	1.39	1.44	1.47	0.82	0.82	-0.75
0.56	0.73	1.39	0.46	0.79	0.82	-0.10	-0.75
-1.19	0.73	-0.27	0.46	-1.24	0.82	-0.08	-0.01
-0.32	-0.92	0.56	1.44	0.79	0.08	0.82	-0.75
-1.19	-2.58	0.56	0.46	-1.92	-1.39	-0.08	-0.01
0.56	-0.10	-0.27	1.44	0.11	0.82	0.82	-0.01
-0.32	-0.10	-2.75	1.44	-1.92	0.82	0.82	0.73
0.56	0.73	0.56	1.44	1.47	0.82	0.82	-0.75
0.56	-0.10	0.56	0.46	0.11	0.82	0.82	-0.75
1.43	1.56	1.39	1.44	0.79	0.82	0.82	-0.75
1.43	0.73	1.39	1.44	0.11	0.82	0.82	-0.75
-0.32	-0.10	-1.09	-0.53	-0.56	-0.66	-0.08	1.47
-0.32	-0.10	-1.09	0.46	0.11	0.82	0.82	-0.75
1.43	-0.10	0.56	1.44	-0.56	0.82	0.82	-0.75
1.43	0.73	0.56	0.46	0.11	0.08	0.82	-0.75
-1.19	-0.92	-1.09	-0.53	0.79	0.82	0.82	-0.75
1.43	1.56	-2.75	1.44	1.47	0.82	0.82	-0.75
1.43	1.56	1.39	0.46	0.79	-2.13	-0.10	2.21
-0.32	-0.10	-0.27	1.44	1.47	0.82	-2.79	-0.75
0.56	0.73	-1.09	0.46	-0.56	0.08	0.82	-0.01
-1.19	-0.92	-1.09	0.46	-1.24	-2.87	-1.88	2.21
-1.19	-0.92	-1.09	0.46	-1.24	-2.87	-1.88	2.21

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
-1.19	-0.92	-1.09	1.44	-1.24	0.08	-0.98	2.95
-1.19	-2.58	-1.92	1.44	-0.56	-2.13	0.82	-0.75
-0.32	0.73	1.39	-0.53	-1.92	-1.39	-0.10	2.21
-1.19	1.56	0.56	-0.53	0.79	0.82	0.82	-0.75
-1.19	-0.10	0.56	1.44	-1.92	-1.39	-1.88	3.69
-1.19	-0.92	-1.09	-2.51	-0.56	-1.39	-0.98	0.73
-1.19	-1.75	-1.09	-1.52	0.79	-0.66	-2.79	0.73
-1.19	-0.92	-0.27	-0.06	-1.92	-1.39	-0.10	-0.01
1.43	1.56	1.39	1.44	0.11	0.08	0.82	-0.75
-1.19	-0.92	-1.09	-1.52	-0.56	0.08	-0.08	-0.01
0.56	0.73	0.56	0.46	0.79	0.82	0.82	-0.01
-1.19	-0.92	1.39	1.44	0.11	-0.01	0.82	-0.75
-1.19	-0.10	-1.09	-0.53	-1.24	-1.39	-0.08	-0.01
-1.19	-0.10	0.56	0.46	-1.24	-0.66	-0.08	-0.01
0.56	0.73	0.56	0.46	0.79	0.82	-0.08	-0.01
1.43	1.56	-1.09	1.44	-0.56	-1.39	0.82	-0.75
0.56	-0.92	0.56	0.46	-0.56	-0.66	0.82	-0.75
-1.19	-0.92	-1.09	-1.52	-0.56	0.08	0.82	0.73
-1.19	-0.10	-0.27	-0.53	0.79	0.08	0.82	-0.75
0.56	-0.92	1.39	-0.53	-2.60	0.82	0.82	-0.75
0.56	-0.10	-0.27	1.44	0.79	0.82	0.82	-0.01
0.56	0.73	-0.27	1.44	1.47	0.82	0.82	-0.75
-0.05	-2.58	-1.92	-0.53	0.11	0.82	-0.08	-0.75
0.56	1.56	1.39	1.44	1.47	0.82	0.82	-0.75
0.56	-0.92	-1.09	-0.53	1.47	0.82	0.82	-0.75
-1.19	-0.02	-1.92	-0.53	1.47	0.82	0.82	-0.75
1.43	1.56	1.39	1.44	0.11	0.08	0.82	-0.75
0.56	-0.10	-1.09	0.46	1.47	0.82	0.82	-0.75
-0.32	0.73	-0.27	-0.53	-0.56	0.82	0.82	-0.75
0.56	0.73	0.56	-0.53	-0.56	0.82	0.82	-0.75
-1.19	-0.10	-1.92	0.46	-0.56	0.82	-0.98	-0.01
0.56	0.73	0.56	-0.53	-0.56	0.82	0.82	-0.75
0.56	0.73	-0.27	-0.53	1.47	0.82	-0.08	-0.75
0.56	0.73	1.39	0.46	0.79	0.08	-0.08	-0.75
0.56	0.73	1.39	1.44	-1.92	0.82	-0.98	2.95
1.43	-0.10	1.39	1.44	-1.24	0.08	0.82	-0.75
-0.32	-0.92	1.39	-1.52	1.47	-1.39	0.82	-0.75
0.56	-0.10	-0.27	-2.51	0.79	0.82	0.82	-0.75
0.56	-0.10	0.56	0.46	0.79	0.82	0.82	-0.75
0.56	0.73	0.56	0.46	0.79	0.82	0.82	-0.75
1.43	-0.10	1.39	-0.53	-0.56	-2.87	-1.88	0.73
-0.32	0.73	-1.09	1.44	-0.56	0.08	-0.08	-0.01
0.56	0.73	0.56	0.46	0.79	0.82	0.82	-0.75
1.43	-0.10	0.56	1.44	1.47	0.82	0.82	-0.75
-0.32	0.73	-1.09	0.46	0.79	0.82	0.82	-0.75
1.43	0.73	0.56	1.44	-0.56	0.82	0.82	-0.01
-0.32	-0.10	-0.27	-0.53	-1.24	-1.39	-0.10	2.21

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
0.56	-0.92	0.56	-0.53	0.79	0.08	-0.08	1.47
0.56	-0.10	-0.27	-0.53	-0.56	0.08	-0.98	2.95
-2.07	-0.10	-0.27	-0.53	0.79	0.08	-0.08	1.47
-0.32	-0.10	-0.27	-0.53	0.79	0.08	-0.08	0.73
-1.19	-3.41	-1.92	-2.51	0.79	-1.39	-0.98	2.21
0.56	-0.10	-0.27	0.46	0.11	0.08	-0.08	-0.01
0.56	-0.10	-1.09	0.46	0.79	0.08	-0.08	-0.01
-0.32	-0.10	-0.27	-0.53	0.79	0.82	-0.08	-0.01
0.56	-0.10	0.56	0.46	-0.56	0.82	-0.98	-0.75
1.43	0.73	1.39	1.44	0.11	0.82	-0.08	-0.75
1.43	1.56	-1.92	0.46	0.79	0.82	-0.98	-0.75
1.43	0.73	-1.92	-0.53	0.11	0.82	-1.88	-0.75
-1.19	-1.75	0.56	-0.53	-0.56	0.08	0.82	-0.75
1.43	-0.92	0.56	0.46	1.47	0.82	0.82	-0.75
0.56	-0.92	1.39	-0.53	-1.24	-1.39	-0.98	0.73
-1.19	-0.10	-1.09	-1.52	-1.24	-2.13	-1.88	1.47
-1.19	0.73	0.56	0.46	1.47	-1.39	0.82	-0.75
0.56	0.73	-0.27	1.44	0.79	0.82	-0.10	-0.75
-1.19	-1.75	-0.27	-0.53	-0.56	0.08	-0.98	-0.01
0.56	-0.92	-1.09	0.46	0.79	0.08	0.82	-0.75
-1.19	0.73	0.56	0.46	1.47	-1.39	0.82	-0.75
0.56	-0.10	0.56	0.46	-0.56	-0.66	0.82	0.73
1.43	0.73	-0.27	1.44	1.47	0.82	0.82	-0.75
-0.32	-0.10	0.56	-0.53	0.79	0.08	0.82	1.47
-0.32	1.56	1.39	1.44	-0.56	0.82	0.82	-0.75
0.56	0.73	1.39	-1.52	1.47	0.82	0.82	-0.75
-0.32	-0.92	0.56	-0.53	-1.24	-0.66	-0.98	-0.75
0.56	0.73	0.56	0.46	1.47	0.82	0.82	-0.75
-1.19	0.73	-1.09	-1.52	0.79	0.08	-0.08	1.47
-0.32	-1.75	0.56	-0.53	-1.24	-2.13	-2.79	2.21
0.56	-0.92	-0.27	-1.52	-0.56	0.82	0.82	-0.75
-1.19	1.56	1.39	1.44	0.11	0.82	0.82	-0.75
1.43	-0.10	0.56	-0.53	0.79	0.82	0.82	-0.75
1.43	0.73	0.56	0.46	0.11	0.82	0.82	-0.75
-0.32	-0.92	-0.27	-1.52	-0.56	-0.66	0.82	-0.01
0.56	0.73	1.39	0.46	0.79	0.82	0.82	-0.75
1.43	1.56	1.39	1.44	0.79	0.82	0.82	-0.75
-0.32	-0.92	0.56	0.46	0.79	-0.66	-0.08	-0.01
-0.32	-0.92	-1.09	-1.52	-0.56	-2.13	-0.98	2.21
-1.19	-0.10	0.56	-0.53	-1.92	0.08	-0.08	-0.75
0.56	0.73	1.39	0.46	0.11	0.82	0.82	-0.75
-0.32	-0.10	-1.92	0.46	0.11	0.82	-0.08	-0.01
-0.32	-0.10	-1.09	0.46	-0.56	0.82	0.82	-0.75
-2.07	-0.92	-1.09	0.46	-0.56	0.82	-0.08	-0.75
0.56	0.73	-0.27	-0.53	-0.56	0.08	-0.08	-0.75
-1.19	-0.92	-0.27	-0.53	-0.56	0.08	-0.98	-0.01
1.43	0.73	-0.27	0.46	-1.24	0.08	-0.08	-0.75

ZP3.1	ZP3.2	ZP3.3	ZP3.4	ZP3.5	ZP3.6	ZP3.7	ZP3.8
-1.19	-0.92	-0.27	-0.53	0.11	-0.66	-0.98	0.73
-1.19	-0.92	-2.75	-0.53	-0.56	-0.66	-0.98	0.73
-0.32	-0.92	-1.09	-0.53	0.11	0.08	-1.88	-0.01
-1.19	-0.92	-0.27	-1.52	1.47	0.82	-2.79	1.47
-2.07	-0.92	-1.09	-0.53	-0.56	0.82	-1.88	-0.01
-2.07	-1.75	-1.92	-0.53	1.47	-0.66	-1.88	-0.75
-1.19	-0.92	-1.09	-1.52	-0.56	-1.39	-1.88	1.47
0.56	-0.92	0.56	-1.52	-0.56	-1.39	-1.88	1.47
-1.19	-0.92	-1.09	-1.52	-0.56	-1.39	-1.88	1.47
0.56	0.73	0.56	0.46	-0.56	0.82	0.82	-0.75
1.43	-0.92	1.39	-0.06	-0.56	0.82	0.82	1.47
0.56	-0.92	-0.27	0.46	-0.56	0.08	0.82	-0.75
0.56	-0.92	1.39	0.46	0.79	-2.87	0.82	-0.01
1.43	0.73	0.56	0.46	0.79	0.82	0.82	-0.75
-1.19	-0.92	-1.92	-1.52	-0.56	0.82	-1.88	-0.75
-1.19	-0.92	-1.09	0.46	-1.24	0.82	0.82	-0.75
0.56	0.73	0.56	1.44	0.79	0.82	0.82	-0.75
0.56	-0.10	0.56	-0.53	-0.56	-0.66	-0.08	-0.01
0.56	-0.92	-0.27	-1.52	-1.24	-0.66	-0.98	2.95

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
-0.78	0.84	0.29	-2.32	0.12	-0.72	-0.95	-1.76
0.70	0.29	-0.89	-1.30	-0.46	-1.30	-0.32	-0.59
-0.04	0.29	-0.89	-1.30	0.12	-0.72	-0.32	-0.59
-0.04	-0.27	1.47	0.73	1.29	1.02	0.96	0.58
-0.04	0.84	-0.30	-0.29	-0.46	-0.72	-0.32	-0.59
-0.78	0.29	-0.30	-1.30	-0.46	-0.14	-0.95	-1.76
-0.04	0.29	-0.89	-0.29	0.71	-0.72	0.32	-0.59
0.70	0.29	0.88	-0.29	0.71	1.02	0.96	-0.59
-0.78	0.84	0.29	-1.30	-0.46	0.44	-0.95	-2.94
-0.78	0.84	0.29	-1.30	-0.46	0.44	-0.95	-1.76
0.70	-1.38	-0.30	-1.30	-0.46	0.44	-0.32	-1.76
-2.99	-2.48	-0.30	-2.32	-0.46	-0.14	-1.59	0.58
-0.04	0.84	0.88	-0.17	0.71	-0.72	0.96	0.58
-0.78	0.84	-0.30	0.73	-0.46	-0.14	0.96	0.58
1.43	0.84	-1.49	0.73	1.29	-1.89	0.96	0.58
-0.04	0.29	-0.30	-0.29	0.71	-1.30	0.32	0.58
-0.04	0.84	1.47	0.73	1.29	0.44	0.96	0.58
0.70	0.29	1.47	0.73	1.29	1.61	0.96	0.58
-0.04	-0.27	1.47	0.73	1.29	-0.14	0.96	0.58
0.70	0.29	1.47	0.73	1.29	0.44	0.96	0.58
-0.78	0.84	0.29	0.73	0.12	-1.89	-0.95	0.58
-2.25	0.84	1.47	0.73	0.12	-0.14	0.96	0.58
-0.78	0.84	1.47	0.73	0.12	-0.14	0.96	0.58
0.70	0.29	0.88	0.73	0.71	1.02	0.96	0.58
-0.04	0.29	0.29	-0.29	0.71	1.61	0.96	0.58
1.43	0.84	-0.30	0.73	0.12	0.44	0.96	0.58

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
-0.78	0.84	0.88	0.73	0.71	1.02	0.32	0.58
-0.78	-0.27	0.88	0.73	1.29	1.61	0.32	0.58
1.43	0.84	-0.30	0.73	-1.63	-1.89	-0.95	0.58
-0.78	0.84	-0.30	0.73	0.71	0.44	0.32	0.58
-0.78	0.84	-0.30	0.73	0.71	0.44	0.32	0.58
-0.78	0.84	-0.89	0.73	1.29	0.44	0.96	0.58
-0.04	0.84	0.29	0.73	-0.46	-0.14	0.96	0.58
-0.04	0.84	0.29	0.73	-0.46	-0.14	0.32	0.58
-0.04	0.84	-0.89	0.73	-0.46	-0.14	0.32	0.58
1.43	-2.48	1.47	0.73	1.29	1.61	0.96	0.58
-0.04	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
1.43	0.29	-0.30	0.73	-0.46	-0.14	0.32	0.58
1.43	-1.38	0.29	-0.29	0.71	-0.14	-2.23	0.58
1.43	0.84	1.47	0.73	0.12	1.02	0.96	0.58
-2.99	-2.48	0.29	0.73	0.71	1.02	0.96	0.58
1.43	0.29	-0.89	-0.29	-1.63	-1.30	-0.95	-1.76
1.43	0.84	-0.30	0.73	-1.05	0.44	-2.23	0.58
0.70	0.29	-0.30	0.73	0.71	-0.14	0.96	0.58
0.70	0.29	-1.49	0.73	1.29	-0.14	-0.95	0.58
1.43	0.84	1.47	0.73	0.71	-1.30	0.96	0.58
-0.04	-0.27	-0.89	-2.32	-1.05	-0.72	-0.95	0.58
1.43	0.29	-0.30	-1.30	1.29	-0.72	0.96	0.58
-0.78	0.84	-0.89	-0.29	-1.05	-0.72	-0.95	0.58
0.70	0.84	1.47	0.73	1.29	-1.30	0.96	0.58
-0.78	-0.82	-0.89	-2.32	-0.46	-1.30	-1.59	-2.94
-0.78	0.84	-0.89	-0.29	-1.05	-0.72	-0.95	0.58
-0.04	0.29	-0.89	0.73	-0.46	-1.30	-0.95	-0.59
-0.78	-0.82	-0.30	0.73	-0.46	-0.14	-0.95	-2.94
-0.04	0.84	-1.49	-0.29	-1.05	0.44	-1.59	0.58
-0.04	0.29	0.88	-0.29	0.71	-0.14	0.96	-0.59
-0.78	-0.82	-0.30	0.73	0.71	-0.14	0.32	0.58
0.70	0.29	-0.89	0.73	-0.46	-0.14	-0.95	0.58
0.70	-0.27	-0.89	0.73	-0.46	-0.14	0.32	-0.59
-0.04	0.29	-0.30	-0.29	-1.05	0.44	-0.32	-0.59
1.43	-0.82	-0.30	-1.30	-0.46	1.02	0.32	0.58
-0.78	0.29	-1.49	-1.30	-1.63	-1.30	-1.59	0.58
0.70	0.29	-1.49	-1.30	-1.63	1.02	0.32	-0.59
-0.78	0.29	0.29	0.73	-0.46	-0.72	0.96	-0.18
0.70	0.84	-0.89	0.73	-1.05	-1.30	-1.59	0.58
0.70	-0.82	-1.49	-2.32	-1.63	-1.30	0.32	-2.94
-0.78	0.29	-0.89	0.73	-0.46	-0.14	0.32	0.58
-0.04	0.29	0.88	0.73	0.71	-0.14	0.96	0.58
0.70	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
1.43	-0.82	1.47	0.73	0.71	1.61	0.96	0.58
1.43	0.84	-0.30	-0.29	1.29	-0.72	0.96	0.58
-0.04	-2.48	-0.89	0.73	-1.05	-0.72	-0.32	0.58
-0.04	0.84	-0.30	0.73	0.71	1.61	-0.95	0.58

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
1.43	-0.82	1.47	0.73	1.29	1.61	0.96	0.58
0.70	0.29	-0.89	-0.29	-1.05	-0.14	-2.23	-0.59
0.70	-2.48	-0.30	-1.30	0.12	1.61	0.96	-0.59
-0.04	-0.27	-0.89	0.73	0.12	0.44	0.32	0.58
-2.25	0.29	0.88	0.73	0.71	0.44	0.96	-0.59
0.70	0.29	0.88	0.73	1.29	0.44	0.96	0.58
-0.04	0.29	0.88	-0.29	0.71	-0.72	0.96	0.58
0.70	0.29	1.47	0.73	1.29	1.02	-0.32	0.58
-0.04	0.84	0.29	0.73	0.71	1.61	0.96	0.58
0.70	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
-0.78	-0.82	-1.49	-2.32	-1.05	-0.72	-2.23	-2.94
-0.78	0.29	0.88	0.73	0.12	0.44	-0.32	-0.59
-0.04	0.84	0.29	0.73	0.71	1.61	0.96	0.58
1.43	0.84	-0.30	0.73	-0.46	-1.89	-0.95	0.58
0.70	0.84	0.29	0.73	0.12	-1.30	-0.32	0.58
0.70	0.84	0.29	0.73	0.12	-0.14	-0.32	0.58
-0.78	-0.82	-0.89	-1.30	-0.46	0.44	0.32	-0.59
0.70	-0.82	1.47	0.73	1.29	1.61	0.96	0.58
0.70	0.84	-0.89	0.73	-1.05	-0.14	-0.95	0.58
-0.78	0.29	1.47	0.73	-0.46	1.61	0.96	0.58
-0.04	0.29	-0.30	0.73	-0.46	-0.14	-0.32	0.58
0.70	0.84	0.88	-0.29	0.71	-1.30	0.96	-0.18
-2.99	-2.48	0.88	0.73	0.12	-0.14	0.96	-0.18
-0.04	0.29	0.29	0.73	-0.46	-0.14	-0.32	-0.59
-0.78	-0.27	1.47	0.73	1.29	0.44	0.32	0.58
-0.04	-0.27	-0.30	0.73	1.29	-0.14	0.32	0.58
-0.78	-2.48	-0.30	0.73	-0.46	-0.14	-0.32	0.58
-0.04	-0.27	-2.08	-2.32	-2.22	-1.89	-2.86	-1.76
1.43	0.84	-0.89	0.73	-1.05	0.44	-0.95	0.58
0.70	0.29	-1.49	-0.29	-0.46	-1.30	0.32	-0.59
-0.78	0.84	1.47	0.73	1.29	1.61	0.96	0.58
1.43	0.29	0.88	0.73	1.29	-0.72	0.96	0.58
-0.78	0.29	1.47	0.73	1.29	-1.30	0.96	0.58
-0.78	-0.27	0.29	-1.30	0.12	-0.14	0.32	-0.59
-0.78	-0.27	0.29	-0.29	-0.46	-0.72	-0.95	-0.59
-0.78	-0.82	0.88	-0.29	1.29	1.02	0.32	-0.59
-0.04	-0.82	-0.30	-0.29	0.12	-0.14	-0.32	0.58
0.70	0.29	-0.89	-2.32	-0.46	0.44	-0.32	-1.76
-1.52	-0.27	0.29	-1.30	-0.46	-1.89	-0.95	-1.76
0.70	-0.82	1.47	0.73	0.71	1.02	0.96	0.58
0.70	0.84	1.47	0.73	1.29	1.61	0.96	0.58
-0.04	0.29	0.88	-0.29	0.71	-0.14	0.32	-0.59
0.70	0.84	-0.89	0.73	-1.05	1.61	-1.59	0.58
-0.04	-1.93	0.88	-1.30	0.71	-0.72	0.32	-0.59
0.70	-0.82	-0.30	-0.06	-0.46	-0.14	0.96	-0.07
0.70	0.29	0.88	0.73	0.71	1.02	0.32	0.58
1.43	-0.82	-1.49	-2.32	-1.63	-1.30	-2.23	-2.94

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
-0.78	-0.27	1.47	0.73	0.71	-0.14	0.96	0.58
-0.04	-1.38	-0.30	-1.30	-0.46	-0.14	-0.95	-1.76
0.70	0.29	0.88	-0.29	0.71	0.44	0.32	-0.59
-0.78	-0.27	-0.89	-0.29	0.12	0.44	-0.32	-0.59
-0.04	-0.82	-0.89	-2.32	-1.05	-0.72	-0.95	-2.94
0.70	0.29	-0.30	-0.29	0.71	0.44	0.32	-0.59
-0.04	0.29	1.47	0.73	1.29	1.02	0.96	0.58
-0.04	0.84	-0.89	0.73	0.12	-0.72	0.32	0.58
1.43	0.84	-0.89	0.73	0.71	1.61	0.32	0.58
0.70	0.84	-0.30	-2.32	0.71	-0.72	0.32	-0.59
0.70	-0.82	-0.30	-2.32	0.12	-1.30	0.32	-1.76
-0.04	0.29	0.29	-0.29	-0.46	-1.30	-0.32	-0.59
-0.78	-0.82	0.88	0.73	0.71	0.44	0.96	0.58
-0.04	-0.82	-0.30	-1.30	-0.46	-1.89	-0.95	-2.94
0.70	-0.27	-0.89	-2.32	-1.63	-1.30	-0.95	-1.76
-0.04	-0.27	-0.30	0.73	-0.46	-0.14	-0.32	0.58
0.70	0.29	0.88	0.73	0.71	1.02	0.96	0.58
-0.04	0.84	1.47	0.73	1.29	1.61	0.96	0.58
-2.25	-1.93	0.29	-0.29	0.12	-0.14	0.32	-0.18
-0.78	0.84	-0.89	0.73	-0.46	0.44	-0.95	0.58
0.70	0.29	-0.89	-0.29	-1.05	-0.72	0.32	-0.59
-0.78	-0.27	0.29	0.73	1.29	-0.14	0.96	0.58
0.70	0.29	-0.30	-0.29	-0.46	-0.14	-0.95	-0.59
0.70	0.29	-0.89	-0.29	-1.05	-0.72	0.32	-0.59
1.43	0.84	-0.30	0.73	-1.63	-1.30	-1.59	0.58
1.43	0.84	-2.08	-2.32	0.12	1.02	-0.95	0.58
-0.78	-0.27	0.88	-0.29	0.12	1.02	0.32	-0.59
-0.78	0.29	-0.30	-0.29	0.12	-0.14	-0.32	-0.59
0.70	0.29	-0.30	0.73	-0.46	1.02	0.32	0.58
-0.78	-0.27	-0.89	-2.32	-0.46	-0.14	-0.32	-0.07
-0.04	-2.48	0.88	-0.29	0.12	0.44	0.32	0.58
-0.04	-0.82	-0.30	-0.29	1.29	-0.72	-0.32	0.58
1.43	0.84	0.29	0.73	1.29	1.02	0.96	0.58
-0.04	0.29	-1.49	-2.32	-2.22	-0.14	-2.23	-0.59
-0.78	0.29	1.47	0.73	1.29	1.02	0.96	0.58
1.43	0.84	1.47	0.73	0.71	1.02	0.32	0.58
1.43	0.84	0.88	-0.29	-1.05	1.02	0.32	-0.59
-0.04	0.84	-0.30	0.73	-0.46	-1.30	0.96	0.58
-0.78	-2.48	-0.30	-1.30	0.12	-1.30	0.32	0.58
0.70	-2.48	-1.49	-0.29	-1.05	-1.30	-1.59	0.58
-0.78	-1.93	0.88	0.73	0.12	-0.14	0.96	0.58
-0.78	0.29	-0.30	-0.29	1.29	1.61	0.32	0.58
-0.04	-0.27	0.88	-2.32	-0.46	-0.72	0.32	0.58
-0.78	0.29	-0.30	0.73	0.71	-0.72	-0.95	0.58
1.43	0.84	-1.49	0.73	-2.22	1.61	-0.95	0.58
-0.78	-2.48	-0.30	0.73	0.71	-0.72	-0.95	0.58
0.70	0.29	0.29	-0.29	-0.46	0.44	-0.95	0.58

