

JOB CHARACTERISTICS AS AN ANTECEDENT OF WORK-LIFE BALANCE  
AND PSYCHOLOGICAL WELL-BEING AMONG ACADEMIC STAFF IN  
MALAYSIAN RESEARCH UNIVERSITIES

SITI KHADIJAH BINTI ZAINAL BADRI

A thesis submitted in fulfilment of the  
requirements for the award of the degree of  
Doctor of Philosophy (Management)

Faculty of Management  
Universiti Teknologi Malaysia

MARCH 2017

To my beloved father and mother, husband and my beautiful daughter

## ACKNOWLEDGEMENT

In the name of Allah the Most Gracious, Most Merciful’

PhD is a wonderful yet challenging experience that I ever had in my life. Most importantly, I am grateful and thank Allah for His entire blessing for allowing me to be what I am now. I believe that all my accomplishment and success is impossible without His permission and mercy towards me. Alhamdulillah and thank you Allah. First of all, I would like to express my deepest appreciation towards my supervisor, Associate Professor Dr. Siti Aisyah Binti Panatik for her continuous support, patience and guidance during my PHD journey. You have taught me with the true meaning of PhD, which is not simply an award and recognition but also a long learning process and ‘tarbiyyah’ towards myself. Thank you for your kind words and your trust towards my capability. Without your teaching, reminder and support, it will be impossible for me to reach the end this journey. Also, my PhD would be less meaningful without the true love and support from both my mother, Normah Binti Nasir and father, Zainal Badri Bin Abdul Ghani whom never failed to give their encouragement, pray and support. Both of them have raised me so well with love and sincerity which makes all the impossible things become possible today. To my father, this success is for you eventhough you are not here to witness the end of this journey. I hope Allah will granted you with beautiful nice resting place to compensate all good deeds that you have done during your life. I vow that I will be a good teacher as you and mom did. Till we meet again, Ayah. I also would like to thank my siblings, brothers (Yop, Ata, Ais, Udi) and sisters (Hajar, Bedah, Adik) whom never fail to cherish me during my ups and down. Not forgotten, to my dearest husband, Fudhail bin Yusoff, which always there to support me during my studies. Thank you for your understanding, support and caring reminder through out my hard time completing my PhD especially during my pregnancy. I am so grateful to have such wonderful friends and team members during my study (Kak Ika, Kak Linda, Kak Intan, Ana, Iman, Dayah). Thank you for the beautiful relationship and emotional support that make this journey worth to be remembered throughout the lifetime.

## ABSTRACT

Both research and technological revolutions have significantly changed university's job characteristics and direction today. These have threatened academics' psychological well-being and work-life balance due to increased workload and stressful working conditions. However, the existing literature offers limited studies on this phenomenon involving academics in research universities. Therefore, this study examines the influence of job characteristics namely skill variety, job autonomy, task identity, task significance and feedback towards work-life balance which comprises work-to-family conflict and work-to-family enrichment and also towards psychological well-being which consists of job satisfaction, psychological health and turnover intention among Malaysian research university academics. The study also tests the mediating effect of work-life balance in the relationship between job characteristics and psychological well-being. Besides, it also investigates the moderating role of self-efficacy in the relationship between job characteristics and work-life balance. This study utilised a quantitative approach, where a set of questionnaires were used as the data collection tool. The respondents were academics from five research universities in Malaysia. A total of 307 questionnaires were usable with a response rate of 92.7%. Structural equation modelling (SEM), using AMOS 23 and SPSS 23, was used to analyse the data. Result indicated that all job characteristics except for task significance have significant influence on the academic's psychological well-being, whereas all the five job characteristics were found to have significant influence on the academic's work-life balance. It was also discovered that only three dimension of work-life balance namely work-to-family conflict behavioural-based, work-to-family enrichment capital, work-to-family enrichment development have influence on the academic's psychological well-being. For mediation results, overall work-life balance dimensions found to mediate a total of forty-two paths in this study. In particular, the work-to-family conflict dimensions mediated a total of twenty-two paths, while work-to-family enrichment dimensions mediated the remaining twenty paths in this study. This study failed to support the moderating role of self-efficacy. Theoretically, this study contributes to the existing body of literature by extending the empirical evidences of job characteristics influence on work-life balance and psychological well-being issues among research university academics. Practically, the findings of this study present a guideline to higher education institutions for the purpose of designing good work characteristics to enhance their academics' work-life balance and psychological well-being. At the end, this study recommends future researcher to extend the existing model by integrating other relevant variables and also to utilise more advanced research methodology such as mixed method or longitudinal study.

## ABSTRAK

Kedua-dua penyelidikan dan revolusi teknologi telah secara signifikan telah mengubah ciri-ciri kerja dan hala tuju universiti hari ini. Ini telah menjejaskan kesejahteraan psikologikal dan keseimbangan kerja-keluarga para pensyarah disebabkan oleh peningkatan beban kerja dan suasana kerja yang menekan. Namun, kajian literature sedia ada mengenai fenomena ini masih terhad dalam kalangan para akademik di universiti penyelidikan. Oleh itu, kajian ini mengkaji kesan ciri-ciri kerja iaitu kepelbagaian kemahiran, autonomi kerja, identiti tugas, kepentingan tugas dan maklum balas terhadap keseimbangan kerja-keluarga yang terdiri daripada konflik kerja-keluarga dan pengayaan kerja-keluarga dan juga terhadap kesejahteraan psikologikal yang terdiri daripada kepuasan kerja, kesihatan psikologikal dan kecenderungan tukar ganti kerja dalam kalangan ahli akademik universiti penyelidikan di Malaysia. Kajian ini juga menguji kesan keseimbangan kerja-keluarga dalam hubungan antara ciri-ciri kerja dan kesejahteraan psikologikal. Selain itu, ia turut mengkaji peranan keberkesanan diri sebagai penyederhana dalam hubungan antara ciri-ciri kerja dengan keseimbangan kerja-keluarga. Kajian ini menggunakan pendekatan kuantitatif di mana satu set soal selidik telah digunakan sebagai alat pengumpulan data. Responden adalah para akademik dari lima buah universiti penyelidikan di Malaysia. Sejumlah 307 soal selidik boleh guna dengan kadar pulangan sebanyak 92.7%. Permodelan Persamaan Berstruktur (SEM) menggunakan AMOS 23 dan SPSS 23 telah digunakan untuk menganalisis data. Keputusan menunjukkan bahawa kesemua ciri-ciri kerja kecuali kepentingan tugas mempunyai pengaruh signifikan ke atas kesejahteraan psikologikal para akademik, manakala kesemua lima ciri kerja didapati mempunyai pengaruh yang signifikan terhadap keseimbangan kerja-keluarga para akademik. Didapati juga bahawa hanya tiga dimensi kesejahteraan kerja-keluarga iaitu konflik kerja-keluarga berasaskan tingkah laku, modal pengayaan kerja-keluarga, pembangunan pengayaan kerja-keluarga mempunyai kesan ke atas keseimbangan psikologikal pensyarah. Bagi dapatan pengantara, keseluruhan dimensi keseimbangan kerja-keluarga signifikan bagi sejumlah empat puluh dua laluan dalam kajian ini. Secara terperinci, dimensi konflik kerja-keluarga mengantara sejumlah dua puluh dua laluan, manakala dimensi pengayaan kerja-keluarga mengantara selebihnya sebanyak dua puluh laluan dalam kajian ini. Kajian ini gagal menyokong peranan pengantara keberkesanan diri. Secara teori, kajian ini menyumbang kepada badan literature yang sedia ada dengan mengembangkan bukti empirikal berkenaan kesan ciri-ciri kerja terhadap keseimbangan kerja-keluarga dan isu-isu kesejahteraan psikologikal dalam kalangan para akademik universiti penyelidikan. Secara praktikal, dapatan kajian ini mengemukakan garis panduan kepada institusi-institusi pengajian tinggi bagi tujuan mencorakkan ciri-ciri kerja yang baik bagi penambahbaikan keseimbangan kerja-kehidupan dan kesejahteraan psikologikal para akademik. Akhir sekali, kajian ini mencadangkan penyelidik akan datang untuk mengembangkan lagi model sedia ada dengan mengintegrasikan pembolehubah-pembolehubah yang relevan dan juga dengan menggunakan metodologi kajian yang lebih terkini seperti kaedah campuran atau kajian longitudinal.

## TABLE OF CONTENTS

| CHAPTER  | TITLE                                     | PAGE     |
|----------|---|----------|
|          | <b>DECLARATION</b>                        | ii       |
|          | <b>DEDICATION</b>                         | iii      |
|          | <b>ACKNOWLEDGEMENT</b>                    | iv       |
|          | <b>ABSTRACT</b>                           | v        |
|          | <b>ABSTRAK</b>                            | vi       |
|          | <b>TABLE OF CONTENTS</b>                  | vii      |
|          | <b>LIST OF TABLES</b>                     | xv       |
|          | <b>LIST OF FIGURES</b>                    | xviii    |
|          | <b>LIST OF ABBREVIATIONS</b>              | xx       |
|          | <b>LIST OF APPENDICES</b>                 | xxiii    |
| <br>     |   |          |
| <b>1</b> | <b>INTRODUCTION</b>                       | <b>1</b> |
|          | 1.0 Chapter Overview                      | 1        |
|          | 1.1 Research Background                   | 2        |
|          | 1.2 Statement of Problems                 | 7        |
|          | 1.3 Research Questions                    | 14       |
|          | 1.4 Research Aim and Objectives           | 15       |
|          | 1.5 Research Scopes                       | 16       |
|          | 1.6 Research Significance                 | 16       |
|          | 1.6.1 Theoretical Implications            | 16       |
|          | 1.6.2 Practical Implications              | 18       |
|          | 1.6.3 Methodological Implications         | 19       |
|          | 1.7 Conceptual and Operational Definition | 19       |

|          |   |           |
|----------|---|-----------|
| 1.7.1    | Job Characteristics   | 19        |
| 1.7.1.1  | Skill Variety   | 20        |
| 1.7.1.2  | Job Autonomy  | 20        |
| 1.7.1.3  | Task Identity   | 20        |
| 1.7.1.4  | Task Significance   | 21        |
| 1.7.1.5  | Feedback  | 21        |
| 1.7.2    | Work-Life Balance   | 22        |
| 1.7.2.1  | Work-to-Family Enrichment   | 22        |
| 1.7.2.2  | Work-to-Family Conflict   | 23        |
| 1.7.3    | Job Satisfaction  | 23        |
| 1.7.4    | Psychological Health  | 24        |
| 1.7.5    | Turnover Intention  | 24        |
| 1.7.6    | Self-Efficacy   | 24        |
| 1.8      | Chapter Summary   | 25        |
| <b>2</b> | <b>LITERATURE REVIEW</b>  | <b>26</b> |
| 2.0      | Chapter Overview  | 26        |
| 2.1      | Overview of Job Characteristics as the Antecedents of<br>Work-Life Balance and Psychological Well-Being | 26        |
| 2.2      | Overview of Work-Life Balance   | 31        |
| 2.2.1    | Work-to-Family Conflict   | 32        |
| 2.2.2    | Work-to-Family Enrichment   | 36        |
| 2.2.3    | Theories of Work-Life Balance   | 39        |
| 2.2.3.1  | Role Theory   | 39        |
| 2.2.3.2  | Theory of Role Accumulation   | 41        |
| 2.2.3.3  | Work-Family Enrichment Theory   | 43        |
| 2.3      | Overview of Psychological Well-Being  | 46        |
| 2.3.1    | Job Satisfaction as the Outcome of Job<br>Characteristics and Work-Life Balance                         | 49        |
| 2.3.2    | Psychological Health as the Outcome of Job<br>Characteristics and Work-Life Balance                     | 52        |
| 2.3.3    | Turnover Intention as the Outcome of Job<br>Characteristics and Work-Life Balance                       | 55        |
| 2.4      | Overview of Self-Efficacy as a Moderator  | 58        |

|         |  |    |
|---------|--|----|
| 2.5     | Underpinning Theory  | 59 |
| 2.6     | Conceptual Framework of the Study  | 65 |
| 2.7     | Previous Studies and Hypotheses Development  | 67 |
| 2.7.1   | The Influence of Job Characteristics on Psychological Well-Being                               | 68 |
| 2.7.1.1 | The Influence of Job Characteristics on Job Satisfaction                                       | 68 |
| 2.7.1.2 | The Influence of Job Characteristics on Psychological Health                                   | 69 |
| 2.7.1.3 | The Influence of Job Characteristics on Turnover Intention                                     | 71 |
| 2.7.2   | The Influence of Job Characteristics on Work-to-Family Conflict and Work-to-Family Enrichment  | 73 |
| 2.7.2.1 | The Influence of Skill Variety on Work-to-Family Conflict and Work-to-Family Enrichment        | 74 |
| 2.7.2.2 | The Influence of Job Autonomy on Work-to-Family Conflict and Work-to-Family Enrichment         | 76 |
| 2.7.2.3 | The Influence of Task Identity on Work-to-Family Conflict and Work-to-Family Enrichment        | 79 |
| 2.7.2.4 | The Influence of Task Significance on Work-to-Family Conflict and Work-to-Family Enrichment    | 81 |
| 2.7.2.5 | The Influence of Feedback on Work-to-Family Conflict and Work-to-Family Enrichment             | 83 |
| 2.7.3   | The Influence of Work-to-Family Conflict and Work-to-Family Enrichment on Job Satisfaction     | 84 |
| 2.7.4   | The Influence of Work-to-Family Conflict and Work-to-Family Enrichment on Psychological Health | 87 |



|          |       |   |            |
|----------|-------|---|------------|
|          | 2.7.5 | The Influence of Work-to-Family Conflict and<br>Work-to-Family Enrichment on Turnover Intention | 90         |
|          | 2.7.6 | Self-Efficacy as a Moderator  | 92         |
|          | 2.7.7 | Mediation Hypotheses  | 98         |
|          | 2.8   | Chapter Summary   | 114        |
| <b>3</b> |       | <b>RESEARCH METHODOLOGY</b>   | <b>115</b> |
|          | 3.0   | Chapter Overview  | 115        |
|          | 3.1   | Research Design   | 115        |
|          | 3.2   | Organisational Context  | 117        |
|          | 3.3   | Population and Sampling   | 118        |
|          | 3.4   | Administration Strategy   | 120        |
|          | 3.5   | Research Instruments  | 121        |
|          | 3.5.1 | Job Characteristics   | 121        |
|          | 3.5.2 | Work-to-Family Enrichment   | 122        |
|          | 3.5.3 | Work-to-Family Conflict   | 122        |
|          | 3.5.4 | Job Satisfaction  | 123        |
|          | 3.5.5 | Psychological Health  | 123        |
|          | 3.5.6 | Turnover Intention  | 124        |
|          | 3.5.7 | Self-Efficacy   | 124        |
|          | 3.6   | Pilot Study   | 125        |
|          | 3.7   | Methods of Data Analysis  | 127        |
|          | 3.7.1 | Data Preparation  | 127        |
|          | 3.7.2 | Confirmatory Factor Analysis (CFA)  | 128        |
|          | 3.7.3 | Descriptive Statistics  | 129        |
|          | 3.7.4 | Multivariate Analysis   | 129        |
|          | 3.7.5 | Summary of Data Analysis Based on<br>Research Objectives  | 131        |
|          | 3.8   | Ethical Considerations  | 132        |
|          | 3.9   | Chapter Summary   | 133        |

|          |  |            |
|----------|--|------------|
| <b>4</b> | <b>DATA ANALYSIS AND FINDINGS</b>  | <b>134</b> |
| 4.0      | Chapter Overview   | 134        |
| 4.1      | Data Screening Procedure: Missing Values<br>and Outliers   | 134        |
| 4.2      | Reliability, Validity and Normality Report   | 135        |
| 4.3      | Demographic Profiling of the Respondents   | 143        |
| 4.4      | Confirmatory Factor Analysis (CFA) of the<br>Instruments   | 144        |
| 4.4.1    | Job Characteristics  | 145        |
| 4.4.2    | Work-to-Family Enrichment  | 146        |
| 4.4.3    | Work-to-Family Conflict  | 147        |
| 4.4.4    | Job Satisfaction   | 148        |
| 4.4.5    | Psychological Health   | 149        |
| 4.4.6    | Turnover Intention   | 150        |
| 4.4.7    | Self-Efficacy  | 151        |
| 4.4.8    | Overall Measurement Model of the Study   | 152        |
| 4.5      | Descriptive and Correlational Analyses   | 154        |
| 4.6      | Overall Structural Model   | 156        |
| 4.7      | Hypotheses Testing   | 158        |
| 4.7.1    | Findings on Research Objective 1: The Direct<br>Effect of Job Characteristics on Psychological<br>Well-Being   | 158        |
| 4.7.2    | Findings on Research Objective 2: The Direct<br>Effect of Job Characteristics on Work-to-Family<br>Enrichment and Work-to-Family Conflict                  | 162        |
| 4.7.2.1  | The Direct Effect of Job Characteristics<br>on Work-to-Family Enrichment   | 163        |
| 4.7.2.2  | The Direct Effect of Job Characteristics<br>on Work-to-Family Conflict   | 165        |
| 4.7.3    | Findings on Research Objective 3: The Direct<br>Effect of Work-to-Family Enrichment on Job<br>Satisfaction, Psychological Health and<br>Turnover Intention | 168        |