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
-2.25	0.29	-1.49	-0.17	0.12	-1.30	-1.59	-0.18
-0.04	-0.82	0.29	-0.17	-1.63	0.44	0.32	-1.76
0.70	0.29	-1.49	-1.30	-0.46	1.61	-0.95	0.58
0.70	-2.48	-1.49	-0.29	-1.05	-1.30	-1.59	0.58
0.70	-2.48	-1.49	-0.29	-1.05	-1.30	-1.59	0.58
1.43	-1.38	-0.89	-1.30	-1.05	-0.14	-0.32	-1.76
0.70	0.29	0.88	-0.29	0.12	1.02	0.32	0.58
0.70	0.84	0.88	0.73	1.29	0.44	0.96	0.58
0.70	0.84	0.88	0.73	0.71	1.02	0.32	0.58
0.70	0.84	1.47	0.73	0.71	1.02	0.32	0.58
0.70	-2.48	1.47	0.73	-2.22	-0.14	-2.23	0.58
-0.78	-0.82	-2.08	-2.32	-2.22	-1.89	-1.59	-2.94
-0.04	0.84	-0.30	0.73	1.29	-0.72	0.32	0.58
-0.04	0.29	-0.89	-0.06	-0.46	-0.72	-0.95	0.58
-0.78	0.29	-0.30	-0.29	-0.46	0.44	0.96	-0.59
0.70	-0.27	0.88	-1.30	0.71	1.02	0.96	-0.59
-0.78	0.29	-0.30	-1.30	-0.46	-1.30	-0.95	-1.76
-0.78	0.29	-0.30	0.73	-0.46	0.44	-0.32	0.58
1.43	0.84	1.47	0.73	1.29	1.61	0.96	0.58
-0.04	0.84	-2.08	0.73	-2.22	-1.89	-2.86	0.58
0.70	-0.27	-0.30	-0.06	0.12	1.02	-2.23	-0.07
-0.78	0.29	-0.30	0.73	-0.46	0.44	-0.32	0.58
-0.78	0.29	-0.30	0.73	-0.46	0.44	-0.32	0.58
-0.78	0.84	1.47	0.73	-0.46	1.61	0.96	0.58
-0.78	0.29	-0.30	0.73	-0.46	0.44	-0.32	0.58
-0.78	0.29	-0.30	-1.30	-0.46	-1.30	-0.95	-1.76
0.70	0.84	0.88	0.73	1.29	1.02	0.96	0.58
-0.04	-1.38	-0.30	0.73	-1.63	-0.14	0.32	-2.94
-0.04	0.84	-1.49	-2.32	0.12	-0.72	-0.95	0.58
0.70	0.84	1.47	0.73	1.29	1.02	0.32	0.58
0.70	0.29	-0.89	-0.29	-0.46	1.02	0.32	0.58
-0.04	0.84	-0.30	-1.30	0.71	-0.72	-0.32	0.58
1.43	-0.82	-2.08	-0.17	-0.46	1.61	0.32	0.58
0.70	0.84	0.88	0.73	0.12	-1.30	0.32	0.58
-0.78	-0.27	0.29	-2.32	0.12	-0.14	0.32	0.58
-0.78	-2.48	-0.89	0.73	-1.05	-1.30	0.32	0.58
0.70	-1.38	-0.89	-1.30	-1.05	-0.72	-0.95	-1.76
-0.04	-0.82	-2.08	-1.30	1.29	-1.30	-0.32	-0.18
-0.04	0.29	-0.30	-1.30	-0.46	-0.14	-0.32	-0.59
-0.78	0.84	-0.30	0.73	-0.46	1.02	0.96	0.58
-0.04	-0.27	0.88	0.73	1.29	-0.14	0.96	0.58
-0.78	0.29	1.47	0.73	1.29	1.02	0.96	0.58
-0.78	0.29	1.47	-1.30	0.71	-0.14	0.96	0.58
-2.25	0.29	0.88	-2.32	0.71	-0.14	0.32	0.58
-0.78	0.84	1.47	0.73	0.71	1.02	0.96	0.58
-0.78	0.29	1.47	0.73	1.29	-0.14	0.96	0.58
-0.78	0.29	1.47	0.73	1.29	1.61	0.96	0.58

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
-0.78	-2.48	0.29	0.73	0.71	-0.14	0.96	0.58
-0.78	-2.48	1.47	0.73	1.29	1.61	0.96	0.58
-0.78	0.84	1.47	0.73	1.29	-1.89	0.96	0.58
-0.78	0.29	1.47	0.73	1.29	1.61	0.96	0.58
-0.78	0.84	0.88	0.73	1.29	1.61	0.96	0.58
-0.78	0.84	1.47	0.73	-0.46	1.61	0.96	0.58
-0.78	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
-0.78	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
-1.52	-0.82	-0.30	-1.30	-1.63	1.02	-0.95	-0.07
-0.04	0.84	-1.49	0.73	-1.05	-0.14	0.32	0.58
-0.78	0.84	0.29	-0.29	0.12	-0.14	0.32	-0.59
0.70	-2.48	0.29	0.73	-1.05	-0.72	-0.32	0.58
-0.04	0.29	-0.89	-1.30	-0.46	-0.72	-0.95	-0.59
-0.04	-0.27	0.88	-0.29	-1.05	-0.14	0.96	0.58
1.43	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
-2.99	-2.48	-1.49	-0.17	-0.46	0.44	0.96	0.58
-2.99	0.84	-0.30	0.73	-0.46	-0.14	0.96	0.58
-2.99	-1.93	-0.89	-2.32	-2.22	-0.72	-2.86	-2.94
-0.04	0.84	0.29	0.73	0.71	-0.14	0.32	0.58
1.43	0.84	0.29	0.73	1.29	1.61	0.96	0.58
-0.78	0.29	1.47	0.73	0.71	1.61	0.96	0.58
0.70	-2.48	-0.89	0.73	-0.46	-0.72	0.32	0.58
-0.78	0.84	-0.30	0.73	-0.46	-0.14	0.96	0.58
-0.04	0.84	-0.30	0.73	0.12	-0.72	0.96	0.58
-1.52	-0.27	0.29	-1.30	0.12	0.44	-0.32	-0.07
-0.04	-0.27	-1.49	-0.06	0.71	-0.72	0.96	-0.07
1.43	0.84	-0.89	0.73	-1.63	-1.89	-1.59	0.58
-0.04	0.29	-0.30	-0.29	0.71	-0.14	0.32	-0.59
0.70	0.84	-0.30	0.73	0.71	-0.14	-0.32	0.58
-0.04	0.29	-0.30	-1.30	-1.05	-0.14	-0.95	0.58
0.70	0.29	1.47	0.73	1.29	1.61	0.96	0.58
-0.04	0.29	0.88	0.73	0.12	1.61	-0.95	0.58
-0.78	-1.38	0.29	-0.29	-0.46	-0.14	-0.32	-0.59
0.70	0.84	0.88	0.73	1.29	-0.14	0.96	0.58
-0.78	-1.38	-2.08	0.73	-1.05	-1.89	-0.32	-0.59
-0.78	0.84	0.88	0.73	0.71	-0.72	0.96	0.58
0.70	0.84	-0.89	-0.29	-0.46	-0.14	0.32	0.58
0.70	-0.27	-0.89	-0.29	0.71	-1.89	-0.95	-0.59
1.43	-1.38	-0.30	-0.29	-0.46	-0.72	-0.32	-1.76
-0.78	0.29	-1.49	-1.30	-2.22	-0.14	-0.95	-0.59
-0.78	0.29	0.29	0.73	-0.46	-0.72	-0.95	0.58
0.70	0.84	0.88	0.73	-0.46	-0.72	-0.95	0.58
0.70	-1.38	-0.89	-1.30	-1.05	-1.30	-0.95	-1.76
0.70	-0.27	-0.30	-1.30	-0.46	-0.14	-0.95	-1.76
0.70	0.84	-0.30	0.73	-0.46	-0.72	0.96	0.58
0.70	0.84	0.88	0.73	-0.46	0.44	-0.95	0.58
-0.04	0.84	-2.08	-1.30	-2.22	-1.89	-2.86	0.58

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
-0.04	0.29	0.29	-0.29	1.29	0.44	0.32	0.58
-0.78	-0.82	-0.89	-2.32	-2.22	-0.14	-0.95	-2.94
-2.25	-1.93	-1.49	-0.29	-1.63	-0.72	-2.23	-2.94
-0.78	-0.27	-0.89	-0.06	0.12	-0.14	-0.32	-0.59
1.43	0.84	0.88	0.73	0.71	1.02	0.32	-0.59
-0.04	-1.38	0.29	-2.32	0.12	-0.72	-0.32	0.58
0.70	0.84	-0.30	-0.29	0.71	1.61	0.96	0.58
0.70	-2.48	-0.89	-0.29	0.71	-1.30	0.96	-0.59
-0.04	0.29	-0.30	-0.29	-0.46	-0.72	-0.95	0.58
0.70	0.29	1.47	0.73	0.71	1.02	-0.32	0.58
1.43	0.84	0.29	-0.29	-1.63	-1.89	0.32	-0.59
0.70	0.29	0.88	0.73	0.71	0.44	0.96	0.58
1.43	0.84	0.88	-0.29	1.29	1.02	0.96	0.58
0.70	0.84	0.88	0.73	-0.46	1.61	0.96	0.58
-0.04	-2.48	0.29	-0.29	0.12	-0.14	0.96	-0.59
1.43	0.84	-0.30	0.73	1.29	1.02	0.96	0.58
-0.04	-0.27	-0.30	0.73	0.71	-0.72	0.96	0.58
-0.04	-1.38	-1.49	-0.06	-1.63	-1.30	-0.95	-0.07
-0.78	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
0.70	0.84	-0.89	0.73	-1.05	-0.14	-1.59	0.58
0.70	0.84	-1.49	0.73	0.12	1.02	0.96	0.58
-0.04	0.29	0.88	0.73	0.71	1.02	0.96	0.58
-2.99	0.84	1.47	0.73	1.29	1.61	0.96	0.58
-2.25	-2.48	-0.89	-0.17	-2.22	-1.89	-2.86	0.58
-0.04	0.84	1.47	0.73	0.71	1.61	0.96	0.58
-0.04	0.29	-1.49	-0.29	-2.22	-1.89	-1.59	-0.59
0.70	0.29	-1.49	-2.32	-1.63	-1.30	-2.23	-2.94
0.70	0.29	-1.49	-2.32	-1.63	-1.30	-2.23	-2.94
1.43	-1.38	-0.30	-2.32	-1.05	-0.14	0.96	-2.94
0.70	0.84	0.29	0.73	-0.46	1.02	-1.59	0.58
0.70	0.29	-0.89	-0.17	-1.05	-1.89	-1.59	-0.18
1.43	-2.48	-0.30	-0.29	0.71	-0.14	0.96	0.58
-0.04	0.84	-0.30	-0.06	-1.05	-1.89	-1.59	-0.59
-0.04	-1.38	-0.89	-1.30	-0.46	0.44	-0.95	-1.76
0.70	-2.48	-0.89	-2.32	0.12	-0.14	-1.59	0.58
0.70	-1.38	0.29	-2.32	0.12	-1.30	0.32	-2.94
-0.78	0.84	1.47	0.73	-0.46	1.61	-0.95	0.58
-0.78	0.29	-0.89	0.73	0.71	1.02	0.32	-0.59
-0.78	0.84	1.47	0.73	1.29	-0.14	0.96	0.58
1.43	-2.48	-0.89	0.73	0.12	1.02	0.96	-1.76
0.70	0.84	0.88	0.73	0.71	0.44	0.96	0.58
-0.04	0.29	-0.89	-1.30	-1.05	-1.30	-1.59	-0.59
0.70	0.29	0.88	-0.29	0.12	1.02	0.32	0.58
-0.78	0.84	-0.30	0.73	0.12	-0.14	0.96	0.58
0.70	0.84	-0.30	0.73	-1.63	-0.14	-0.32	0.58
-0.04	-1.93	-1.49	0.73	-1.05	-0.72	-1.59	0.58
-0.78	-0.27	1.47	0.73	1.29	-0.14	0.96	0.58

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
-0.78	0.29	-0.30	0.73	-1.63	-1.30	-0.95	0.58
-0.04	-0.27	0.88	0.73	0.12	1.02	0.96	0.58
1.43	0.84	0.29	0.73	1.29	1.61	0.96	0.58
-0.04	-0.27	1.47	0.73	1.29	1.02	0.96	0.58
0.70	0.84	1.47	0.73	1.29	1.61	0.96	0.58
-0.04	0.84	1.47	0.73	1.29	0.44	0.96	0.58
-0.04	-0.27	1.47	0.73	1.29	1.61	0.96	0.58
-0.78	0.29	-0.89	-0.29	-1.63	-1.89	0.32	-0.59
0.70	0.84	0.88	0.73	1.29	-0.14	0.96	0.58
-0.04	0.84	-0.89	0.73	-0.46	-0.72	-0.95	0.58
-0.04	0.84	-0.89	0.73	-0.46	0.44	-0.95	0.58
-0.04	-2.48	0.29	-2.32	0.12	-0.14	-0.32	0.58
0.70	0.29	0.88	0.73	-2.22	1.02	0.32	-0.59
0.70	0.84	1.47	0.73	1.29	1.02	0.96	0.58
-0.78	0.29	-0.30	0.73	0.71	-0.14	-0.95	0.58
1.43	0.84	0.29	0.73	-1.63	-1.89	-0.32	0.58
0.70	-0.27	-1.49	-1.30	-1.63	-1.30	-0.95	0.58
0.70	0.29	-0.30	0.73	-0.46	-0.72	0.96	0.58
-0.04	0.84	0.29	0.73	0.12	-0.14	0.32	0.58
-2.99	-0.27	1.47	0.73	1.29	1.61	0.96	0.58
-2.99	-0.27	0.88	0.73	1.29	1.02	0.96	0.58
1.43	0.84	-1.49	-2.32	-1.05	-0.14	-1.59	-1.76
-0.04	-0.27	-0.30	-1.30	0.71	0.44	0.32	-0.59
-2.99	-0.27	0.88	0.73	1.29	1.02	0.96	0.58
0.70	-0.82	1.47	0.73	1.29	1.61	0.96	0.58
-0.04	-1.38	0.29	0.73	0.71	0.44	0.32	0.58
0.70	0.84	1.47	0.73	1.29	1.02	0.96	0.58
-0.04	0.29	-1.49	-0.17	-1.63	-0.72	-1.59	-2.94
0.70	-0.27	0.29	0.73	-0.46	0.44	0.32	-0.59
0.70	-0.27	-0.89	0.73	-1.63	0.44	-0.95	-0.59
-0.04	-0.27	0.29	-1.30	-0.46	0.44	-0.32	0.58
0.70	-0.27	0.88	0.73	0.71	0.44	0.32	-0.59
-2.25	0.29	-2.08	0.73	-0.46	-1.30	-0.95	-1.76
-0.04	-0.82	1.47	-0.29	0.71	1.02	0.32	0.58
-0.04	-0.82	0.29	-0.29	0.12	-0.14	0.32	0.58
-0.78	-0.82	0.29	-0.29	0.71	-0.14	0.32	0.58
0.70	0.84	-0.89	0.73	-1.05	-1.30	-2.23	0.58
0.70	0.84	-0.30	0.73	0.71	-0.14	-0.32	0.58
-0.78	0.84	0.88	0.73	-0.46	0.44	0.32	0.58
-1.52	0.84	0.88	0.73	0.12	0.44	0.32	0.58
1.43	0.84	-2.08	0.73	-1.63	-1.30	-2.86	0.58
1.43	0.84	-1.49	0.73	-0.46	-1.30	-2.23	0.58
-1.52	0.29	-1.49	-1.30	-1.63	-1.30	-1.59	-0.59
0.70	-0.82	-0.30	-2.32	-0.46	-1.30	-0.95	-2.94
0.70	0.29	-0.30	0.73	1.29	0.44	0.96	0.58
0.70	-2.48	-0.89	0.73	-0.46	1.02	0.96	-0.18
-0.04	0.29	-0.30	-0.29	-0.46	-0.72	0.32	-0.59

ZP4.1	ZP4.2	ZP4.3	ZP4.4	ZP4.5	ZP4.6	ZP4.7	ZP4.8
0.70	0.29	-0.30	-0.29	-0.46	-0.14	0.96	0.58
0.70	0.29	-0.30	0.73	1.29	0.44	0.96	0.58
0.70	0.84	1.47	0.73	1.29	1.61	0.96	0.58
0.70	0.84	1.47	0.73	-1.05	-0.14	0.96	0.58
-0.04	-2.48	-0.30	-0.29	0.12	0.44	0.96	0.58
0.70	0.84	-0.89	-2.32	-1.63	-1.30	0.96	-2.94
-0.04	0.29	-0.30	0.73	-1.05	-0.72	-0.95	0.58
0.70	0.84	0.29	0.73	-0.46	1.02	0.32	0.58
0.70	0.84	1.47	0.73	1.29	1.61	0.96	0.58
0.70	0.29	0.29	0.73	-0.46	0.44	-0.32	-2.94
0.70	0.84	-1.49	-0.29	-1.05	-0.14	-1.59	-0.59
0.70	0.84	-1.49	-0.29	-1.63	-1.30	0.32	-0.59
-1.52	0.84	-1.49	0.73	1.29	-1.30	0.32	0.58
-0.04	-0.27	1.47	0.73	1.29	1.61	0.96	0.58
0.70	0.84	0.29	0.73	0.12	1.61	0.96	0.58
-0.78	-2.48	-0.30	-1.30	-0.46	-0.14	0.96	0.58
1.43	-0.27	1.47	0.73	1.29	0.44	0.96	0.58
1.43	0.84	0.29	-0.17	-0.46	-0.14	0.32	0.58
-0.04	-0.27	-0.30	-0.29	-1.05	-0.14	-0.95	-0.59
0.70	0.29	-1.49	0.73	-1.05	1.02	-1.59	0.58
-0.04	0.29	-0.30	-0.29	-1.05	0.44	0.96	0.58
-0.78	0.29	-0.89	0.73	1.29	-1.30	0.96	0.58
-0.78	0.29	0.88	0.73	-1.05	-0.14	0.96	0.58
1.43	-2.48	-0.30	0.73	0.71	1.61	0.96	-0.59
-0.78	-1.93	-0.89	-0.29	-1.63	-1.89	-0.32	0.58
-0.04	0.29	-0.30	0.73	0.12	-0.14	0.32	0.58
-0.04	-0.27	-0.89	-1.30	-0.46	-0.72	0.32	-0.59
0.70	0.84	0.88	0.73	1.29	1.02	0.32	0.58
-0.78	0.84	-1.49	-1.30	0.12	-0.14	-0.32	-1.76
-0.78	0.84	-0.30	-0.29	0.12	1.02	-0.32	-1.76
-1.52	0.84	-0.30	0.73	-0.46	1.61	0.32	0.58
-0.78	0.84	-2.08	0.73	-0.46	1.61	-2.23	0.58
-1.52	-2.48	-0.30	0.73	0.12	0.44	0.96	0.58
-2.99	0.84	0.29	0.73	0.12	0.44	-0.95	0.58
-0.78	-0.82	-0.30	-2.32	-0.46	-0.14	-0.95	-2.94
-0.04	-0.82	-1.49	-0.29	-1.63	-0.14	-2.23	-0.59
-0.78	-0.82	-0.30	-2.32	-1.05	-1.30	-0.95	-2.94
-0.04	0.84	1.47	0.73	1.29	-0.72	0.96	0.58
-2.99	0.84	1.47	0.73	1.29	-1.30	0.96	-2.94
-0.04	0.84	0.88	0.73	0.71	-0.14	0.32	0.58
1.43	0.84	-0.30	0.73	0.71	1.02	0.32	0.58
0.70	0.84	-0.30	0.73	1.29	1.02	0.96	0.58
-2.99	0.84	-0.30	-2.32	-2.22	-1.89	-0.95	0.58
0.70	0.84	-0.89	0.73	1.29	-0.72	0.96	0.58
1.43	0.29	0.29	-0.29	1.29	1.02	0.96	-0.59
-0.04	0.29	-0.89	-1.30	0.71	0.44	-0.32	-0.59
-2.25	-2.48	-0.89	-0.17	0.12	-1.30	-0.32	0.58

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
-0.57	1.35	0.01	0.14	0.08	-0.87	2.72	-1.20
1.01	1.35	-0.72	1.09	0.08	-0.04	0.10	0.24
-0.57	0.08	0.01	0.14	0.84	-0.04	0.97	-1.20
0.22	-1.18	-0.72	-0.81	0.08	0.80	-0.77	0.24
1.01	0.71	-0.72	0.14	0.08	-0.04	0.97	-2.65
1.01	2.61	1.45	1.09	1.60	-0.04	0.10	0.24
-0.57	0.08	0.01	0.14	0.84	-0.04	0.10	-1.20
0.22	-0.55	0.01	2.04	1.60	1.63	-0.77	0.96
1.80	0.08	0.01	1.09	0.84	-0.87	0.10	0.24
1.80	0.08	0.01	-0.81	0.08	-0.87	0.10	0.24
0.22	0.08	0.01	0.14	0.08	-0.87	0.10	-1.20
-0.57	0.71	0.01	-0.81	-0.68	-0.87	2.72	0.96
0.22	-0.55	0.73	1.09	0.08	-0.04	-0.77	0.96
-0.57	-1.18	-2.16	-0.07	-2.96	-0.87	-0.77	-1.20
1.01	0.71	1.45	1.09	0.84	1.63	2.72	0.96
-0.57	-0.55	1.45	0.14	0.08	0.80	-0.77	0.96
1.01	-1.18	0.01	1.09	0.84	0.80	-0.77	0.96
1.80	-1.18	-2.16	1.09	1.60	-1.70	-0.77	-0.48
-0.57	-1.18	0.01	0.14	0.84	-0.04	-0.77	0.96
1.01	1.35	1.45	1.09	0.84	0.80	-0.77	0.24
0.22	0.71	0.01	0.14	0.08	0.80	-0.77	-0.48
1.01	-1.18	-0.72	1.09	0.84	-1.70	-0.77	-0.48
-0.57	0.08	-0.72	0.14	-0.68	-0.87	0.97	-0.48
0.22	-1.18	0.01	-0.81	0.08	-0.04	-0.77	0.24
-0.57	-0.55	-0.72	0.14	0.08	-0.04	-0.77	0.96
-1.35	-1.18	0.01	-0.81	-0.68	-0.04	-0.77	0.24
1.01	-0.55	0.01	-0.81	0.08	0.80	-0.77	0.24
1.01	0.71	-0.72	1.09	0.84	-0.04	-0.77	-0.48
1.01	0.71	1.45	-0.81	0.84	0.80	-0.77	0.24
0.22	0.71	-1.44	1.09	0.84	-1.70	-0.77	0.96
0.22	0.71	-1.44	1.09	0.84	-1.70	-0.77	0.96
-0.57	-0.55	0.01	-0.81	0.08	-0.87	-0.77	0.96
-0.57	0.71	0.01	-1.75	-1.44	-0.87	-0.77	-1.20
-0.57	0.71	-2.16	-0.81	-1.44	-0.87	0.10	-1.20
1.01	0.08	1.45	1.09	0.84	0.80	-0.77	0.96
0.22	-1.18	0.73	0.14	1.60	-0.04	-0.77	0.96
0.22	-1.18	-0.72	1.09	0.84	0.80	-0.77	0.96
-2.14	-0.55	0.01	1.09	0.84	1.63	-0.77	0.96
1.01	1.98	1.45	2.04	1.60	-0.04	0.10	-0.48
-0.57	-1.18	0.01	1.09	0.84	0.80	-0.77	0.96
-1.35	-0.55	0.01	-1.75	0.08	-1.70	0.97	0.96
1.01	0.71	0.01	0.14	0.08	0.80	-0.77	0.96
1.01	0.08	1.45	0.14	0.84	0.80	0.10	-0.48
1.80	-0.55	1.45	2.04	0.84	0.80	-0.77	0.96
-0.57	-0.55	0.73	1.09	0.08	-0.04	-0.77	0.96
-2.14	-1.18	0.73	2.04	-0.68	-0.87	-0.77	-1.92

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
0.22	0.71	0.01	0.14	0.08	-0.87	0.97	-1.20
-0.57	-1.18	1.45	1.09	-2.20	0.80	1.85	-1.20
1.01	0.71	0.01	-0.81	0.84	1.63	-0.77	0.96
1.01	-1.18	0.01	1.09	0.84	-0.87	-0.77	0.96
-0.57	0.71	0.01	-0.81	-0.68	-0.87	1.85	-1.20
1.01	0.71	0.01	-0.81	0.84	1.63	-0.77	0.96
0.22	-0.55	0.73	-0.81	-0.68	0.80	0.97	-0.48
1.01	0.71	-1.44	-1.75	-0.68	-0.87	0.07	-1.20
0.22	1.35	0.73	0.14	0.84	0.80	0.10	0.96
0.22	0.71	1.45	0.14	-0.68	-0.04	0.10	0.24
-0.57	0.71	1.45	-0.81	-0.68	0.80	1.85	-1.20
1.01	-0.55	0.01	-0.81	-0.68	0.80	1.85	-2.65
-1.35	0.71	0.01	-0.81	-0.68	-0.87	0.10	-0.48
0.22	0.08	0.01	0.14	0.08	0.80	0.10	0.24
-0.57	-1.18	0.01	1.09	0.08	0.80	0.10	-1.20
-2.14	-0.55	-1.44	0.14	0.08	-1.70	-0.77	0.96
1.01	2.61	-1.44	-0.81	-0.68	0.80	1.85	0.24
-0.57	-1.18	0.73	-0.81	-2.96	-2.53	0.07	-2.65
-2.93	-1.18	0.73	0.14	-0.68	0.80	1.85	-1.92
-2.14	-0.55	0.01	-0.81	-1.44	1.63	1.85	0.24
-0.57	0.71	-2.16	0.14	-0.68	-0.87	-0.77	0.96
-0.57	0.71	-0.72	-0.81	-0.68	-0.04	0.10	0.96
-0.57	-1.18	-0.72	-0.07	1.60	1.63	-0.77	-1.20
1.80	-1.18	1.45	2.04	1.60	1.63	-0.77	0.96
0.22	-1.18	1.45	1.09	-1.44	0.80	1.85	-1.20
1.01	-0.55	0.01	0.14	0.84	-0.87	-0.77	0.96
-2.14	0.08	-0.72	-0.81	-0.68	-0.87	-0.77	-1.20
1.80	-1.18	0.01	2.04	1.60	-0.87	-0.77	0.96
0.22	1.35	0.73	1.09	-0.68	-0.04	1.85	-0.48
1.01	-1.18	-2.16	-0.07	-1.44	0.80	-0.77	0.24
0.22	0.08	-1.44	1.09	-1.44	-0.04	0.10	0.96
0.22	-0.55	0.73	1.09	0.08	0.80	0.10	0.24
0.22	-0.55	0.73	0.14	0.08	-0.04	0.97	-0.48
-0.57	-0.55	0.73	-0.81	-1.44	-0.87	-0.77	-1.20
0.22	0.71	0.01	-0.81	-1.44	-0.04	1.85	0.24
1.01	-1.18	-0.72	1.09	0.84	-0.04	-0.77	0.96
0.22	0.71	0.01	0.14	0.08	-0.04	0.10	-1.20
1.01	0.08	1.45	1.09	0.84	1.63	-0.77	-0.48
-0.57	-0.55	-1.44	-0.81	-0.68	-0.87	0.10	0.24
1.01	-1.18	-0.72	1.09	0.84	-0.04	-0.77	0.96
-0.57	1.98	2.17	1.09	1.60	1.63	0.10	0.96
0.22	0.08	0.01	1.09	0.08	0.80	-0.77	0.96
0.22	0.08	0.01	1.09	1.60	0.80	-0.77	0.96
0.22	0.08	0.01	-0.81	-0.68	-0.87	0.10	0.24
0.22	-1.18	0.01	-0.81	0.84	1.63	-0.77	0.96
1.01	0.71	1.45	0.14	0.84	0.80	0.10	0.96
-0.57	-1.18	-2.16	-0.81	-0.68	-0.87	-0.77	0.96

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
1.01	0.08	0.73	1.09	0.84	-0.04	-0.77	0.96
1.01	-1.18	1.45	-2.70	-2.96	0.80	0.07	0.24
-0.57	-1.18	-2.16	-0.81	-2.96	1.63	-0.77	-1.20
-1.35	1.98	0.01	-0.81	-0.68	-0.87	0.10	0.24
0.22	0.08	0.01	1.09	0.08	-0.04	-0.77	-0.48
1.80	0.08	-0.72	0.14	0.08	0.80	-0.77	-1.20
1.01	0.08	0.01	1.09	1.60	0.80	0.10	0.96
-0.57	0.71	0.01	0.14	0.08	0.80	1.85	-1.92
-0.57	0.71	0.01	0.14	0.84	1.63	-0.77	0.96
-0.57	0.71	-0.72	-0.81	-0.68	0.80	0.10	-0.48
0.22	-1.18	-2.16	1.09	0.08	-0.87	-0.77	0.96
0.22	1.35	1.45	1.09	0.08	-0.04	-0.77	0.24
1.01	-1.18	1.45	-0.81	0.08	0.80	-0.77	0.24
-0.57	0.08	0.01	-0.81	-0.68	-1.70	0.10	-0.48
1.01	1.35	0.73	-0.81	0.08	-0.04	-0.77	-0.48
-0.57	0.71	0.73	0.14	0.08	-0.87	0.10	0.24
0.22	0.08	0.01	0.14	0.08	0.80	-0.77	0.96
0.22	0.71	0.73	1.09	0.84	-0.04	0.10	-1.92
-0.57	0.71	0.01	0.14	0.08	-0.04	0.97	-1.92
0.22	-0.55	0.01	-0.81	0.08	-0.87	-0.77	0.24
-0.57	-1.18	0.01	1.09	1.60	1.63	-0.77	0.96
0.22	0.71	0.73	0.14	-0.68	-0.87	0.97	-0.48
-0.57	0.08	0.73	1.09	0.84	-0.04	-0.77	0.96
-0.57	-0.55	0.01	-0.81	-0.68	-0.87	0.10	0.24
1.80	0.71	0.01	0.14	0.08	0.80	1.85	-1.20
-0.57	1.35	0.01	-0.81	0.84	0.80	2.72	0.24
-0.57	0.71	0.01	-0.81	0.08	-0.04	1.85	-1.20
-0.57	0.71	0.01	-0.81	-0.68	-0.87	1.85	-1.20
0.22	0.71	0.01	-0.81	-0.68	-0.04	1.85	-0.48
-1.35	0.71	0.01	0.14	0.08	-0.04	0.10	-1.20
-0.57	0.08	-0.72	-1.75	-0.68	-1.70	0.10	0.24
1.80	0.71	1.45	1.09	0.84	1.63	0.10	0.96
0.22	-0.55	-1.44	0.14	0.84	-0.04	0.10	0.24
1.01	-1.18	0.73	0.14	0.84	0.80	-0.77	0.96
-2.14	0.71	0.01	-0.81	-0.68	-0.87	0.10	0.24
1.01	1.35	2.17	2.04	1.60	1.63	-0.77	0.96
-2.14	-0.55	1.45	1.09	-0.68	0.80	-0.77	0.24
0.22	-1.18	0.01	0.14	0.84	-0.04	2.72	0.96
0.22	0.71	0.73	0.14	0.84	0.80	0.10	0.24
-0.57	-1.18	0.01	-1.75	-1.44	-0.87	-0.77	0.96
-0.57	1.35	0.73	-0.81	-0.68	0.80	2.72	-1.20
1.01	0.71	0.01	0.14	0.08	-0.04	1.85	-1.20
-0.57	0.71	-0.72	-0.81	-0.68	-0.04	0.10	0.96
-0.57	-1.18	-0.72	-0.81	-0.68	0.80	-0.77	-0.48
1.01	0.71	0.01	-0.81	0.84	0.80	-0.77	0.96
0.22	0.08	-1.44	1.09	-2.20	-1.70	0.10	-1.20
-0.57	0.71	-0.72	0.14	0.84	-0.87	-0.77	0.96

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
-0.57	-0.55	-1.44	0.14	0.84	0.80	0.10	0.96
-1.35	-1.18	0.01	-0.81	0.08	-0.87	-0.77	0.96
-0.57	0.71	0.73	-0.81	-0.68	-0.04	0.97	-0.48
-0.57	-0.55	-1.44	0.14	0.84	0.80	0.10	0.96
-0.57	0.08	0.73	0.14	0.84	-0.04	-0.77	0.96
1.01	-1.18	0.01	-0.81	-0.68	-0.87	-0.77	-1.20
-0.57	0.08	0.01	0.14	0.08	-0.87	0.10	-1.20
-2.14	0.08	0.01	-0.81	-0.68	-0.04	1.85	0.24
1.01	0.71	0.01	1.09	0.84	1.63	-0.77	0.96
0.22	0.71	-0.72	0.14	-1.44	-0.87	1.85	-1.92
-0.57	0.71	0.01	-0.81	-0.68	-0.87	0.10	-1.20
-0.57	-1.18	0.73	-0.81	-0.68	-0.87	-0.77	0.24
-0.57	1.98	1.45	1.09	0.84	1.63	-0.77	0.96
1.01	1.35	0.01	1.09	0.84	-0.04	-0.77	0.96
0.22	0.71	-1.44	1.09	0.84	-0.87	-0.77	0.24
1.80	-1.18	-2.16	2.04	1.60	1.63	-0.77	-1.92
1.01	-1.18	-1.44	0.14	0.84	1.63	-0.77	0.96
-0.57	-1.18	-2.16	-0.81	-0.68	1.63	0.97	-1.20
1.01	1.98	2.17	2.04	0.08	0.80	0.07	-1.20
0.22	1.98	-0.72	-1.75	0.08	-0.04	0.10	0.96
-0.57	0.71	0.01	-0.81	0.08	-0.87	1.85	-1.20
-0.57	-1.18	-1.44	1.09	-0.68	-1.70	0.97	0.24
-0.57	0.71	0.01	0.14	0.84	-0.04	0.10	-0.48
1.80	0.71	2.17	1.09	1.60	-0.04	-0.77	0.96
-0.57	-1.18	2.17	2.04	1.60	1.63	-0.77	0.96
1.80	0.71	0.73	0.14	-0.68	-0.04	1.85	-1.20
0.22	0.71	1.45	-0.81	0.84	-0.87	-0.77	0.24
1.80	0.71	1.45	-1.75	-0.68	-1.70	2.72	-1.20
-0.57	0.08	0.73	2.04	0.08	-0.04	0.10	0.24
1.01	-0.55	0.73	-0.81	0.84	0.80	-0.77	0.96
0.22	1.98	-0.72	-1.75	0.08	-0.04	0.10	0.96
0.22	1.98	-0.72	-1.75	0.08	-0.04	0.10	0.96
0.22	1.35	0.73	1.09	-1.44	0.80	0.10	-0.48
-0.57	0.08	0.01	0.14	0.84	-0.87	-0.77	0.24
-2.14	-1.18	0.01	1.09	-0.68	-0.87	2.72	0.96
1.01	0.71	0.01	0.14	0.84	-2.53	-0.77	0.96
1.01	0.08	-0.72	1.09	0.08	0.80	-0.77	0.96
-0.57	-1.18	0.73	0.14	-2.20	-0.87	1.85	0.96
0.22	1.35	1.45	0.14	0.08	1.63	0.10	-0.48
-0.57	-1.18	0.01	-0.81	0.08	-0.04	-0.77	0.24
-0.57	0.08	-0.72	1.09	0.84	0.80	-0.77	-0.48
0.22	-1.18	-2.16	0.14	0.08	0.80	-0.77	0.96
1.01	-1.18	0.73	0.14	0.08	0.80	0.10	0.24
-0.57	0.71	0.01	-1.75	-0.68	-0.87	1.85	-1.20
0.22	0.08	-0.72	0.14	0.08	-0.04	0.10	0.24
1.01	-0.55	-2.16	2.04	1.60	0.80	-0.77	0.96
0.22	-1.18	-2.16	1.09	1.60	1.63	-0.77	0.96

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
0.22	1.98	0.01	0.14	-0.68	-0.87	0.97	0.24
0.22	0.08	-0.72	0.14	0.08	-0.04	0.10	0.24
0.22	0.08	-0.72	0.14	0.08	-0.04	0.10	0.24
-0.57	-1.18	-2.16	0.14	1.60	1.63	-0.77	-0.48
0.22	0.08	-0.72	0.14	0.08	-0.04	0.10	0.24
-0.57	0.71	0.01	-1.75	-0.68	-0.87	1.85	-1.20
0.22	-0.55	0.01	-0.81	-0.68	-0.87	0.97	-0.48
1.80	-0.55	0.01	-1.75	0.84	0.80	0.10	-0.48
-0.57	-0.55	0.01	0.14	0.08	-0.04	0.10	-1.20
-0.57	-0.55	-1.44	-0.81	0.08	0.80	0.10	-0.48
1.01	-0.55	-1.44	-0.81	0.84	-0.87	0.10	0.96
-0.57	-0.55	0.73	0.14	0.08	0.80	-0.77	0.24
1.80	2.61	2.17	0.14	1.60	1.63	0.07	0.96
-0.57	0.71	0.73	0.14	0.08	0.80	0.97	-0.48
-0.57	-1.18	0.01	-0.81	-2.20	1.63	0.10	0.96
1.01	-1.18	0.01	-0.81	0.84	0.80	-0.77	0.96
0.22	1.35	0.01	0.14	0.08	-0.87	0.97	-0.48
0.22	0.71	-1.44	-0.07	-1.44	0.80	1.85	-1.92
1.01	1.35	0.73	1.09	1.60	0.80	0.10	0.96
-0.57	-1.18	0.01	-0.81	-0.68	-0.87	-0.77	-1.20
-0.57	-1.18	0.01	-0.81	-0.68	-2.53	-0.77	0.96
-0.57	-0.55	0.01	-0.81	-0.68	-2.53	1.85	-1.20
-0.57	-1.18	0.01	0.14	-0.68	-0.87	-0.77	0.96
-2.14	-0.55	0.01	-0.81	-0.68	-0.87	-0.77	0.96
-0.57	-0.55	-1.44	-0.81	-0.68	-0.87	-0.77	0.96
-0.57	-1.18	0.01	-0.81	-0.68	-0.04	-0.77	0.96
-0.57	-1.18	0.01	-0.81	-0.68	-0.87	-0.77	-1.20
-0.57	-1.18	0.01	0.14	0.08	-1.70	-0.77	0.24
-0.57	-1.18	0.01	-0.81	-0.68	-0.87	-0.77	-1.20
-0.57	-1.18	-2.16	-0.81	-0.68	-0.87	-0.77	0.96
-0.57	-1.18	-2.16	-0.81	-0.68	-0.87	-0.77	-1.20
-0.57	-1.18	-2.16	-0.81	-0.68	-0.87	-0.77	-1.20
-0.57	-1.18	0.01	-0.81	0.08	-0.87	-0.77	0.96
-1.35	-1.18	-2.16	0.14	0.08	-0.87	-0.77	0.96
-0.57	-1.18	0.01	-0.81	-0.68	-0.87	-0.77	-1.20
1.01	0.71	1.45	-0.81	-0.68	-0.04	0.07	-2.65
-0.57	0.08	0.01	0.14	-0.68	-0.87	-0.77	0.24
-0.57	0.71	-0.72	-0.81	-0.68	-0.87	0.10	-1.20
0.22	0.08	0.73	2.04	1.60	1.63	-0.77	0.96
-0.57	0.71	0.01	-0.81	-0.68	-1.70	0.97	-1.20
1.80	1.35	0.73	0.14	0.08	-0.04	-0.77	0.96
1.01	-1.18	0.01	1.09	0.08	0.80	-0.77	0.96
-2.14	-1.18	-1.44	-1.75	0.08	-0.05	-0.77	0.96
-1.35	-1.18	-0.72	-1.75	1.60	0.80	-0.77	-0.04
-0.57	1.35	0.01	-0.81	1.60	-1.70	0.10	0.24
-0.57	-1.18	-1.44	-0.81	-0.68	0.80	0.10	0.24
1.01	-1.18	0.73	0.14	1.60	-0.87	-0.77	0.24

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
-0.57	0.08	-1.44	1.09	0.08	-0.87	-0.77	0.96
0.22	-1.18	0.01	0.14	-0.68	-0.04	-0.77	0.96
0.22	0.08	0.01	1.09	-0.68	-0.87	-0.77	0.96
1.01	-1.18	0.73	0.14	0.08	-0.04	-0.77	0.96
0.22	0.08	-0.72	0.14	-0.68	0.80	1.85	0.24
-0.57	-1.18	0.73	-1.75	-2.96	-0.05	1.85	0.96
-0.57	0.71	1.45	-1.75	0.08	1.63	0.97	-1.20
-0.57	-0.55	-0.72	-0.81	0.08	-0.87	-0.77	-0.48
-0.57	0.71	0.01	0.14	-0.68	-0.87	2.72	0.24
-0.57	0.71	0.01	0.14	0.08	-0.87	0.97	-1.20
-2.93	-1.18	0.01	-0.81	0.08	-0.04	-0.77	-1.20
0.22	0.71	0.01	0.14	0.08	-0.87	0.97	-1.20
-0.57	0.71	0.01	-0.81	-2.20	-0.87	0.97	-1.20
0.22	-1.18	2.17	1.09	1.60	0.80	-0.77	0.96
1.80	0.71	0.01	-0.81	-2.20	-0.87	0.97	-1.20
1.80	-1.18	-1.44	1.09	0.84	0.80	-0.77	0.96
1.01	1.35	1.45	2.04	0.84	0.80	-0.77	0.96
-0.57	-0.55	0.01	0.14	-0.68	-0.04	0.10	-1.92
-0.57	0.08	0.01	-0.81	-0.68	-1.70	0.97	-0.48
1.80	0.71	0.01	-0.81	-1.44	-1.70	1.85	-0.48
1.01	2.61	1.45	0.14	0.84	1.63	0.10	-1.20
1.01	0.71	0.01	1.09	0.84	0.80	-0.77	-1.20
1.01	1.35	1.45	1.09	-0.68	0.80	0.10	0.24
0.22	0.71	0.01	1.09	0.08	-0.87	-0.77	0.24
-0.57	-1.18	0.01	0.14	-0.68	0.80	-0.77	-0.48
1.01	-1.18	1.45	-0.81	-0.68	-0.04	1.85	-0.48
1.80	2.61	2.17	2.04	-1.44	1.63	-0.77	-0.04
-0.57	-0.55	-0.72	-0.81	0.84	0.80	0.07	0.24
0.22	0.71	0.01	-0.81	-0.68	-0.87	1.85	-1.20
-1.35	0.08	1.45	-0.81	-0.68	-0.87	0.10	-1.92
1.01	0.08	0.73	0.14	-0.68	-0.04	-0.77	0.24
1.01	-1.18	2.17	2.04	1.60	0.80	0.10	0.24
1.01	0.08	-1.44	1.09	0.84	0.80	-0.77	0.24
1.80	-1.18	0.73	2.04	1.60	1.63	-0.77	0.96
1.01	-0.55	1.45	1.09	0.84	0.80	-0.77	0.96
0.22	1.35	0.01	1.09	0.84	-0.87	-0.77	-0.48
0.22	-0.55	1.45	2.04	0.84	0.80	-0.77	0.24
-2.14	-0.55	0.01	1.09	0.84	1.63	0.10	0.96
0.22	-1.18	0.73	0.14	0.08	-0.04	-0.77	0.24
-1.35	0.08	1.45	0.14	-0.68	-0.04	-0.77	0.24
0.22	-1.18	0.01	0.14	0.84	0.80	-0.77	0.96
-1.35	-0.55	0.01	-0.81	-0.68	-1.70	0.97	0.96
0.22	-1.18	-1.44	0.14	-2.20	-0.87	-0.77	0.96
1.80	0.71	-0.72	-0.81	-0.68	1.63	-0.77	0.96
0.22	1.98	0.01	-0.81	1.60	1.63	1.85	0.24
-0.57	-1.18	0.01	-0.81	0.08	-0.87	-0.77	0.96
0.22	0.71	-0.72	2.04	1.60	0.80	-0.77	0.96

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
1.01	-1.18	1.45	1.09	1.60	0.80	0.10	0.96
-0.57	-1.18	-2.16	-0.81	-0.68	-0.87	-0.77	0.96
-0.57	-1.18	-0.72	2.04	0.84	-1.70	-0.77	0.96
1.80	2.61	0.73	1.09	0.84	-0.05	-0.77	0.24
0.22	-1.18	0.73	0.14	-0.68	-0.04	-0.77	0.96
-1.35	-0.55	0.73	0.14	-0.68	-0.04	0.10	-1.20
-0.57	1.98	0.73	1.09	0.08	-0.87	1.85	-1.92
-0.57	1.98	0.73	1.09	0.08	-0.87	1.85	-1.92
0.22	0.01	0.01	-0.81	-1.44	-0.05	-0.77	-0.48
-0.57	-0.55	0.73	1.09	-1.44	1.63	-0.77	0.96
1.01	1.98	1.45	1.09	1.60	-0.04	2.72	-2.65
1.01	-0.55	1.45	-1.75	-0.68	-0.87	-0.77	0.96
1.80	1.35	1.45	1.09	0.84	-0.04	0.10	-0.04
-0.57	0.71	0.01	-0.81	-0.68	-0.87	0.97	-1.20
-0.57	0.71	-0.72	-0.81	-0.68	-0.87	0.10	-1.20
-1.35	-0.55	0.01	-0.81	0.08	0.80	-0.77	-1.20
1.80	0.71	0.01	-0.81	0.08	-0.04	0.10	0.24
-0.57	-0.55	0.01	-0.81	-0.68	-0.87	0.10	0.24
1.01	-0.55	1.45	1.09	0.84	-0.87	-0.77	0.96
1.01	0.08	0.01	1.09	0.84	0.80	0.97	0.96
0.22	0.08	-0.72	-0.81	0.84	0.80	0.10	0.96
-0.57	1.35	0.01	1.09	0.08	-0.04	0.97	-0.48
-0.57	0.08	0.01	0.14	0.08	-0.87	-0.77	0.24
1.01	0.71	-1.44	-0.81	0.84	-0.87	0.10	0.96
0.22	0.08	0.73	0.14	0.84	0.80	-0.77	0.24
1.01	0.71	0.01	0.14	-0.68	-1.70	-0.77	-1.20
-0.57	-1.18	0.01	0.14	0.08	-1.70	0.10	0.96
1.80	2.61	1.45	-0.81	0.08	1.63	-0.77	0.24
0.22	-0.55	0.01	-0.81	0.08	-0.04	-0.77	0.96
0.22	-1.18	-0.72	0.14	0.84	1.63	-0.77	0.96
-2.14	-1.18	-0.72	-0.81	-0.68	-0.87	0.10	0.24
1.01	-1.18	-0.72	-0.07	0.84	0.80	-0.77	0.96
-0.57	-1.18	-2.16	-0.81	-0.68	-0.04	-0.77	0.24
-2.93	-1.18	-0.72	-0.81	-0.68	-1.70	0.97	0.24
1.80	0.71	0.73	1.09	0.84	1.63	0.10	0.24
1.01	-1.18	0.01	0.14	0.08	-0.04	-0.77	0.24
1.01	0.71	0.01	0.14	0.84	-0.87	-0.77	0.96
1.01	0.71	0.01	1.09	0.84	-0.87	-0.77	0.96
1.01	0.71	-0.72	0.14	0.84	-0.87	-0.77	-0.48
0.22	0.71	0.73	1.09	0.84	-0.87	-0.77	0.24
-0.57	-1.18	0.73	-0.81	0.08	1.63	-0.77	0.96
1.01	1.98	1.45	1.09	1.60	0.80	0.10	-2.65
1.01	1.98	-0.72	-0.81	1.60	1.63	-0.77	0.96
1.80	0.71	0.73	2.04	1.60	1.63	-0.77	0.96
-2.93	-0.55	-1.44	-0.81	1.60	0.80	-0.77	0.96
0.22	0.08	-0.72	-0.81	-1.44	-0.04	-0.77	-1.20
-0.57	-1.18	-1.44	0.14	-1.44	0.80	-0.77	-1.92

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
0.22	-1.18	-1.44	0.14	-1.44	0.80	-0.77	-1.92
0.22	0.71	0.73	1.09	0.84	0.80	2.72	-1.20
-0.57	-0.55	-1.44	0.14	-0.68	-0.87	0.10	0.24
0.22	-1.18	-1.44	0.14	-1.44	0.80	-0.77	-1.92
0.22	-1.18	-0.72	-0.81	-1.44	-0.87	-0.77	0.96
-1.35	0.08	0.01	-2.70	-0.68	-0.87	-0.77	0.96
1.01	0.08	0.01	1.09	0.08	-0.87	-0.77	0.96
1.01	1.35	0.01	-0.81	0.08	0.80	1.85	-1.92
0.22	1.35	0.01	-1.75	-2.20	-0.87	0.10	0.24
0.22	0.71	-1.44	0.14	0.08	0.80	0.10	0.24
0.22	0.08	0.01	0.14	0.08	-0.87	0.10	0.24
0.22	0.71	0.01	0.14	0.08	-0.87	0.10	0.24
-2.14	0.71	0.01	-1.75	-2.20	0.80	1.85	-1.92
-0.57	0.08	0.01	0.14	0.08	-0.87	0.10	0.24
-0.57	0.08	0.01	-0.81	-0.68	-0.87	-0.77	0.24
0.22	-0.55	0.01	0.14	-0.68	-0.87	-0.77	0.24
0.22	1.35	0.01	0.14	0.84	0.80	-0.77	0.96
1.01	1.98	1.45	1.09	0.84	0.80	0.10	0.96
-0.57	0.08	-1.44	1.09	0.84	-0.87	-0.77	0.96
-0.57	0.71	-0.72	2.04	0.84	0.80	-0.77	0.24
-1.35	0.71	1.45	-1.75	-0.68	0.80	-0.77	-1.20
0.22	-1.18	0.73	-0.81	1.60	1.63	-0.77	0.96
-0.57	0.08	-0.72	-0.81	0.08	-0.04	1.85	-1.92
-0.57	0.71	0.01	0.14	-0.68	0.80	2.72	-1.92
-2.93	-1.18	0.01	-0.81	0.84	-0.87	-0.77	-1.20
1.01	-1.18	0.73	-0.07	1.60	1.63	-0.77	0.96
-1.35	1.35	-0.72	-0.81	-2.20	-1.70	0.10	0.24
0.22	0.08	0.01	0.14	0.84	-0.04	-0.77	0.96
-2.93	-1.18	0.01	-0.81	0.84	-0.87	-0.77	-1.20
0.22	0.08	0.73	1.09	0.08	-0.04	-0.77	0.96
0.22	-1.18	0.73	-0.81	0.08	-0.05	-0.77	0.96
0.22	-0.55	-1.44	0.14	0.08	-0.04	0.10	0.96
1.01	0.71	-2.16	1.09	1.60	1.63	-0.77	0.96
0.22	1.35	0.01	0.14	0.84	0.80	-0.77	-1.20
-0.57	0.71	0.01	-0.81	-0.68	-0.04	0.97	0.24
0.22	0.71	1.45	0.14	0.84	0.80	-0.77	0.96
-0.57	-0.55	-0.72	-1.75	-2.96	-2.53	0.97	-2.65
0.22	0.71	1.45	1.09	0.08	0.80	0.97	-1.92
1.01	0.08	0.01	-0.81	-0.68	-0.87	-0.77	0.96
-2.93	1.35	0.73	-0.81	0.84	1.63	0.10	0.24
-0.57	-1.18	-2.16	1.09	-0.68	-1.70	-0.77	0.96
-0.57	-1.18	-2.16	1.09	0.08	0.80	-0.77	0.96
-0.57	0.08	-0.72	-0.81	-0.68	-0.87	0.97	-0.48
1.01	-1.18	0.01	0.14	0.84	-0.04	-0.77	0.96
1.01	-0.55	0.73	2.04	1.60	0.80	-0.77	0.96
1.01	0.71	0.73	-2.70	-0.68	1.63	0.10	0.24
-0.57	-0.55	1.45	-1.75	0.08	-0.04	0.97	-1.92

ZP5.1	ZP5.2	ZP5.3	ZP5.4	ZP5.5	ZP5.6	ZP5.7	ZP5.8
0.22	-0.55	-0.72	0.14	0.84	-0.04	0.97	0.96
0.22	0.71	1.45	-0.81	0.08	0.80	-0.77	-1.92
-1.35	-0.55	0.01	-2.70	-0.68	-2.53	0.10	0.24
-0.57	-1.18	-2.16	-0.81	0.84	-0.87	-0.77	0.96
-0.57	-0.55	0.01	-0.81	-0.68	0.80	-0.77	0.96
-1.35	-0.55	-1.44	-0.81	-0.68	0.80	0.10	-1.20
-0.57	0.08	0.01	0.14	-0.68	-0.87	0.97	-0.48
1.01	-0.55	1.45	1.09	0.84	0.80	0.10	0.96
-0.57	0.71	0.01	-0.81	0.08	-1.70	0.97	0.24
-1.35	0.71	0.01	-0.81	0.08	-0.87	0.97	-0.04
-0.57	0.08	0.01	-2.70	-0.68	-1.70	2.72	-0.48
-0.57	-1.18	0.01	-0.81	-0.68	-0.87	1.85	-1.20
-0.57	0.71	-2.16	-0.81	-2.20	-0.04	-0.77	0.96
-1.35	0.71	0.01	-0.81	-2.20	-0.05	1.85	0.96
-0.57	0.71	0.01	-0.81	-0.68	-0.87	1.85	-1.20
-0.57	1.98	1.45	-0.81	-0.68	0.80	1.85	-1.20
-0.57	0.71	0.01	-0.81	-0.68	-0.87	1.85	-1.20
0.22	-1.18	0.73	0.14	0.08	-0.87	-0.77	-0.48
-2.93	0.71	0.01	-0.07	-2.96	1.63	-0.77	0.96
-0.57	-1.18	0.01	0.14	0.08	-0.87	-0.77	-1.20
-0.57	1.35	1.45	0.14	0.84	0.80	0.97	0.24
1.01	-0.55	2.17	1.09	1.60	1.63	-0.77	0.24
-0.57	-1.18	0.01	1.09	-2.96	-0.05	-0.77	-1.20
0.22	-1.18	0.01	-0.81	-0.68	-0.87	-0.77	0.96
1.01	-1.18	-0.72	1.09	0.84	0.80	-0.77	0.96
-0.57	0.08	0.73	-0.81	-0.68	-0.04	0.10	0.24
0.22	0.08	0.01	-0.81	0.84	-0.87	1.85	-1.92