|         |  |     |
|---------|--|-----|
| 4.7.4   | Findings on Research Objective 4: The Direct Effect of Work-to-Family Conflict on Job Satisfaction, Psychological Health and Turnover Intention                  | 171 |
| 4.7.5   | Findings on Research Objective 5: The Mediating Effect of Work-to-Family Enrichment in the Relationship between Job Characteristics and Psychological Well-Being | 174 |
| 4.7.5.1 | W-FE Development as a Mediator in the Relationship between Job Characteristics and Psychological Well-Being  | 175 |
| 4.7.5.2 | W-FE Affect as a Mediator in the Relationship between Job Characteristics and Psychological Well-Being   | 176 |
| 4.7.5.3 | W-FE Capital as a Mediator in the Relationship between Job Characteristics and Psychological Well-Being  | 178 |
| 4.7.6   | Findings on Research Objective 6: The Mediating Effect of Work-to-Family Conflict in the Relationship between Job Characteristics and Psychological Well-Being   | 180 |
| 4.7.6.1 | W-FC Time-Based as a Mediator in the Relationship between Job Characteristics and Psychological Well-Being   | 181 |
| 4.7.6.2 | W-FC Behavioural-Based as a Mediator in the Relationship between Job Characteristics and Psychological Well-Being  | 183 |
| 4.7.6.3 | W-FC Strain-Based as a Mediator in the Relationship between Job Characteristics and Psychological Well-Being   | 185 |

|          |   |            |
|----------|---|------------|
| 4.7.7    | Findings on Research Objective 7:<br>The Moderating Role of Self-Efficacy in the<br>Relationship between Job Characteristics with<br>Work-to-Family Enrichment and<br>Work-to-Family Conflict | 187        |
| 4.8      | Summary of Findings   | 191        |
| <b>5</b> | <b>DISCUSSION AND CONCLUSION</b>  | <b>192</b> |
| 5.0      | Chapter Overview  | 192        |
| 5.1      | General Discussion  | 192        |
| 5.2      | Discussion Based on Research Objectives   | 194        |
| 5.2.1    | Research Objective 1: The Influence of Job<br>Characteristics on Psychological Well-Being   | 194        |
| 5.2.2    | Research Objective 2: The Influence of Job<br>Characteristics on Work-to-Family Conflict<br>and Work-to-Family Enrichment   | 198        |
| 5.2.3    | Research Objective 3: The Influence of<br>Work-to-Family Enrichment on Job Satisfaction,<br>Psychological Health and Turnover Intention   | 205        |
| 5.2.4    | Research Objective 4: The Influence of<br>Work-to-Family Conflict on Job Satisfaction,<br>Psychological Health and Turnover Intention   | 208        |
| 5.2.5    | Research Objective 5: W-FE as a Mediator in<br>the Relationship between Job Characteristics<br>and Psychological Well-Being   | 211        |
| 5.2.6    | Research Objective 6: W-FC as a Mediator in<br>the Relationship between Job Characteristics<br>and Psychological Well-Being   | 214        |
| 5.2.7    | Research Objective 7: The Moderation Role of<br>Self-Efficacy   | 218        |
| 5.3      | Research Implications   | 220        |
| 5.3.1    | Theoretical Implications  | 220        |
| 5.3.2    | Practical Implications  | 224        |
| 5.4      | Limitations and Suggestions for Future Research   | 226        |

|     |            |     |
|-----|------------|-----|
| 5.5 | Conclusion | 227 |
|-----|------------|-----|

|                   |            |
|-------------------|------------|
| <b>REFERENCES</b> | <b>231</b> |
|-------------------|------------|

|                  |         |
|------------------|---------|
| Appendices A - C | 279-302 |
|------------------|---------|

## LIST OF TABLES

| <b>TABLE NO.</b> | <b>TITLE</b>  | <b>PAGE</b> |
|------------------|---|-------------|
| 3.1              | Sampling of the study   | 120         |
| 3.2              | List of items before and after modification   | 126         |
| 3.3              | Reliability results for pilot study 1 and 2   | 126         |
| 3.4              | Level of acceptance of the model fit indices  | 129         |
| 3.5              | Summary of statistical analysis based on research objectives  | 131         |
| 4.1              | Summary of reliability, validity, normality, mean, standard deviation and factor loading of the items     | 137         |
| 4.2              | Respondents' demographic profile  | 143         |
| 4.3              | Confirmatory factor analysis result for the job characteristics instruments                               | 146         |
| 4.4              | Cross-sectional inter-correlation between the studied variables   | 155         |
| 4.5              | Direct effect results for the influence of job characteristics on job satisfaction                        | 159         |
| 4.6              | Direct effect results for the influence of job characteristics on psychological health anxiety/depression | 160         |
| 4.7              | Direct effect results for the influence of job characteristics on social dysfunction                      | 161         |
| 4.8              | Direct effect results for the influence of job characteristics on turnover intention                      | 161         |
| 4.9              | Summary of results for the influence of job characteristics on psychological well-being                   | 162         |

|      |   |     |
|------|---|-----|
| 4.10 | Direct effect results for the influence of job characteristics on work-to-family enrichment   | 164 |
| 4.11 | Summary of results for the influence of job characteristics on work-to-family enrichment  | 165 |
| 4.12 | Direct effect results for the influence of job characteristics on work-to-family conflict   | 166 |
| 4.13 | Summary of results for the influence of job characteristics on work-to-family conflict  | 168 |
| 4.14 | Direct effect results for the influence of work-to-family enrichment on job satisfaction  | 169 |
| 4.15 | Direct effect results for the influence of work-to-family enrichment on psychological health  | 170 |
| 4.16 | Direct effect results for the influence of work-to-family enrichment on turnover intention  | 171 |
| 4.17 | Summary of results for the influence of W-FE on job satisfaction, psychological health and turnover intention                                   | 171 |
| 4.18 | Direct effect results for the influence of work-to-family conflict on job satisfaction  | 172 |
| 4.19 | Direct effect results for the influence of work-to-family conflict on psychological health  | 173 |
| 4.20 | Direct effect results for the influence of work-to-family conflict on turnover intention  | 173 |
| 4.21 | Summary of results for the influence of W-FC on psychological well-being  | 174 |
| 4.22 | Bootstrapping results for the mediating effect of W-FE development in the relationship between job characteristics and psychological well-being | 176 |
| 4.23 | Bootstrapping results for the mediating effect of W-FE affect in the relationship between job characteristics and psychological well-being      | 178 |
| 4.24 | Bootstrapping results for the mediating effect of W-FE capital in the relationship between job characteristics and psychological well-bein      | 180 |

|      |   |     |
|------|---|-----|
| 4.25 | Bootstrapping result for mediating effect of W-FC time-based in relationship between job characteristics and psychological well-being                       | 182 |
| 4.26 | Bootstrapping results for the mediating effect of W-FC behavioural-based in the relationship between job characteristics and psychological well-being       | 185 |
| 4.27 | Bootstrapping results for the mediating effect of W-FC strain-based in the relationship between job characteristics and psychological well-being            | 186 |
| 4.28 | Results for the moderating role of self-efficacy in the relationship between job characteristics with work-to-family enrichment and work-to-family conflict | 189 |



## LIST OF FIGURES

| FIGURE NO. | TITLE   | PAGE |
|------------|---|------|
| 2.1        | Theory of work-family enrichment in " <i>When work and family are allies: A theory of work-family enrichment</i> " (Greenhaus & Powell, 2006) | 44   |
| 2.2        | Job characteristics model (Hackman & Oldham, 1980)  | 60   |
| 2.3        | Conceptual framework of the study   | 66   |
| 2.4        | Work-to-family conflict as a mediator   | 100  |
| 2.5        | Work-to-family enrichment as mediator   | 100  |
| 3.1        | Research design process   | 116  |
| 3.2        | Research process of the study   | 117  |
| 4.1        | Final CFA model for 5-factor job characteristics  | 146  |
| 4.2        | CFA of 3-factor model for work-to-family enrichment   | 147  |
| 4.3        | CFA of 3-factor model for work-to-family conflict   | 148  |
| 4.4        | CFA of 1-factor model for job satisfaction  | 149  |
| 4.5        | CFA of 2-factor model for psychological health  | 150  |
| 4.6        | CFA of 1-factor model for turnover intention  | 151  |
| 4.7        | 1-factor model for self-efficacy  | 152  |
| 4.8        | Overall measurement model   | 153  |
| 4.9        | Overall structural model  | 157  |
| 4.10       | Direct effect of job characteristics on psychological well-being model  | 159  |
| 4.11       | Direct effect model of job characteristics on work-to-family enrichment   | 163  |
| 4.12       | Direct effect model of job characteristics on work-to-family conflict   | 167  |

|      |  |     |
|------|--|-----|
| 4.13 | Direct effect model of work-to-family enrichment on job satisfaction, turnover intention and psychological health                        | 169 |
| 4.14 | Direct effect model of work-to-family conflict on job satisfaction, psychological health and turnover intention                          | 172 |
| 4.15 | The mediation model of W-FE development as a mediator in the relationship between job characteristics and psychological well-being       | 175 |
| 4.16 | The mediation model of W-FE affect as a mediator in the relationship between job characteristics and psychological well-being            | 177 |
| 4.17 | The mediation model of W-FE capital as a mediator in the relationship between job characteristics and psychological well-being           | 179 |
| 4.18 | The mediating model of W-FC time-based as a mediator in the relationship between job characteristics and psychological well-being        | 182 |
| 4.19 | The mediating model of W-FC behavioural-based as a mediator in the relationship between job characteristics and psychological well-being | 184 |
| 4.20 | The mediating model of W-FC strain-based as a mediator in the relationship between job characteristics and psychological well-being      | 187 |
| 4.21 | Interaction moderation model of self-efficacy  | 188 |
| 5.1  | Final model of the study   | 221 |

## LIST OF ABBREVIATIONS

|        |   |   |
|--------|---|---|
| AIC    | - | Akaike Information Criterion            |
| AMOS   | - | Analysis of Moment Structure            |
| AVE    | - | Average Variance Extracted              |
| BC     | - | Bias Corrected Confidence               |
| CAIC   | - | Consistent Akaike Information Criterion |
| CFA    | - | Confirmatory Factor Analysis            |
| CFI    | - | Bentler Comparative Index               |
| COR    | - | Conservation of resource theory         |
| CPS    | - | Critical Psychological State            |
| CR     | - | Critical Ratio                          |
| DF     | - | Degree of Freedom                       |
| DV     | - | Dependent Variable                      |
| F      | - | Feedback                                |
| GFI    | - | Goodness of Fit Index                   |
| GHQ    | - | General Health Questionnaire            |
| GHQ-12 | - | General Health Questionnaire-12         |
| GNS    | - | Growth Need Strength                    |
| GSE    | - | General Self-Efficacy Scale             |
| IV     | - | Independent variable                    |
| JA     | - | Job Autonomy                            |
| JCI    | - | Job Characteristic Inventory            |
| JCM    | - | Job Characteristics Model               |
| JDS    | - | Job Diagnostic Survey                   |
| JS     | - | Job Satisfaction                        |
| JSS    | - | Job Satisfaction Subscale               |
| MHAD   | - | Anxiety/Depression                      |
| MHI    | - | Mental Health Inventory                 |

|       |   |   |
|-------|---|---|
| MHSD  | - | Social Dysfunction                      |
| ML    | - | Maximum Likelihood                      |
| MOAQ  | - | Michigan Organisational Assessment      |
| MOE   | - | Ministry of Education                   |
| MOHE  | - | Ministry of Higher Education            |
| MV    | - | Mediating Variable                      |
| mV    | - | Moderator Variable                      |
| RMR   | - | Root Mean-Square Residual               |
| RMSEA | - | Root Mean-Square Error of Approximation |
| RU    | - | Research University                     |
| SD    | - | Standard Deviation                      |
| SE    | - | Self-efficacy                           |
| SE    | - | Standard Error                          |
| SEM   | - | Structural Equation Modeling            |
| SPSS  | - | Statistical Package for Social Sciences |
| SV    | - | Skill Variety                           |
| TI    | - | Task Identity                           |
| TOI   | - | Turnover Intention                      |
| TS    | - | Task Significance                       |
| UKM   | - | Universiti Kebangsaan Malaysia          |
| UM    | - | Universiti Malaya                       |
| UniTP | - | University Transformation Programme     |
| UPM   | - | Universiti Putra Malaysia               |
| USM   | - | Universiti Sains Malaysia               |
| UTM   | - | Universiti Teknologi Malaysia           |
| VIF   | - | Variance Inflation Factor               |
| W-FC  | - | Work-to-Family Conflict                 |
| W-FE  | - | Work-to-Family Enrichment               |
| WFCb  | - | Work-to-Family Conflict Behavioural     |
| WFCs  | - | Work-to-Family Conflict Strain          |
| WFCt  | - | Work-to-family Conflict Time            |
| WFEa  | - | Work-to-Family Enrichment Affect        |
| WFEc  | - | Work-to-Family Enrichment Capital       |
| WFEd  | - | Work-to-Family Enrichment Development   |

|      |   |                                |
|------|---|--------------------------------|
| WFPS | - | Work-Family Positive Spillover |
| WLB  | - | Work-life Balance              |

**LIST OF APPENDICES**

| <b>APPENDIX</b> | <b>TITLE</b>                       | <b>PAGE</b> |
|-----------------|------------------------------------|-------------|
| A               | Questionnaires                     | 279         |
| B               | Approval of the study              | 288         |
| C               | Publication paper of self-efficacy | 289         |

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Chapter Overview**

This study investigated the influence of job characteristics on work-life balance and psychological well-being among research university academics in Malaysia. It integrated five job characteristics, which included skill variety, task identity, task significance, job autonomy and feedback. In addition, it tested work-life balance, which was comprised of work-to-family conflict with work-to-family enrichment as well as psychological well-being, which consisted of job satisfaction, psychological health and turnover intention. Besides, it also assessed the mediating effect of work-life balance in the relationship between job characteristics and psychological well-being. Lastly, it examined the role of self-efficacy as a moderating variable.

This present chapter begins with a presentation of the overview and background of this study. Subsequently, the problem statements as well as research objectives, questions and significance in addition to both the theoretical and operational definitions of each variable are illustrated.

## 1.1 Research Background

Changes and transformation relating to educational institutions, especially universities, have emerged as a popular subject among researchers worldwide (Basarudin, Yeon, Yaacob & Rahman, 2016; Noor, 2011). Given the advancements and revolutions in technology as well as economic transformation, many developed and developing countries, including Malaysia, have placed emphasis on the quality of their higher education system as part of the strategy to encourage the development of their countries. In Malaysia, the higher education system has undergone a rapid transformation with the increasing number of universities, intense growth of student enrolments, expansion of courses and technology advancements (Noor, 2011). To promote the growth, quality and excellence of this country's universities, the Malaysian Ministry of Higher Education (MOHE) has categorised its public universities into four different categories, namely APEX, research, focused and comprehensive university (Basarudin *et al.*, 2016).

In total, there are 20 public universities in the country (MOHE, 2014). Among them, five universities are categorised under the research university (RU) status that aims to deliver high quality research and education through research and development (R&D) activities and commercialisation (Ramli *et al.*, 2013). Research university was first established in 2006 with four universities, including Universiti Kebangsaan Malaysia (UKM), Universiti Malaya (UM), Universiti Sains Malaysia (USM) and Universiti Putra Malaysia (UPM). The quartet were later joined by Universiti Teknologi Malaysia (UTM) in the year 2010. In Malaysia, research universities are the centre of excellence in both research commercialisation and internationalisation activities, with all five universities placed in QS' list of top-100 Asian universities (MOHE, 2016a). Besides delivering high quality education, research universities also place heavy emphasis on exploration of new ideas, innovations and intellectual discussions.

The intense competition from research universities globally has led to the implementation of the Malaysian Education Blueprint 2015-2020 and University Transformation Programme (UniTP) as the newest strategies to promote excellence



in the country's higher education system. To embrace this vision, MOHE has highlighted the role of academics as the transformative agents to foster excellence in higher education (MOHE, 2016b). Owing to the said transformation, university staff, including academics, have seen and experienced changes and modifications relating to their job characteristics. This is because the present scenario does not only expects the academics to deliver a high quality teaching environment, but to also engage in research, professional practices and community engagements as well as both entrepreneurial and administrative activities (Basaruddin *et al.*, 2016).

For academics in research universities, the situation is worse as academics around the globe have been found to somewhat encounter crisis in regards to the changes in their job characteristics. According to Basaruddin *et al.* (2016), the ongoing evolution in an academic's job characteristics has resulted in issues of high workload and stressful working environment. This comes as the changing of needs and directions in the Malaysian higher education system has led to workload increment due to the growing standard in a research university setting (Musselin, 2007). Accordingly, this heavy requirement does not only burden a university itself, but has also emerged as a liability to its academic staff as it disrupts both the productivity and focus in their practice and activities (Smith, Josh, Anthony, & David, 2011).

Salmi (2005) argued that among the changes faced in research universities today is the amount of autonomy. Along with the accreditation of the research university status, the governance of the said institution is also converted to half-autonomy. This is to encourage flexibility within the university and among its academic staff in relation to decision-making and resource management, without being encumbered by bureaucracy. This is also to support the university's development and growth by giving authority to both the university and its academic staff to manage their own resources as well as their internal or external activities. However, this situation presents both pros and cons since the research university now needs to earn its own money to support both operation and management. Indirectly, this has affected the academics as the research university assumes and expects them to source for and seek external research funding to increase resources, especially in regards to R&D.