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
-0.61	0.00	0.02	0.65	0.69	0.59	-0.43	0.84	0.66	1.49
1.54	0.84	0.85	1.47	1.43	0.59	0.53	1.53	0.66	0.77
-1.33	0.84	0.85	-0.17	-0.78	-0.37	-0.43	0.84	-0.03	0.05
-1.33	-0.84	-0.81	-0.17	-0.04	-1.33	-2.36	-0.54	-1.40	-1.38
0.82	0.84	1.67	1.47	1.43	0.59	0.53	1.53	1.34	1.49
0.82	1.68	0.85	1.47	0.69	1.56	0.53	1.53	1.34	0.77
-2.05	0.84	0.02	-0.99	-2.25	-1.33	-0.43	-0.54	-2.09	-2.10
-1.33	-0.84	0.85	0.65	0.69	-0.37	-1.40	1.53	0.66	0.77
0.11	-0.84	-1.63	-0.99	-0.04	-0.37	-0.43	0.15	-0.03	0.05
0.11	-0.84	0.02	-0.17	-0.04	-0.37	-0.43	-0.54	-0.71	0.05
0.11	0.84	-0.81	0.65	0.69	0.59	0.53	0.84	0.66	0.05
-1.33	-1.68	-1.63	0.65	1.43	-0.37	-0.43	-1.22	-0.03	0.05
0.82	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
1.54	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
1.54	1.68	0.85	1.47	1.43	0.59	0.53	0.84	1.34	1.49
-0.61	0.00	-0.81	-0.99	-1.52	-0.37	-0.43	0.15	-0.03	-2.10

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
0.11	0.84	0.85	0.65	0.69	0.59	0.53	0.84	1.34	-1.38
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
-0.61	0.84	-0.81	-0.17	-0.78	-0.37	-0.43	0.84	-0.03	-0.67
-0.61	-0.84	-0.81	-2.63	-0.78	-1.33	-1.40	-2.60	-2.09	-0.67
-0.61	-0.84	0.02	-0.99	-0.04	-0.37	-0.43	-0.54	-0.71	-0.67
-2.05	-0.84	0.02	-1.81	-0.78	-1.33	-0.43	-1.22	-1.40	-0.67
0.82	0.00	0.85	0.65	0.69	-0.37	-0.43	0.15	-0.71	0.05
0.11	0.00	0.02	-0.99	-0.04	-0.37	-0.43	-0.54	-0.03	0.05
0.82	-0.84	0.02	-0.17	-0.04	0.59	1.50	0.84	-0.71	-0.67
-0.61	-0.84	-0.81	-0.99	-2.25	-0.37	-0.43	-1.22	-0.71	-2.10
-2.05	-2.52	0.02	-0.17	-0.78	-1.33	-1.40	-2.60	-0.71	-0.67
0.11	0.84	-0.81	1.47	1.43	0.59	0.53	1.53	-0.71	-0.67
-2.76	-0.84	0.85	1.47	1.43	0.59	1.50	0.84	0.66	0.77
0.82	0.00	-0.81	-0.17	0.69	1.56	0.53	0.15	0.66	0.77
0.82	0.00	-0.81	-0.17	0.69	1.56	0.53	0.15	0.66	0.77
0.82	0.00	0.02	-0.99	-0.78	-0.37	-0.43	-1.22	-1.40	-0.67
0.82	0.84	0.85	1.47	-0.04	-0.37	-0.43	-0.54	0.66	1.49
0.82	0.84	0.85	1.47	-0.04	-0.37	-0.43	-0.54	0.66	1.49
0.82	0.00	0.02	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.77
0.82	0.00	0.02	1.47	-0.78	-0.37	1.50	0.84	-0.03	0.05
1.54	0.00	0.85	1.47	1.43	1.56	0.53	1.53	1.34	1.49
1.54	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
-2.05	-0.84	-1.63	0.65	-0.78	0.59	0.53	0.15	-0.71	-0.67
0.82	0.00	0.02	0.65	0.69	1.56	0.53	0.84	0.66	0.77
-2.05	1.68	-1.63	-1.81	-2.25	-1.33	-1.40	-2.60	-1.40	-1.38
-2.05	-1.68	-0.81	-0.17	0.69	0.59	1.50	-1.91	-1.40	-1.38
1.54	1.68	1.67	1.47	1.43	1.56	1.50	0.84	0.66	-0.67
0.11	0.84	0.02	-0.17	-0.78	0.59	0.53	-0.54	-0.71	-0.67
0.11	0.84	0.02	-0.99	1.43	0.59	-0.43	-0.54	-1.40	-0.67
0.11	0.84	0.02	-0.99	-0.04	0.59	1.50	0.15	-0.71	0.05
-0.61	-0.01	0.85	-1.81	-1.52	1.56	-0.43	-0.54	1.34	-0.67
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-2.05	1.68	1.67	1.47	0.69	1.56	1.50	0.15	1.34	1.49
-1.33	-0.84	-0.81	-1.81	-1.52	1.56	1.50	0.84	0.66	0.05
0.82	1.68	0.02	0.65	1.43	1.56	0.53	0.15	0.66	0.77
-2.05	0.84	-0.81	0.65	0.69	0.59	0.53	0.15	-0.03	0.05
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.71	-0.67
0.11	0.84	-0.81	-0.17	-0.78	-0.04	-1.40	-1.22	0.66	0.77
0.11	0.00	0.02	-0.99	-0.78	0.59	0.53	0.15	0.66	0.77
0.11	0.00	-0.81	-0.17	-0.78	0.59	0.53	0.84	-0.71	-0.67
0.82	0.84	0.85	0.65	0.69	0.59	0.53	-0.54	-0.71	-0.67
0.82	0.84	0.02	-0.17	-0.04	0.59	-0.43	0.84	0.66	0.05
-0.61	0.00	0.85	-0.17	-0.04	-1.33	-1.40	0.15	-0.03	-2.10
0.82	-0.84	1.67	1.47	0.69	0.59	0.53	1.53	1.34	0.77
1.54	0.84	1.67	1.47	-0.04	-0.37	0.53	-0.54	1.34	0.77
-0.61	0.84	0.02	-0.17	-0.78	-1.33	-0.43	-0.54	-0.71	-0.67

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
0.82	-0.84	0.02	-0.17	0.69	0.59	-0.43	0.15	-0.03	0.77
-0.61	0.00	-0.81	-0.99	-0.04	-1.33	-1.40	-0.54	-0.03	0.05
0.11	-0.84	-0.81	-0.99	-0.78	-1.33	-0.43	-0.54	0.66	0.77
0.11	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.03	-0.67
0.82	-1.68	1.67	0.65	1.43	1.56	0.53	0.84	0.66	0.77
-0.61	-0.84	-0.81	-0.17	-0.78	-0.37	0.53	-0.54	1.34	0.05
-1.33	-1.68	-1.63	-1.81	-1.52	-2.30	-2.36	-1.22	-1.40	-1.38
-0.61	-1.68	0.85	-0.99	-1.52	1.56	-0.43	-0.54	1.34	-0.67
0.11	0.00	0.02	-0.17	-0.04	-0.37	0.53	-0.54	-0.71	-0.67
0.11	-2.52	-0.81	-0.17	-1.52	-1.33	-0.43	-1.91	1.34	0.05
-0.61	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	0.00	-0.81	0.65	-0.78	-0.37	-0.43	0.15	-0.71	0.05
-2.05	0.84	0.85	0.65	0.69	0.59	0.53	0.15	0.66	0.77
-0.61	0.00	0.02	-0.17	-0.04	0.59	0.53	-0.54	0.66	0.77
0.11	0.84	0.02	0.65	-0.04	0.59	0.53	-1.22	0.66	-2.10
-1.33	0.00	-0.81	-0.17	-0.04	0.59	0.53	-0.54	0.66	-0.67
-0.61	0.84	0.02	0.65	-0.78	-0.37	0.53	-0.54	0.66	1.49
-0.61	0.00	0.02	-0.99	-1.52	-1.33	-0.43	-1.22	-0.71	-0.67
1.54	0.84	0.02	-0.99	-1.52	0.59	0.53	-0.54	1.34	0.05
-0.61	-0.84	-1.63	-2.63	-2.99	0.59	-0.43	-1.22	-1.40	-2.10
0.11	0.84	0.02	-0.17	0.69	0.59	0.53	0.15	-0.03	0.05
0.11	-0.84	-0.81	-0.99	-0.78	-0.37	-1.40	-0.54	-0.71	0.05
1.54	0.84	0.02	-0.99	-1.52	0.59	0.53	-0.54	1.34	0.05
1.54	0.84	0.02	0.65	0.69	-0.37	0.53	1.53	0.66	0.77
1.54	0.84	1.67	-0.17	-0.78	0.59	1.50	1.53	-0.03	0.05
1.54	0.84	1.67	-0.17	-0.78	0.59	1.50	1.53	-0.03	0.05
-0.61	-0.84	-0.81	-0.17	-0.78	-0.37	-0.43	-0.54	-0.03	0.05
-0.61	-0.84	-0.81	-0.99	-0.78	-0.37	-0.43	0.15	-0.03	0.05
0.11	0.00	0.85	-0.99	-0.78	-0.37	0.53	-0.54	-0.03	0.05
-1.33	-0.84	-0.81	0.65	-0.78	-0.37	-0.43	0.15	-0.03	-0.67
-0.61	-0.84	0.02	-0.17	-0.78	-1.33	-0.43	-0.54	-0.71	-0.67
-0.61	-0.84	0.02	-0.99	-0.04	-0.37	-0.43	0.15	-0.03	-0.67
1.54	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.82	0.84	0.02	0.65	0.69	0.59	0.53	0.84	0.66	-1.38
0.11	0.00	-0.81	-0.99	-0.04	-1.33	-2.36	-1.91	-0.71	-1.38
-0.61	0.00	0.02	0.65	0.69	-1.33	-1.40	-1.91	-0.71	0.05
-2.05	-0.84	0.02	0.65	-0.78	-0.37	0.53	0.15	0.66	-0.67
0.82	0.84	0.85	0.65	0.69	0.59	-0.43	-1.22	-0.71	1.49
0.82	0.84	0.02	-0.17	-0.04	-0.37	0.53	-1.22	-0.71	0.05
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.15	0.66	0.05
0.11	-0.84	0.02	0.65	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	0.84	-2.46	0.65	-2.25	-0.37	0.53	-1.91	-0.71	0.05
0.11	0.84	-0.81	-0.99	-1.52	-2.30	-1.40	-1.91	-1.40	-1.38
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-0.43	-0.54	-0.71	0.05
0.82	-2.52	1.67	0.65	-2.25	1.56	1.50	-2.60	-2.09	-0.67
-0.61	-0.84	-0.81	-1.81	-1.52	-1.33	-1.40	-1.22	-0.71	-1.38
0.11	0.84	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.71	-0.67
0.82	0.84	0.85	0.65	0.69	-0.37	0.53	0.15	0.66	0.05
-1.33	-0.84	0.02	-2.63	-1.52	-1.33	-2.36	-1.22	-1.40	-0.67
0.82	0.00	0.02	0.65	0.69	-0.37	0.53	0.15	0.66	0.05
0.82	0.00	0.85	-0.17	-0.04	0.59	-0.43	0.84	0.66	0.77
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
1.54	0.84	0.85	1.47	1.43	1.56	1.50	1.53	1.34	0.77
1.54	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
1.54	0.84	1.67	1.47	1.43	0.59	1.50	1.53	1.34	0.77
0.82	0.84	0.85	-0.17	0.69	-0.37	0.53	0.15	-0.03	0.05
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
0.11	-0.84	0.85	-0.17	-0.04	-2.30	-1.40	-1.91	0.66	0.77
-0.61	0.00	-0.81	-1.81	-1.52	-1.33	-2.36	-1.22	-1.40	-1.38
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.71	0.05
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	-0.54	-0.03	0.05
0.82	-0.84	0.02	0.65	0.69	-0.37	-0.43	0.15	0.66	-2.82
1.54	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
0.11	0.84	0.85	0.65	0.69	0.59	0.53	1.53	1.34	1.49
0.82	0.84	0.02	-0.17	-0.04	-0.37	0.53	0.84	-0.03	0.05
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.11	0.00	0.02	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.11	0.00	0.02	-0.99	0.69	-0.37	-0.43	-0.54	-0.03	0.77
0.82	-0.84	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.09
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	0.15	-0.03	0.05
1.54	0.84	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
-0.61	-0.84	0.02	-0.17	-0.04	-0.37	-0.43	-0.54	-1.40	-0.67
-0.61	-0.84	-0.81	-0.99	-0.78	-0.37	-0.43	-0.54	-0.71	0.05
1.54	0.84	0.85	0.65	0.69	0.59	0.53	0.15	-0.03	0.77
0.11	-0.84	-1.63	-0.17	1.43	-0.37	-0.43	-0.54	-0.71	0.05
-0.61	0.00	0.85	-0.17	-0.04	-0.37	-1.40	0.84	0.66	0.77
1.54	0.84	0.85	0.65	0.69	0.59	0.53	0.15	-0.03	0.77
1.54	0.00	0.85	0.65	0.69	-0.37	-0.43	0.84	0.66	0.05
-1.33	0.00	-0.81	-0.17	-1.52	-2.30	-0.43	-0.54	-0.71	-1.38
1.54	1.68	0.85	0.65	1.43	0.59	0.53	0.84	0.66	0.77
0.11	-0.84	-0.81	-0.17	-0.78	-1.33	-2.36	-1.22	-0.71	-0.67
0.11	-0.84	0.85	-0.17	0.69	-0.37	0.53	-0.54	-0.03	0.05
0.11	0.00	-0.81	-0.99	-0.78	-0.37	-0.43	-0.54	-0.03	-0.67
0.82	0.00	-0.81	-0.17	-0.04	-0.37	-1.40	-0.54	-0.03	-0.67
-0.61	-0.84	0.02	-0.17	-0.04	-1.33	-1.40	0.15	-0.03	0.05
-0.61	-0.84	0.85	1.47	1.43	0.59	1.50	1.53	1.34	0.77
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-0.43	-0.54	-0.71	-0.67
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
1.54	1.68	0.85	1.47	1.43	1.56	1.50	0.84	-0.03	1.49
0.82	1.68	0.85	1.47	1.43	1.56	1.50	0.84	0.66	1.49

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
-0.61	0.00	0.02	0.65	-0.78	0.59	0.53	0.15	-0.71	0.77
1.54	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	-0.67
1.54	0.84	0.85	0.65	0.69	-0.37	0.53	0.15	-0.03	-0.67
1.54	1.68	-0.81	0.65	1.43	1.56	0.53	1.53	-2.77	-0.67
-0.61	-0.84	-0.81	-0.17	-0.78	-0.37	0.53	0.15	0.66	-1.38
-0.61	-0.84	-0.81	-0.17	-0.04	-1.33	-1.40	-0.54	0.66	0.77
0.82	-0.84	0.85	0.65	-0.04	1.56	1.50	0.15	1.34	-2.10
1.54	1.68	1.67	0.65	1.43	0.59	1.50	1.53	1.34	1.49
0.11	0.84	0.85	-0.99	0.69	0.59	1.50	-0.54	-0.71	0.05
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.11	-0.84	-0.81	-0.17	-0.04	-0.37	0.53	0.15	0.66	-1.38
-0.61	0.00	-1.63	-0.99	-0.04	-0.04	-1.40	-1.22	0.66	0.05
1.54	0.00	0.85	-0.17	-0.04	-0.37	0.53	0.84	0.66	0.05
0.82	0.00	0.85	-0.99	-0.78	-1.33	-1.40	0.15	-0.71	-0.67
-0.61	0.00	-0.81	-0.17	-0.78	-0.37	-0.43	-0.54	-0.71	-0.67
0.82	0.84	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	0.84	0.02	-0.99	-0.04	-0.37	-1.40	-0.54	-0.03	-0.67
1.54	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
-2.05	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
0.82	-0.84	-1.63	-0.99	-0.04	-1.33	-0.43	-1.22	-0.71	-1.38
1.54	1.68	1.67	-0.03	-1.52	1.56	1.50	1.53	1.34	1.49
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-0.43	0.15	-0.71	-1.38
0.11	-1.68	-0.81	-0.03	-2.99	-0.04	-2.36	-0.54	0.66	-0.67
0.11	-0.84	0.02	-0.17	-0.78	0.59	0.53	1.53	1.34	-2.10
-2.05	0.00	0.02	0.65	0.69	0.59	0.53	-0.54	-0.71	0.05
0.11	-0.84	-0.81	-0.99	0.69	0.59	0.53	0.84	0.66	0.77
-1.33	-0.84	-1.63	-0.99	-0.78	-0.37	-0.43	-0.54	-0.03	-1.38
0.11	-0.84	0.02	-0.17	-0.04	-0.37	0.53	0.84	0.66	0.05
-0.61	-1.68	-2.46	-1.81	-0.78	-2.30	-1.40	-1.22	-1.40	-0.67
0.11	0.00	0.02	1.47	0.69	0.59	1.50	0.84	-0.03	0.05
-1.33	0.00	-0.81	-0.99	-0.78	-0.37	0.53	-1.22	-0.03	-0.67
-2.05	0.00	0.85	-1.81	-0.04	-1.33	-0.43	-0.54	-0.71	0.05
1.54	1.68	1.67	1.47	1.43	1.56	1.50	0.84	1.34	1.49
-2.76	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
-0.61	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	-2.82
0.82	1.68	0.85	1.47	1.43	1.56	1.50	1.53	1.34	0.05
0.11	0.00	0.02	0.65	0.69	-0.37	-0.43	0.84	-0.03	0.05
-2.76	-2.52	-1.63	-2.63	-0.78	-1.33	-2.36	-2.60	-2.77	-1.38
-0.61	0.00	-0.81	-0.17	-0.78	-1.33	-0.43	-1.22	-0.71	-0.67
0.82	0.84	1.67	1.47	1.43	0.59	0.53	0.84	0.66	0.05
-2.05	-0.84	0.02	0.65	-0.04	0.59	0.53	0.15	0.66	0.05
-0.61	-1.68	-0.81	-0.17	-1.52	-1.33	-0.43	0.15	-0.71	0.05
-0.61	1.68	1.67	1.47	-0.04	1.56	1.50	1.53	0.66	1.49
-1.33	-0.84	0.85	-0.17	-0.78	-0.37	-1.40	-0.54	0.66	-0.67
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	0.84	0.85	1.47	1.43	0.59	0.53	0.84	0.66	0.77
0.82	0.00	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
1.54	0.84	0.85	1.47	1.43	0.59	0.53	0.84	1.34	1.49
-0.61	0.00	0.02	-0.17	-0.04	1.56	0.53	0.84	1.34	0.77
0.11	-0.84	-0.81	-0.17	-0.04	-1.33	-1.40	-1.91	-2.09	0.05
-1.33	-1.68	-1.63	-1.81	-0.04	-1.33	-1.40	-1.91	-2.09	-0.67
-2.05	-2.52	-2.46	-2.63	-2.25	-1.33	-1.40	-1.91	-1.40	0.05
-2.05	-2.52	-2.46	0.65	-0.04	-1.33	-1.40	-1.91	-2.09	0.05
-1.33	-1.68	-1.63	-0.17	-0.04	-0.37	-0.43	-1.91	-2.09	-2.10
-0.61	-0.84	-1.63	-0.99	-0.04	-1.33	-1.40	-2.60	-2.09	-0.67
-1.33	-1.68	-1.63	-0.99	-0.78	-1.33	-1.40	-1.91	-2.09	-2.10
-1.33	-1.68	-1.63	-0.17	-0.04	-0.37	-0.43	-1.91	-2.09	0.05
1.54	1.68	1.67	0.65	1.43	0.59	0.53	0.84	0.66	1.49
0.82	0.00	0.85	0.65	-0.04	-0.37	-0.43	0.15	0.66	0.05
-0.61	-0.84	-1.63	1.47	1.43	0.59	-0.43	-1.22	-1.40	1.49
-0.61	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	0.66	0.77
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	0.66	0.77
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
1.54	1.68	0.85	-0.99	1.43	1.56	1.50	0.15	0.66	1.49
0.82	0.84	0.02	0.65	0.69	-1.33	-1.40	0.15	-0.03	1.49
0.11	0.00	0.85	0.65	0.69	1.56	1.50	1.53	1.34	0.77
0.82	-1.68	0.85	1.47	0.69	1.56	-0.04	-0.54	1.34	1.49
-0.61	1.68	0.85	-0.99	-0.78	-1.33	-0.43	-1.91	-2.09	-2.82
0.11	0.00	0.02	0.65	1.43	0.59	0.53	1.53	1.34	1.49
0.11	0.00	0.85	1.47	0.69	0.59	0.53	-0.54	-0.03	-0.67
0.82	0.00	1.67	0.65	0.69	0.59	1.50	0.84	0.66	0.77
-0.61	-0.84	-0.81	0.65	-0.78	-1.33	-0.43	-0.54	-1.40	-0.67
-0.61	-0.84	0.02	-0.17	0.69	-1.33	-0.43	-0.54	-0.03	0.05
-0.61	1.68	-0.81	-0.99	-2.99	-0.06	1.50	-2.60	-2.77	-2.82
0.11	-0.84	0.02	-0.99	-0.04	-0.37	-1.40	0.15	-0.71	0.05
0.82	0.00	0.02	0.65	0.69	1.56	-0.43	0.15	-0.03	0.05
0.82	0.84	1.67	0.65	0.69	1.56	0.53	0.84	1.34	-1.38
-0.61	-0.84	-0.81	-1.81	-2.25	-2.30	-2.36	-1.22	-2.09	-1.38
0.11	-0.84	0.02	-0.17	0.69	-0.37	-0.43	0.15	-0.03	0.05
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	-0.03	0.05
0.82	0.00	0.02	-0.17	-0.04	0.59	0.53	0.84	0.66	0.05
0.11	0.00	-0.81	-0.17	-0.04	0.59	-0.43	0.15	-0.03	0.77
-0.61	0.00	0.02	0.65	-0.04	-0.37	-0.43	0.15	-0.03	0.05
1.54	0.00	-0.81	-0.17	0.69	0.59	0.53	-0.54	-0.03	0.05
-0.61	-0.84	-0.81	-0.17	-0.78	-1.33	-0.43	-0.54	-0.71	-0.67
-1.33	-1.68	-2.46	-0.99	-2.25	-2.30	-2.36	-1.91	-0.03	-0.67
0.11	0.00	-0.81	-0.99	-0.78	-1.33	-0.43	-0.54	-0.71	-0.67
0.11	0.00	0.02	0.65	0.69	0.59	0.53	0.84	0.66	0.77
-0.61	-0.84	-0.81	1.47	-0.78	-0.37	-0.43	0.15	-0.03	-0.67
-0.61	-0.84	-1.63	-0.17	-0.78	-1.33	-0.43	-1.22	-0.71	-0.67
-2.05	-0.84	-0.81	-0.99	-0.78	1.56	0.53	-0.54	-0.71	-0.67
-2.05	-0.84	-0.81	-0.99	-0.78	1.56	0.53	-0.54	-0.71	-0.67
1.54	1.68	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
0.11	0.00	0.02	-0.17	-0.04	0.59	0.53	0.15	-0.03	0.05

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
-0.61	-0.84	-1.63	0.65	0.69	0.59	0.53	-0.54	-0.71	-0.67
0.11	-0.84	-1.63	-0.17	-0.04	-0.37	-0.43	-0.54	-0.03	-0.67
0.11	-1.68	-0.81	-1.81	-0.78	-0.37	-0.43	0.15	-0.71	-1.38
0.11	-0.84	1.67	-0.99	-0.78	-0.37	-0.43	-0.54	-0.71	-0.67
1.54	0.84	1.67	1.47	0.69	0.59	0.53	1.53	1.34	0.77
0.82	0.00	-0.81	-0.17	-0.78	0.59	-0.43	-0.54	-0.03	-0.67
0.11	0.00	0.02	0.65	-1.52	-0.37	0.53	0.15	-0.71	-1.38
0.82	0.84	-0.81	-1.81	-1.52	0.59	0.53	0.15	0.66	0.77
1.54	0.84	0.85	-0.99	-0.78	0.59	-1.40	-1.91	0.66	0.77
-2.05	-2.52	-2.46	-2.63	-2.25	-0.04	-0.04	-1.91	-2.09	-2.10
0.11	-1.68	-1.63	-1.81	-1.52	0.59	0.53	-1.22	-2.77	-1.38
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.71	-0.67
0.82	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
0.11	0.84	0.02	-0.99	-0.78	-1.33	-2.36	-1.91	-2.09	-2.82
0.11	-2.52	-2.46	-2.63	-2.25	-1.33	-0.04	-1.91	-2.09	-2.10
-2.05	-0.84	0.02	-1.81	-0.04	-2.30	-1.40	0.15	-0.71	0.05
0.82	0.84	-0.81	-0.99	-1.52	-0.37	-1.40	-1.22	-1.40	-0.67
0.82	0.00	0.02	-0.99	-0.78	-0.37	0.53	-0.54	-1.40	-0.67
0.11	0.84	0.02	1.47	0.69	0.59	1.50	-0.54	-0.03	0.77
0.82	-0.84	-0.81	-0.99	-1.52	-2.30	-1.40	-0.54	-0.03	0.05
0.82	1.68	0.02	0.65	0.69	0.59	0.53	0.15	0.66	0.77
-0.61	0.84	0.85	0.65	1.43	1.56	1.50	0.84	0.66	0.77
0.82	0.84	0.02	1.47	-0.04	1.56	0.53	0.15	0.66	1.49
-0.61	-0.84	-2.46	-0.99	-1.52	-2.30	-1.40	-1.91	-2.09	-1.38
0.82	0.84	1.67	0.65	0.69	1.56	1.50	-1.22	0.66	0.77
-0.61	-2.52	-2.46	-2.63	-2.25	-1.33	-1.40	-1.22	-1.40	-1.38
-0.61	1.68	0.02	1.47	0.69	1.56	-0.43	0.15	1.34	-0.67
0.11	-1.68	-1.63	-0.99	-0.78	-0.37	-1.40	-1.22	-1.40	-1.38
-0.61	-0.84	-0.81	0.65	0.69	0.59	0.53	-0.54	-0.03	-1.38
0.82	0.84	1.67	1.47	1.43	1.56	1.50	1.53	1.34	1.49
-2.76	-0.84	-2.46	-0.03	-2.99	-0.37	-0.04	-1.91	-2.09	-2.10
-0.61	-0.84	-0.81	-0.99	-0.04	-0.37	0.53	-1.22	-2.09	-1.38
0.82	1.68	1.67	0.65	0.69	0.59	1.50	1.53	1.34	1.49
-1.33	0.84	0.85	0.65	0.69	0.59	1.50	-1.91	-0.71	0.05
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.71	-0.67
0.11	0.84	0.85	1.47	-0.78	-0.37	1.50	-0.54	-0.03	1.49
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.82	0.84	0.02	0.65	0.69	0.59	0.53	0.84	-0.03	0.77
0.11	0.00	0.85	1.47	1.43	0.59	1.50	0.84	1.34	1.49
0.11	0.00	0.02	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.82	0.84	0.02	-0.17	-0.04	-0.37	-0.43	-0.54	-0.03	-0.67
-0.61	0.00	0.85	0.65	0.69	0.59	-0.43	0.84	0.66	0.05
-1.33	0.00	0.02	-0.99	0.69	-0.37	0.53	1.53	-0.03	0.05
0.11	0.00	-0.81	-1.81	-0.78	-0.37	-0.43	-0.54	-0.03	0.05
0.11	1.68	0.85	-0.17	-0.78	-0.37	0.53	-0.54	-0.71	0.05
-0.61	0.00	-0.81	0.65	-2.25	-1.33	-0.43	-0.54	-2.09	-2.10
-2.76	0.00	0.85	0.65	0.69	1.56	1.50	0.15	1.34	1.49