Furthermore, the feedback system has also seen improvements to keep track with the performance and outcomes of academics in addition to their key performance indicators (KPIs) and key intangible performance indicators (KIPs). These were implemented as a method to monitor and provide feedback to both the academics and university. The move is part of MOHE's initiative in relation to the University Transformation Programme and its aim to enhance the performance of the country's academics by providing them with feedbacks through the university's evaluation system. According to Masron, Ahmad and Rahim (2012), at present, academics face a stricter evaluation as they are not only evaluated in terms of teaching, research and services, but are also assessed according to supervision and consultancy. To reform Malaysian universities as world-class universities, strong emphases are positioned in terms of identity and significance of its academic staff. This is highlighted in the key intangible performance indicators, where it evaluates an academic's perception in regards to his/her significant contribution towards the university and community (Masron *et al.*, 2012).

However, every reformation and change comes with a cost. Consequently, academics in research universities are faced with the threat of lower psychological well-being and work-life balance. This is because the condition of the university job characteristics has affected the conditions of job satisfaction (Mustapha, 2013), psychological health (Hassan & Jazli, 2015) and turnover intention (Awang *et al.*, 2015) of the academics. Undeniably, good psychological well-being is important because it preserves an individual in the state of balance, positivity and meaningful experience at work (Arnold, Turner, Barling, Kelloway & Mckee, 2007). However, according to a Malaysian well-being report in 2013, 11 percent of Malaysian citizens (aged 18 to 60 years old) were suffered from various forms of mental illnesses including stress, anxiety and depression, where among the major causes for this scenario was work burden (Economic Planning Unit Prime Minister Department Putrajaya, 2013).

Besides psychological health issues, Malaysian workers are also faced with the problem of high turnover intention, where statistics had recorded that Malaysia had the third highest voluntary turnover rate of 9.5 percent in 2015, compared to other countries in the South East Asia region (HRinAsia, 2015). Additionally, in a

2014 Global Workforce Study (GWS, 2014), which was conducted by Towers Watson and Willis, it was revealed that turnover intention continues to be an issue in Malaysia, with the increase of cumulative turnover intention among Malaysian workers from 29 percent in 2012 to 36 percent in 2014 (Willis Towers Watson, 2015). The same applies to job satisfaction, and according to a well-known online job employment marketplaces in Malaysia (JobStreet.com), the level of Malaysian employees' job satisfaction is worrisome as 74 percent of workers were found to experience high levels of job dissatisfaction (JobStreet.com, 2015).

Additionally changes in job characteristics are also threatening the academics' work-life balance. According to Irwan and Nor Azian (2011), work-life balance has been identified as one of the nation's main concerns as it may be related with workers' performance. Moreover, it is critical to develop balanced individuals. A recent survey by PricewaterhouseCoopers (PwC) Malaysia (2013), has revealed that over one-third (39%) of Malaysian workers would like to have better work-life balance in the future. Internationally, a worldwide survey by a management consultant, Accenture, found that 70 percent of the worldwide workers, including Malaysians, were more concerned with work-life balance, rather than a high-pay job (Madiha, 2013). It was also found that 56 percent of the workers viewed work-life balance as a more critical job indicator, compared to any other external rewards that came with a job.

The findings from these surveys indicated that nowadays, workers are starting to view work-life balance, such as work-family conflict and work-family enrichment, as an important factor in fostering equilibrium between work and daily life. Besides that, since the turn of the 20<sup>th</sup> century, researchers have begun paying more attention in investigating how job conditions affect work-life balance as it provides critical insights to improve work-family balance conditions (Grwaycz & Butler, 2005). In addition, nowadays, organisations, either profit- or non-profit-based, have slowly moved towards implementing work-life balance policies in their work design as part of an initiative to produce well-balanced employees, who will be able to perform equally in both work and family (Noor & Mahudin, 2015).

Apart from that, the importance of job characteristics has also initiated discussions on the role of individual differences in moderating the effect of poor job characteristics. The use of moderators, especially in the area of psychology research, helps build an understanding of how moderators can moderate the effect of independent variable on dependent variable (Baron & Kenny, 1986). As such, presently, researchers tend to employ moderators, such as self-efficacy, to find the possible individual solution that can counter work and life insufficiency. As self-efficacy is connected to an individual's perception of control and coping ability it has been widely implemented as a moderator in various studies (Grau, Salanova, & Peiró, 2001; Siti Aisyah, 2010). This is because self-efficacy has the ability to increase an employee's competency, and at the same time facilitates strong cognitive processes to endure a challenging work environment (Thakur & Kumar, 2015). Therefore, an individual with high self-efficacy is believed to be able to deal with work challenges better than those with lower self-efficacy. In addition, those with high self-efficacy were also found to have more balance in work and family since they were more positive towards challenges in life (Mache *et al.*, 2015). Given that, individuals with high self-efficacy are often found to experience less work-family conflict, in comparison to those with low levels of self-efficacy (Baghban, Malekiha, & Fatenizadeh, 2010).

In conclusion, it is impossible to ignore the importance of higher education institutions since education today is viewed as a critical factor of economic sustainability as well as social and capital development. Given that academics are one of the backbone in the higher education system, it is imperative to investigate their job characteristics thoroughly to allow both researchers and organisations to grasp a better understanding in relation to the current issues in academic population. Therefore, this study aimed at investigating the effect of job characteristics towards psychological well-being and work-life balance among research university academics. As such, it focused on four main aspects, which were the job characteristics, psychological well-being, work-life balance and self-efficacy of research university academics.

## 1.2 Statement of Problems

Constant transformation in the academic work system demands a better observation because it does not only affect the lives of academics, but also both the industrial and economic systems in a larger scale (Musselin, 2007). Changes and revolutions in the educational system have affected academics in both developed and developing countries such as Malaysia.

In Malaysia, the latest change in the higher education system lies in the Malaysian Education Blueprint 2015-2020. Academic staff as transformative agents have since been in the centre of attention to deliver the newest mission and vision of MOHE, which is to be one of the countries with the finest quality of higher education. The increasing needs of a better education system and competitive marketplace have inspired MOHE to launch the University Transformation Programme to guide members of the university communities, including academics, to be actively involved in the current transformation. This transformation has brought about challenges to the academics in Malaysia, especially those who are working with research universities as they are exposed to excessive workload in the forms of teaching, researching and management-related activities.

Since MOHE approved the category of research universities in 2006, many changes have taken place in the job characteristics of employees at the said institutions. A research by Markom *et al.* (2011) among research university academics in Universiti Kebangsaan Malaysia (UKM) revealed that some of its academics suffered from excessive research load, supervision and external service duty. Overall, the changes in job characteristics have presented academics with challenges, albeit some of them being positive. Henny, Anita Hayati & Rampal (2014) highlighted that the job characteristics and environment of Malaysian universities are constantly evolving, where the situation can be rather stressful for academics to handle even though it is for the purposes of job improvement.

Moreover, Ramli *et al.* (2013) said that academics in research universities are burdened by multiple job scopes in terms teaching, publication and research

workload at the same time. With the challenging economy, research universities have also suffered from a lack of funding and manpower, where in the recent Malaysian Budget 2017, their yearly funding saw a decrease of 20 percent, in comparison to the previous year. This has added to the burdens of the universities' academic staff. Basarudin *et al.* (2016) argued that there is an exponential increase in workload as well as decreased power in decision making among the academic staff in Malaysian universities. They also argued that the job characteristics of academics today is more challenging since the role of academics in higher education institutions have been extended beyond the classroom.

Multiple job scopes and work varieties have initiated criticism among the academics as they consume both their effort and time more than what they can do in actual work time (Ramli *et al.*, 2013). However, job characteristics are bound to the university, as was highlighted by Basarudin *et al.* (2016), in which characteristics at work may be different based on the status of a university (i.e., APEX, research, focused or comprehensive university). In relation to that, the actual conditions of job characteristics in research universities remain ambiguous. Besides, there is a limited number of studies which discuss job characteristics in terms of skill variety, job autonomy, task significance, task identity and feedback, since past studies tended to investigate other job characteristics, such as workload, social support and working hours, in the setting of research university (Basaruddin *et al.*, 2016; Markom *et al.*, 2011). Therefore, this study sought to extend the present body of literature by examining the job characteristics of academics in research universities in the perspectives of skill variety, job autonomy, task significance, task identity and feedback.

The constant change in university job characteristics will not only elevate workload and demands, but will also deteriorate the psychological well-being of academics. With too many changes and workload to handle, academics are starting to lose grasp in their well-being, where poor university job characteristics have been found to be one of the contributing factors that lowers their job satisfaction (Amazt & Idris, 2011; Chimanikire, Mutandwa, Gadzirayi, Muzondo, & Mutandwa, 2007; Tai & Chuang, 2014). Chimanikire *et al.* (2007) found that 71 percent of university academics were dissatisfied with their jobs due to high skill utilisation and varieties

required by the university. The said finding was strengthened by Ahmad and Abdurrahman (2015), in which they found that only 38.1 percent of Malaysian academics were highly satisfied with their jobs in the university while the rest of them were only moderately satisfied with their jobs.

Besides, the challenging working nature in a university has also increased depression and stress problems among academics, where they have been found to experience escalating stress and depression from year to year (Kinman & Wary, 2013). The similar study found that more than 80 percent of higher education institution staff agreed that perceived stress in their workplace is high and unacceptable. Among the reasons cited for the increased levels of stress included time pressure, demands from work variation and unclear information in regards to the changes in job characteristics. Hazelkorn (2011) concurred and reported that the numerous changes in job characteristics and tougher work caused by competition of ranking between universities have elevated stress experience among academics. Consequently, Noordin, Othaman, Jais and Sardi (2012) argued that the job characteristics of academics in Malaysia need to be properly examined since they have been found to experience poor psychological health, in terms of high emotional exhaustion, time and again.

In addition, thoughts of turnover among academics have been found to be in a worrisome state, where nearly three quarter of academics (68%) wished to leave their current positions (Sanderson, Phua, & Herda, 2000). Moreover, the presence of turnover intention is a serious problem as it is related to brain drain and retention issues in universities (Ng'ethe, Iravo & Namunsonge, 2012; Owence, Pinagase & Mercy, 2014). The latter also argued that poor job characteristics is one of the causes for turnover intention among academics given that the constant dealing with challenging and demanding job characteristics often resulted in high thoughts of turnover intention.

However, specific discussion on how university job characteristics explain the conditions of job satisfaction, psychological health and turnover intention among academics in Malaysia is rarely documented, especially in the research university setting, where most of the past studies have taken place in developed countries and

mainly involved private universities (Chong, Mohamad & Er, 2013; Ng'ethe *et al.*, 2012). Besides, preceding studies often emphasised on factors such as demographic, working hours, social support, workload, pay, promotion, rewards and management style (Azalea & Mei-Hua, 2015; Henny *et al.*, 2014; Safaria, Othman & Wahab, 2012) to explain job satisfaction, psychological health and turnover intention, while a limited number of studies actually addressed job characteristics factors such as skill variety, job autonomy, task significance, task identity and feedback. Therefore, this study has attempted to fill the said gap by examining the effect of the five previously mentioned aspects of job characteristics towards job satisfaction, psychological health and turnover intention among research university academics in Malaysia.

Furthermore, the escalating pressure in university job characteristics has initiated concerns towards academics' work-life balance (Bell, Rajendren & Theiler, 2012). In a survey by Parr (2015), it was found that more than half (53%) of university academics claimed that challenging job characteristics in today's university had hindered them from having a healthy work-life balance. It was found that job characteristics conditions, such as unclear job scopes, high workload, limited resources and time limitations, had led to poor work-life balance condition among academics (Fatima & Sahibzada, 2012; Salehi, Rasdi & Ahmad, 2014).

However, results in regards to how job characteristics affect the work-life balance of academics are inconclusive, in which preceding studies have found that challenging job characteristics would lead to increased levels of work-family conflict (Bell *et al.*, 2012; Siti Aisyah, Siti Khadijah, Aziziah & Rosman, 2011a) and at the same time, increased the levels of work-family enrichment as well (Salehi *et al.*, 2014). Bell *et al.* (2012) also found that the lack of job autonomy lessen academics' work-family enrichment and at the same time, increased work-family conflict. Yet, the authors also ascertained that high job demand increased both work-family enrichment and work-family conflict.

Despite the increasing attention devoted to investigating the relationship between job characteristics and work-family balance, several limitations continue to exist. Firstly, past studies have emphasised on job characteristics, such as working hours, workload, work resources, support and unfairness in work, to link with



academics' work-life balance (Fatima & Sahibzada, 2012; Salehi *et al.*, 2014). As was aforementioned, a limited number of studies focused on the associations between skill variety, job autonomy, task significance, task identity and feedback and both work-to-family conflict and work-to-family enrichment.

Secondly, there is still a lack of studies that examined the linkages between job characteristics with work-life balance by combining both work-to-family conflict and work-to-family enrichment in a single study. Indeed, it was found that preceding studies tended to investigate job characteristics either with work-family conflict only (Tharmalingam & Bhatti, 2014) or work-family enrichment alone (Salehi *et al.*, 2014), especially in the perspective of Malaysian research universities. Therefore, it would be interesting to learn if job characteristics could bring positive and negative effects towards the work-life balance of academics in research universities. Given that, this study has attempted to fill the said gap by investigating the effect of job characteristics (i.e., skill variety, job autonomy, task significance, task identity and feedback) on both work-to-family conflict and work-to-family enrichment.

Additionally, the arising issues of changes and stressful university job environment and characteristics has also led to discussion on how work-life balance can determine the state of psychological well-being of academics. This is because apart from being directly influenced by work environment, the condition of psychological well-being of academics is delivered through the effects of job characteristics on work-life balance. Kinman and Jones (2008) argued that academics with poor work-life balance were less satisfied with their jobs, less healthy and had high considerations to leave their universities. Furthermore, Noor (2011) found that academics' intention to leave can be explained by their poor work-life balance, while Siti Aisyah *et al.*, (2012b) found that high work-family conflict was able to explain low job satisfaction and psychological health problems among academics.

However, studies in the past were more inclined to focus on the conflict perspective of work-life balance by investigating the effects of work-to-family conflict on academics' psychological well-being (Noor, 2011; Siti Aisyah *et al.*, 2012b), while few research focused on the positive effect of work-to-family enrichment towards job satisfaction, turnover intention and psychological health of

academics. It has been argued that the combination of work and family does not always conflict one another, but also enriches the psychological health of research university academics (Hamid & Amin, 2014).

Besides, it was found that most studies on the effect of work-to-family enrichment on psychological well-being were done in the Western context, and far too little attention has been given to examine this issue in the Malaysian context, especially in the population of research university academics (Fung, Ahmad & Omar, 2014). Therefore, by investigating the effects of both work-family conflict and work-family enrichment towards research university academics' psychological well-being, this present study has sought to address the said gap.

Moving on, the significant relationships between job characteristics with work-life balance and psychological well-being of academics have pointed a possible role of work-life balance as a mediator. Based on the job characteristics model (JCM; Hackman & Oldham, 1980), the effect of job characteristics towards psychological well-being is delivered and explained through critical psychological states (CPS) as a mediator. Ayandele and Nnamseh (2014) claimed that psychological states help to understand how job characteristics affect psychological well-being. Therefore, these arguments have initiated the possibility for work-life balance to function as a specific social and psychological state to explain the connection between job characteristics with psychological well-being.

In addition, in present literatures, many studies have used constructs of work-life balance, either work-family conflict or work-family enrichment, to explain numerous linkages between work, well-being, health and satisfaction (Carvalho & Chambel, 2013; Orkibi & Brandt, 2015; Ozbag & Ceyhun, 2014; Schaufeli, Leiter & Maslach, 2009). However, to the author's best knowledge, there are still too few studies that tested both work-family conflict and work-family enrichment as mediators to explain the linkages between job characteristics (i.e., skill variety, job autonomy, task identity, task significance and feedback) with job satisfaction, turnover intention and psychological health, especially among academics.

Given that almost half of the overall research university academic population consists of females (47.3%), it is critical to examine how work-life balance explains the effects of job characteristics on psychological well-being. This owes to the fact that studies have shown that women were more affected by challenging work condition as they struggled to balance between work and family (Delina & Raya, 2013; Mukururi & Ngari, 2014). Hence, the current study attempted to fill in the said gap by investigating work-life balance as a mediating variable to explain how job characteristics affect job satisfaction, psychological health and turnover intention of research university academics.

Finally, the job characteristics model also highlights the moderating functions of growth need strength (GNS) to buffer the effect of poor job characteristics towards CPS (Hackman & Oldham, 1980). This comes as the authors argued that individual differences could help to counter the effect of poor job characteristics. However, GNS was found to be lacking in terms of consistency, and that has led to the substitution with other individual differences variables (Grzywacz & Butler, 2005; Proost, De Witte, De Witte & Schereurs, 2010; Tieggs, Tetrick & Fried, 1992). Past researchers have also argued that the GNS roles could be substituted with other individual differences to fit a respondent's job context (Faturachman, 1997).

In the context of academics, among the most reviewed individual differences is self-efficacy, which is frequently used to improve teaching and learning behaviours (Potheroe, 2008). Henson (2001) argued that a teacher's and academic's belief in his/her ability is critical to determine the success and failure in his/her behaviour. Therefore, the practice of self-efficacy among academics could be beneficial to moderate the negative effect caused by elevating pressures and challenges in the university. Nonetheless, to date, there is very little empirical evidence found in terms of considering the buffering role of self-efficacy as a moderator, since most studies in the past tended to integrate it as a predictor variable (Malekiha & Fatehizadeh, 2010; Swee-Fung, Aminah & Zoharah, 2012; Zhang & Liu, 2011). As such, this present study has sought to fill the said gap by testing self-efficacy as a potential moderator in replacing GNS to buffer the negative effect of poor job characteristics towards work-life balance.

As a whole, it is increasingly difficult to ignore the prominent role of research university academics, especially in the Malaysian higher education. Therefore, this current study aimed at providing evidence on how job characteristics can affect psychological well-being and work-life balance among research university academics. By providing a holistic study that combined job characteristics, work-life balance, psychological well-being (i.e., job satisfaction, psychological health and turnover intention) and self-efficacy in a single study, it is hoped that the findings from this research can assist various parties, such as the Malaysian Government, universities, human resource practitioners and the researcher herself, in regards to the issues caused by job characteristics in the context of research university academics.

### **1.3 Research Questions**

Based on the statement of problems, this study sought to address seven research questions, including:

1. What is the influence of job characteristics (i.e. skill variety, job autonomy, task identity, task significance and feedback) on psychological well-being (i.e. job satisfaction, psychological health and turnover intention)?
2. What is the influence of job characteristics on work-to-family enrichment and work-to-family conflict?
3. Does work-to-family enrichment influence job satisfaction, psychological health and turnover intention?
4. Does work-to-family conflict influence job satisfaction, psychological health and turnover intention?
5. Does work-to-family enrichment mediate the relationship between job characteristics and psychological well-being?
6. Does work-to-family conflict mediate the relationship between job characteristics and psychological well-being?

7. Does self-efficacy moderate the relationship between job characteristics and both work-to-family enrichment and work-to-family conflict?

#### **1.4 Research Aim and Objectives**

To reiterate, this present study aimed at investigating the influence of job characteristics on the work-life balance and psychological well-being of research university academics in Malaysia. In total, there were seven research objectives, including:

1. To examine the influence of job characteristics (i.e. skill variety, job autonomy, task identity, task significance and feedback) on psychological well-being (i.e. job satisfaction, psychological health, turnover intention).
2. To examine the influence of job characteristics on both work-to-family enrichment and work-to-family conflict.
3. To examine the influence of work-to-family enrichment on psychological well-being
4. To examine the influence of work-to-family conflict on psychological well-being.
5. To determine the mediating effect of work-to-family enrichment in the relationship between job characteristics and psychological well-being.
6. To determine the mediating effect of work-to-family conflict in the relationship between job characteristics and psychological well-being.
7. To determine the moderating effect of self-efficacy in the relationship between job characteristics and both work-to-family enrichment and work-to-family conflict.

## **1.5 Research Scopes**

Several scopes were outlined in regards to conducting this present study. Firstly, this study involved Malaysian public universities. Specifically, it focused on a population of academics from research universities in the country. Out of the 20 public universities in Malaysia (as listed by MOHE), five are accredited as research universities, including Universiti Sains Malaysia (USM), Universiti Kebangsaan Malaysia (UKM), Universiti Malaya (UM), Universiti Teknologi Malaysia (UTM) and Universiti Putra Malaysia (UPM).

Secondly, this study involved four major types of variables that are predictor (i.e. job characteristics, which included skill variety, task significance, task identity, job autonomy and feedback), outcome (i.e., job satisfaction, turnover intentions and psychological health), moderator (i.e., self-efficacy) and mediator (i.e., work-life balance, which included work-to-family enrichment and work-to-family conflict) variables. Lastly, this study encompassed a cross-sectional research design, with the utilisation of a survey method.

## **1.6 Research Significance**

### **1.6.1 Theoretical Implications**

This study provides implications to the current knowledge in several ways. Firstly, this study examined the effects of job characteristics of research university academics, which were evaluated in terms of skill variety, job autonomy, task identity, task significance and feedback. Given that universities are presently undergoing many transformations in their working environment (Basaruddin *et al.*, 2016), the clarification on job characteristics can provide empirical evidence on the condition of current academics' job characteristics. Besides, it also provides enlightenment on how these job characteristics affect the academics' psychological

well-being and work-life balance, which will be beneficial to higher education institutions, researchers and academics.

Secondly, this study investigated work-to-family enrichment and work-to-family conflict issues in the context of academics attached to Malaysian research universities. As the research on work-to-family enrichment and work-to-family conflict still needs further exploration (Nasarudin & Hsia, 2008; Shaffer, Joplin & Hsu, 2011), this study therefore contributes to the extension of knowledge by specifically discussing these issues in the perspective of Malaysian academics. As Malaysian employees are striving towards developing better work-family balance (Nasurudin & Hsia, 2008), this study is valuable as it adds empirical evidence on these issues, which is beneficial for organisations, researchers and academics.

Thirdly, this study contributes to the current theoretical development by examining work-life balance in the perspective of work design by integrating job characteristics as predictor variables. The integration of job characteristics, which were composed of skill variety, task identity, task significance, job autonomy and feedback, may be able to contribute to the knowledge enlightenment on how different job characteristics result in different effects towards the occurrence of work-to-family enrichment and work-to-family conflict among research university academics in Malaysia. Besides, the information can help to strengthen the existing empirical evidence on the effect of job characteristics on academics' work-life balance, especially those attached to Malaysian research universities.

The fourth contribution of this study is the integration of work-to-family enrichment and work-to-family conflict as mediating variables. As the mediating variable aims to examine specific linkages between predictor and outcome variables (Baron & Kenny, 1986), therefore, the inclusion of these two constructs helps to offer specific explanations on the mechanism that exists between job characteristics and psychological well-being (i.e., job satisfaction, turnover intention and psychological health). Information gained from this research contributes to both knowledge improvement and theoretical development in regards to the mediating role of work-to-family conflict and work-to-family enrichment for future references.

Next, this study is also important as it integrated job satisfaction, psychological health and turnover intention as the outcomes of work-life balance. This integration is beneficial, especially to increase the number of empirical evidence on the condition of psychological well-being of academics in Malaysian research universities. Additionally, the testing of psychological well-being with work-life balance constructs can strengthen the theoretical understanding on how work-family conflict and work-to-family enrichment affect academics' job satisfaction, psychological health and turnover intention.

The last contribution of this study is the incorporation of self-efficacy as a moderator in the relationship between job characteristics with work-to-family enrichment and work-to-family conflict. High self-efficacy helps an individual to effectively deal with challenging job environment (Yeo & Neal, 2013). This inclusion, therefore, helps to explain how individual differences, such as self-efficacy, can moderate the effect of job characteristics on work-to-family enrichment and work-to-family conflict. This benefits future researchers by offering empirical evidence and detailed discussion in relation to the buffering role of self-efficacy in work-life balance studies.

### **1.6.2 Practical Implications**

The practical implications of this study is two-fold. Firstly, the results from this study provides specific explanation on relevant job characteristics that can promote academics' work-life balance and psychological well-being. These results are valuable for future references, especially for the purpose of work redesign. The information gained from this research can be a guideline to develop and improve a new working policy that is more work-life balance friendly and one that promotes better psychological well-being. The implementation of better working policy will help academics to regain balance in work and family as well as assist them to have better psychological well-being in the future.



Secondly, the information on the mediating role of work-life balance is useful to create future interventions. The results on how work-life balance mediates the relationship between job characteristics and psychological well-being can help organisations to design specific interventions to improve academics' psychological well-being through work-life balance intensification. Besides, this result can be a guideline to develop work-life balance programmes that can help academics sustain their work-life balance.

### **1.6.3 Methodological Implications**

This study also presents a methodological implication. That is, it validates the construct of job characteristics in the context of Malaysian research university academics. The validation helps to avoid instrument misleading in the future, especially to those wanting to adopt this instrument in future studies that involves a similar population. The validated instrument will benefit future researchers by accurately measuring the issues of job characteristics and work-life balance that reflect Malaysian work and value contexts.

## **1.7 Conceptual and Operational Definition**

### **1.7.1 Job Characteristics**

Hackman and Oldham (1976) defined job characteristics as a set of environmental variables that are widely thought as important causes for the changes in employees' affect and behaviour (Hackman & Oldham, 1980). In this study, job characteristic was operationalised as a set of job-related variables that reflected the pattern of work among academics. Five job characteristics were investigated, namely skill variety, job autonomy, task identity, task significance and feedback. They were adopted from the job characteristics model by Hackman and Oldham (1980).

Specific operationalisation of each job characteristic is presented in the following subsections.

#### **1.7.1.1 Skill Variety**

Skill variety is the extent to which a job requires the use of various skills and talents of employees in an organisation (Hackman & Oldham, 1980). In this study, skill variety was operationalised as the extent to which academics were required to use different types of skills for the purposes of teaching, conducting research and for the participation in management activities.

#### **1.7.1.2 Job Autonomy**

According to Hackman and Oldham (1980), job autonomy is the degree or level of freedom and discretion that allows an employee to do his/her job. Morgeson, Delaney-Klinger and Hemingway (2005) referred to job autonomy as the extent to which a job allows freedom and independence to perform tasks. In this current study, job autonomy was operationalised as the flexibility and freedom of expression in work that were given to academics to decide how their work will be completed. It was evaluated through criteria such as opportunity and freedom of expression, involvement in decision-making and control towards one's work progress.

#### **1.7.1.3 Task Identity**

Task identity is the degree of one's job involvement in completing a particular work as a whole (Hackman & Oldham, 1980). It is related to workers' perception in regards to the importance of their work towards their self-image (Lodahl & Kejner, 1965) as well as the degree of work that they participate in from

the beginning to the end. This study conceptualised task identity as the degree of involvement during work completion among academics. This was evaluated by looking at criteria such as commitment during job completion progress, academics' perception of contribution towards the final product/service of their university and opportunities to finish a job from start to end.

#### **1.7.1.4 Task Significance**

Grant (2008) conceptualised task significance as a worker's perception in relation to the impact of his/her job on other individuals. Task significance can also be referred as an individual's perception regarding the importance of his/her job towards both internal and external environments (Hackman & Oldham, 1980). In this study, task significance was operationalised as an academic's perception regarding the impact of his/her work towards others. Specifically, task significance was evaluated by investigating academics' opinion on the impact of their work towards their colleagues and university.

#### **1.7.1.5 Feedback**

Feedback is the objective information about progress and performance that come from the job itself (Hackman & Oldham, 1980). As such, feedback gives a general overview on a worker's job performance (Herold & Greller, 1977), which he/she can receive from his/her subordinates or organisation. In this study, feedback was conceptualised as the information and responses that academics received from their co-workers or university in regards to their performance and attitude at work.

## 1.7.2 Work-Life Balance

Chavda and Gaur (2013) described the term work-life balance as the relation between work and lifestyle. It describes the balance between an individual's work and life. The discussion on work-life balance includes a wide range of topics such as work-to-family conflict, work-to-family enrichment as well as both positive and negative spillover (Naithani, 2010). This present study operationalised work-life balance into two variables, which were work-to-family conflict and work-to-family enrichment. They are presented and discussed in the following subsections.

### 1.7.2.1 Work-to-Family Enrichment

Greenhaus and Powell (2006) conceptualised work-family enrichment as the extent to which experience in one role improves the quality of life in another role. On the other hand, Friedman and Greenhaus (2000) referred to work-family enrichment as the extent to which participation in one role is easier due to the participation in another role. Work-family enrichment is bidirectional, and thus is composed of work-to-family enrichment and family-to-work enrichment. Work-to-family enrichment is the extent to which the experience in work improves the family role (Greenhaus & Powell, 2006), while family-to-work enrichment is the extent to which experience in family improves work. However, in this study, only work-to-family enrichment was adopted, and it was operationalised as the degree in which academics' work involvement helped improve the quality of the family domain. Work-to-family enrichment was evaluated through three criteria, namely development, affect and capital. *Work-to-family development* was conceptualised as the extent where participation in work helped increase one's knowledge, skills and ideas to develop a better family. *Work-to-family affect* referred to the extent where good emotion experienced at work helped one to build good emotions in his/her family. Finally, *work-to-family capital* was operationalised as the extent to which accomplishment and success in one's work helped him/her be a better family member.

### **1.7.2.2 Work-to-Family Conflict**

Work-family conflict is a condition where two or more domains in life become unbalanced (Greenhaus & Beutell, 1985). It is a type of inter-role conflict that occurs when two or more forms of pressures collide (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964). Work-family conflict is bidirectional, and consists of work-to-family conflict and family-to-work conflict. The former is the conflict that occurs when work interferes with family. On the contrary, the latter is the conflict that occurs when family interferes with work. However, only the construct of work-to-family conflict was adopted in this study. The term was conceptualised as the conflict that occurred when academics' work experiences brought about conflict experiences in the family domain. Work-to-family conflict was evaluated through three criteria, namely time-, behavioural- and strain-based conflicts. *Work-to-family conflict time-based* was conceptualised as the conflict whereby work time disrupted the time spent with one's family. Next, *work-to-family conflict behavioural-based* signified the conflict that occurred, in which inappropriate behaviour from work was practiced in one's family. Lastly, *work-to-family conflict strain-based* was operationalised as the conflict that occurred when stress from work was transferred to one's family.

### **1.7.3 Job Satisfaction**

Job satisfaction is the attitude and contentment of employees towards their jobs (Aamodt, 2007). In this present study, job satisfaction was conceptualised as the degree in which academics felt pleased with the overall condition of their work in the university. It was evaluated through criteria such as work prospect, work social interaction (e.g., upper management and clique), physical condition of the work, requirement of individual abilities, interest with one's work and rewards given by one's organisation.

#### **1.7.4 Psychological Health**

Psychological health is an individual's ability to think, express and behave appropriately in relation to behaviours and emotions (Mental Health Commission Canada, 2012). This study operationalised psychological health as the psychological condition of academics that was evaluated in the form of physical, mental and social. This was evaluated using two perspectives, namely social dysfunction and anxiety/depression (Goldberg & William, 1988). *Social dysfunction* referred to distorted thoughts such as unworthiness, hopelessness and the incapability to face difficulties. On the contrary, *anxiety/depression* represented the presence of negative feelings such as unhappy and sadness.

#### **1.7.5 Turnover Intention**

Turnover intention is a situation where an employee has thought of changing to a new profession in another organisation (Burke, 1988). This present research operationalised turnover intention as academics' turnover thoughts and behaviours, which were evaluated through behaviours and thoughts such as actively looking for a new job and thoughts of quitting.

#### **1.7.6 Self-Efficacy**

Self-efficacy is the extent to which people believe that they can perform the appropriate behaviour to produce a desirable outcome (Bandura, 1997). It is also referred to one's belief towards self-motivation, well-being and self-accomplishment (Kurbanoglu, 2003). In this study, the term self-efficacy was operationalised as an academic's belief regarding his/her capability to perform a specific behaviour to retrieve his/her desired outcome. This variable was assessed through a few criteria such as confidence in handling problems, reasonableness and effort.

## **1.8 Chapter Summary**

To reiterate, in this chapter, the overview of this research was presented by introducing its background, statement of problems and research questions, objectives, scopes and significance as well as its limitations and conceptualisation of the studied variables. In the following chapter, the literature review of this study is presented. Among others, it will discuss the empirical and overview of the studied variables as well as the model/theory used and hypotheses of this study.

## REFERENCES

- Aamodt, M.G. (2007). *Industrial/organisational psychology: An applied approach (5 ed.)*. Belmont, CA: Thomson Wadsworth Corporation.
- Abd Razak, A. Z. A., Che Omar, C. M. Z., & Yunus, J. N. (2010). Family issues and work-family conflict among medical officers in Malaysian public hospitals. *International Journal of Business and Social Science*, 1(1).
- Achieng, O. E., Ochieng, I., & Owuor, S. (2014). Effect of job redesign on employee performance in commercial banks in Kisumu, Kenya. *Greener Journal of Business and Management Studies*, 4(4), 115 - 137.
- Adebayo, S. O., & Ezeanya, I. D. (2011). Task identity and job autonomy as correlates of burnout among nurses in Jos, Nigeria. *International Review of Social Sciences and Humanities*, 2 (1), 7 - 13.
- Afsana, S. A. (2016). A study of mental health and psychological well-being among teachers and lecturers. *The International Journal of Indian Psychology*, 3(3), 32 – 38.
- Afzal, S., & Farooqi, A. (2014). Impact of work family conflict/family work conflict on job satisfaction and life satisfaction: A case study of a public sector university, Gujranwala Division, Pakistan. *International Journal of Multidisciplinary Sciences and Engineering*, 5 (8), 31 – 36.
- Ahmad, A. (2008). Job, family and individual factors as predictors of work-family conflict. *The Journal of Human Resource and Adult Learning*, 4(1), 57 – 65.
- Ahmad, W. I. W., & Abdurahman, S. M. (2015). Job satisfaction among academic staff of Universiti Utara Malaysia: A work environment perspective. *Mediterranean Journal of Social Science*, 6 (3), 251 – 256.



- Ali, N., & Balcoh, Q. B. (2009). Predictors of organisational commitment and turnover intention of medical representatives (An empirical evidence of Pakistani companies). *Journal of Managerial Science*, 3(2), 262 – 273.
- Ali, N., & Zia-ur-Rehman, M. (2014). Impact of job design on employee performance, mediating role of job satisfaction: A study of FMGG's sector in Pakistan. *International Journal of Business and Management*, 9(2), 70 - 79.
- Allport, G. W. (1961). *Pattern and growth in personality*. New York Hort : Rinehart & Winston.
- Amarasena, T. S. M., Ajaward, A. R., & Haque, A. K. M. (2015). The impact of work autonomy on job satisfaction of academic staff: An empirical examination of government universities in Sri Lanka. *International Journal of Recent Advances in Organisational Behaviour and Decision Sciences*, 1(4), 575 - 586.
- Amazt, I. H., & Idris, A. R. (2011). Lecturers' satisfaction towards university management & decision-making styles in some Malaysian public universities. *Procedia Social and Behavioral Sciences*, 15, 3957 – 3970.
- Aminah, A. (1996). Work-family conflict among married professional women in Malaysia. *The Journal of Social Psychology*, 136 (5), 663 – 665.
- Aminah, A. (2008). Job, family and individual factors as predictors of work-family conflict. *The Journal of Human Resources and Adult Learning*, 4(1), 57 - 65.
- Anastasia, A. (1988). *Psychological testing (6th ed.)*. New York: Macmillan.
- Anderson, S. E., Coffey, B. S., & Byerly, R. T. (2002). Formal organisational initiatives and informal workplace practices: Links to work-family conflict and job-related outcomes. *Journal of Management*, 28(6), 787 – 810.
- Anseel, F., & Lievens, F. (2007). The long-term impact of the feedback environment on job satisfaction: A field study in a Belgian context. *Applied Psychology: An International Review*, 1 – 13.
- Arif, B., & Farooqi, Y. A. (2014). Impact of work life balance on job satisfaction and organizational commitment among university teachers: A case study of University of Gujarat, Pakistan. *International Journal of Multidisciplinary Engineering*, 5 (9), 24 – 29.