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
-0.61	0.00	0.02	-0.17	-0.04	0.59	-0.43	0.15	-0.71	-0.67
0.82	0.00	0.02	1.47	-0.04	1.56	0.53	0.84	-0.03	0.05
-0.61	0.84	0.85	-0.99	-0.78	-0.37	-0.43	0.15	-0.03	0.77
1.54	0.84	-0.81	-0.99	-0.04	-0.37	-0.43	-0.54	-0.71	0.05
-0.61	0.84	0.02	-0.17	0.69	-0.37	-0.43	0.84	0.66	0.77
-0.61	0.00	0.85	-0.17	0.69	-0.37	0.53	0.15	0.66	0.05
0.11	-0.84	-0.81	0.65	-0.78	-1.33	-0.43	-0.54	0.66	-0.67
0.82	0.84	0.85	0.65	0.69	0.59	1.50	0.15	0.66	0.77
-0.61	-0.84	0.02	0.65	-0.04	0.59	-0.43	1.53	1.34	1.49
-0.61	-0.84	0.02	0.65	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	-0.84	-1.63	-0.99	-0.78	-1.33	-0.43	-0.54	-0.03	-1.38
0.82	0.00	0.85	0.65	0.69	0.59	-0.43	0.84	-0.03	0.05
1.54	1.68	0.85	0.65	0.69	0.59	0.53	1.53	1.34	1.49
1.54	0.00	0.85	0.65	1.43	0.59	0.53	1.53	1.34	0.77
0.11	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.82	0.00	0.02	0.65	0.69	0.59	-0.43	0.15	0.66	0.05
0.82	0.84	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
0.11	0.00	-0.81	-0.17	0.69	0.59	-0.43	0.84	-0.03	0.77
1.54	-2.52	0.85	1.47	0.69	1.56	1.50	1.53	1.34	0.77
-0.61	0.00	-0.81	-0.17	-0.04	-0.37	-0.43	-0.54	-0.03	-0.67
-1.33	-0.84	-0.81	-1.81	-0.04	-1.33	-2.36	-0.54	-0.03	-0.67
-0.61	0.84	0.02	1.47	1.43	1.56	1.50	1.53	1.34	1.49
-1.33	-0.84	0.85	0.65	-0.04	0.59	-0.43	0.84	-0.03	-0.67
-0.61	0.00	0.02	0.65	-0.04	-0.37	0.53	0.15	0.66	0.05
0.11	-0.84	1.67	1.47	1.43	-1.33	-0.43	-0.54	-0.03	0.05
1.54	0.84	1.67	-0.17	0.69	0.59	1.50	0.15	0.66	1.49
0.82	0.00	0.85	-0.17	1.43	1.56	1.50	0.84	-0.03	1.49
-0.61	-1.68	-0.81	-0.17	0.69	0.59	-0.43	-0.54	-0.71	-1.38
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.71	-0.67
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	-0.54	-0.71	-0.67
-0.61	-0.84	-0.81	-0.99	-0.78	-1.33	-1.40	0.15	-0.03	0.05
0.11	-0.84	0.02	-0.17	-0.78	-1.33	-0.43	0.15	-0.71	0.77
-0.61	0.00	1.67	1.47	1.43	0.59	0.53	1.53	1.34	1.49
-2.05	-1.68	0.02	-0.17	0.69	-1.33	-2.36	0.84	0.66	0.05
0.82	0.00	0.02	-0.17	0.69	-0.37	-0.43	0.84	0.66	0.05
-1.33	-1.68	-1.63	-1.81	-1.52	-2.30	-2.36	-1.22	-1.40	-1.38
1.54	0.84	-0.81	0.65	0.69	-1.33	-1.40	1.53	-0.03	0.05
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
-0.61	0.00	1.67	0.65	-1.52	0.59	0.53	0.84	1.34	1.49
-0.61	0.00	0.02	-0.17	-0.04	0.59	0.53	0.84	-0.03	0.05
0.11	-0.84	-1.63	-0.99	-0.04	0.59	-0.43	0.15	-0.03	-0.67
-0.61	0.00	-1.63	-0.99	-0.04	0.59	-0.43	-0.54	-0.03	0.05
-0.61	-1.68	-1.63	-0.99	-0.04	-0.37	-1.40	-0.54	-1.40	0.05
0.82	0.84	0.85	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	0.00	0.02	-0.17	-0.04	0.59	0.53	-0.54	-0.71	0.05
-1.33	-0.84	-0.81	-0.99	-0.78	-0.37	-0.43	-0.54	-1.40	-1.38
0.82	0.84	0.02	1.47	1.43	0.59	0.53	0.84	-0.03	0.05

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
-0.61	0.00	-1.63	-0.99	-0.04	-1.33	-0.43	-0.54	-0.03	-0.67
-0.61	0.00	0.85	-0.99	0.69	-0.37	1.50	0.84	-2.77	-1.38
0.11	-0.84	-0.81	-1.81	-1.52	0.59	0.53	-0.54	-2.77	0.05
-0.61	-1.68	-1.63	-1.81	-1.52	-1.33	-0.43	-1.22	-1.40	0.05
-0.61	-1.68	0.02	-1.81	-0.78	-1.33	-2.36	0.15	-1.40	0.77
-0.61	-0.84	0.02	-0.17	-0.04	-0.37	-1.40	-1.22	-1.40	-0.67
0.82	0.84	0.85	0.65	0.69	0.59	1.50	0.84	0.66	0.77
-0.61	-0.84	0.85	-0.99	-0.78	-0.37	-0.43	-0.54	-0.71	-0.67
0.82	1.68	-0.81	0.65	-0.78	0.59	0.53	-0.54	0.66	0.77
-0.61	0.00	0.02	0.65	-0.04	-1.33	-0.43	0.84	-0.03	0.77
-0.61	-0.84	-1.63	-0.99	-2.25	-1.33	-1.40	-0.54	-1.40	-1.38
-0.61	0.84	-0.81	1.47	0.69	0.59	0.53	0.84	0.66	0.77
0.11	-1.68	0.85	-0.17	-0.04	1.56	1.50	-0.54	-0.03	0.05
0.11	-0.84	0.85	0.65	1.43	0.59	1.50	0.84	1.34	1.49
-0.61	-0.84	0.02	-0.17	-0.04	-1.33	-0.43	0.15	0.66	0.05
0.11	0.00	0.02	0.65	0.69	0.59	0.53	0.15	-0.03	0.05
-0.61	-0.84	0.02	-0.99	0.69	-1.33	0.53	1.53	0.66	-2.82
-0.61	0.00	0.02	-0.17	0.69	-1.33	-1.40	0.15	-1.40	-2.10
-0.61	0.84	0.85	1.47	1.43	0.59	0.53	0.84	0.66	0.77
0.11	-0.84	-0.81	-0.17	-0.78	-1.33	-1.40	-0.54	-0.71	0.05
0.11	0.00	0.02	-0.99	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	1.68	-0.81	-0.99	-2.99	-0.06	1.50	-2.60	-2.77	-2.82
1.54	0.00	0.02	-0.17	1.43	-0.37	-0.43	-0.54	1.34	1.49
-0.61	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
-0.61	0.00	-0.81	-0.99	-0.04	-0.37	-0.43	0.15	0.66	0.77
0.82	0.84	0.85	-0.17	0.69	0.59	0.53	0.84	0.66	0.77
0.82	0.84	0.85	0.65	0.69	0.59	1.50	1.53	0.66	0.77
0.82	0.84	0.85	0.65	0.69	1.56	1.50	0.84	1.34	1.49
-1.33	-0.84	0.02	0.65	-0.04	0.59	-1.40	-0.54	0.66	-0.67
0.11	-0.84	-0.81	1.47	-0.04	0.59	0.53	0.15	0.66	-0.67
0.11	0.84	0.85	1.47	0.69	-0.37	0.53	-0.54	1.34	0.77
1.54	1.68	1.67	-0.99	-1.52	-0.04	0.53	0.84	-2.77	-1.38
0.82	0.84	0.85	0.65	0.69	0.59	-0.43	0.84	0.66	0.05
0.11	1.68	0.85	0.65	0.69	1.56	1.50	-0.54	0.66	-0.67
-0.61	0.00	-0.81	-0.99	-0.04	0.59	0.53	-0.54	1.34	0.05
-0.61	-0.84	-0.81	-0.17	-0.04	0.59	0.53	-0.54	-0.03	0.77
-0.61	0.00	-0.81	-0.99	-0.04	-0.37	-0.43	-0.54	-1.40	-0.67
0.11	0.00	-0.81	-0.99	-2.25	0.59	-0.43	-0.54	-0.71	-1.38
1.54	1.68	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
1.54	1.68	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
-0.61	-1.68	-1.63	-1.81	-0.78	-1.33	-0.43	-0.54	-1.40	-0.67
-0.61	-0.84	-0.81	-0.99	-0.78	-0.37	0.53	0.84	-0.71	0.77
-0.61	0.00	-1.63	-0.17	0.69	-0.37	-1.40	0.84	-0.71	0.05
0.82	0.00	0.02	-0.17	-0.04	-1.33	-0.43	-0.54	-0.03	0.05
0.82	0.84	0.85	0.65	0.69	0.59	0.53	0.84	0.66	0.77
0.11	0.00	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05
0.11	-0.84	0.02	-0.17	-0.04	-0.37	-0.43	0.15	-0.03	0.05

ZL1	ZL2	ZL3	ZL4	ZL5	ZL6	ZL7	ZL8	ZL9	ZL10
0.82	0.84	1.67	1.47	1.43	1.56	1.50	0.84	1.34	1.49
1.54	0.84	0.85	0.65	1.43	0.59	0.53	0.15	1.34	1.49
0.82	0.00	-0.81	0.65	0.69	0.59	0.53	0.15	1.34	1.49
1.54	0.00	1.67	1.47	1.43	1.56	0.53	0.84	0.66	0.77
-1.33	0.84	0.85	1.47	1.43	1.56	1.50	0.84	0.66	1.49
-0.61	-0.84	0.02	-0.17	-0.04	-0.37	-1.40	0.15	-0.03	1.49
1.54	1.68	0.85	1.47	0.69	1.56	1.50	1.53	0.66	0.77
1.54	0.84	0.85	1.47	1.43	1.56	1.50	1.53	1.34	1.49
0.82	0.00	-0.81	-0.17	-0.04	-0.37	0.53	-1.91	0.66	0.77
-0.61	0.00	-1.63	-0.99	-1.52	-1.33	-0.43	-1.22	-0.03	-1.38

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
1.30	1.42	0.71	0.69	1.67	0.86	0.82	0.67	1.42	0.45
0.59	-0.21	-0.02	0.69	0.83	0.86	1.64	1.47	0.60	1.26
-0.85	-1.84	-0.76	-0.12	0.83	1.71	0.00	-0.13	-0.22	0.45
0.59	-0.21	-1.49	-0.92	-0.84	0.02	0.00	-0.13	0.60	-0.36
1.30	1.42	0.71	0.69	1.67	0.86	0.82	0.67	1.42	1.26
1.30	0.60	0.71	1.49	0.83	0.02	0.82	0.67	0.60	1.26
-2.28	-1.02	0.71	-0.92	-1.67	-1.68	-1.65	-0.93	-1.04	-1.17
0.59	0.60	0.71	-0.12	0.83	0.86	0.82	0.67	0.60	0.45
-1.56	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-0.22	-1.17
-0.13	-0.21	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-0.22	-1.17
0.59	-0.21	-0.02	-0.12	0.83	0.02	0.00	-0.13	0.60	0.45
-0.13	-0.21	0.71	-0.12	0.00	0.02	0.00	0.67	0.60	-1.98
1.30	1.42	0.71	1.49	0.83	1.71	0.82	1.47	1.42	1.26
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
1.30	1.42	1.45	1.49	0.83	0.02	-0.82	-0.13	-1.04	0.45
-1.56	-1.02	-1.49	-2.53	-2.51	-1.68	0.00	-0.13	-1.04	-1.17
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	1.26
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
1.30	-0.21	-0.02	0.69	0.00	0.86	0.82	-0.13	0.60	0.45
-0.85	-1.84	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-0.13	-0.21	-0.02	-0.92	-1.67	-1.68	-1.65	-1.74	-1.04	-1.17
-0.13	-1.02	-0.76	-0.92	0.00	0.02	-0.82	-0.93	-1.85	-1.17
-0.13	0.60	-0.02	0.69	-0.84	0.02	-0.82	0.67	-0.22	0.45
-0.13	0.60	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	-0.02	0.69	0.00	0.02	0.82	-0.13	0.60	1.26
0.59	-1.02	-0.02	-0.92	-0.84	-0.83	-1.65	-0.93	-1.85	0.45
-0.85	-1.02	-1.49	-1.73	-2.51	-0.83	-1.65	-1.74	-1.85	-1.98
0.59	1.42	-0.02	-0.92	-0.84	-0.83	0.00	0.67	-0.22	0.45
0.59	0.60	0.71	0.69	0.83	0.02	0.00	-0.13	0.60	0.45
0.59	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	0.60	0.45
0.59	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	0.60	0.45
-1.56	-1.02	-0.02	-0.12	-0.84	0.02	0.00	0.67	-1.04	-0.36
1.30	0.60	0.71	-0.12	0.00	0.86	0.82	0.67	-0.22	0.45
1.30	0.60	0.71	-0.12	0.00	0.86	0.82	0.67	-0.22	0.45
0.59	0.60	0.71	0.69	0.00	0.86	0.82	-0.13	-0.22	-0.36

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
-0.13	0.60	-0.02	0.69	0.83	0.86	0.82	0.67	-0.22	1.26
1.30	-0.21	0.71	1.49	0.00	0.02	1.64	1.47	1.42	1.26
1.30	1.42	0.71	0.69	0.00	0.86	0.82	0.67	0.60	1.26
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
-0.85	-1.02	-0.02	0.69	0.83	-0.83	-2.47	0.67	0.60	0.45
1.30	1.42	-0.76	-0.92	0.00	0.02	-0.82	0.67	-0.22	-0.36
-1.56	-1.84	-2.23	-0.92	-0.84	-1.68	-0.82	-2.54	-2.67	-1.17
-0.13	-0.21	-1.49	-0.12	-1.67	0.02	-1.65	-1.74	-0.22	0.45
0.59	0.60	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
-0.85	-1.02	-0.02	-0.12	0.83	0.02	-1.65	-0.13	0.60	0.45
-0.13	0.60	1.45	-0.12	0.83	0.86	-0.82	1.47	1.42	1.26
-0.13	0.60	-0.02	-0.12	-0.84	0.02	-0.82	-0.13	0.60	-0.36
-0.85	-1.02	-2.23	0.69	-0.04	0.02	1.64	0.67	1.42	0.45
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
1.30	1.42	1.45	-0.12	1.67	1.71	0.82	0.67	1.42	1.26
0.59	-0.21	-0.02	1.49	0.83	1.71	-0.82	-0.93	-0.22	0.45
0.59	0.60	1.45	1.49	0.00	0.86	0.00	0.67	1.42	1.26
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.82	-0.13	0.60	0.45
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
0.59	1.42	1.45	0.69	0.83	0.86	0.82	-0.93	-0.22	-1.17
0.59	1.42	0.71	-0.12	0.00	0.86	0.82	1.47	0.60	0.45
-0.85	-1.02	-0.76	-0.12	0.00	0.02	0.00	-0.93	-0.22	-0.36
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
0.59	0.60	-0.02	-0.12	0.00	0.86	0.82	-0.13	0.60	1.26
0.59	0.60	-0.02	-0.12	0.00	0.02	-0.82	0.67	0.60	0.45
1.30	0.60	-1.49	0.69	-0.84	0.86	0.82	0.67	1.42	1.26
0.59	1.42	0.71	-0.12	0.00	0.02	0.00	0.67	0.60	0.45
-0.85	-1.02	-0.76	-0.12	0.00	-0.83	-0.82	0.67	-0.22	-0.36
0.59	-0.21	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	0.60	-0.02	0.69	0.00	0.02	0.82	-0.13	-0.22	0.45
0.59	-1.02	-0.02	-0.12	0.00	-0.83	-0.82	-0.93	-1.04	-0.36
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
1.30	0.60	0.71	0.69	0.83	1.71	1.64	1.47	1.42	0.45
0.59	0.60	0.71	0.69	0.00	0.86	0.82	-0.13	0.60	-0.36
-1.56	-1.84	-1.49	-1.73	-1.67	-1.68	-1.65	-1.74	-1.85	-1.98
-0.13	-1.02	-2.23	0.69	-2.51	0.02	1.64	0.67	1.42	1.26
-0.13	-1.02	-0.02	0.69	0.83	0.86	0.82	0.67	-1.04	0.45
0.59	0.60	0.71	0.69	-0.84	-1.68	-1.65	-1.74	0.60	0.45
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
0.59	0.60	0.71	-0.12	0.83	0.86	0.00	0.67	-0.22	0.45
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	0.60	0.71	0.69	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	0.71	0.69	0.00	0.02	0.00	-0.13	0.60	0.45
0.59	-0.21	0.71	0.69	0.00	0.02	0.00	-0.13	0.60	-0.36
-0.85	-0.21	0.71	-0.12	0.00	-0.83	0.82	1.47	1.42	1.26
-0.85	-0.21	-0.02	-1.73	-0.84	-0.83	-0.82	-0.93	-1.85	-1.17
1.30	0.60	1.45	-0.92	-1.67	0.86	1.64	1.47	1.42	1.26

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
-0.85	-0.21	1.45	0.69	0.83	-0.83	0.00	-0.13	0.60	-0.36
0.59	-0.21	0.71	0.69	0.00	0.02	0.82	0.67	1.42	0.45
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.13	-1.04	-1.17
1.30	0.60	1.45	-0.92	-1.67	0.86	1.64	1.47	1.42	1.26
0.59	1.42	0.71	1.49	1.67	1.71	1.64	1.47	1.42	1.26
-0.13	0.60	0.71	1.49	1.67	-0.83	0.00	1.47	1.42	1.26
-0.13	0.60	0.71	1.49	1.67	-0.83	0.00	1.47	1.42	1.26
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	0.71	-0.12	0.00	0.02	0.00	0.67	-0.22	0.45
-0.85	-1.02	-0.76	-0.92	-0.84	0.02	-0.82	-0.93	-0.22	-0.36
-1.56	-1.84	-0.76	-0.92	-1.67	-0.83	-0.82	-0.93	-1.04	-1.17
-0.13	-0.21	-0.02	-0.92	-0.84	0.02	0.00	-0.13	-0.22	-0.36
0.59	0.60	0.71	0.69	-0.84	-0.83	-0.82	-0.93	-0.22	-0.36
1.30	0.60	-0.76	-0.12	0.00	-2.52	0.00	0.67	0.60	0.45
-0.13	-1.02	-1.49	-0.12	-0.84	-1.68	-0.82	-0.93	-1.04	-1.98
0.59	0.60	0.71	-0.12	0.00	0.02	-0.82	-0.13	0.60	1.26
-0.85	-0.21	-0.76	-0.12	-0.84	0.02	0.00	-0.13	-0.22	-1.17
1.30	-1.02	-0.02	0.69	0.83	0.02	0.82	0.67	-0.22	0.45
-0.13	-1.02	0.71	0.69	0.83	0.02	0.82	1.47	1.42	1.26
-0.13	0.60	-0.02	0.69	0.00	-0.83	0.00	0.67	0.60	-0.36
-0.13	-0.21	-1.49	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
0.59	1.42	1.45	-0.12	0.83	-1.68	-1.65	-1.74	-1.04	0.45
-0.85	-1.02	-0.02	-1.73	0.00	0.02	-1.65	-1.74	-0.22	-1.17
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-2.28	-2.65	-2.23	-2.53	-1.67	0.02	-2.47	-2.54	-1.85	-1.98
-0.85	-1.02	-1.49	-1.73	-0.84	0.02	-1.65	-1.74	-1.04	-1.17
0.59	-0.21	0.71	0.69	0.00	0.02	0.00	-0.13	-0.22	-0.36
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	0.60	-0.02	-0.92	0.00	-0.83	-0.82	-0.13	-0.22	-0.36
0.59	1.42	-0.76	1.49	0.83	0.86	0.82	1.47	0.60	0.45
-0.13	-1.02	-0.76	-1.73	-1.67	-0.83	-1.65	-0.13	-1.04	-1.17
0.59	0.60	-0.02	-0.12	-0.84	0.02	0.00	-0.13	-0.22	0.45
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
1.30	-0.21	-0.02	0.69	1.67	0.86	1.64	1.47	0.60	1.26
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
0.59	0.60	1.45	1.49	0.83	1.71	1.64	0.67	0.60	1.26
-0.13	-0.21	-0.02	-0.12	0.83	0.02	0.82	0.67	0.60	-0.36
0.59	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
0.59	0.60	0.71	-0.12	-0.84	0.02	0.00	-0.13	-0.22	0.45
-1.56	-1.84	-1.49	-1.73	-1.67	-0.83	-1.65	-1.74	-1.04	-1.98
-0.13	-0.21	-0.02	-0.92	-0.84	0.02	-0.82	-0.93	-0.22	-0.36
-0.13	-0.21	-0.76	-0.92	-0.84	0.02	0.00	-0.13	-1.04	-1.17
-0.13	-0.21	-0.76	-0.92	-0.84	-0.83	-0.82	-0.13	-0.22	-1.17
-0.13	-0.21	-1.49	-0.12	-0.84	0.02	0.00	-0.13	-0.22	-0.36
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
1.30	1.42	1.45	0.69	0.83	0.86	1.64	0.67	0.60	1.26
-0.13	0.60	-0.02	-0.92	0.00	0.02	0.00	-0.13	-1.04	-0.36
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	1.42	0.71	0.69	0.83	0.86	0.82	0.67	1.42	0.45
-0.13	-0.21	-0.76	-0.12	0.00	0.02	0.00	-0.13	0.60	-0.36
0.59	0.60	-0.02	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	-0.76	-0.12	-0.84	0.02	-0.82	-0.13	-0.22	-0.36
1.30	1.42	1.45	0.69	0.83	0.86	1.64	1.47	1.42	1.26
-0.13	-1.02	-0.02	0.69	0.83	0.02	0.00	-0.13	0.60	0.45
-0.85	-0.21	-0.02	-0.12	-0.84	-0.83	-0.82	-0.93	-1.04	-0.36
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.85	-1.84	-0.76	-0.92	-1.67	-0.83	0.00	-0.13	-1.04	-0.36
-0.13	-0.21	-0.76	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	0.60	1.45	1.49	0.83	0.86	0.82	0.67	-0.22	0.45
-0.85	-1.02	-0.02	-1.73	0.00	-1.68	0.00	-0.13	-1.85	-1.98
0.59	-0.21	-0.02	-0.12	0.00	0.02	0.82	0.67	0.60	0.45
-0.13	-1.02	-0.76	-1.73	0.00	-0.83	-0.82	-0.13	-1.04	-1.98
0.59	0.60	0.71	-0.12	0.00	-0.83	0.00	-0.93	-0.22	0.45
-0.13	-0.21	-0.76	-0.92	-0.84	-0.83	-0.82	-0.13	-0.22	-0.36
-0.13	-0.21	-0.76	-0.92	-0.84	-1.68	-0.82	-0.93	-0.22	0.45
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	0.00	-1.74	-1.04	-1.17
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
1.30	0.60	-0.02	0.69	0.00	0.86	0.82	0.67	0.60	0.45
1.30	1.42	1.45	1.49	0.83	1.71	1.64	1.47	0.60	1.26
1.30	1.42	0.71	0.69	1.67	0.86	0.82	1.47	1.42	1.26
0.59	1.42	-0.02	-0.12	0.00	0.02	0.00	-0.13	0.60	0.45
-0.85	1.42	1.45	-0.92	-0.84	-0.83	-0.82	-0.93	1.42	1.26
-0.13	1.42	0.71	1.49	0.83	0.86	0.82	0.67	-0.22	1.26
-0.13	1.42	0.71	-0.12	1.67	1.71	-0.82	1.47	-0.22	1.26
-0.13	-0.21	-0.02	-0.12	-0.84	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
1.30	0.60	-0.02	-0.12	-0.84	-0.83	-0.82	-0.13	-0.22	0.45
1.30	1.42	1.45	0.69	0.83	0.86	0.82	1.47	1.42	1.26
-0.13	-0.21	-0.02	-0.12	0.83	0.86	0.82	-0.93	-1.04	-1.17
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.13	-0.21	-0.02	-0.12	-0.84	0.02	0.00	-0.13	0.60	0.45
-0.85	-0.21	-0.76	-0.12	0.00	0.02	0.82	0.67	-0.22	-0.36
-1.56	-1.02	-0.76	-0.12	-0.84	-0.83	0.00	0.67	0.60	0.45
-2.28	-2.65	-2.23	-2.53	-2.51	-1.68	-1.65	-1.74	-1.85	-1.98
-0.13	-1.02	-0.02	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-0.13	-1.02	-0.02	-0.12	0.00	0.86	0.00	0.67	-1.04	-0.36
-0.13	-1.84	-0.02	-0.92	0.00	-0.83	0.00	-1.74	-2.67	-1.98
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
1.30	1.42	1.45	1.49	1.67	0.02	-0.82	-0.13	1.42	1.26

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
-0.85	-1.84	-0.76	-0.12	-0.84	-1.68	-0.82	-1.74	-1.04	-0.36
1.30	1.42	1.45	1.49	1.67	0.86	1.64	1.47	0.60	1.26
-1.56	-1.02	-0.76	-0.12	0.00	-0.83	-0.82	-0.93	-1.04	-1.17
-0.13	0.60	-0.76	-1.73	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-0.13	-0.21	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.85	-1.84	-0.02	-0.12	0.00	0.02	0.82	0.67	0.60	0.45
0.59	-1.02	-0.76	0.69	0.00	0.02	0.00	-0.13	0.60	0.45
-0.85	-1.02	-1.49	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
0.59	0.60	0.71	0.69	1.67	0.86	0.82	0.67	0.60	-0.36
-1.56	-1.02	-0.02	-1.73	-1.67	-1.68	-1.65	-1.74	-1.04	-1.98
1.30	1.42	-0.76	-0.12	0.00	0.86	0.82	0.67	1.42	1.26
-0.85	-1.84	-2.23	-1.73	-0.84	0.02	-1.65	-1.74	1.42	-1.17
0.59	-1.84	-0.76	-0.12	-0.84	-1.68	0.00	-1.74	-1.04	-2.79
1.30	1.42	-0.76	1.49	1.67	0.86	1.64	1.47	1.42	1.26
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
-0.85	1.42	1.45	1.49	1.67	-2.52	1.64	1.47	1.42	1.26
-0.13	0.60	1.45	1.49	0.00	-0.83	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	-0.76	-0.92	0.00	-0.83	-0.82	-0.13	-0.22	0.45
-1.56	-0.03	0.71	-1.73	-2.51	-0.03	-0.04	-2.54	-2.67	-2.79
-1.56	-1.84	-0.02	-0.92	-0.84	-0.83	0.00	-0.13	-0.22	-0.36
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.13	-0.21	-0.02	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.13	-1.02	0.71	-0.12	-1.67	-0.83	-1.65	-0.93	-1.85	-0.36
1.30	1.42	0.71	0.69	0.83	1.71	0.00	-0.13	1.42	0.45
-0.13	-0.21	-0.02	0.69	-0.84	0.02	-0.82	-0.93	-1.04	-0.36
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
0.59	-0.21	1.45	1.49	0.83	0.86	0.82	0.67	1.42	0.45
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
1.30	0.60	0.71	1.49	0.83	0.86	1.64	0.67	1.42	0.45
0.59	1.42	0.71	0.69	0.83	0.86	0.82	0.67	1.42	1.26
-2.28	-0.21	-2.23	-0.12	0.00	-0.83	-0.82	-0.93	-1.04	-0.36
-2.28	-0.21	-2.23	-2.53	-0.84	-1.68	-0.82	-0.93	-1.04	-1.17
-2.28	-2.65	-2.23	-2.53	-1.67	-2.52	-2.47	-2.54	-1.85	-1.98
-2.28	-0.21	-2.23	-0.04	-0.84	-2.52	-2.47	-2.54	-0.22	-0.36
-2.28	-1.02	-2.23	-2.53	-0.84	-0.83	-0.82	-0.93	-1.85	-1.98
-2.99	-1.02	-0.76	-0.92	0.00	-0.83	0.00	-0.13	-1.04	-1.17
-2.28	-1.02	-2.23	-0.92	-1.67	-1.68	-0.82	-0.93	-1.85	-1.98
-2.28	-1.84	-2.96	-2.53	0.00	0.02	-0.82	-0.93	-1.04	-1.17
1.30	1.42	0.71	0.69	0.00	-0.83	0.82	1.47	0.60	1.26
-0.13	0.60	-0.02	-0.12	0.83	0.86	-0.82	-0.13	-0.22	-0.36
-0.85	1.42	-1.49	-0.92	0.00	-0.83	0.00	-0.13	-0.22	-0.36
1.30	0.60	0.71	-0.92	0.00	0.02	0.00	-0.13	-1.04	-1.17
1.30	0.60	-0.02	0.69	0.83	0.86	0.82	0.67	0.60	-0.36
1.30	0.60	-0.02	-0.12	0.00	-0.83	0.00	-0.13	-0.22	-0.36
1.30	1.42	-0.02	0.69	1.67	0.02	0.00	0.67	-0.22	1.26
1.30	-0.21	1.45	-0.12	-0.84	0.02	0.00	-0.93	-0.22	0.45
1.30	0.60	0.71	0.69	0.83	1.71	1.64	1.47	1.42	1.26

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
1.30	-0.21	-1.49	0.69	0.83	0.86	-0.82	-0.13	0.60	1.26
-2.28	-0.03	1.45	-0.12	-0.84	-0.83	0.00	-0.93	-1.04	-0.36
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	0.60	0.45
0.59	-0.21	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	-0.21	-0.02	1.49	0.83	0.86	0.82	0.67	0.60	0.45
-1.56	-0.21	-1.49	-1.73	-0.84	-0.83	-0.82	-0.93	-1.04	0.45
-0.13	-1.02	-0.76	-0.12	0.00	0.02	0.82	0.67	-1.04	0.45
-2.99	-0.03	1.45	-0.04	-0.04	-0.03	-0.04	-0.03	-0.02	-0.03
-0.85	-0.21	-0.76	-0.12	-0.84	0.02	-0.82	-0.13	-0.22	-1.98
0.59	-1.02	-0.02	-1.73	0.00	-0.83	-0.82	-0.13	-1.04	0.45
-0.13	0.60	0.71	1.49	0.83	0.86	0.82	0.67	0.60	1.26
-1.56	-1.84	-1.49	-1.73	-1.67	-1.68	-0.82	-1.74	-1.04	-1.17
-0.13	-0.21	-0.02	-0.92	0.00	-0.83	0.00	-0.13	-0.22	-0.36
0.59	1.42	1.45	0.69	1.67	0.86	0.82	-0.13	0.60	0.45
0.59	0.60	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	0.45
0.59	0.60	0.71	-0.12	0.83	0.86	0.82	-0.13	-0.22	-0.36
-0.13	-0.21	-0.76	-0.12	-0.84	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-1.02	-0.02	-0.12	0.00	-0.83	0.00	-0.13	0.60	-0.36
-0.13	-1.02	-0.02	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-0.85	-1.02	-1.49	-1.73	-1.67	-2.52	-0.04	-0.03	-1.85	-1.98
-0.13	-0.21	-0.02	-0.12	-0.84	0.02	0.00	-0.13	-0.22	-0.36
0.59	1.42	-0.02	0.69	0.00	-0.83	-0.82	-0.13	0.60	0.45
-0.13	-0.21	-0.02	-0.12	0.00	0.02	-0.82	-0.93	-0.22	-0.36
-0.13	-1.02	-0.76	-0.92	-0.84	-1.68	-1.65	-1.74	-1.04	-1.17
-0.85	-1.02	-0.76	-0.92	0.00	0.02	0.00	-0.93	-1.04	-0.36
-0.85	-1.02	-0.76	-0.92	0.00	0.02	0.00	-0.93	-1.04	-0.36
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
0.59	0.60	-0.02	0.69	0.83	0.86	0.00	-0.13	-0.22	0.45
-0.85	-1.84	-0.76	-0.92	-0.84	-1.68	0.00	-0.93	-0.22	-0.36
-0.13	-0.21	-0.76	-0.92	-0.84	0.02	-0.82	-0.13	-0.22	0.45
-1.56	-1.02	-0.02	-0.12	-0.84	-1.68	-0.82	-2.54	-1.04	-0.36
-0.13	-0.21	-0.02	0.69	0.83	0.86	0.82	-0.13	-0.22	-0.36
1.30	1.42	1.45	1.49	1.67	0.86	0.00	1.47	1.42	1.26
-0.85	-0.21	0.71	-0.12	-0.84	-0.83	-0.82	-0.13	-1.04	-0.36
-0.85	-1.02	0.71	0.69	-1.67	-1.68	0.82	-0.93	-1.04	0.45
-0.85	0.60	0.71	-0.12	0.83	0.02	0.00	-0.93	0.60	0.45
-2.28	0.60	-0.02	-0.12	-0.84	-0.83	-1.65	-1.74	-1.04	1.26
-2.28	-2.65	-2.23	-2.53	-2.51	-2.52	-2.47	-2.54	-2.67	-2.79
-1.56	-1.84	-0.76	-1.73	-0.84	-1.68	-1.65	-1.74	-0.22	-0.36
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-2.99	-2.65	1.45	-2.53	-2.51	-2.52	-2.47	-2.54	-2.67	-2.79
-2.28	-2.65	-2.23	-2.53	-2.51	-2.52	-2.47	-2.54	-0.02	-2.79
-1.56	-0.21	-1.49	-0.12	-1.67	0.02	-1.65	-0.93	-0.22	-1.17
-0.85	-0.21	1.45	0.69	0.00	0.86	0.82	-0.93	-0.22	1.26
-0.85	-0.21	0.71	0.69	0.00	0.02	0.00	-0.13	-1.04	-1.17
-0.85	-1.02	-0.02	-0.12	0.00	0.86	0.82	-0.13	-0.22	0.45

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
-0.13	-1.02	-0.76	-1.73	0.00	0.02	0.00	-0.13	-0.22	-1.17
0.59	1.42	1.45	1.49	0.83	0.02	0.82	-0.13	0.60	0.45
1.30	1.42	0.71	0.69	0.83	0.86	0.82	1.47	1.42	1.26
-0.13	-0.21	-0.76	0.69	1.67	0.02	0.82	-0.13	1.42	1.26
-0.85	-1.84	-1.49	-0.92	-0.84	-0.83	-1.65	-0.93	-1.04	-1.17
0.59	0.60	0.71	-0.12	-0.84	-0.83	0.82	0.67	0.60	1.26
-2.28	-1.02	-1.49	-1.73	-1.67	-1.68	-2.47	-1.74	-1.85	-1.98
0.59	1.42	1.45	1.49	0.83	1.71	1.64	1.47	-0.22	1.26
-0.85	-1.02	-0.76	-0.12	-1.67	-1.68	-0.82	-0.93	-1.85	-2.79
0.59	0.60	-0.02	0.69	1.67	1.71	0.82	0.67	0.60	0.45
1.30	1.42	1.45	0.69	1.67	1.71	1.64	1.47	1.42	1.26
-2.28	-0.21	-2.96	-0.04	-0.04	-0.83	-0.04	-2.54	-2.67	-2.79
-1.56	-1.84	-1.49	-1.73	-1.67	-1.68	-2.47	-1.74	-1.85	-1.17
0.59	1.42	0.71	1.49	1.67	1.71	1.64	1.47	1.42	1.26
-0.85	-0.21	-0.76	-0.12	-1.67	0.02	-1.65	-0.13	-1.04	-0.03
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.85	-0.36
1.30	-1.02	1.45	0.69	0.83	0.86	1.64	1.47	0.60	1.26
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	0.60	-0.02	0.69	0.83	0.86	0.82	0.67	0.60	0.45
0.59	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
0.59	-0.21	1.45	1.49	1.67	1.71	0.82	0.67	1.42	1.26
0.59	1.42	-0.02	0.69	0.83	0.02	0.82	-0.13	-0.22	-0.36
-0.85	0.60	-0.76	-0.12	0.83	1.71	0.00	0.67	-0.22	-0.36
0.59	-0.21	1.45	-0.12	0.83	0.86	0.00	0.67	0.60	-0.36
-0.13	-1.02	-0.02	-0.12	0.00	-0.83	-0.82	-0.13	-0.22	-0.36
-0.13	0.60	0.71	-0.12	0.00	-0.83	0.00	-0.93	-0.22	0.45
-1.56	-1.84	-1.49	-0.92	-2.51	-0.83	-2.47	-1.74	-2.67	-1.17
1.30	-0.21	-0.02	-0.12	0.00	0.02	0.82	1.47	1.42	1.26
-0.13	-0.21	0.71	-0.12	0.00	0.02	-0.82	-0.13	-0.22	-0.36
0.59	-0.21	-0.02	0.69	0.83	0.02	-0.82	0.67	0.60	0.45
-0.13	-0.21	-0.76	-0.92	0.83	-0.83	-0.82	-0.93	-0.22	-0.36
-0.85	-0.21	-0.76	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	0.60	0.71	0.69	0.00	0.02	0.00	0.67	0.60	0.45
-0.85	-0.21	-0.76	-0.12	0.00	0.02	0.82	0.67	-0.22	-1.17
-0.85	1.42	-0.76	-0.12	-0.84	0.02	0.00	-0.13	0.60	1.26
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	1.42	1.26
0.59	1.42	1.45	0.69	0.83	0.02	0.82	0.67	1.42	1.26
-0.13	-0.21	-0.76	-0.12	-0.84	0.02	0.00	-0.13	-1.04	0.45
-0.85	-1.02	-0.76	-2.53	-1.67	-0.83	-0.82	-0.13	-0.22	-0.36
-0.13	0.60	-0.02	0.69	0.00	0.86	0.82	0.67	0.60	0.45
0.59	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
1.30	1.42	-0.02	-0.12	0.00	0.86	0.82	0.67	0.60	0.45
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.13	-0.21	-0.76	-0.12	0.00	0.02	0.00	-0.13	-0.22	0.45
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
0.59	1.42	-0.02	0.69	0.83	0.02	0.82	1.47	1.42	0.45
1.30	1.42	1.45	1.49	0.83	0.02	0.82	0.67	0.60	0.45

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
-0.13	-1.02	-0.02	-0.12	0.00	0.02	-0.82	-0.93	-1.04	-1.17
-0.85	-0.21	-0.76	-0.92	0.00	-0.83	-0.82	-0.13	-1.04	-1.17
1.30	1.42	1.45	1.49	1.67	0.86	0.82	1.47	1.42	1.26
0.59	0.60	-0.02	0.69	0.00	0.86	0.82	0.67	-0.22	-0.36
-0.13	-0.21	1.45	0.69	0.00	0.86	0.00	0.67	0.60	0.45
0.59	-0.21	-0.02	0.69	-0.84	0.02	0.00	-0.13	-1.04	-1.17
1.30	1.42	1.45	0.69	1.67	1.71	0.82	1.47	1.42	0.45
0.59	1.42	1.45	0.69	0.83	0.86	0.00	0.67	1.42	1.26
-0.85	-0.21	-0.02	0.69	-1.67	-1.68	-0.82	-0.93	-1.85	-1.17
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-0.85	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-1.04	-0.36
-0.85	-1.02	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
0.59	-1.02	0.71	0.69	1.67	1.71	1.64	0.67	-1.04	-0.36
1.30	0.60	-2.23	-1.73	0.00	-0.83	-0.82	1.47	1.42	1.26
0.59	-0.21	-0.76	-0.12	-0.84	-0.83	0.00	0.67	-0.22	0.45
-0.13	-0.21	-0.76	-0.12	0.00	0.02	0.00	-0.13	0.60	-0.36
-2.28	-2.65	-1.49	-2.53	-2.51	-2.52	-2.47	-2.54	-2.67	-2.79
0.59	0.60	0.71	-0.12	0.83	0.02	0.82	0.67	-0.22	1.26
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	1.42	1.26
1.30	-1.02	-0.76	-2.53	-0.84	-0.83	-1.65	-1.74	0.60	0.45
0.59	0.60	-0.76	-0.92	0.83	-0.83	0.00	-0.13	-0.22	-0.36
-0.85	-0.21	-0.02	-0.92	-0.84	0.02	0.00	-0.13	0.60	0.45
-0.85	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-1.02	-0.02	0.69	0.00	1.71	0.00	1.47	1.42	1.26
-0.13	0.60	-0.02	-0.12	0.00	0.86	0.82	-0.13	-0.22	-0.36
-0.13	-0.21	-0.76	-0.12	0.00	-0.83	0.00	0.67	-0.22	-1.17
-0.13	-0.21	-0.76	0.69	0.00	-0.83	0.00	-0.13	-0.22	-0.36
-0.13	0.60	1.45	1.49	0.00	0.02	0.82	1.47	-0.22	0.45
-0.85	-0.21	-0.76	-0.92	-0.84	0.02	0.00	-0.13	-1.04	-1.17
-0.13	-0.21	-0.76	-0.12	0.83	-2.52	-1.65	1.47	-1.04	0.45
-0.85	0.60	0.71	0.69	0.00	1.71	0.82	-0.93	-0.22	1.26
-1.56	-1.02	-1.49	-0.12	-1.67	-0.83	-2.47	-0.93	-1.04	-1.98
-1.56	-0.21	-1.49	-0.92	-0.84	-1.68	0.00	-1.74	1.42	-0.36
-0.85	-1.02	-1.49	-0.92	-0.84	0.02	-0.82	-0.13	-0.22	-0.36
0.59	0.60	0.71	1.49	1.67	0.86	0.82	0.67	0.60	1.26
-0.13	-1.02	-1.49	-2.53	-2.51	-0.83	-2.47	-1.74	-1.04	-0.36
0.59	1.42	0.71	0.69	0.83	0.02	0.82	0.67	0.60	0.45
0.59	0.60	0.71	0.69	0.00	0.02	0.00	0.67	1.42	1.26
-2.28	-2.65	-2.23	-2.53	-1.67	-1.68	-2.47	-2.54	-1.04	-1.17
0.59	0.60	0.71	0.69	0.83	0.02	0.00	0.67	0.60	1.26
0.59	0.60	0.71	1.49	0.83	0.86	0.00	1.47	1.42	1.26
1.30	1.42	0.71	1.49	1.67	0.86	0.00	0.67	1.42	1.26
-0.13	0.60	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	0.45
-0.13	-0.21	0.71	-0.92	-0.84	-0.83	-0.82	-0.93	-0.22	-0.36
1.30	-0.21	-0.76	0.69	0.83	0.02	-0.82	-0.13	-1.04	0.45
-0.85	-0.21	-0.02	-0.12	-0.84	-1.68	-1.65	-0.93	-1.04	-1.17
0.59	0.60	0.71	1.49	1.67	1.71	1.64	0.67	0.60	0.45

ZL11	ZL12	ZL13	ZL14	ZL15	ZL16	ZL17	ZL18	ZL19	ZL20
-0.13	-0.21	-1.49	-0.92	-1.67	-1.68	-1.65	-0.93	-1.04	-0.36
0.59	0.60	-0.02	-0.12	0.00	0.02	-0.82	-0.13	-0.22	-0.36
-2.99	-0.03	-2.96	-0.04	-0.04	-0.03	-0.04	-0.03	-0.02	-0.03
1.30	1.42	1.45	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	0.71	0.69	0.83	0.02	0.82	0.67	-0.22	-0.36
0.59	-0.21	-0.76	-0.92	0.00	0.02	-0.82	-0.13	-1.04	-1.17
1.30	1.42	0.71	0.69	0.00	0.86	0.00	-0.13	0.60	-0.36
1.30	1.42	1.45	0.69	0.00	0.86	1.64	1.47	1.42	0.45
1.30	1.42	0.71	1.49	0.83	1.71	0.00	0.67	1.42	0.45
-0.13	0.60	0.71	0.69	0.00	0.86	0.00	0.67	0.60	-0.36
-0.13	0.60	-0.02	-0.12	0.00	0.86	0.82	0.67	0.60	-0.36
-0.13	0.60	-0.02	0.69	0.00	0.86	0.82	0.67	1.42	0.45
-1.56	-1.84	-0.02	-1.73	-1.67	-1.68	-1.65	-1.74	-1.85	-0.36
0.59	0.60	-0.02	0.69	0.83	0.02	0.00	0.67	0.60	0.45
-0.13	-1.02	0.71	1.49	0.83	0.02	0.82	1.47	1.42	1.26
-0.13	-1.84	-0.76	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-0.36
0.59	0.60	-0.76	-0.12	0.83	0.02	0.00	0.67	0.60	0.45
-0.13	-0.21	-1.49	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
-0.85	-1.02	-0.02	-0.12	0.00	0.86	0.00	-0.13	0.60	-0.36
0.59	0.60	0.71	0.69	0.83	1.71	0.82	0.67	1.42	1.26
0.59	0.60	0.71	0.69	0.83	1.71	0.82	0.67	1.42	1.26
-0.85	-1.02	-0.76	-0.92	-0.84	-0.83	0.00	-0.93	-1.04	-1.17
-0.85	-1.02	-0.76	-0.12	-0.84	0.02	-0.82	-0.13	-1.04	-1.98
0.59	-0.21	-0.02	-0.12	0.00	0.02	-0.82	-0.93	-1.04	-0.36
0.59	-1.02	-0.02	-0.92	0.00	-0.83	0.00	-0.93	-0.22	0.45
0.59	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
-0.13	-0.21	-0.02	-0.12	0.00	0.02	0.00	-0.13	-0.22	-0.36
-0.13	-0.21	-0.02	-0.92	-0.84	-0.83	-0.82	-0.93	-1.04	-1.17
1.30	1.42	1.45	1.49	1.67	1.71	1.64	1.47	1.42	1.26
1.30	0.60	0.71	0.69	0.83	0.86	0.82	0.67	0.60	0.45
1.30	1.42	-0.76	-0.12	0.00	0.02	0.00	-0.13	-1.04	-0.36
1.30	0.60	1.45	1.49	0.83	0.86	0.82	0.67	0.60	1.26
1.30	0.60	1.45	1.49	0.83	0.86	1.64	1.47	0.60	1.26
1.30	0.60	1.45	-0.12	-0.84	-0.83	0.00	1.47	-0.22	1.26
1.30	1.42	-2.23	1.49	-0.84	1.71	1.64	1.47	1.42	1.26
1.30	1.42	1.45	1.49	0.83	0.86	0.82	1.47	0.60	1.26
0.59	0.60	-0.76	-0.12	0.83	0.02	0.00	-0.93	0.60	-0.36
-2.28	-1.84	-1.49	-0.92	-0.84	-1.68	-0.82	-0.13	-0.22	-0.36

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
1.25	0.70	-0.21	0.52	-0.63
1.25	1.56	0.60	0.52	-0.63
0.26	1.56	0.60	-0.41	-1.23
1.25	0.70	-0.21	-1.34	-0.63
0.26	0.70	1.41	1.44	-1.23
1.25	0.70	-0.21	0.52	-0.63
0.26	0.70	-0.21	0.52	-0.63

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
1.25	1.56	1.41	1.44	-0.02
1.25	0.70	0.60	-0.41	-0.02
0.26	1.56	-0.21	1.44	0.58
-0.72	-0.15	-1.01	-0.41	-0.02
-0.72	-0.15	-1.82	0.52	-0.63
0.26	0.70	-0.21	0.52	-1.23
1.25	1.56	-1.82	1.44	2.39
-2.68	-1.00	0.60	0.52	-0.63
0.26	-1.00	0.60	1.44	0.58
0.26	-1.00	0.60	0.52	2.39
1.25	-1.00	1.41	0.52	2.39
0.26	-1.00	-0.21	-1.34	-1.23
1.25	0.70	0.60	0.52	1.79
-0.72	-0.15	-1.01	-1.34	2.39
0.26	-1.00	-2.62	-0.09	2.39
0.26	-1.00	-2.62	-1.34	-1.23
0.26	0.70	0.60	-1.34	-0.02
0.26	-1.00	-0.21	0.52	-1.23
0.26	-0.15	-1.01	-1.34	-1.23
0.26	0.70	-1.01	-1.34	-0.63
0.26	-0.15	-1.01	-1.34	0.58
-2.68	1.56	-2.62	-2.26	1.79
0.26	0.70	1.41	1.44	1.79
0.26	0.70	1.41	1.44	1.79
-2.68	-1.00	-1.82	-1.34	0.58
1.25	1.56	-1.01	0.52	-1.23
1.25	1.56	-1.01	0.52	-1.23
-1.70	-0.15	0.60	0.52	-1.23
1.25	0.70	0.60	0.52	0.58
1.25	-0.15	1.41	1.44	-0.63
1.25	1.56	1.41	0.52	1.79
1.25	0.70	-0.21	1.44	0.58
1.25	1.56	0.60	1.44	-1.23
-1.70	-1.00	-0.21	1.44	-1.23
0.26	-1.00	1.41	0.52	1.18
1.25	-1.00	0.60	1.44	-0.63
1.25	1.56	1.41	0.52	-0.63
0.26	0.70	0.60	1.44	-1.23
1.25	-0.15	-2.62	-0.09	-1.23
0.26	-1.85	0.60	-0.41	-0.63
1.25	-0.04	1.41	-1.34	-0.02
0.26	0.70	0.60	0.52	0.58
0.26	0.70	1.41	-0.09	-1.23
0.26	0.70	0.60	-1.34	-0.63
0.26	0.70	1.41	0.52	2.39
0.26	0.70	0.60	0.52	-0.02
-0.02	-1.00	-1.01	-1.34	-0.63

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
0.26	0.70	0.60	0.52	0.58
-0.72	0.70	0.60	0.52	-0.02
0.26	-0.15	-1.01	0.52	-0.63
0.26	-1.00	-1.01	-1.34	0.58
0.26	-1.00	-1.01	-1.34	0.58
0.26	-0.15	-0.21	-0.41	-0.63
0.26	0.70	0.60	-0.41	-0.02
0.26	0.70	-0.21	1.44	-1.23
0.26	-1.00	-2.62	0.52	1.79
0.26	-1.00	-0.21	-1.34	-0.02
-0.72	0.70	0.60	-0.41	-0.02
0.26	-1.00	-0.21	-0.41	1.79
0.26	0.70	-1.01	-1.34	-0.63
0.26	0.70	0.60	0.52	0.58
0.26	0.70	0.60	0.52	-0.63
0.26	0.70	0.60	0.52	-0.63
1.25	-0.04	1.41	-1.34	-0.02
0.26	0.70	1.41	-0.41	1.18
0.26	0.70	-0.21	0.52	0.58
-0.72	-0.15	-0.21	-0.41	-0.02
0.26	-0.15	0.60	-0.41	-1.23
0.26	0.70	0.60	0.52	0.58
0.26	-0.15	0.60	0.52	-0.02
0.26	-0.15	0.60	-0.41	-0.63
-0.72	0.70	1.41	-0.41	-0.02
0.26	-0.15	0.60	0.52	-0.02
0.26	-0.15	-1.01	-0.41	-0.63
-0.72	-0.15	0.60	1.44	2.39
-0.72	-1.00	0.60	1.44	-0.63
0.26	1.56	0.60	1.44	1.79
-1.70	-1.85	0.60	-1.34	-0.63
-0.72	-0.15	0.60	1.44	2.39
-1.70	1.56	0.60	0.52	-0.63
0.26	0.70	-1.01	-0.41	1.79
0.26	0.70	-1.01	-0.41	1.79
0.26	-0.15	-0.21	-0.41	-0.02
0.26	0.70	0.60	0.52	-0.63
0.26	-0.15	0.60	0.52	1.18
0.26	-0.15	0.60	0.52	-0.63
0.26	0.70	-0.21	0.52	0.58
0.26	0.70	0.60	-2.26	-0.02
0.26	0.70	0.60	0.52	0.58
0.26	-0.15	0.60	-0.41	-0.63
1.25	0.70	0.60	0.52	-0.63
1.25	-1.00	-0.21	-1.34	1.18
0.26	-1.00	-1.01	-0.41	-0.02
1.25	1.56	1.41	0.52	-1.23