- Armstrong, G. S., Atkin-Plunk C. A., & Wells, J. (2015). The relationship between work–family conflict, correctional officer job stress, and job satisfaction. *Criminal and Justice Behaviour*, 42 (10), 1 – 17.
- Arnold, K. A., Turner, N., Barling, J., Kelloway, E. K., & McKeem M. C. (2007). Transformational leadership and psychological well-being: The mediating role of meaningful work. *Journal of Occupational Health Psychology*, 12(3), 193 - 203.
- Aryee, S., Srinivas, E., & Tan, H. H. (2005). Rhythms of life: Antecedents and outcomes of work-family balance in employed parents. *Journal of Applied Psychology*, 90(1), 132 – 146.
- Aslam, N., Imran, R., Anwar, M., Hameed, Z., & Kafayat, A. (2013). The impact of work-family conflict on turnover intentions: An empirical evidence from Pakistan. *World Applied Sciences Journal*, 24 (5), 628 – 633.
- Aslan, A. S., Shaukat, M. S., Ahmed, I., Shah, M. S., & Mahfar, M. (2013). Job satisfaction of academics in Malaysian public universities. *Procedia Social and Behavioural Sciences*, 114, 154 – 158.
- Aslan, A. S., Shaukat, M. Z., Ahmed, I., Mad Shah, I., & Mahfar, M. (2014). Job satisfaction of academics in Malaysian public universities. *Procedia-Social and Behavioral Sciences*, 114, 154 – 158.
- Awang, A., Ibrahim, I. I., Nor, M. N. M., Razali, M. F. M., Arof, Z. A., & Rahman, A. R. A. (2015). Academic factors and turnover intention: impact of organisation factors. *Higher Education Studies*, 5 (3), 24 – 44.
- Ayandele, I. A., & Nmamseh, M. P. (2014). Hackman and Oldham job characteristics model (JCM) and Akwa Ibom state civil servants' performance. *Canadian Social Sciences*, 10(2), 88 – 97.
- Azalea, A., & Mei-Hua, L. (2015). Job satisfaction and turnover intention of Malaysian lecturers: Public vs. private. *7<sup>th</sup> International Conference on Humanities and Social Sciences*. 5 – 6 June. Songkla: Thailand.
- Baghban, I., Malekiha, M., & Fatehizadeh, M. (2010). The relationship between work-family and the level of self-efficacy in female nurses in Alzahra hospital. *IJNMR*, 15(4), 190 – 194.
- Bahri, M. S. Y., Fuad, A. A. R., & Jamil, M. Y. (2009). The Sensitivity, Specificity and Reliability of the Malay Version 12-Items General Health

- Questionnaire (GHQ-12) in Detecting Distressed Medical Students. *ASEAN Journal of Psychiatry*, 11(1), 1-8.
- Bakan, I., Buyukbese, T., Ersahan, B., & Sezer, B. (2014). Effects of job satisfaction on job performance and occupational commitment. *International Journal of Management & Information Technology*, 9(1), 1472 - 1480.
- Bakar, J. A., Mohamad, Z. Z., & Sharmeela-Banu, S. A. (2015). Factors affecting lecturer retention in private higher institution in Perak. *International Journal of Academic Research in Business and Social Science*, 5(1), 137 – 146.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: state of the art. *Journal of Managerial Psychology*, 22, 309 – 328.
- Bakker, A. B., & Demerouti, E. (2014). *Job demands-resources theory*. In Peter Y. Chen & Gary L. Cooper. *Work and well-being: A complete reference guide (Vol. III)*. UK: John Wiley & Sons Ltd.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resources Model*, 43, 83 – 104.
- Balmforth, K., & Gardner, D. (2006). Conflict and facilitation between work and family: Realizing the outcomes for organisations. *New Zealand Journal of Psychology*, 35(2), 69 – 76.
- Bamiddele, M. A., & Comfort, E. (2013). Workers Participation in Decision Making and Job Satisfaction among University Academic Staff. *The International Research Journal "International Researchers"*, 2 (2), 1 – 11.
- Bandura, A. (1986). *The social foundations of thoughts and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organisational Behavior and Human Decision Processes*, 50, 248 – 287.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York: Freeman.
- Baral, R., & Bhargava, S. (2011). Predictors of work-family enrichment: Moderating effect of core self-evaluations. *Journal of Indian Business Research*, 3(4), 220 – 243.

- Barkhuizen, N., & Rothmann, S. (2008). Occupational stress of academic staff in South Africa higher education institution. *Psychological Society of South Africa*, 38 (2), 321 – 336.
- Barnett, R. C. (1998). Toward a review and reconceptualization of the work/family literature. *Genetic, Social, and General Psychology Monographs*, (124), 125 – 182.
- Barnett, R. C., & Baruch G. K. (1985). Women's involvement in multiple roles and psychological distress. *J Pers Soc Psycho*, 49, 135 – 145.
- 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.
- Basak, S. K. (2014). A comparison of university academics job factors: satisfaction and dissatisfaction. *Journal of Economics and Behavioral Studies*, 6 (6), 500-508.
- Basak, S. K., & Govender, D. W. (2015). Theoretical framework of the factors affecting university academics' job satisfaction. *International Business and Economics Research Journal*, 14 (2), 317 – 326.
- Basarudin, N. A., Yeon, A. L., Yaacob, N., & Rahman, R. A. (2016). Faculty workload and employment benefits in public universities. *International Review of Management and Marketing*, 6, 73- 82.
- Bath, N., & Darolia, C. R. (2014). Impact of psychological distress, work family interface and social support on psychological health of working women. *Indian Journal of Health and Wellbeing*, 5(7), 77 – 82.
- Bell, A. S., Rajendran, D., & Theiler, S. (2012). Job stress, wellbeing, work-life balance and work-life conflict among Australian academics. *Electronic Journal of Applied Psychology*, 8 (1), 25 – 37.
- Belschak, F. D., & Den Hartog, D. N. (2008). Consequences of positive and negative feedback: The impact on emotions and extra-role behaviours. *Journal of Applied Psychology*, 58 (2), 274 - 303.
- BeowBeham, B., Drobnič, S., & Präg, P. (2011). Work demands and resources and the work–family interface: Testing a salience model on German service sector employees. *Journal of Vocational Behavior*, 78 (1), 110 – 122.

- Beutell, N. J. (2013). Generational differences in work-family conflict and synergy. *International Journal of Environmental Research and Public Health*, 10, 2544 – 2559.
- Bhargava, S., & Baral, R. (2009). Antecedents and consequences of work-family enrichment among indian managers. *Psychological Studies*, 54(3), 213 – 225.
- Bigirimana, S., Sibanda, E. N., & Masengu, R. (2016). The impact of working conditions on academic staff turnover at Africa University, Mutare, Zimbabwe. *Asian Journal of Social Sciences and Management Studies*, 3 (2), 91 – 98.
- Black, L. L., & Stone, D. (2005). Expanding the definition of privilege: The concept of social privilege. *Journal of Multicultural Counseling and Development*, 33(4), 243 – 255.
- Blomme, R. J., Van Rheede, A., & Tromp, D. M. (2010). Work-family conflict as a cause for turnover intentions in the hospitality industry. *Tourism and Hospitality Research*, 10 (4), 269 – 285.
- Bodla, A. A., Hussain, M., & Chen, C. (2014). Determinants of job satisfaction in academic professionals of Pakistan. *Sukkur Institute of Business Administration*, 1, 20 – 39.
- Bollen, K. A. (1989). *Structural equations with latent variables*. UK: John Wiley & Sons.
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction and work performance. *Journal of Applied Psychology*, 88(6), 1057 – 1106.
- Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in psychological health, job satisfaction, and work performance. *Journal of Applied Psychology*, 88 (6), 1057 – 1067.
- Boonzaier, B., Bernhard, F., & Braam, R. (2000). A review of research on the job characteristics model and the attendant job diagnostic survey. *South African Journal of Business Management*, 32(1), 11 – 34.
- Bordbar, F. T., Nikkar, M., Yazdani, F., & Alipoor, A. (2011). Comparing the psychological well-being of the students of Shiraz Payame Noor University

- in view of demographic and academic performance variables. *Procedia-Social and Behavioural Sciences*, 29, 663 – 669.
- Borneo Post Online (2012, November 12<sup>th</sup>). *Psychological health Problems on the Rise in Sarawak*. Retrieved July 5<sup>th</sup>, 2013 from <http://www.theborneopost.com/2012/11/12/mental-health-problems-on-the-rise-in-sarawak/>
- Borneo Post Online (2013, Jun 12<sup>th</sup>). *Address psychological health issues at workplace-Lee*. Retrieved October 20<sup>th</sup>, 2015 from <http://www.theborneo.com>
- Bowen, P., Pilikington, A., & Rose, R. (2016). The relationship between employee intelligence and well-being in academic employees. *International Journal of Social Science Studies*, 4(5), 1 – 9.
- Bowling, N. A., & Hammond, G. D. (2008). A meta-analytic examination of the construct validity of the michigan organisational assessment questionnaire job satisfaction subscale. *Journal of Vocational Behavior*, 73(1), 63 – 77.
- Boyar, S. L., & Mosley, D. C. (2007). The relationship between core self-evaluations and work and family satisfaction: The mediating role of work-family conflict and facilitation. *Journal of Vocational Behavior*, 71, 265 – 281.
- Brödner, P. (1991). Design of work and technology in manufacturing. *International Journal of Human Factors in Manufacturing*, 1(1), 1 – 16.
- Brough, P., & Kelling, A. (2001). Women, work & well-being: The influence of work-family and family-work conflict. *Women, Work and Well-Being*, 31(1), 29 – 38.
- Bulter, A. B., Grzywacz, J. G., Bass, B. L., & Linney, K. D. (2005). Extending the demands-control model: A daily diary study of job characteristics, work-family conflict and work-family facilitation. *Journal of Occupational and Organisational Psychology*, 78(2), 155-169.
- Buonocore, F., & Russo, M. (2013). Reducing the effects of work-family conflict on job satisfaction: The kind of commitment matters. *Human Resource Management Journal*, 23(1), 91 – 108.
- Burke, R. J. (1988). Some antecedents and consequences of work-family conflict. *Journal of Social Behaviour and Personality*, 3(3), 287 – 302.
- Burke, S. (2001). Missing values, outliers, robust statistics and non-parametric methods. *Scientific Data Management: Europe Online Supplement*, 19 – 24.

- Bushra, A. (2012). Job satisfaction and women's turnover intentions in Pakistan's public universities. *The Lahore Journal of Business*, 1(1), 55 – 77.
- Butrica, B. A., Cashin, B., & Cori, E. U. (2005). Projections of economic well-being for social security beneficiaries in 2022 and 2062. *Social Security Bulletin*, 66(4).
- Calvo-Salguero, A., Carroscó-González, A. M., María, J., & De Lecea, S-M. (2010). Relationship between work-family conflict and job satisfaction: The moderating effect of gender and the salience of family and work roles. *African Journal of Business Management*, 4(7), 1247 – 1259.
- Camman, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan organisational assessment questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor, Michigan.
- Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and student's achievement: A study at the school level. *Journal of School Psychology*, 44, 473 - 490.
- Carvalho, V., & Chambel, M. J. (2014). Work-to-family enrichment and employees' well-being: High performance work system and job characteristics. *Social Indicators Research*, 119 (1), 373 – 387.
- Carlson, D. S., Grzywacz, J. G., & Zivnuska, S. (2009). Is work—family balance more than conflict and enrichment?. *Human Relations*, 62 (10), 1459-1486. doi: 10.1177/0018726709336500
- Carlson, D. S., Hunter, E. M., Ferguson, M., & Whitten, D. (2011). Work–family enrichment and satisfaction: Mediating processes and relative impact of originating and receiving domains. *Journal of Management*, 1 – 21.
- Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work–family conflict. *Journal of Vocational Behavior*. 2(56), 249 – 276.
- Carlson, D. S., Kacmar, M. K., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work–family interface: Development and validation of a work–family enrichment scale. *Journal of Vocational Behavior*, 68 (1), 131 – 164.

- Carvalho V. S., & Chambel, M. J. (2014). Work-to-family enrichment and employees' well-being: High performance work system and job characteristics. *Social Indicators Research*, 119 (1), 373 – 387.
- Cegarra-Leiva, D., Sánchez-Vidal, M. E., & Cegarra-Navarro, J. G. (2012). Work-life balance and the retention of managers in Spanish SMEs. *The International Journal of Human Resource Management*, 23(1), 91 – 108.
- Chakravarthi, S., Haleagrahara, N., & Judson, J. P. (2010). Enhancing the efficacy of lecturers in educating student cohorts consisting of culturally diverse groups in a medical university. *International Education Studies*, 3(2), 161 - 166.
- Chang, W-J. A., Wang, Y-S., & Huang, T-C (2013). Work design-related antecedents of turnover intention: A multilevel approach, *Human Resources Management*, 51(1), 1 – 26.
- Charkhabi, M., Sartori, R., & Ceschi, A. (2016). Work – family conflict based on strain: the most hazardous type of conflict in Iranian hospital nurses. *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, 42(1).
- Chaudhry, I. S., Maurice, J. G., & Haneefuddin, M. (2015). Impact of job characteristics on employee's emotions & work-related outcomes in Pakistan. *International Journal of Business and Management*, 10 (8), 233 – 244.
- Chavda, C., & Gaur, A. (2013). A conceptual study of work life balance among employee. *Management and Pharmacy*, 2(7), 13 – 19.
- Chimanikire, P., Mutandwa, E., Gadzirayi, C. T., Muzondo, N., & Mutandwa, B. (2007). Factors affecting job satisfaction among academic professionals in tertiary institutions in Zimbabwe. *African Journal of Business Management*, 1(6), 166 –
- Chong, S. T., Mohamad, M. S., & Er, A. C. (2013). The psychological health development in Malaysia: History, current issue and future development. *Asian Social Science*, 9(6), 1 – 8.
- Choong, Y-O., Keh., C-G., Tan, Y-T., & Tan, C-E. (2013). Impact of demographic antecedents towards turnover intention amongst academic staff in Malaysian private universities. *Australian Journal of Basic and Applied Science*, 7 (6), 46 – 54.



- Christoph N., & Karlheinz S. (2014). Work–family conflict, social support, and turnover intention: A longitudinal study. *Journal of Vocational Behavior*, 85(1), 1 – 12.
- Christopher, O., & Gay, A. F. (2013). Work environment and labour turnover in public universities in Uganda: The case of Gulu University. *Prime Journal of Business Administration and Management*, 3(6), 1070 – 1075.
- Chu, L. C. (2012). The influence of perceived stress on work-family conflict and psychological health: The moderating effect of person-environment fit. *Journal of Nursing Management*, 1 – 8.
- Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, 53(6), 747 – 770.
- Coetzee, S. E., & Rothman, S. (2005). Occupational stress, organisational commitment and ill health of employees at a higher education institution in South Africa. *SA Journal of Industrial Psychology*, 31(1), 47 – 54.
- Cohen, R. J., & Swerdlik, M. E. (2005). *Psychological testing and assessment: An introduction to tests and Measurement (6th ed.)*. Mountain View, CA: Mayfield.
- Colby, A., Sippola, L., & Phelps, E. (2001). Social responsibility and paid work in contemporary American life. In A. Rossi (Ed.). *Caring and doing for others: Social responsibility in the domains of family, work, and community* (pp. 463-501). Chicago: University of Chicago Press.
- Cooper, D. R., & Schindler, P. S. (2003). *Business research methods (8<sup>th</sup> ed.)*. USA: McGraw-Hill.
- Cotton, J., & Tuttle, J. (1986). Employee turnover: A meta analysis and review with implications for research. *Academy of Management Review*, 11, 55-70.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches (3rd ed.)*. Thousand Oaks, CA: Sage.
- Das, B. (1999). Development of a comprehensive industrial work design model. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 9(4), 393 – 411.
- Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory mineapolis*. MN: Minnesota Press.

- De Jong, J. R. (1989). *The management of work and effort*. In R. Wild (Ed.). *International Handbook of Production and Operations Management*. London: Cassell Educational Ltd.
- De Lange, A. H., Taris, T. W., Kompier, M. A. J., Houtmans, I. L. D., & Bongers, P. M. (2004). The relationship between work characteristics and mental health: examining normal, reversed and reciprocal relationship in a four-wave study. *Work & Stress*, 18(2), 149 – 166.
- Delina, G. & Raya, R. P. (2013). A study on work-life balance in working women. *International Journal of Commerce, Business and Management*, 2(5), 274 – 282.
- Demerouti, E., Bakker, A. B., & Butlers, A. J. (2004). The loss spiral of work pressure, work-home interference and exhaustion: Reciprocal relations in a three-wave study. *Journal of Vocational Behaviour*, 64, 131 – 149.
- Demerouti, E., Bakker, A. B., De Jonge, J., Janssen, P. P. M., & Schaufeli, W. B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work, Environment and Health*, 27, 27 - 86.
- Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A through investigation of the independency of both constructs. *Journal of Occupational Psychology*, 15(3), 209 - 222.
- Department of Statistic Malaysia (2013). *Analysis of Labour Force in Malaysia 2010 and 2011*. Retrieved November 8<sup>th</sup>, 2013 from <http://www.statistics.gov.my>
- Depolo, M., & Bruni, I. (2015). Teachers' facilitation between work and family roles: Myth or reality?. *Procedia of Social Sciences and Behaviour*, 186, 886 – 893.
- Dewa, C. S., Thompson, A. H., & Jacobs, P. (2011). Relationship between job stress and worker perceived responsibilities and job characteristics. *International Journal of Occupational and Environmental Medicine*, 2(1), 37 – 46.
- Dewe, P. J., O'Driscoll, M. P., & Cooper, C. (2010). *Coping with work stress: A review and critique*. Chichester: Wiley-Blackwell.
- Dhanapal, S., Alwie, S. M., Subramanian, T., & Vashu, D. (2013). Factors affecting job satisfaction among academicians: A comparative study between gender

- and generations. *International Journal of Management Excellence*, 2(1), 128 – 139.
- Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research*, 40 (12), 189 – 216.
- Diener, E., Suh, M., Lucas, E., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276 – 302.
- Diener, E., Tay, L., & Oishi, S. (2013). Rising income and the subjective well-being of nations. *Journal of Personality and Social Psychology*, 104, 267 – 276.
- Diener, M. J. C., Jayawickreme, E., Kern, M., & Seligman, M. E. P. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1(1), 79 – 106.
- Dinger, M., Thatcher, J. B., & Stepina, L. P. (2010). A study of work-family conflict among it professionals: Job characteristics, individual values, and management practices. *Journal of Organisational Computing and Electronic Commerce*, 20(1), 91 – 121.
- Djastuti, I. (2013). The influence of job characteristics on job satisfaction, organisational commitment and managerial performance: A Study on construction companies in Central Java. *Organisational Commitment and Managerial Performance*, 3(2), 145 – 166.
- Donald, M. F., Lucia, M. E., & Victor, N. M. (2016). The relationship between job satisfaction and organisational commitment among academic staff members in a selected higher education institution. *The 2016 WEI International Academic Conference*. 1-3 August. Vienna: Austria, 38 – 47.
- Drobnič, S., Beham, B., & Präg, P. (2010). Good job, good life? Working conditions and quality of life in Europe. *Social Indicators Research*, 99(2), 205 – 225.
- Drost, E. A. (2011). Validity and reliability in social research. *Education Research and Perspectives*, 38(1).
- Du Prel, J-B., & Peter, R. (2015). Work-family conflict as a mediator in the association between work stress and depressive symptoms: Cross-sectional evidence from the German lida-cohort study. *International Archives of Occupational and Environmental Psychological Health*, (3), 359 – 368.

- Dugan, A. G., Matthews, R. A., & Barnes-Farrell, J. L. (2012). Understanding the role of subjective and objective experiences of time in the work-family interface. *Community, Work & Family*, 15(2), 149-172.
- Duong, D., Tuckey, M. R., Hayward, R. M., & Boyd, C. M. (2015). Work-family Mcconflict: The importance of differentiating between different facets of job characteristics. *Work & Stress*, 29(3), 230 – 245.
- Duong, M-Q. (2013). The effects of demographic and institutional characteristics on job satisfaction of university faculty in Vietnam. *International Journal of Academic Research in Progressive Education and Development*, 2(4), 78 – 92.
- Dyson, F. (2006). *The relationship between optimism and work-family enrichment and their influence on psychological health*. PhD Thesis, Drexel University, United States.
- Economic Planning Unit Prime Minister's Department Putrajaya (2013, December 2). The Malaysian Well-Being Report 2013. *Malaysia Economic Planning Unit*. Retrieved 1<sup>st</sup> July 2016 <http://www.epu.gov.my>
- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: clarifying the relationship between work and family. *The Academy of Management Review*, 25, 178 – 199.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organisational support. *Journal of Applied Psychology*, 71(3), 500 – 507.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1989). Perceived organisational support. *American Psychological Association*, 71 (3), 500 – 507.
- Erkmen, T., & Esen, E. (2014). Work-family, family work conflict and turnover intentions among the representatives of insurance agencies. *Journal of Business, Economic & Finances*, 3(3), 302 - 312.
- Farradonna, S., & Halim, F. W. (2015). The consequences of work-family conflict, burnout and organisational commitment among women in Indonesia. 3<sup>rd</sup> *Global Conference on Business and Social Science-2015*. 16-17 December. Kuala Lumpur: Malaysia.
- Feltz, D. L., & Lirgg, C. D. (2001). *Self-efficacy beliefs of athletes, teams, and coaches*. In R. N. Singer, H. A. Hausenblas & C. Janelle (2<sup>nd</sup> ed.).

- Handbook of Sport Psychology* (pp. 340 - 361). New York: John Wiley & Sons.
- Ferguson, K., Frost, L., & Hall, D. (2012b). Predicting teacher anxiety, depression and job satisfaction. *Journal of Teaching and Learning*, 8(1), 27 – 42.
- Ferguson, M., Carlson, D., Zivnuska, S., & Whitten, D. (2012a). Support at work and home: The path to satisfaction through balance. *Journal of Vocational Behavior*, 80(2), 299 – 307.
- Fletcher, J. M., Sindelar, J. L., & Yamaguchi, S. (2011). Cumulative effects of job characteristics on health. *Health Economics*, 20, 533 - 570.
- Ford, M. T., Heinen, B. A., & Langkamer, K. L. (2007). Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology*, 92, 57 – 80.
- Fournier, P-S., Montre, S., Brun, J-P., & Bilodeau V. J. (2011). Exploratory study to identify workload factors that have an impact on health and safety: A case study in the service sector. *Work Context and OHS Studies and Research Project*, 1 – 54.
- Friedman, S. D., & Greenhaus, J. H. (2000). *Work and family-allies or enemies? What happens when business professionals confront life choices*. New York: Oxford University Press.
- Frone, M. R., Yardley, J. K., & Markel. K. S. (1997), Developing and testing an integrative model of work-family interference. *Journal of Vocational Behaviour*, 50(2), 145 – 167.
- Frone, M.R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family conflict interference. *Journal of Applied Psychology*, 77(1), 65 – 78.
- Fung, N. S., Ahmad, A., & Omar, Z. (2012). Work-family enrichment: It's mediating role in the relationships between dispositional factors and job satisfaction. *International Journal of Academic Research in Business and Social Sciences*, 2(11), 73 – 88.
- Fung, N. S., Ahmad, A., & Omar, Z. (2014). Role of work-family enrichment in improving job satisfaction. *American Journal of Applied Sciences*, 11(1), 96 – 104.

- Fung, N. S., Ahmad, A., & Omar, Z. (2015). Work-family enrichment: Its mediating role in the relationships between workplace support factors and teachers' job satisfaction. *American Journal of Applied Sciences*, 12(4), 242 – 253.
- Gahyur, M., & Jamal, W. (2012). Work-family conflict: A case of employees' turnover intention. *International Journal of Social Sciences and Humanity*, 2(3), 169 – 174.
- Galinsky, E., Bond, J., & Sakai, K. (2008). *2008 National Study of Employers: Families and Work Institute*. Retrived 1<sup>st</sup> October 2015 from <http://familiesandwork.org>
- Gall, M. D., Borg, W. R., & Gall, J. P. (2003). *Educational research: An introduction (Vol. 7th)*. White Plains, NY: Longman Publisher.
- Gao, Y., Shi, J., Niu, Q., & Wang, L. (2012). Work-family conflict and job satisfaction: Emotional intelligence as a moderator. *Stress and Health*, 22(9), 222 – 228.
- Gecas, V. (2004). *Self-agency and the life course*. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the Life Course* (pp. 369-390). New York: Springer Science.
- Ghislieri, C., Molino, M., & Gatti, P. (2015). The relationship between work-family interface and turnover intention: A study in a sample of Italian nurses. *Medicina Del Lavoro*, 106(3), 206 – 215.
- Goldberg, D., & Williams, P. (1988). *A User's Guide to the General Health Questionnaire*. Windsor UK: NEFR-Nelson.
- Gordon, J. R., Whelan-Berry, K. S., & Hamilton, E. A. (2007). The relationship among work-family conflict and enhancement, organisational work-family culture, and work outcomes for older working women. *Journal of Occupational Health Psychology*, 12, 350 – 364.
- Gozukara, I., & Colakoglu, N. (2015). The impact of manager support and work-family conflict on job satisfaction. *Business Management Dynamics*, 5(6), 13 -25.
- Grant-Vallone, E. J., & Donaldson, S. I. (2001). Consequences of work-family conflict on employee well-being over time. *Work & Stress*, 15(3), 214 – 226.

- Grant, A. G. (2008). The significance of task significance: Job performance effects, relational mechanisms, and boundary conditions. *Journal of Applied Psychology*, 93(1), 108 – 124.
- Grau, R., Salanova, M., & Peiró, J. M. (2001). Moderator effects of self-efficacy on occupational stress. *Psychology in Spain*, 5(1), 63 – 74.
- Greenberg, J. (2011). *Behaviour in Organisation (10<sup>th</sup> ed.)*, Edinburgh, England: Pearson Education Limited.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10, 76 – 88.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *The Academy of Management Review*, 31(1), 72 – 92.
- Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work-family balance and quality of life. *Journal of Vocational Behavior*, 63(3), 510 – 531.
- Greenhaus, J. H., Parasuraman, S., Granrose, C. S., Rabinowitz, S. R., & Beutell, N. J. (1989). Sources of work-family conflict among two-career couples. *Journal Of Vocational Behaviour*, 34, 133 – 135.
- Griffin, R. W. (1983). Objective and social sources of information in task redesign: A field experiment. *Administrative Science Quarterly*, 28, 184 - 200.
- Grotto, A. R., & Lyness, K. S. (2010). The costs of today's jobs: Job characteristics and organisational supports as antecedents of negative spillover. *Journal of Vocational Behavior*, 76, 395 – 405.
- Grugulis, I., & Stoyanova, D. (2011). Skill and performance. *British Journal of Industrial Relations*, 49 (3), 515 – 536.
- Grzywacz, J. G. (2000). Work-family spillover and health during midlife: Is managing conflict everything?. *American Journal of Health Promotion*, 14(4). 236 – 243.
- Grzywacz, J. G., & Butler, A. B. (2005). The impact of job characteristics on work-to-family facilitation: Testing a theory and distinguishing a construct. *Journal of Occupational Health Psychology*, 10 (2), 97 - 109.

- Grzywacz, J. G., & Carlson, D. S. (2007). Conceptualizing work—family balance: Implications for practice and research. *Advances in Developing Human Resources*, 9(4), 455 – 471.
- Guilford, J. P. (1956). *Psychometric methods*. New York: McGraw-Hill.
- Haar, J. M. (2006). Work-family conflict and turnover intention: Exploring the moderation effects of perceived work-family support. *New Zealand Journal of Psychology*, 33(1), 35 – 39.
- Haar, J. M., Roche, M., & Taylor, D. (2012). Work-family conflict and turnover intentions of indigenous employees: The importance of the whanau/family for Maori. *International Journal of Human Resource Management*, 23 (12), 2546 – 2560.
- Hackman, J. R., & Oldham, G. R. (1975). Development of job diagnostic survey. *Journal of Applied Psychology*, 60 (2), 159 – 170.
- Hackman, J. R., & Oldham, G.R. (1976), Motivation through the design of work, test of a theory. *Organizational Behavior and Human Performance*, 16, 250 – 279.
- Hackman, J. R., & Oldham, G.R. (1980). *Work redesign*. Massachusetts: Addison-Wesley.
- Hadi, R., & Adil, A. (2010). Job characteristics as predictor of work motivation and job satisfaction of bank employees. *Journal of Indian Academy of Applied Psychology*, 36(2), 294 – 299.
- Hagos, G., & Abrha, K. (2015). Study on factor affecting job satisfaction in Mekelle University academic staff at Adi-Haqi Campus. *International Journal of Scientific and Research Publications*, 5(2), 1 – 6.
- Hakanen, J. J., & Schaufeli, W. B. (2012). Do burnout and work engagement predict symptoms of life satisfaction? A three-wave seven-year perspective study. *Journal of Affective Disorder*, 141, 415 - 424.
- Hamid, R. A., & Amin, S. M. (2014). Work-family conflict and work-family enrichment and their consequences in Malaysia. *Middle-East Journal of Scientific Research*, 19 (5), 729 – 733.
- Harmon, H. A., Brown, G., Widing II, R. E., & Hammond, K. L. (2002). Exploring the sales manager's feedback to a failed sales effort. *Journal of Business and*



*Industrial Marketing*, 17(1), 43 - 55.

- Haron, H., Mustafa, S. M. S., & Alias, R. A. (2010). Gender influences on emotional self-regulation among Malaysia academicians. *International Journal of Innovation, Management and Technology*, 1(1), 20 – 24.
- Hassan, Z., & Jazli, N. F. (2015). Factor related to occupational stress among lecturers: A case study in public university. *Conference on Business Management Research II (CBMR 2015)*. 22th December 2015. Sintok, Kedah Malaysia.
- Hattie, J., & Helen, T. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81 – 112.
- Hemmings, B., & Kay, R. (2009). Lecturer self-efficacy: Its related dimensions and the influence of gender and qualifications. *Issues in Educational Research*, 19(3), 243-254.
- Henny, J., Anita, A. R., Hayati, K. S., & Rampal, L. (2014). Prevalence of burnout and its associated factors among faculty academicians. *Malaysian Journal of Medical and Health Sciences*, 10(1), 51 – 59.
- Henson, R. K. (2001). Teacher self-efficacy: Substantive implications and measurement dilemmas. *Annual Meeting of the Educational Research Exchange, College Station, TX*. January 26<sup>th</sup>. Texas: US.
- Herold, D. M., & Greller, M. M. (1977). Feedback: The definition of a construct. *The Academy of Management Journal*, 20(1), 142 – 147.
- Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The Motivation to Work* (2<sup>nd</sup> Edition). New York: John & Wiley.
- Higgins, C. A., Duxbury, L. E., & Irving, R. H. (1992). Work-family conflict in the dual-career family. *Organisational Behavior and Human Decision Processes*, 51, 51 - 25.
- Hill, E. J. (2005). Work-family facilitation and conflict, working fathers and mothers, work-family stressors and support. *Journal of Family Issue*, 26(6), 793 - 819.
- Hill, E. J., Hawkins A. J., Ferris, M., & Weitzman M. (2001). Finding an extra day a week: The positive influence of perceived job flexibility on work and family life balance. *Family Relation*, 50, 49 – 58.

- Ho, C-C., Oldenburg, B., Day, G., & Sun, J. (2012). Work values, job involvement and organisational commitment in Taiwanese nurses. *International Journal of Psychology and Behavioral Sciences*, 2(3), 64-70.
- Hoa, J., Wu, D., Liu, L., Li, X., & Wu, H. (2015). Association between conflict and depressive symptoms among Chinese female nurses: The mediating and moderating role of psychological capital. *International Journal of Environmental Research and Public Health*, 12(6), 6682 - 6699.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513 – 524.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review*, 50, 337 – 421.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307 – 324.
- Holman, D., & Wall, T. (2002). Work characteristics, learning outcomes and strain: A test of competing direct effects, mediated and moderated models. *Journal of Occupational Health Psychology*, 7, 283 – 301.
- Hoonakker, P., Marian, A., & Carayon, P. (2004). The relation between job characteristics and quality of working life: The role of task identity to explain gender and job type differences. *Human Factor Ergonomics Society Annual Meeting Proceedings*.
- Hostetler, A. J., Desrochers, S., Kopko, K., & Moen, P. (2012). Marital and family satisfaction as a function of work–family demands and community resources: individual and couple-level analyses. *Journal of Family Issues*, 33(3), 316 – 340.
- HRinAsia (13<sup>th</sup> December, 2015). Key insight to attract, reward and retain talent in Malaysia: Aon Hewitt's views. *HRinAsia*. Retrieved in 15<sup>th</sup> January 2016 from [www.hrinasia.com](http://www.hrinasia.com).
- Hsu, Y. R. (2011). Work- family conflict and job satisfaction in stressful working environments: The moderating roles of perceived supervisor support and internal locus of control. *International Journal of Manpower*, 32(2), 233 - 248.