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
1.25	1.56	0.60	-0.41	-0.63
0.26	-1.00	-1.01	-0.41	1.18
1.25	-1.00	-0.06	-1.34	2.39
1.25	-1.00	0.60	0.52	-0.63
-0.72	-0.15	0.60	0.52	1.18
-0.72	-1.00	-1.01	-0.41	0.58
0.26	-0.15	-1.82	-0.41	-1.23
0.26	-1.00	0.60	-1.34	-0.63
-0.72	-1.00	-0.21	-0.41	0.58
-0.72	0.70	0.60	0.52	1.79
-0.72	-1.00	-1.01	-0.41	0.58
-1.70	-1.00	-0.21	0.52	1.79
1.25	-0.15	-0.21	-1.34	-0.63
0.26	-0.15	0.60	0.52	1.79
0.26	0.70	0.60	0.52	1.79
-1.70	-2.70	0.60	-0.41	1.79
1.25	-1.00	-1.01	0.52	-0.02
1.25	1.56	-1.01	-1.34	0.58
0.26	-1.00	-1.01	-1.34	-0.02
-1.70	0.70	-1.01	-1.34	0.58
-0.72	-0.15	-1.01	-0.41	-0.02
-0.72	-0.15	0.60	-0.41	-0.02
-2.68	-1.85	-0.21	-2.26	2.39
-1.70	-0.15	0.60	-1.34	-1.23
-1.70	-1.00	0.60	-1.34	0.58
-0.72	-2.70	0.60	-0.09	2.39
-0.72	-1.00	-1.82	-1.34	1.79
1.25	1.56	1.41	1.44	-1.23
1.25	1.56	1.41	0.52	-0.02
1.25	1.56	0.60	0.52	1.18
0.26	-1.00	1.41	-0.41	-0.02
0.26	-1.00	-1.82	1.44	1.79
0.26	0.70	-0.21	0.52	-0.63
-0.72	-1.00	0.60	0.52	-0.63
-0.72	-1.00	-0.21	-1.34	0.58
0.26	-0.15	1.41	-2.26	0.58
0.26	-0.15	1.41	-0.09	0.58
-0.72	-0.15	-0.21	-1.34	1.18
-0.72	-0.15	-0.21	-0.41	1.18
0.26	0.70	0.60	0.52	-0.02
0.26	-1.85	-1.01	-2.26	2.39
0.26	-0.15	-0.21	-0.41	-0.63
0.26	0.70	0.60	0.52	-0.02
-0.72	-0.04	-1.01	-1.34	-0.63
0.26	0.70	-1.01	-0.41	0.58
-1.70	-1.00	0.60	0.52	-0.63
0.26	-2.70	-1.01	-0.41	-0.63

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
0.26	-1.00	-1.01	-0.41	-0.02
-0.72	-0.15	-1.01	-0.41	1.18
0.26	-0.15	-0.21	-0.41	-0.02
0.26	-1.00	-0.21	0.52	-0.02
0.26	0.70	-0.21	1.44	1.18
1.25	-1.00	-1.82	0.52	-0.63
1.25	1.56	0.60	0.52	-0.02
1.25	1.56	1.41	-0.41	-1.23
1.25	1.56	1.41	1.44	-1.23
-0.72	-1.00	0.60	-0.41	-1.23
1.25	-0.15	-1.01	-0.03	1.18
0.26	0.70	0.60	0.52	-1.23
1.25	-0.15	0.60	-1.34	1.18
-0.72	0.70	0.60	0.52	0.58
0.26	-1.00	-0.21	-1.34	-0.63
1.25	0.70	-0.21	0.52	1.79
1.25	-1.00	0.60	-0.41	-1.23
0.26	0.70	0.60	0.52	-0.63
-0.72	-0.15	-0.21	0.52	-0.02
0.26	0.70	-0.21	-0.41	-0.63
-0.72	-0.15	0.60	0.52	-0.63
1.25	-0.15	-0.21	0.52	1.79
-1.70	-1.00	-1.01	-1.34	0.58
-1.70	-1.00	-1.01	-1.34	0.58
-0.72	0.70	0.60	-0.41	-0.63
-2.68	-1.00	-1.01	-1.34	0.58
1.25	0.70	-1.01	-1.34	-0.02
1.25	1.56	-1.01	1.44	-1.23
-0.72	-0.15	0.60	-0.41	1.18
0.26	1.56	-1.82	1.44	-1.23
-1.70	-1.00	-1.01	-1.34	0.58
0.26	0.70	0.60	-1.34	-1.23
0.26	0.70	0.60	0.52	-0.63
1.25	-1.00	0.60	-0.41	-0.02
0.26	0.70	0.60	-0.41	0.58
-0.72	-1.00	-2.62	-0.41	0.58
-0.72	0.70	1.41	0.52	-0.02
0.26	-1.00	-1.01	-2.26	-0.63
0.26	0.70	0.60	1.44	-1.23
-1.70	-0.15	0.60	-1.34	0.58
-0.72	-0.15	-1.01	-0.41	-0.63
1.25	0.70	1.41	1.44	0.58
1.25	1.56	1.41	1.44	0.58
1.25	1.56	1.41	0.52	-1.23
-0.72	-0.15	0.60	-1.34	-1.23
0.26	-0.15	-2.62	-2.26	-0.02
-2.68	-1.00	-1.01	-0.41	-0.02

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
0.26	0.70	1.41	0.52	0.58
-2.68	-1.00	-0.06	-1.34	0.58
1.25	0.70	1.41	1.44	-1.23
0.26	-1.00	1.41	-1.34	1.79
-0.02	-0.04	1.41	-0.09	2.39
0.26	-0.15	0.60	0.52	-0.63
-0.72	-0.15	-0.21	-0.41	-0.02
1.25	1.56	1.41	1.44	-0.02
0.26	-0.15	-0.21	-0.41	-0.02
0.26	0.70	0.60	0.52	-0.63
0.26	0.70	0.60	0.52	-0.63
-1.70	-1.85	-1.82	-0.41	-0.63
-1.70	-1.00	-0.21	-0.41	-0.63
-1.70	-1.00	-1.82	-1.34	-0.02
-0.72	-0.15	0.60	0.52	-1.23
-0.72	-1.85	-1.01	-1.34	-0.63
-2.68	-1.85	-1.82	-0.41	-1.23
-1.70	-1.00	-1.01	-0.41	-0.63
0.26	-0.15	-1.82	0.52	0.58
0.26	-0.15	-1.01	-1.34	-0.02
-0.72	-0.15	0.60	0.52	-0.02
-1.70	-1.85	-1.82	0.52	-1.23
-0.72	-0.15	-0.21	0.52	0.58
-0.72	-0.15	0.60	-0.41	-0.63
-0.72	-0.15	0.60	0.52	-0.02
1.25	-1.00	0.60	-1.34	-0.63
-0.72	-0.15	0.60	-0.41	-0.02
1.25	-1.00	0.60	-1.34	-0.63
1.25	-1.85	0.60	1.44	-0.02
-1.70	-1.85	-2.62	0.52	-1.23
0.26	-0.15	0.60	0.52	-0.63
-0.72	-1.85	-0.21	0.52	-0.63
-0.72	-0.15	0.60	0.52	-0.63
1.25	-1.00	-1.82	1.44	-1.23
-1.70	0.70	-0.21	1.44	-1.23
1.25	1.56	-0.06	1.44	-1.23
-2.68	-1.00	-1.01	-0.41	0.58
-0.72	-1.00	-0.21	-0.41	-0.02
0.26	-0.15	-1.82	-1.34	-1.23
1.25	1.56	-0.21	-0.41	2.39
-0.72	-0.15	-0.21	-0.41	0.58
1.25	1.56	1.41	1.44	0.58
0.26	-0.15	0.60	0.52	1.18
-0.72	-0.15	-0.21	-0.41	-0.02
-0.72	-0.15	-0.21	-1.34	-0.02
1.25	0.70	0.60	0.52	-0.63
-0.72	-1.00	-0.21	0.52	1.18

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
0.26	0.70	-1.01	1.44	-0.02
0.26	-0.15	-0.21	-0.41	-0.63
-1.70	-2.70	-0.06	-0.03	-1.23
-0.72	-1.00	-1.01	-1.34	-0.02
-1.70	-0.15	-0.06	-2.26	-0.63
1.25	0.70	-0.21	1.44	-1.23
1.25	0.70	-0.21	1.44	-1.23
1.25	1.56	0.60	0.52	0.58
0.26	-2.70	-0.21	0.52	-0.02
0.26	-2.70	0.60	0.52	-1.23
0.26	-0.15	0.60	-0.41	-0.63
-0.72	-1.00	-1.82	-0.41	-0.02
0.26	0.70	-0.21	0.52	1.79
1.25	-0.15	-0.21	1.44	-0.63
0.26	-0.15	-0.21	0.52	0.58
0.26	-0.15	-1.01	-0.41	0.58
0.26	0.70	-0.21	0.52	-0.63
0.26	-1.00	-0.21	1.44	-1.23
1.25	1.56	1.41	1.44	-1.23
0.26	-0.15	-0.21	-0.41	-0.02
-1.70	-1.00	-1.01	-1.34	0.58
-0.72	-0.15	-0.21	-0.41	-0.02
-1.70	-1.85	-1.82	-1.34	-1.23
1.25	0.70	-1.82	-2.26	-0.63
-0.72	-1.00	-1.01	-0.41	0.58
-0.72	0.70	1.41	0.52	1.79
1.25	1.56	0.60	0.52	0.58
-1.70	-0.15	-2.62	0.52	-0.02
1.25	-0.15	0.60	0.52	-0.02
0.26	0.70	0.60	0.52	-0.63
0.26	0.70	0.60	0.52	0.58
-2.68	-2.70	-2.62	-1.34	-0.63
1.25	-0.15	0.60	-0.41	-0.02
-0.72	0.70	0.60	1.44	-0.63
-1.70	-1.00	-1.01	1.44	-1.23
1.25	-1.00	-0.21	0.52	-1.23
1.25	-0.15	-1.82	-0.41	0.58
0.26	0.70	0.60	0.52	-0.63
1.25	1.56	1.41	1.44	-1.23
0.26	0.70	-2.62	-1.34	-1.23
-0.72	-1.85	-1.82	-1.34	-0.63
0.26	-0.15	1.41	1.44	-1.23
-0.72	-1.00	-1.82	0.52	-0.63
-1.70	-1.00	-1.01	-1.34	0.58
-0.72	0.70	1.41	-1.34	-0.63
0.26	0.70	0.60	0.52	-0.63
0.26	0.70	0.60	0.52	-0.63

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
-0.72	-0.15	1.41	1.44	-1.23
-1.70	-2.70	-0.21	-1.34	1.79
-0.72	-0.15	-0.21	0.52	-0.63
0.26	0.70	0.60	0.52	1.18
0.26	0.70	-0.21	1.44	-0.63
-0.72	-1.00	-1.01	-2.26	-0.63
-0.72	-1.00	0.60	-0.41	-0.02
-0.72	0.70	-1.82	-2.26	1.18
1.25	-0.15	-0.21	0.52	-0.02
-1.70	-2.70	0.60	0.52	-0.63
0.26	0.70	-0.21	-0.41	-0.02
1.25	1.56	1.41	-0.03	1.18
0.26	-1.00	-1.82	0.52	-0.02
0.26	-0.15	-1.01	0.52	1.18
-0.72	0.70	-0.21	0.52	-0.02
1.25	-0.15	-0.21	1.44	1.79
1.25	0.70	0.60	-1.34	1.18
-2.68	-1.00	-1.01	-1.34	-0.63
0.26	0.70	-0.21	-0.41	2.39
-0.72	-1.00	-1.01	-1.34	0.58
1.25	1.56	0.60	1.44	-1.23
0.26	0.70	1.41	1.44	-1.23
0.26	0.70	1.41	-0.41	-0.63
0.26	0.70	0.60	0.52	-0.63
-0.72	-0.15	-0.21	0.52	-0.63
0.26	0.70	0.60	0.52	-0.63
-1.70	0.70	-0.21	0.52	-0.02
0.26	0.70	0.60	0.52	-0.63
-0.72	-0.15	-0.21	-0.41	-0.02
-0.72	-0.15	-1.01	0.52	0.58
-0.72	-0.15	-0.21	-0.41	1.18
0.26	0.70	0.60	0.52	-0.02
0.26	-0.15	-0.21	-0.41	1.79
0.26	0.70	0.60	-1.34	1.79
0.26	1.56	-0.21	0.52	-0.02
1.25	0.70	0.60	1.44	-0.63
-0.72	-1.00	0.60	-1.34	1.18
-1.70	-1.00	-1.01	-1.34	0.58
-1.70	-0.15	-0.21	-1.34	-0.02
-0.72	-0.15	-0.21	-0.41	-0.02
-0.72	-0.15	0.60	-0.41	-0.63
-0.72	0.70	0.60	-2.26	1.79
0.26	-0.15	-0.21	-1.34	0.58
-0.72	0.70	0.60	-0.41	-0.02
0.26	0.70	-0.21	-0.41	-0.02
0.26	0.70	0.60	-0.41	-0.63
1.25	1.56	1.41	1.44	-1.23

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
-1.70	-1.00	-1.01	-1.34	0.58
-0.72	-0.15	-0.21	-0.41	-0.02
0.26	0.70	-0.21	-0.41	-0.63
-0.72	-0.15	0.60	0.52	-0.02
-0.72	-0.15	-0.21	-0.41	-0.02
0.26	-1.00	-1.01	-0.41	-0.02
0.26	-1.00	-0.21	-0.41	-0.02
-1.70	-1.00	-1.01	-1.34	0.58
1.25	0.70	0.60	0.52	-1.23
0.26	0.70	1.41	0.52	-1.23
0.26	-1.85	-1.01	-0.03	-0.63
-0.72	-0.15	-0.21	-1.34	-0.63
1.25	0.70	-0.21	0.52	-0.02
-1.70	-2.70	-0.21	-1.34	-0.63
0.26	-0.15	-1.01	0.52	-0.63
0.26	0.70	0.60	0.52	-0.63
1.25	-1.00	-2.62	1.44	-1.23
0.26	0.70	1.41	-0.41	-0.63
0.26	-1.00	1.41	0.52	-0.63
1.25	1.56	0.60	1.44	-1.23
0.26	0.70	0.60	1.44	-1.23
0.26	0.70	1.41	1.44	0.58
0.26	0.70	1.41	0.52	-0.02
-0.72	-1.00	-0.21	-1.34	0.58
1.25	1.56	1.41	1.44	-1.23
1.25	0.70	-0.21	-1.34	2.39
0.26	0.70	1.41	0.52	0.58
0.26	0.70	0.60	0.52	-0.02
-0.72	-0.15	-1.01	-1.34	0.58
-0.72	-0.15	-0.21	-1.34	-0.02
1.25	1.56	-0.06	1.44	-1.23
0.26	-0.15	1.41	1.44	-0.63
0.26	0.70	0.60	0.52	-0.63
-0.72	-0.15	-0.21	-0.41	1.18
0.26	0.70	0.60	0.52	-0.63
0.26	0.70	0.60	0.52	0.58
1.25	0.70	0.60	1.44	-0.63
-0.72	0.70	-0.21	-0.41	-0.02
-1.70	-1.00	-1.82	1.44	-1.23
-1.70	0.70	0.60	1.44	-1.23
1.25	1.56	-0.06	-1.34	-1.23
-0.72	-1.85	-2.62	0.52	-1.23
0.26	-0.15	0.60	0.52	-0.63
1.25	1.56	0.60	1.44	-1.23
-0.72	-1.00	-0.21	0.52	-0.63
0.26	-0.15	-1.01	0.52	-0.63
0.26	0.70	-0.21	1.44	-0.63

ZPSY1	ZPSY2	ZPSY3	ZPSY4	ZPSY5
1.25	0.70	0.60	0.52	-0.63
1.25	0.70	0.60	0.52	-0.63
-0.72	1.56	1.41	1.44	-1.23
1.25	-1.00	-0.21	0.52	-0.63
1.25	1.56	1.41	0.52	-0.63
1.25	1.56	1.41	1.44	-1.23
0.26	-0.15	0.60	-1.34	0.58
0.26	-0.15	-0.21	-0.41	-0.63
-1.70	-1.00	-1.01	-1.34	0.58
1.25	0.70	0.60	0.52	1.79
1.25	1.56	1.41	0.52	-0.63
0.26	-1.00	0.60	-1.34	1.18
0.26	1.56	0.60	0.52	-0.63
1.25	0.70	0.60	1.44	1.79
-1.70	-1.85	0.60	1.44	-1.23
0.26	-1.00	-0.21	-1.34	-0.63
0.26	0.70	1.41	1.44	2.39
-1.70	-0.15	0.60	-0.41	0.58
-0.72	0.70	-0.21	1.44	1.18



UUM
Universiti Utara Malaysia

Appendix J: Skewness and Kurtosis

Descriptive Statistics

	N	Mini mum	Maxi mum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Engage ment	402	4.00	7.00	5.8377	.82006	-.641	.122	.143	.243
EE2	402	4.00	7.00	5.9519	.82374	-.555	.122	-.090	.243
EE3	402	4.00	7.00	5.7698	.78231	-.376	.122	-.098	.243
EE4	402	4.00	7.00	6.1602	.76020	-.690	.122	.218	.243
EE5	402	4.00	7.00	5.8595	.82984	-.467	.122	-.208	.243
EE6	402	4.00	7.00	5.9839	.79576	-.506	.122	-.100	.243
EE7	402	3.00	7.00	5.8874	.95267	-.659	.122	-.113	.243
EE8	402	3.00	7.00	5.7357	.93865	-.502	.122	-.336	.243
EE9	402	1.00	7.00	5.2434	1.08419	-.356	.122	.184	.243
EE10	402	4.00	7.00	5.8631	.82759	-.452	.122	-.222	.243
EE11	402	3.00	7.00	5.5849	.90318	-.388	.122	-.099	.243
EE12	402	2.00	7.00	4.8941	1.12949	-.270	.122	-.211	.243
EE13	402	3.00	7.00	5.6124	.93283	-.377	.122	-.320	.243
P1.1	402	1.00	7.00	5.3383	1.13655	-.487	.122	.128	.243
P1.2	402	2.00	7.00	5.2078	1.14719	-.215	.122	-.586	.243
P1.3	402	1.00	7.00	4.8657	1.49708	-.423	.122	-.241	.243
P1.4	402	1.00	7.00	4.9005	1.57285	-.465	.122	-.257	.243
Person ality	402	1.00	7.00	4.4527	1.60548	.139	.122	-.750	.243
P1.6	402	1.00	7.00	4.6542	1.79146	-.285	.122	-.936	.243
P1.7	402	1.00	7.00	5.0000	1.64264	-.373	.122	-.794	.243
P1.8	402	1.00	7.00	5.3483	1.67514	-.590	.122	-.806	.243
P2.1	402	2.00	7.00	6.1104	.94371	-1.082	.122	.782	.243
P2.2	402	2.00	7.00	5.0042	1.22118	-.065	.122	-.579	.243
P2.3	402	3.00	7.00	5.8408	1.08240	-.664	.122	-.606	.243
P2.4	402	3.00	7.00	5.6473	1.02716	-.464	.122	-.598	.243
P2.5	402	1.00	7.00	5.3134	1.66114	-.710	.122	-.483	.243
P2.6	402	2.00	7.00	5.7634	1.30585	-.810	.122	-.256	.243
P2.7	402	4.00	7.00	6.2881	.97111	-1.268	.122	.489	.243
P2.8	402	4.00	7.00	6.4468	.82615	-1.690	.122	2.345	.243
P3.1	402	2.00	7.00	5.3621	1.14289	-.302	.122	-.658	.243
P3.2	402	1.00	7.00	5.1176	1.20831	-.364	.122	-.240	.243
P3.3	402	2.00	7.00	5.3209	1.20639	-.414	.122	-.460	.243
P3.4	402	3.00	7.00	5.5395	1.01162	-.224	.122	-.761	.243
P3.5	402	1.00	7.00	4.8308	1.47506	-.226	.122	-.611	.243
P3.6	402	1.00	7.00	5.8899	1.35584	-1.126	.122	.431	.243
P3.7	402	3.00	7.00	6.0890	1.10859	-1.059	.122	.124	.243

P3.8	402	1.00	7.00	2.0077	1.35199	1.465	.122	1.399	.243
P4.1	402	1.00	7.00	5.0572	1.35632	-.851	.122	1.004	.243
P4.2	402	1.00	7.00	5.4851	1.80634	-1.318	.122	.773	.243
P4.3	402	1.00	7.00	4.5124	1.69084	-.026	.122	-.978	.243
P4.4	402	4.00	7.00	6.2802	.98226	-1.164	.122	.127	.243
P4.5	402	1.00	7.00	4.7935	1.71095	-.330	.122	-.822	.243
P4.6	402	1.00	7.00	4.2413	1.71802	-.049	.122	-.871	.243
P4.7	402	1.00	7.00	5.4975	1.57006	-.846	.122	-.183	.243
P4.8	402	4.00	7.00	6.5022	.85180	-1.769	.122	2.214	.243
P5.1	402	1.00	7.00	4.7164	1.26695	-.401	.122	.414	.243
P5.2	402	1.00	7.00	2.8729	1.58115	.408	.122	-.645	.243
P5.3	402	1.00	7.00	3.9925	1.38659	-.229	.122	-.076	.243
P5.4	402	2.00	7.00	4.8494	1.05488	.064	.122	-.340	.243
P5.5	402	1.00	7.00	4.9005	1.31557	-.529	.122	.352	.243
P5.6	402	2.00	7.00	5.0444	1.20184	-.086	.122	-.713	.243
P5.7	402	1.00	5.00	1.8849	1.14387	1.172	.122	.305	.243
P5.8	402	2.00	7.00	5.6703	1.38741	-.722	.122	-.620	.243
Leader ship	402	1.00	7.00	4.8532	1.39499	-.334	.122	-.266	.243
L2	402	2.00	7.00	4.9975	1.18910	-.201	.122	-.377	.243
L3	402	2.00	7.00	4.9751	1.21067	-.215	.122	-.441	.243
L4	402	2.00	7.00	5.2052	1.21826	-.316	.122	-.430	.243
L5	402	1.00	7.00	5.0597	1.35897	-.564	.122	.021	.243
L6	402	3.00	7.00	5.3839	1.03737	-.165	.122	-.695	.243
L7	402	3.00	7.00	5.4494	1.03613	-.296	.122	-.427	.243
L8	402	1.00	7.00	4.7761	1.45064	-.393	.122	-.272	.243
L9	402	1.00	7.00	5.0423	1.45787	-.666	.122	.003	.243
L10	402	1.00	7.00	4.9280	1.39371	-.487	.122	-.032	.243
L11	402	1.00	7.00	5.1816	1.39802	-.679	.122	.065	.243
L12	402	2.00	7.00	5.2584	1.22967	-.367	.122	-.382	.243
L13	402	1.00	7.00	5.0299	1.35996	-.461	.122	-.198	.243
L14	402	2.00	7.00	5.1453	1.24098	-.507	.122	-.060	.243
L15	402	2.00	7.00	5.0021	1.19538	-.286	.122	-.287	.243
L16	402	2.00	7.00	4.9822	1.18267	-.265	.122	-.280	.243
L17	402	2.00	7.00	5.0019	1.21607	-.371	.122	-.223	.243
L18	402	2.00	7.00	5.1651	1.24653	-.441	.122	-.241	.243
L19	402	2.00	7.00	5.2680	1.22353	-.344	.122	-.405	.243
L20	402	2.00	7.00	5.4434	1.23386	-.573	.122	-.170	.243
Psy Safetyl	402	3.00	7.00	5.7299	1.01956	-.644	.122	-.092	.243
Psy2	402	2.00	7.00	5.1729	1.17438	-.415	.122	-.176	.243
Psy3	402	2.00	7.00	5.2544	1.24064	-.652	.122	-.028	.243
Psy4	402	3.00	7.00	5.4420	1.07897	-.274	.122	-.788	.243
Psy5	402	1.00	7.00	3.0373	1.65808	.732	.122	-.263	.243

Appendix K: Common Method Variance

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.040	19.532	19.532	15.040	19.532	19.532
2	9.131	11.858	31.391			
3	5.660	7.351	38.742			
4	3.499	4.544	43.286			
5	2.190	2.844	46.129			
6	1.872	2.432	48.561			
7	1.637	2.126	50.687			
8	1.532	1.989	52.676			
9	1.466	1.904	54.580			
10	1.345	1.746	56.326			
11	1.213	1.575	57.902			
12	1.163	1.511	59.412			
13	1.071	1.390	60.803			
14	1.066	1.385	62.188			
15	1.039	1.349	63.537			
16	.989	1.285	64.822			
17	.961	1.247	66.069			
18	.928	1.206	67.275			
19	.905	1.175	68.450			
20	.857	1.113	69.563			
21	.846	1.098	70.662			
22	.818	1.062	71.724			
23	.775	1.006	72.730			
24	.766	.995	73.724			
25	.751	.975	74.699			
26	.693	.900	75.599			
27	.684	.889	76.488			

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
28	.675	.876	77.365			
29	.646	.839	78.203			
30	.635	.825	79.028			
31	.603	.783	79.811			
32	.596	.774	80.585			
33	.595	.773	81.357			
34	.569	.739	82.096			
35	.559	.727	82.822			
36	.544	.706	83.528			
37	.525	.682	84.211			
38	.499	.648	84.859			
39	.494	.642	85.500			
40	.474	.615	86.116			
41	.468	.608	86.724			
42	.466	.605	87.328			
43	.459	.596	87.924			
44	.440	.572	88.496			
45	.432	.561	89.056			
46	.412	.535	89.592			
47	.405	.526	90.118			
48	.381	.495	90.613			
49	.372	.483	91.096			
50	.357	.464	91.560			
51	.348	.452	92.012			
52	.342	.444	92.456			
53	.334	.434	92.890			
54	.329	.428	93.318			
55	.323	.419	93.736			
56	.311	.404	94.141			
57	.301	.391	94.531			

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
58	.288	.374	94.905			
59	.284	.369	95.274			
60	.275	.357	95.631			
61	.266	.345	95.976			
62	.258	.335	96.312			
63	.252	.327	96.639			
64	.242	.314	96.953			
65	.232	.301	97.254			
66	.224	.291	97.546			
67	.216	.281	97.827			
68	.213	.277	98.104			
69	.200	.260	98.364			
70	.190	.246	98.610			
71	.186	.242	98.852			
72	.174	.226	99.078			
73	.161	.208	99.287			
74	.158	.206	99.492			
75	.140	.182	99.674			
76	.132	.171	99.846			
77	.119	.154	100.000			

Extraction Method: Principal Component Analysis.