- Hui, C., Wong, A., & Tjosvold D. (2010). Turnover intention and performance in china: the role of positive affectivity, Chinese values, perceived organisational support and constructive controversy. *Journal of Occupational and Organisational Psychology*, 80 (4), 735 - 751.
- Humphreys, J., Dalton, J., Rollins, B., Schuette, G., Sulfridge, W., Von Ancken, J., & Warner, D. (2003). *The social security definition of disability*. Washington: Social Security Advisory Board.
- Hun Lim, D., Choi, M., & Hoon Song, J. (2011). Work-family enrichment in Korea: Construct validation and status. *Leadership & Organisation Development Journal*, 33(3), 282 – 299.
- Ibrahim, R. Z. A., & Ohtsuka, K. (2012) Review of job demand-control and demand-control-support model: Elusive moderating predictor effects and cultural implications. *Southeast Asia Psychology Journal*, 1, 10 – 21.
- Idris, M. K. (2009). *Occupational stress in academic life: A study on academics of malaysian public universities*. PhD Thesis. The University of Waikato, New Zealand.
- Irwan, N. M., & Nor Azaian, A. (2011). Work-family balance among mothers in peninsular malaysia. *The International Conference on Population Dynamism of Asia, University Malaya*. 11-13 July .
- Jaga, A., & Bagraim, J. (2011). The relationship between work-family enrichment and work-family satisfaction outcomes. *Psychological Society of South Africa*, 41(1), 52 – 62.
- Jaga, A., Bagraim, J. & Williams, Z. (2013). Work-Family Enrichment and Psychological Health. *SA Journal of Industrial Psychology*, 39(2).
- Jahoda, M. (1982). *Employment and unemployment: A social-psychological analysis*. Cambridge, UK: Cambridge University Press.
- Jain, S. (2013). The causes of turnover intention in the employees of educational institutes: An observation. *Tactful Management Research Journal*, 1(7), 1-4.
- Jansen, P. G. M., Kerkstra, A., Abu-Saad, H. H., & Van Der Zeem, J. (1996). The effects of job characteristics and individual characteristics on job satisfaction and burnout community nursing. *Int. J. Nurs. Stud*, 33(4), 407 – 421.

- Jaramillo, M. (2011). *Calling, life satisfaction and job satisfaction: Religion as a moderator*. Master Thesis, Colorado State University, Fort Collins, US.
- Jenkins, J. S., Henegen, C. J., Bailey, S. F., & Barber, L. K., (2014). The work–family interface as a mediator between job demands and employee behaviour. *Stress and Health*, 32(2), 128 – 137.
- Jex, S. M., Bliese, P.D., Buzzelle, S., & Primeau, J. (2001). The impact of self-efficacy on stressor-strain relations: Coping style as an explanatory mechanism. *Journal of Applied Psychology*, 86(3), 401 – 409.
- Jobstreet.com (2015, May 8). More Malaysians dissatisfied at work. *Job Street Malaysia*. Retrieved November 1<sup>st</sup>, 2016 from <http://www.jobstreet.com.my>
- Johari, J., Yahya, K. K., Mit, D. A. C., & Omar, A. (2011). The dimensions of job characteristics: A validation study in a Malaysian context. *International Business Management*, 5(2), 91 - 103.
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2015). The Experience of Work-Related Stress Across Occupations. *Journal of Managerial Psychology*, 20 (2), 178 – 187.
- Judge T. A., Thoreson C. J., Bono E. J. & Patton G. K. (2002). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 27(3), 376 – 407.
- Judge, T. A., & Colquitt, J. A. (2004). Organisational justice and stress: The mediating role of work-family conflict. *Journal of Applied Psychology*, 89(3), 395 – 404.
- Jung, C. H., & Kim, T. Y., (2012). Work-family conflict, work-family facilitation, and psychological well-being in the Korean hotel industry. *International Journal of Contemporary Hospitality Management*, 24(7), 1011 – 1028.
- Kaewanuchit, C., Muntaner, C., & Isha, N. (2015). A causal relationship of occupational stress among university employees. *Iran J Public Health*, 44 (7), 931 – 938.
- Kafetsios, K. (2007). Work-family conflict and its relationship with job satisfaction and psychological distress: The role of affect at work and gender. *Hellenic Journal of Psychology*, 4, 15 – 35.

- Kahn, R. L., Wolfe, D. M., Quinn, R., Snoek, J. D., & Rosenthal, R. A. (1964). *Organisational Stress*. New York: Wiley.
- Kalliath, P., & Kalliath, T. (2013). Does job satisfaction mediate the relationship between work-family conflict and psychological health? A study of Australian social workers. *Asia Pacific Journal of Social Work and Development*, 23(2), 91 – 105.
- Kalliath, P., & Kalliath, T. (2015). Work–family conflict and its impact on job satisfaction of social workers. *British Journal of Social*, 45(1), 241 - 259.
- Karim, N. H. A. (2008). Investigating the correlates and predictors of job satisfaction among Malaysian academic librarians. *Malaysian Journal of Library & Information Science*, 13(2), 69 - 88.
- Karimi, L., Karimi, H. & Nouri, A. (2010). Predicting employees' well-being using work-family conflict and job strain models. *Stress and Health*, 27, 111-112.
- Katako, M., Ozawa, K., Tomotake, M., Tanioka, T., & King, B. (2014). Occupational stress and its related factors among university teachers in Japan. *Health*, 6 (5), 299 – 305.
- Keller, R. T. (1975). Role conflict and ambiguity: Correlates with job satisfaction and values. *Personnel Psychology*, 28, 57 – 64.
- Kelloway, E. K., & Barling, J. (1991). Job characteristics, role stress and mental health. *Journal of Occupational Psychology*, 64, 291 - 304.
- Kelloway, E. K., Gottlieb, B. H., & Barham L. (1999). The source, nature, and di-reaction of work and family conflict: A longitudinal investigation. *Journal Occupational Health Psychology*, 4(4), 337– 46.
- Kelly, E.L., Moen, P., & Tranby, E. (2011). Changing workplaces to reduce work-family conflict: Schedule control in white-collar organisation. *American Social Review*, 76(2), 265 – 290.
- Kesharavaz, M., & Mohammadi, R. (2011). Occupational stress and organisational performance, case study: Iran. *Procedia-Social and Behavioral Sciences*, 30, 390 – 394.
- Khan, A., Yusoff, M. R., & Isa, K. (2016). Examining linkages between psychological health problems, socio-demographic characteristics and

- workplace stressors in Pakistan's academia. *International Education Studies*, 9 (6), 108 – 119.
- Khan, E., Sadeghi A., Aqeel, M., & Riaz, M. A. (2014). Impact of job stress on job attitudes and life satisfaction in college lecturers. *International Journal of Information and Education Technology*, 4(3), 270 – 273.
- Kinderman, P., & Tai, S. (2009). Psychological health and well-being: A new ethos for mental health a report of the working group on psychological health and well-being. *The British Psychological Society*. Retrieved December 25<sup>th</sup>, 2015 from <http://www.bps.org.uk/>
- Kinman, G. & Wray, S. (2013). Higher stress: A survey of stress and well-being among staff in higher education. *University and College Union*, 1 – 46.
- Kinman, G., & Jones, F. (2008). A life beyond work? job demands, work-life balance and well-being in UK academics. *Journal of Human Behaviour in the Social Environment*, 17(1), 41 – 60.
- Konya, V., Matic, D., & Pavlovoc, J. (2016). The influence of demographics, job characteristics and characteristics of organizations on employee commitment. *Acta Plothechnica Hungarica*, 13(3), 119 – 138.
- Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: a review and directions for future organisational behaviour-human resources research. *Journal of Applied Psychology*, 83, 139 - 149.
- Kurbanoglu, S. S. (2003). Self-efficacy: A concept closely linked information literacy and lifelong learning. *Journal of Documentation*, 59(6), 635 - 646.
- Kusi, H., Mensah, S. K. D., & Gyaki, E. (2014). Work-related stress among academic staff of the University of Education, Winneba Campus, Ghana. *Journal of Education and Practice*, 5 (13), 15 – 23.
- Lai, S. L., Chang, J., & Hsu, L. Y. (2012). Does effect of workload on quality of work life vary with generations?. *Asia Pacific Management Review*, 17(4), 437 – 451.
- Lambert, E. G., & Cluse-Tolar, T. (2007). The job is killing me: The impact of job characteristics on correctional staff job stress. *Applied Psychology in Criminal Justice*, 3(2), 117 – 142.

- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28 (4), 563 - 575.
- Lawson, K. J., Noblet, A. J., & Rodwell, J. J. (2009). Promoting employee wellbeing: The relevance of work characteristics and organizational justice. *Health Promotion International*, 24(3), 223 – 233.
- Lazarus, R. S., & Cohen, J. B. (1977). *Environmental stress*. In I. Altman and J.F. Wohlwill . *Human Behavior and Environment (Vol. 2)*. New York: Plenum.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lee-Peng, N., Lok-Sin, K. & Ka-Fei, L. (2013). The impact of job demands , supervisor support and job control on work-to-personal life conflict among the employed workers. *International Conference on Social Science Research, ICSSR 2013*. Pulau Pinang, Malaysia.
- Lee, M. S-M., Lee, M-B., Lio, S-C., & Chiang, F-T. (2009). Relationship between mental health and job satisfaction among employees in a medical centre department of laboratory medicine. *J Formos Med. Assoc*, 108(2), 146 – 154.
- Lerner, J., & Tirole, J. (2002). Some simple economics of open source. *Journal of Industrial Economics*, 2, 197 - 234.
- Lewin, K. L. (1935). *A dynamic theory on personality*. New York: McGraw-Hill.
- Lewis, R., & Zibbaras, L. (2013). *Work and occupational psychology*. London, UK: SAGE Publications Ltd.
- Lim, D. H., Choi, M. W., & Song, J. H. (2012). Work-family enrichment in korea: construct validation and status. *Leadership and Organisation Development Journal*, 33(3), 282 - 299.
- Lin, S-L., & Hseih, A-T. (2002). Constraints of task identity on organisational commitment. *International Journal of Manpower*, 23(2), 151-165.
- Lingard, H., & Francis, V. (2005). Does work–family conflict mediate the relationship between job schedule demands and burnout in male construction professionals and managers?. *Construction Management and Economics*, 23(7), 733 - 745.

- Liu, J., Kwan, H. K., Lee, C., & Hui, C. (2013). Work-to-family spillover effects of workplace ostracism: the role of work-home segmentation preferences. *Human Resource Management, 52*(1), 75 - 93.
- Lodahl, T. M., & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology, 49*, 24 – 33.
- Long, C. S., Azami, A., Kowang, T. O., & Fei, G. H. (2016). An analysis on the relationship between work family conflict and turnover intention: A case study in a manufacturing company in Malaysia. *International Business Management, 10*(3), 176 – 182.
- Lu, C., Siu, O. L., & Cooper, C. L. (2005). Managers occupational stress in china: The role of self-efficacy. *Personality and Individual Differences, 38*(3), 569 – 578.
- Lu, L. (2011). A Chinese longitudinal study on work/family enrichment. *Career Development International, 16*(4), 335 – 400.
- Lu, L., Kao, S-F., Chang, T-T., Wu, H-P., & Cooper, C. L. (2008). Work/family demands, work flexibility, work/family conflict, and their consequences at work: National probability sample in Taiwan. *International Journal of Stress Management, 15*(1), 1 – 21.
- Lunenburg, F. (2011). Self-efficacy in the workplace: Implications for motivation and performance. *International Journal of Management, Business and Administration, 14* (1).
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: Multicultural validation studies. *Journal of Psychology, 139*(5), 439-457.
- Machado-Taylor, M. D. (2014). A cross-national study of job satisfaction of academics in Portuguese higher education. *Universidade em Debate, 2*(1), 38 – 50.
- Mache, S., Bernburg, M., Vitzthum, K., Groneberg, D. A., Klapp, B. F., & Danzer, G. (2015). Managing work-family conflict in the medical profession: Working conditions and individual resources as related factors. *BMJ Open 2015, 1 – 9*.



- Madiha, F. (2013). Employees prefer work-life balance over money. *The Edge Financial Today*. Retrieved 10<sup>th</sup> June 2013 from <http://www.theedgemaalaysia.com>
- Majzub, R. M. (2010). A swot analysis of challenges facing research universities. RCEE & RHED2010, Kuching, Sarawak, 7-9 June 2010.
- Makhbul, Z. M., & Khairuddin, S. M. H. S. (2013a). Stress among Malaysian academics: A conceptual study. *Journal of Academic Research in Business and Social Science*, 2(1), 197 - 211.
- Makhbul, Z. M., & Khairuddin, S. M. H. S. (2013b). The effects of commitment, health and occupational stressors of individual productivity: The case of Malaysian research universities. *Asian Journal of Business Research*, 3(2), 12-27.
- Malekiha, B. M., & Fatehizadeh, M. (2010). The relationship between work-family conflict and the level of self-efficacy in female nurses in Alzahra Hospital. *Iranian Journal Nurses Midwifery Research*, 15(4), 190-194.
- Malik, B., & Narang, D. (2015). A study on the impact of job characteristics on key attitude of faculty members in professional educational institutes. *European Scientific Journal*, 11(16), 442 - 456.
- Marais, E., de Klerk, M., Nel, J. A., & de Beer, L. (2014). The antecedents and outcomes of work-family enrichment amongst female worker. *SA Journal of Industrial Psychology*, 40(1), 1 – 14.
- Marcello, R., & Filomena, B. (2012). The relationship between work-family enrichment and nurse turnover. *Journal of Managerial Psychology*, 27(3), 216 – 236.
- Mark, G., & Smith, A. P. (2011). Occupational stress, job characteristics, coping and mental health of nurses. *British Journal of Health Psychology*, 1 - 17.
- Markom, M., Abdul, N. A., Ariffin, A. K., Wahab, D. A., Husain, H., & Ramli, N. F. L. (2011). Lecturer's national hour measurement in improving research university academics performances. *Procedia Social and Behavioral Sciences*, 60, 430 - 435.
- Marks, S. (1977). Multiple roles and role strain: some notes on human energy, time, and commitment. *American Sociological Review*, 42, 921 - 936.

- Marzuki, N. A. (2013). The impact of personality on employee well-being. *European Scientific Journal*, 9 (20), 43 - 52.
- Masron, T. A., Ahmad, Z., & Rahim, N. B. (2012). Key performance indicators vs. key intangible performance among academic staff: A case study of a public university in Malaysia. *Procedia Social and Behavioral Sciences*, 56, 494-503.
- Masuku, S., & Muchemwa, S. (2015). Occupational stress among university lecturers: A case of Zimbabwe. *US-China Education Review*, 5(4), 258 – 266.
- Masum, A. K. M., Azad, M. A. K., & Beh, L-S. (2015). Determinants of academics' job satisfaction: Empirical evidence from private universities in Bangladesh. *PLOS One*, 10(2), 1 – 15.
- Matzeder, M. E., & Krieshok, T. S. (1995). Career Self-Efficacy and the Prediction of Work and Home Role Salience. *Journal of Career Assessment*, 3(3). 331-340.
- Mauno, S., Kinnunen, U., & Pyykkö, M. (2005). Does work–family conflict mediate the relationship between work–family culture and self-reported distress? Evidence from five Finnish organisations. *Journal of Occupational and Organisational Psychology*, 78(4), 509-530.
- McKnight, D. H., Phillips, B., & Hardgrave, B. C. (2009). Which reduces IT turnover intention the most workplace characteristics or job characteristics?. *Information & Management*, 46, 167 – 174.
- McNall, L. A., Masuda, A. D., & Nicklin, J. M. (2009). Flexible work arrangements, job satisfaction, and turnover intention: The mediating role of work-to-family enrichment. *The Journal of Psychology*, 144(1), 61 - 81.
- McNall, L. A., Masuda, A. D., Shanock, R., & Nicklin, J. M. (2011). Interaction of core self- evaluations and perceived organizational support on work-to-family enrichment. *The Journal of Psychology*, 145(2), 133 – 149.
- McNall, L. A., Nicklin, J. M., & Masuda, A. D. (2010). A meta-analytic review of the consequences associated with work-family enrichment. *Journal of Business and Psychology*, 25(3), 381 – 396.
- McNall, L. A., Scott, L. D., & Nicklin, J. M., (2015). Do positive affectivity and boundary preferences matter for work-family enrichment? A study of

- human service workers. *Journal of Occupational Psychology*, 20(1), 93 - 104.
- Mehrad, A., Hamsan, H. H., Redzuan, M., & Abdullah, H. (2015). The role of job satisfaction among academic staff at university. *3<sup>rd</sup> Global Summit on Education GSE 2015*. 9-10 March. Kuala Lumpur : Malaysia.
- Melchior M., Caspi A., Milne B. J., Danese A., Poulton R., & Moffitt T. (2007). Work stress precipitates depression and anxiety in young, working women and men. *Psychological Medicine*, 37, 1119 – 1129.
- Mental Health Commission of Canada (2012). Psychological health & safety: An action guide for employers. *Centre of Applied Research and Mental Health & Addiction*. Retrieved October 13<sup>th</sup>, 2015 from <http://www.mentalhealthcommission.ca>
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). antecedents of work-family conflict: A meta-analytic review. *Journal of Organisational Behavior*, 32(5), 689 - 725.
- Michel, R. D. J., & Michel, C. E. J. (2015). Work schedule flexibility, work-family enrichment and job satisfaction. *Journal of Behavioural Sciences*, 25 (1), 78 - 90.
- Michie, S. (2002). Causes and management of stress at work. *Occup Environ Med*, 59, 67 – 72.
- Mikalachki, A. (1975). The effects of job design on turnover, absenteeism and health. *Industrial Relations*, 30(3), 377 – 389.
- Millette, V., & Gagne, M. (2008). Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on volunteer engagement. *Motiv Emot*, 32, 11 – 22.
- Minda, M. H. (2015). A study on the magnitude and causes of turnover intention among academic staffs of Ethiopian higher institution: Evidence from Ambo University. *Science, Technology and Arts Research Journal*, 4(3), 285 – 293.
- Ministry of Higher Education (2016a), *Pendidikan tinggi hari ini (5<sup>th</sup> Edition)*. Retrieved 10<sup>th</sup> October 2016 from <https://www.mohe.gov.my/ms/muat-turun/awam/penerbitan-dan-jurnal/buletin-kpt>

- Ministry of Higher Education Malaysia (2016b), *The university transformation programme (orange book) - Strengthening academic career pathways and leadership development*. Retrieved 10<sup>th</sup> October 2016 from <https://www.mohe.gov.my>
- Ministry of Higher Education Malaysia (2014), *National education statistic ministry of higher education*. Retrieved 10<sup>th</sup> October 2016 from <https://www.mohe.gov.my>.
- Minnotte, K. L., Gravelle, M., & Minnotte, M. C. (2013). Workplace characteristics, work-to-life conflict, and psychological distress among medical workers. *The Social Science Journal*, 50, 408 -417.
- Mobley, W. H. (1982). *Employee turnover: Causes, consequences, and control*. Reading, UK: Mass Addison-Weasley Publishing Company.
- MoHE. (2007a). Pelan strategik pengajian tinggi melangkaui tahun 2020. Malaysia Ministry of Higher Education. Putrajaya, Malaysia.
- MoHE. (2007b). National higher education action plan 2007-2010. *Ministry of Higher Education*. Putrajaya, Malaysia.
- Mohrman, K., Ma, W., & Baker, D. (2008). The research university in transition: The emerging global model. *Higher Education Policy*, 21, 5 - 27.
- Molla, M. I. H. (2015). Ensuring job satisfaction for managing people at work. *Global Disclosure of Economics and Business*, 4(2), 155 - 166.
- Mooghali, A., Lankarani, K. B., Abedi, H., & Sarikhani, Y. (2015). The relationship between job characteristics and work-family conflict among married women employed in clinical wards of Shiraz University-Affiliated Hospital. *Women's Health Bulletin*, 2(1), 1 - 6.
- Morell, K., Clarke, J., & Wilkinson, A. (2001). Unweaving leaving: The use of models in management of employee's turnover. *International Journal of Management Reviews*, 3, 353 – 354.
- Morgeson, F. P., & Campion, M. A.(2003). Work design In I. B. Wiener (Ed.), *Handbook of Psychology*. Chichenster, UK: John Wiley & Sons.
- Morgeson, F. P., & Humphrey, S. E. (2006). The work design questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal Applied Psychology*, 91, 1321-1339.