Appendix L: PLS Result

Index value of Latent Variable

LV Index Values

EE	5.8138
P1	5.1670
P2	5.7936
P3	5.3082
P4	5.5083
P5	5.0671
Psy	5.3661
TL	5.1113

Measurement Model

	EE	P1	P2	P3	P4	P5	Psy	TL
EE1	0.0901	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE10	0.0953	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE11	0.0901	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE13	0.0876	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE2	0.0985	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE3	0.0836	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE4	0.1011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE5	0.0987	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE6	0.1025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE7	0.0791	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE8	0.0735	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
L10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0471
L11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0547
L12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0573
L13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0474
L14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0592
L15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0593
L16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0590
L17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0586
L18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0604
L19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0607
L20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0595
L3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0546
L4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0533
L5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0507
L6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0605
L7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0583
L8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0495
L9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0497
P1.1	0.0000	0.3833	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.2	0.0000	0.3866	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.3	0.0000	0.2301	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2.1	0.0000	0.0000	0.5314	0.0000	0.0000	0.0000	0.0000	0.0000
P2.4	0.0000	0.0000	0.4686	0.0000	0.0000	0.0000	0.0000	0.0000

P3.1	0.0000	0.0000	0.0000	0.2544	0.0000	0.0000	0.0000	0.0000
P3.2	0.0000	0.0000	0.0000	0.2237	0.0000	0.0000	0.0000	0.0000
P3.3	0.0000	0.0000	0.0000	0.2529	0.0000	0.0000	0.0000	0.0000
P3.4	0.0000	0.0000	0.0000	0.2689	0.0000	0.0000	0.0000	0.0000
P4.3	0.0000	0.0000	0.0000	0.0000	0.1759	0.0000	0.0000	0.0000
P4.4	0.0000	0.0000	0.0000	0.0000	0.2063	0.0000	0.0000	0.0000
P4.5	0.0000	0.0000	0.0000	0.0000	0.1878	0.0000	0.0000	0.0000
P4.7	0.0000	0.0000	0.0000	0.0000	0.2078	0.0000	0.0000	0.0000
P4.8	0.0000	0.0000	0.0000	0.0000	0.2222	0.0000	0.0000	0.0000
P5.4	0.0000	0.0000	0.0000	0.0000	0.0000	0.3496	0.0000	0.0000
P5.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.3637	0.0000	0.0000
P5.8	0.0000	0.0000	0.0000	0.0000	0.0000	0.2866	0.0000	0.0000
PSY1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3811	0.0000
PSY2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3308	0.0000
PSY3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2881	0.0000

Measurement Model Restandardize

	EE	P1	P2	P3	P4	P5	Psy	TL
EE1	0.8292	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE10	0.8769	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE11	0.8290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE13	0.8066	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE2	0.9070	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE3	0.7694	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE4	0.9305	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE5	0.9084	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE6	0.9439	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE7	0.7284	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE8	0.6762	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
L10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5146
L11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5980
L12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6265
L13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5177
L14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6468
L15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6479
L16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6447
L17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6399
L18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6603
L19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6636
L20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6503
L3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5965
L4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5823
L5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5543
L6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6607
L7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6374
L8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5410
L9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5426
P1.1	0.0000	0.6931	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.2	0.0000	0.6990	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.3	0.0000	0.4161	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2.1	0.0000	0.0000	0.7455	0.0000	0.0000	0.0000	0.0000	0.0000

P2.4	0.0000	0.0000	0.6574	0.0000	0.0000	0.0000	0.0000	0.0000
P3.1	0.0000	0.0000	0.0000	0.6059	0.0000	0.0000	0.0000	0.0000
P3.2	0.0000	0.0000	0.0000	0.5328	0.0000	0.0000	0.0000	0.0000
P3.3	0.0000	0.0000	0.0000	0.6022	0.0000	0.0000	0.0000	0.0000
P3.4	0.0000	0.0000	0.0000	0.6405	0.0000	0.0000	0.0000	0.0000
P4.3	0.0000	0.0000	0.0000	0.0000	0.4403	0.0000	0.0000	0.0000
P4.4	0.0000	0.0000	0.0000	0.0000	0.5162	0.0000	0.0000	0.0000
P4.5	0.0000	0.0000	0.0000	0.0000	0.4700	0.0000	0.0000	0.0000
P4.7	0.0000	0.0000	0.0000	0.0000	0.5199	0.0000	0.0000	0.0000
P4.8	0.0000	0.0000	0.0000	0.0000	0.5560	0.0000	0.0000	0.0000
P5.4	0.0000	0.0000	0.0000	0.0000	0.0000	0.5874	0.0000	0.0000
P5.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.6111	0.0000	0.0000
P5.8	0.0000	0.0000	0.0000	0.0000	0.0000	0.4815	0.0000	0.0000
PSY1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7124	0.0000
PSY2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6185	0.0000
PSY3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5386	0.0000

Path coefficient

	EE	P1	P2	P3	P4	P5	Psy	TL
EE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1	0.0271	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2	0.0144	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P3	0.0630	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P4	0.0460	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P5	-0.0068	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Psy	0.0412	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TL	0.1571	0.0000	0.0000	0.0000	0.0000	0.0000	2.1030	0.0000

Outer Loading

	EE	P1	P2	P3	P4	P5	Psy	TL
EE1	0.7592	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE10	0.8021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE11	0.7854	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE13	0.7790	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE2	0.7921	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE3	0.7103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE4	0.7608	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE5	0.7854	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE6	0.8358	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE7	0.7211	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE8	0.6956	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
L10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7169
L11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8350
L12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8137
L13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7031
L14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8447
L15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8152
L16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7929
L17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8274
L18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8555
L19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8468

L20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8391
L3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7212
L4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7392
L5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7523
L6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7555
L7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7004
L8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7838
L9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7901
P1.1	0.0000	0.7867	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.2	0.0000	0.8399	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.3	0.0000	0.6222	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2.1	0.0000	0.0000	0.8487	0.0000	0.0000	0.0000	0.0000	0.0000
P2.4	0.0000	0.0000	0.8017	0.0000	0.0000	0.0000	0.0000	0.0000
P3.1	0.0000	0.0000	0.0000	0.7511	0.0000	0.0000	0.0000	0.0000
P3.2	0.0000	0.0000	0.0000	0.6702	0.0000	0.0000	0.0000	0.0000
P3.3	0.0000	0.0000	0.0000	0.7256	0.0000	0.0000	0.0000	0.0000
P3.4	0.0000	0.0000	0.0000	0.7202	0.0000	0.0000	0.0000	0.0000
P4.3	0.0000	0.0000	0.0000	0.0000	0.7435	0.0000	0.0000	0.0000
P4.4	0.0000	0.0000	0.0000	0.0000	0.6673	0.0000	0.0000	0.0000
P4.5	0.0000	0.0000	0.0000	0.0000	0.8031	0.0000	0.0000	0.0000
P4.7	0.0000	0.0000	0.0000	0.0000	0.8153	0.0000	0.0000	0.0000
P4.8	0.0000	0.0000	0.0000	0.0000	0.6501	0.0000	0.0000	0.0000
P5.4	0.0000	0.0000	0.0000	0.0000	0.0000	0.6859	0.0000	0.0000
P5.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.8030	0.0000	0.0000
P5.8	0.0000	0.0000	0.0000	0.0000	0.0000	0.7036	0.0000	0.0000
PSY1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7562	0.0000
PSY2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7693	0.0000
PSY3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7316	0.0000

Outer weight

	EE	P1	P2	P3	P4	P5	Psy	TL
EE1	0.1095	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE10	0.1314	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE11	0.1265	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE13	0.1233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE2	0.1199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE3	0.0891	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE4	0.1154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE5	0.1250	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE6	0.1290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE7	0.1151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EE8	0.1166	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
L10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0570
L11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0817
L12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0747
L13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0743
L14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0733
L15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0708
L16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0683
L17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0744
L18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0722

L19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0730
L20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0807
L3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0611
L4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0637
L5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0568
L6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0683
L7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0734
L8	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0667
L9	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0785
P1.1	0.0000	0.4943	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.2	0.0000	0.5300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1.3	0.0000	0.2668	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2.1	0.0000	0.0000	0.6418	0.0000	0.0000	0.0000	0.0000	0.0000
P2.4	0.0000	0.0000	0.5680	0.0000	0.0000	0.0000	0.0000	0.0000
P3.1	0.0000	0.0000	0.0000	0.3234	0.0000	0.0000	0.0000	0.0000
P3.2	0.0000	0.0000	0.0000	0.3152	0.0000	0.0000	0.0000	0.0000
P3.3	0.0000	0.0000	0.0000	0.3839	0.0000	0.0000	0.0000	0.0000
P3.4	0.0000	0.0000	0.0000	0.3711	0.0000	0.0000	0.0000	0.0000
P4.3	0.0000	0.0000	0.0000	0.0000	0.1691	0.0000	0.0000	0.0000
P4.4	0.0000	0.0000	0.0000	0.0000	0.2098	0.0000	0.0000	0.0000
P4.5	0.0000	0.0000	0.0000	0.0000	0.2824	0.0000	0.0000	0.0000
P4.7	0.0000	0.0000	0.0000	0.0000	0.3680	0.0000	0.0000	0.0000
P4.8	0.0000	0.0000	0.0000	0.0000	0.3192	0.0000	0.0000	0.0000
P5.4	0.0000	0.0000	0.0000	0.0000	0.0000	0.3855	0.0000	0.0000
P5.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.4802	0.0000	0.0000
P5.8	0.0000	0.0000	0.0000	0.0000	0.0000	0.4975	0.0000	0.0000
PSY1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4355	0.0000
PSY2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4087	0.0000
PSY3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4870	0.0000

Path coefficient PLS

	EE	P1	P2	P3	P4	P5	Psy	TL
EE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1	0.1381	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2	0.0942	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P3	0.2436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P4	0.1691	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P5	-0.0372	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Psy	0.2027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TL	0.1324	0.0000	0.0000	0.0000	0.0000	0.0000	0.3598	0.0000

Cross loading

	EE	P1	P2	P3	P4	P5	Psy	TL
EE1	0.7592	0.2698	0.2187	0.3147	0.1924	0.1563	0.2739	0.1602
EE10	0.8021	0.3229	0.3209	0.3931	0.2314	0.2727	0.2700	0.2357
EE11	0.7854	0.3175	0.2945	0.3843	0.2504	0.2419	0.2390	0.2102
EE13	0.7790	0.3158	0.3032	0.3552	0.1864	0.2640	0.2937	0.2116
EE2	0.7921	0.2988	0.2450	0.3429	0.2199	0.1869	0.2999	0.1639
EE3	0.7103	0.1753	0.1900	0.2254	0.1676	0.1451	0.2700	0.1425
EE4	0.7608	0.2680	0.2673	0.3788	0.2322	0.2225	0.2446	0.1196
EE5	0.7854	0.2979	0.2767	0.3891	0.1748	0.2622	0.2860	0.2403
EE6	0.8358	0.2967	0.2704	0.3664	0.2171	0.2384	0.3332	0.2208
EE7	0.7211	0.2566	0.1909	0.3271	0.1424	0.1760	0.3190	0.2635
EE8	0.6956	0.2492	0.2125	0.2907	0.1515	0.1620	0.3076	0.3495
L10	0.1636	0.0813	0.0794	0.0731	-0.0137	0.0411	0.2356	0.7169
L11	0.2315	0.1367	0.0905	0.1216	0.0171	0.0778	0.3402	0.8350
L12	0.2743	0.1564	0.1794	0.1910	0.0866	0.1668	0.2629	0.8137
L13	0.2335	0.1740	0.1222	0.1331	-0.0169	0.1382	0.2915	0.7031
L14	0.2053	0.1264	0.1504	0.0761	-0.0425	0.1413	0.3067	0.8447
L15	0.1941	0.1329	0.0920	0.1015	0.0073	0.1404	0.2993	0.8152
L16	0.1476	0.1355	0.0984	0.1236	-0.0020	0.1382	0.3194	0.7929
L17	0.1961	0.1055	0.1095	0.1116	0.0075	0.1223	0.3211	0.8274
L18	0.1999	0.1500	0.1425	0.1509	0.0311	0.1369	0.3041	0.8555
L19	0.1884	0.1102	0.1206	0.1209	0.0000	0.1064	0.3179	0.8468
L20	0.2240	0.1288	0.1348	0.1383	0.0911	0.1124	0.3393	0.8391
L3	0.2231	0.1091	0.1336	0.1410	0.0000	0.1005	0.2158	0.7212
L4	0.2526	0.0963	0.0913	0.0847	0.0278	0.0634	0.2097	0.7392

L5	0.1977	0.1065	0.0706	0.0997	0.0136	0.0853	0.2080	0.7523
L6	0.2611	0.1331	0.1946	0.1638	0.0361	0.1440	0.2319	0.7555
L7	0.2607	0.1415	0.1934	0.1332	-0.0258	0.1489	0.2651	0.7004
L8	0.1981	0.1344	0.0901	0.0971	-0.0164	0.1330	0.2706	0.7838
L9	0.2544	0.1031	0.1032	0.1123	-0.0065	0.0763	0.3018	0.7901
P1.1	0.3046	0.7867	0.3242	0.3646	0.1016	0.2592	0.2422	0.1261
P1.2	0.3266	0.8399	0.3208	0.4389	0.1078	0.3396	0.1992	0.1411
P1.3	0.1644	0.6222	0.2573	0.2090	-0.0593	0.2907	0.1788	0.0890
P2.1	0.2919	0.4024	0.8487	0.3996	0.2333	0.4712	0.1723	0.1498
P2.4	0.2583	0.2477	0.8017	0.3395	0.0585	0.4246	0.1876	0.1060
P3.1	0.2981	0.3653	0.3103	0.7511	0.1876	0.2964	0.1528	0.1005
P3.2	0.2906	0.2838	0.3053	0.6702	0.2056	0.2159	0.1455	0.1668
P3.3	0.3539	0.3227	0.3219	0.7256	0.0609	0.3122	0.1746	0.0266
P3.4	0.3421	0.3695	0.3479	0.7202	0.2522	0.4341	0.2989	0.1598
P4.3	0.1120	0.0274	0.0481	0.1915	0.7435	0.1227	-0.0020	0.0491
P4.4	0.1390	0.1578	0.1489	0.1474	0.6673	0.1077	0.0625	-0.0020
P4.5	0.1871	-0.0075	0.0586	0.1990	0.8031	0.0785	0.0095	-0.0158
P4.7	0.2438	0.0465	0.0747	0.1790	0.8153	0.1105	0.0396	0.0330
P4.8	0.2114	0.1216	0.3119	0.1790	0.6501	0.3475	0.0024	-0.0025
P5.4	0.1721	0.3262	0.3840	0.3799	0.0516	0.6859	0.2078	0.1285
P5.5	0.2144	0.3126	0.5480	0.3825	0.0618	0.8030	0.2146	0.1369
P5.8	0.2221	0.2208	0.2661	0.2307	0.3367	0.7036	0.1077	0.0651
PSY1	0.3397	0.2327	0.1997	0.2567	0.0823	0.1765	0.7562	0.1944
PSY2	0.2841	0.1919	0.1308	0.1899	-0.0151	0.1428	0.7693	0.2183
PSY3	0.2205	0.1915	0.1574	0.1721	0.0023	0.2083	0.7316	0.3819

Latent Corelation

	EE	P1	P2	P3	P4	P5	Psy	TL
EE	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1	0.3675	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2	0.3341	0.3990	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P3	0.4509	0.4686	0.4493	1.0000	0.0000	0.0000	0.0000	0.0000
P4	0.2581	0.0916	0.1829	0.2425	1.0000	0.0000	0.0000	0.0000
P5	0.2798	0.3857	0.5436	0.4449	0.2171	1.0000	0.0000	0.0000
Psy	0.3714	0.2730	0.2171	0.2732	0.0308	0.2367	1.0000	0.0000
TL	0.2769	0.1609	0.1564	0.1546	0.0148	0.1476	0.3598	1.0000

Overview

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
EE	0.5885	0.9401	0.3372	0.9297	0.5885	0.0481
P1	0.5705	0.7970	0.0000	0.6340	0.5705	0.0000
P2	0.6815	0.8104	0.0000	0.5339	0.6815	0.0000
P3	0.5146	0.8090	0.0000	0.6863	0.5146	0.0000
P4	0.5461	0.8564	0.0000	0.7935	0.5461	0.0000
P5	0.5368	0.7757	0.0000	0.5689	0.5368	0.0000
Psy	0.5663	0.7966	0.1295	0.6187	0.5663	0.0692
TL	0.6191	0.9668	0.0000	0.9635	0.6191	0.0000

Total effect

	EE	P1	P2	P3	P4	P5	Psy	TL
EE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P1	0.1381	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P2	0.0942	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P3	0.2436	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P4	0.1691	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
P5	-0.0372	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Psy	0.2027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TL	0.2053	0.0000	0.0000	0.0000	0.0000	0.0000	0.3598	0.0000

Bootstrapping**Outer Loading**

EE1 <- EE	0.7592	0.7582	0.0293	0.0293	26.1243
EE10 <- EE	0.8021	0.8050	0.0241	0.0241	33.9192
EE11 <- EE	0.7854	0.7857	0.0260	0.0260	30.4195
EE13 <- EE	0.7790	0.7799	0.0244	0.0244	33.3310
EE2 <- EE	0.7921	0.7931	0.0204	0.0204	38.5545
EE3 <- EE	0.7103	0.7116	0.0310	0.0310	22.9524
EE4 <- EE	0.7608	0.7603	0.0313	0.0313	24.9631
EE5 <- EE	0.7854	0.7853	0.0268	0.0268	30.3214
EE6 <- EE	0.8358	0.8364	0.0188	0.0188	45.2234
EE7 <- EE	0.7211	0.7226	0.0333	0.0333	21.7904
EE8 <- EE	0.6956	0.6966	0.0373	0.0373	19.5026
L10 <- TL	0.7169	0.7140	0.0347	0.0347	20.7832
L11 <- TL	0.8350	0.8328	0.0164	0.0164	49.7222
L12 <- TL	0.8137	0.8108	0.0196	0.0196	38.8792
L13 <- TL	0.7031	0.7033	0.0423	0.0423	16.4922
L14 <- TL	0.8447	0.8429	0.0176	0.0176	47.6870

L15 <- TL	0.8152	0.8143	0.0221	0.0221	37.1043
L16 <- TL	0.7929	0.7888	0.0275	0.0275	28.9239
L17 <- TL	0.8274	0.8254	0.0184	0.0184	43.8949
L18 <- TL	0.8555	0.8534	0.0157	0.0157	56.6861
L19 <- TL	0.8468	0.8439	0.0186	0.0186	47.0083
L20 <- TL	0.8391	0.8363	0.0170	0.0170	48.8945
L3 <- TL	0.7212	0.7213	0.0308	0.0308	23.6494
L4 <- TL	0.7392	0.7373	0.0350	0.0350	22.0458
L5 <- TL	0.7523	0.7493	0.0277	0.0277	26.2371
L6 <- TL	0.7555	0.7530	0.0264	0.0264	27.4233
L7 <- TL	0.7004	0.7006	0.0436	0.0436	16.6820
L8 <- TL	0.7838	0.7831	0.021	0.0211	39.9103
L9 <- TL	0.7901	0.7881	0.0244	0.0244	32.1312
P1.1 <- P1	0.7867	0.7863	0.0397	0.0397	20.8342
P1.2 <- P1	0.8399	0.8409	0.0257	0.0257	33.0367
P1.3 <- P1	0.6222	0.6141	0.0661	0.0661	9.1631
P2.1 <- P2	0.8487	0.8493	0.0365	0.0365	24.1041
P2.4 <- P2	0.8017	0.7986	.0438	0.0438	19.4208
P3.1 <- P3	0.7511	0.7493	0.0368	0.0368	20.6582
P3.2 <- P3	0.6702	0.6715	0.0415	0.0415	15.7186
P3.3 <- P3	0.7256	0.7247	0.0374	0.0374	19.4870
P3.4 <- P3	0.7202	0.7183	0.0441	0.0441	16.8132
P4.3 <- P4	0.7435	0.7370	0.0497	0.0497	15.0917
P4.4 <- P4	0.6673	0.6621	0.0683	0.0683	10.9368
P4.5 <- P4	0.8031	0.7969	0.0419	0.0419	20.4122
P4.7 <- P4	0.8153	0.8118	0.0403	0.0403	21.5021
P4.8 <- P4	0.6501	0.6481	0.0676	0.0676	10.3323
P5.4 <- P5	0.6859	0.6825	0.0765	0.0765	9.0981
P5.5 <- P5	0.8030	0.7974	0.0468	0.0468	16.7362
P5.8 <- P5	0.7036	0.7000	0.0790	0.0790	9.4441
PSY1 <- Psy	0.7562	0.7541	0.0422	0.0422	17.8593
PSY2 <- Psy	0.7693	0.7689	0.0389	0.0389	20.6342
PSY3 <- Psy	0.7316	0.7321	0.0427	0.0427	18.0291

Outer Weight

	Original Sample	sample Mean	STDEV	Standard Error	T Stat
EE1 <- EE	0.1095	0.1094	0.0080	0.0080	13.6878
EE10 <- EE	0.1314	0.1313	0.0082	0.0082	16.0524
EE11 <- EE	0.1265	0.1259	0.0086	0.0086	14.7564
EE13 <- EE	0.1233	0.1228	0.0078	0.0078	15.8416
EE2 <- EE	0.1199	0.1198	0.0074	0.0074	16.2260
EE3 <- EE	0.0891	0.0901	0.0079	0.0079	11.3069
EE4 <- EE	0.1154	0.1152	0.0074	0.0074	15.5972
EE5 <- EE	0.1250	0.1243	0.0077	0.0077	16.2182
EE6 <- EE	0.1290	0.1293	0.0074	0.0074	17.4937
EE7 <- EE	0.1151	0.1149	0.0090	0.0090	12.8136
EE8 <- EE	0.1166	0.1158	0.0109	0.0109	10.6677
L10 <- TL	0.0570	0.0564	0.0089	0.0089	6.3937
L11 <- TL	0.0817	0.0818	0.0068	0.0068	11.9916
L12 <- TL	0.0747	0.0746	0.0067	0.0067	11.1321
L13 <- TL	0.0743	0.0743	0.0089	0.0089	8.3547

L14 <- TL	0.0733	0.0733	0.0062	0.0062	11.8364
L15 <- TL	0.0708	0.0709	0.0064	0.0064	11.0323
L16 <- TL	0.0683	0.0683	0.0078	0.0078	8.7732
L17 <- TL	0.0744	0.0744	0.0070	0.0070	10.6799
L18 <- TL	0.0722	0.0721	0.0064	0.0064	11.3677
L19 <- TL	0.0730	0.0727	0.0063	0.0063	11.5901
L20 <- TL	0.0807	0.0804	0.0057	0.0057	14.1242
L3 <- TL	0.0611	0.0625	0.0085	0.0085	7.1724
L4 <- TL	0.0637	0.0640	0.0077	0.0077	8.2525
L5 <- TL	0.0568	0.0570	0.0070	0.0070	8.1210
L6 <- TL	0.0683	0.0685	0.0071	0.0071	9.6425
L7 <- TL	0.0734	0.0740	0.0085	0.0085	8.5998
L8 <- TL	0.0667	0.0671	0.0068	0.0068	9.8435
L9 <- TL	0.0785	0.0785	0.0069	0.0069	11.3583
P1.1 <- P1	0.4943	0.4929	0.0518	0.0518	9.5483
P1.2 <- P1	0.5300	0.5316	0.0452	0.0452	11.7254
P1.3 <- P1	0.2668	0.2602	0.0582	0.0582	4.5846
P2.1 <- P2	0.6418	0.6432	0.0564	0.0564	11.3888
P2.4 <- P2	0.5680	0.5635	0.0585	0.0585	9.7129
P3.1 <- P3	0.3234	0.3221	0.0371	0.0371	8.7237
P3.2 <- P3	0.3152	0.3162	0.0357	0.0357	8.8365
P3.3 <- P3	0.3839	0.3819	0.0364	0.0364	10.5572
P3.4 <- P3	0.3711	0.3698	0.0413	0.0413	8.9938
P4.3 <- P4	0.1691	0.1651	0.0624	0.0624	2.7112
P4.4 <- P4	0.2098	0.2078	0.0649	0.0649	3.2338
P4.5 <- P4	0.2824	0.2798	0.0451	0.0451	6.2548
P4.7 <- P4	0.3680	0.3678	0.0539	0.0539	6.8264
P4.8 <- P4	0.3192	0.3190	0.0640	0.0640	4.9846
P5.4 <- P5	0.3855	0.3810	0.0836	0.0836	4.6118
P5.5 <- P5	0.4802	0.4757	0.0663	0.0663	7.2448
P5.8 <- P5	0.4975	0.4945	0.0908	0.0908	5.4798
PSY1 <- Psy	0.4355	0.4334	0.0429	0.0429	10.1531
PSY2 <- Psy	0.4087	0.4088	0.0355	0.0355	11.5070
PSY3 <- Psy	0.4870	0.4849	0.0585	0.0585	8.3236

Path coefficient

	Original Sample	Sample Mean	STDEV	STD –Error	T Statistics
(O/STERR)					
P1 -> EE	0.1381	0.1417	0.0604	0.0604	2.2864
P2 -> EE	0.0942	0.0911	0.0534	0.0534	1.7648
P3 -> EE	0.2436	0.2460	0.0479	0.0479	5.0824
P4 -> EE	0.1691	0.1704	0.0464	0.0464	3.6466
P5 -> EE	-0.0372	-0.0315	0.0541	0.0541	0.6888
Psy -> EE	0.2027	0.2018	0.0463	0.0463	4.3824
TL -> EE	0.1324	0.1363	0.0489	0.0489	2.7071
TL -> Psy	0.3598	0.3635	0.0485	0.0485	7.4176

Total Effect

(O/STERR)	Original Sample	Sample Mean	STDEV	STD-ERR	T Statistics
P1 -> EE	0.1381	0.1417	0.0604	0.0604	2.2864
P2 -> EE	0.0942	0.0911	0.0534	0.0534	1.7648
P3 -> EE	0.2436	0.2460	0.0479	0.0479	5.0824
P4 -> EE	0.1691	0.1704	0.0464	0.0464	3.6466
P5 -> EE	-0.0372	-0.0315	0.0541	0.0541	0.6888
Psy -> EE	0.2027	0.2018	0.0463	0.0463	4.3824
TL -> EE	0.2053	0.2094	0.0511	0.0511	4.0166
TL -> Psy	0.3598	0.3635	0.0485	0.0485	7.4176