- Morgeson, F. P., Delaney-Klinger, K., & Hemingway, M. A. (2005). The importance of job autonomy, cognitive ability, and job-related skill for predicting role breadth and job performance. *Journal of Applied Psychology, 90*(2), 399 – 406.
- Morrison, D., Cordery, J., Girardi, A., & Payne, R. (2005). Job design, opportunities for skill utilization and intrinsic job satisfaction. *European Journal of Work and Organisational Psychology, 14*(1), 59 - 79.
- Mostert, K. (2011). Job characteristics, work–home interference and burnout: testing a structural model in the South African context. *The International Journal of Human Resource Management, 22*(5), 1036 - 1053.
- Mughal, M. N. (2015). Impact of job characteristics on turnover intentions: A study of the front line employees in commercial banks. *Academy of Contemporary Research Journal, 4*(1), 32 - 45.
- Mukukuri, J. N., & Ngari, J. M. (2014). Influence of work life balance policies on employee job satisfaction in Kenya's banking sector: a case of commercial banks in Nairobi central business district. *Journal of Humanities and Social Sciences, 19*(3), 102 – 112.
- Murray, H. A. (1938). *Explorations in personality: A clinical and experimental study of fifty men of college age*. New York, UK: Oxford University Press.
- Mustapha, N. (2013). Measuring job satisfaction from the perspective of interpersonal relationship and faculty workload among academic staff at public universities in Kelantan. *International Journal of Business and Social Science, 4*(15).
- Mustapha, N., Ahmad, A., Uli, J., & Idris, K. (2010). Job characteristics as antecedents of intention to stay and mediating effects of work-family facilitation and family satisfaction among single mothers in Malaysia. *International Journal of Business and Social Science, 1*(3).
- Na-nan, K., & Pukkeeree, P. (2013). Influence of job characteristics and job satisfaction effect work adjustment for entering labour market of new graduates in Thailand. *International Journal of Business and Social Science, 4*(2), 95 - 103.
- Naithani, P. (2010). Overview of Work-Life Balance Discourse and Its Relevance in Current Economic Scenario. *Asian Social Science, 6*(6), 148 - 155.

- Naqvi, S. M. M. R., Isthiaq, M., Kanwal, N., & Ali, M. (2013). Impact of job autonomy on organisational commitment and job satisfaction: The moderating role of organizational culture in fast food sector of Pakistan. *International Journal of Business and Management*, 8 (17), 93 - 102.
- Nasarudin, A. M., & Hsia, K. L. (2008). The influence of support at work and home on work-family conflict: Does gender make a difference?. *Research and Practice in Human Resource Management*, 16(1), 18 – 38.
- Nasarudin, A. M., Ahmad, N. H., & Zainal, S. R. M. (2013). Comparing work-family conflict and facilitation among male and female entrepreneurs in Malaysia. *International Journal of Business and Society*, 14(1), 149 – 162.
- Naueret, R. (2011). *Worker Autonomy Can Lead to Greater Productivity, Satisfaction*. Retrived October 20<sup>th</sup>, 2013 from <http://psychcentral.com/news/2011/01/25/worker-autonomy-can-lead-to-greater-productivity-satisfaction/22885.html>
- Nawi, N. C., Ismail, M., Ibrahim, M. A. H., Raston, N. A., Zamzamin, Z. Z., & Jaini, A. (2016). Job satisfaction among academic and non-academic staff in public universities in Malaysia: A review. *International Journal of Business and Management*, 11(9), 148 – 153.
- Nelson, K. V., & Smith, A. P. (2016). Occupational stress, coping and mental health in Jamaican police officers. *Occupational Medicine*, 1- 4.
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology*, 81(4), 400 - 410.
- Ng, L-P., Kuan, L-S., & Cheng, W-H. (2016). Influence of work-family conflict and work-family positive spillover on health professionals' job satisfaction. *Business Management Dynamic*, 5(11), 1 – 15.
- Ng'ethe, J. M., Iravo, M. E., & Namusonge, G. S. (2012). Determinants of academic staff retention in public universities in Kenya: Empirical review. *International Journal of Humanities and Social Science*, 2 (13), 205 – 212.
- Nicklin, J. M., & McNall, L. A. (2013). Work-family enrichment, support, and satisfaction: A test of mediation. *European Journal of Work and Organisational Psychology*, 22(1), 67 – 77.
- Noon, M., & Blyton, P. (2002). *The Realities of Work*. Basingstoke, UK: Palgrave.

- Noor, K. M. (2011). Work-Life Balance and Intention to Leave among Academics in Malaysian Public Higher Education Institutions. *International Journal of Business and Social Science*, 2(11), 240 – 248.
- Noor, N. M., & Zainuddin, M. (2011). Emotional labour and burnout among female teachers: Work-family conflict as mediator. *Asian Journal of Social Psychology*, 14, 283 - 293.
- Nooraini, M., & Aminah, A. (2011). Work-family facilitation and family satisfaction as mediators in the relationship between job demands and intention to stay. *Asian Social Science*, 7(6), 142 – 153.
- Nooraini, M., Aminah, A., Jegak, U., & Khairuddin, I. (2010). Job characteristics as antecedents of intention to stay and mediating effects of work-family facilitation and family satisfaction among single mothers in Malaysia. *International Journal of Business and Social Science*, 1(3).
- Noordin, F., & Jusoff, K. (2009). Levels of job satisfaction amongst Malaysian academic staff. *Asian Social Sciences*, 5 (5), 122 - 128.
- Noordin, F., Othaman, R., Jais, I. R. M., & Sardi, J. (2012). Burnout, personality and social support: A case of Malaysian academics. *Proceeding in International Conference on Trade, Tourism and MSanagement*. 21-22 December. Bangkok, Thailand.
- Noraani, M., Aminah, A., Jegak, U., & Khairuddin, I. (2011b). Mediation effects of work-family factors on the relationship between dispositional characteristics and intention to stay among single mothers in Malaysia. *International Journal of Business and Social Science*, 2(15), 75 – 87.
- Noraini, M. N. (2004). Work-family conflict, work- and family-role salience, and women's well-being. *The Journal of Social Psychology*, 144(4), 389 – 406.
- Noraini, M. N., & Masyitah, Z. (2011a). Emotional labour and burnout among female teachers: Work–family conflict as mediator. *Asian Journal of Social Psychology*, 14(4), 283-293.
- Noteborn, G., Bohle-Carbonell, K., Dailey-Hebert, A., & Gijsselaers, W. (2012). The role of emotions and task significance in virtual education. *The Internet and Higher Education*, 15(3), 176 - 183.

- Nguyen, V. Q. (2015). Job Characteristics, Job embeddedness and turnover intention: The case of Vietnam. *Journal of International & Interdisciplinary Business Research*, 2(8), 96 – 106.
- Odle-Dusseau, H. N., Britt, T. W., & Greene-Shortridge, T. M. (2012). Organisational work-family resources as predictors of job performance and attitudes: The process of work-family conflict and enrichment. *Journal of Occupational Health Psychology*, 17(2), 28 – 40.
- OECD. (2011). *Doing better for families*. Retrieved October 15<sup>th</sup>, 2013 from <http://www.oecd.org/els/soc/doingbetterforfamilies.htm>
- Official Website Prime Minister Office of Malaysia (2013). “*Third ministerial meeting of the regional forum on environment and health in Southeast and east Asian countries*”. Retrieved October 15<sup>th</sup>, 2014 from <http://www.pmo.gov.my/>
- Ogbogu, C. O. (2013). Work-family role conflict among academic women in Nigerian public universities. *The 2013 WEI International Academic Conference Proceedings*. 19 – 24.
- Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: the future of job design research. *Journal of Organisational Behavior*, 31(23), 463 – 479.
- Omar, M. K., Mohd, I. H., & Ariffin, M. S. (2015). Workload, role conflict and work-life balance among employees of an enforcement agency in Malaysia, *International Journal of Business, Economics and Law*, 8(2), 52 - 57.
- Orkibi, H., & Brandt, Y. I. (2015). How positivity links with job satisfaction: Preliminary findings on the mediating role of work-life balance. *Europe's Journal of Psychology*, 406 – 418.
- Osakwe, R. N. (2014). Factors affecting motivation and job satisfaction of academic staff of Universities in South-South geopolitical zone of Nigeria. *International Education Studies*, 7(7), 43 – 51.
- Osarenren-Osaghae, R. I., Irabor, Q. O., & Olusi, F. I. (2014). The influence of academic freedom and university autonomy on the attitude to work by academic staff of public universities in Edo and Delta States of Nigeria. *Literacy Information and Computer Education Journal (LICEJ)*, 3(1), 1764 – 1772.



- Othman, N. H. (2004). Research activities in Malaysia from the perspectives of USM medical school: The reality and the strategy. *Malaysian Journal of Medical Sciences*, 11 (1), 1 – 8.
- Owence, C., Pinagase, T. G., & Mercy, M. M. (2014). Causes and effects of staff turnover in the academic development centre: A case of a historically black university in South Africa. *Mediterranean Journal of Social Sciences*, 5 (11), 69 – 76.
- Ozbag, G. K., & Ceyhun, G. C. (2014). The impact of job characteristics on burnout: The mediating role of job satisfaction. *International Journal of Academic Research Management (IJARM)*, 3(3), 291 - 309.
- Pan, B., Shen, X., Liu, L., Yang, Y., & Wang, W. (2015). Factors associated with job satisfaction among university teachers in Northeastern region of China: A Cross-Sectional Study. *Int. J. Environ. Res. Public Health*, 12, 12761 – 12775.
- Panatik, S. A., O'Driscoll, M. P., & Anderson, M. H. (2011). Job demands and work-related psychological responses among Malaysian technical workers: The moderating effects of self-efficacy. *Work & Stress*, 25(4), 355 - 370.
- Park, J. (2007). Work Stress and Job Performance. *Perspective: Statistics Canada*, 75, 1 – 17.
- Parr, C. (2015). *Best university workplace survey 2015: Result and analysis*. Retrieved 25<sup>th</sup> October 2016 from <https://www.timeshighereducation.com>
- Pedersen, D. E., & Minnotte, K. L. (2012). Self and spouse-reported work-family conflict and dual-earners' job satisfaction. *Marriage and Family Review*, 48(3), 272 – 292.
- Pee, L. G. (2011). The effects of job design on employees' knowledge contribution to electronic repositories. *Thirty Second International Conference on Information Sytem*, Shahgai: China. 1 - 20.
- Pekrun, R., Cusack, A., Murayama, K., Elliot, A. J., & Thomas, K. (2014). The power of anticipated feedback: Effects on students' achievement goals and achievement emotions. *Learning and Instruction*, 29, 115 – 124.
- Perrig-Chiello, P., Perrig, W. J., Uebelbacher, A., & St ähelin, H. B. (2006). Impact of physical and psychological resources on functional autonomy in old age. *Psychology, Health & Medicine*, 11(4), 470 – 482.

- Peterson, R., & Green, S. (2009). Families first: Keys to successful family functioning family roles. *Virginia Cooperative Extension*, 1 – 4.
- Pierce, J. L., & Dunham, R. B. (1978). An empirical demonstration of the convergence common macro and micro-organisation measures. *Academy of Management Journal*, 21, 410 – 418.
- Pisanti, R., Van der Doef, M., Maes, S., Violani, C. & Lazzari, D. (2016). Psychosocial Job Characteristics and Psychological Distress/Well-being: The Mediating Role of Personal Goal Facilitation. *Journal of Occupational Health*. 58, 36 – 46.
- Pleck, J. (1977). The Work-Family Role System. *Social Problems*. 24, 417 – 427.
- Pleck, J., Stains, G., & Lang, L. (1980). Conflict between work and family life. *Monthly Labour Review*, 3, 29 – 32.
- Poelmans, S. (2001). Work-family conflict as the mediator of the work stress-psychological health relationship. *Research Paper University of Navarra*. Spain: University of Navarra.
- Poelmans, S. (2007). Work-family conflict as a mediator of the work stress-mental health relationship. *Research Paper University of Navarra*, 443.
- Polit, D. F., Beck, C. T., & Hungler, B. P. (2001). *Essentials of nursing research: Methods, appraisal and utilization (5th edition)*. Philadelphia: Lippincott Williams & Wilkins.
- Potheroe, N. (2008). *Teacher efficacy: What is it and does it matter?*. Retrieved November 14<sup>th</sup>, 2015 from <http://www.naesp.org/resources>
- Prati, G., & Zani, B. (2015). A moderated multilevel study of work-to-family conflict empowerment, and turnover intentions. *Quality and Quantity*, 50(5), 2279 – 2292.
- Price, J., & Mueller, C. (1981). *Professional turnover, the case for nurses*. USA: Iowa State University Press.
- Proost, K., De Witte, H., De Witte, K., & Schereurs, B. (2010). Work-family conflict and facilitation: the combined influence of the job demand-control model and achievement striving. *European Journal of Work and Organisational Psychology*, 19(5), 615 – 628.

- PwC, (2009). *Managing Tomorrow's People: Where will you be in 2020?*. Retrieved October 11<sup>th</sup>, 2013 from <http://www.pwc.com/my/en/services/workforce-2020.jhtml>
- Quek, F. K., Low, Y. W., Azad, H. R., & Loh, S. C. (2001). Reliability and validity of the General Health Questionnaire (GHQ-12) among urological patients: A Malaysian study. *Psychiatry and Clinical Neurosciences*, 55, 509 – 513.
- Rabe, M., Giacomuzzi, S., & Nubling, M. (2012). Psychosocial workload and stress in the worker's representative. *BMC Public Health*, 12, 1 – 12.
- Rahman, T., Tabassum, A., & Jahan, K. (2015). Test of work-to-family and family-to-work models of conflict and satisfaction: An analysis of dual career couples in Bangladesh. *Canadian Journal of Family and Youth*, 7(1), 87 - 113.
- Ramli, A. A., Salahudin, S. N., Zainol, Z., & Suandi, T. (2014). Turnover intention among academics: A case study of private higher learning education in Klang Valley. *Pertanika J. Soc. Sci. & Human*, 22 (1), 321 – 334.
- Ramli, N., Zainol, Z. A., Aziz, J. A., Ali, H. M., Hassim, J., Hussien, W. M. H. W., Markn, R., Dahalan, W. S. A. W., & Yaakob, N. I. (2013). The concept of Research University: The implementation in the context of Malaysian University system. *Asian Social Sciences*, 9 (5), 307 – 317.
- Rantanen, J., Kinnune, U., Mauno, S., & Tillemann, K. (2011). *Introducing theoretical approaches to work-life balance and testing a new typology among professionals*. In Kaiser, S., Ringlstetter, M. J., Eikhor, D. R., Pina e Cuunha, M. *Creating Balance? International Perspectives on the Work-Life Integration of Professionals*. New York: Springer.
- Razak, M. I. M., Yusof, N. M., Latif, M. M. R. H. A., & Ismail, I. (2014). The impact of work stress towards work-life balance in Malaysia. *International Journal of Economics, Commerce and Management*, 2(11), 1 – 16.
- Renn, R. W., & Vandenberg, R. J. (1995). Characteristics model research the critical psychological states: An underrepresented component in job. *Journal of Management*, 21(2), 279 – 303.
- Rezvanfar, A., Fadakar, F., Hashemi, S. M., & Khoshnudifar, Z. (2012). Investigating link between job characteristics and job satisfaction of extension workers. *African Journal of Agriculture*, 7(5), 669 - 675.

- Richardson, K. M., & Thompson, C. A. (2012). High tech tethers and work-family conflict: a conservation of resources approach. *Engineering Management Research*, 1(1), 29 – 43.
- Rittippant, N., Tongkong, J., Thamma-Apiroam, S., & Mingariyamark, S. (2011). Work-family Conflict: An investigation of health professionals in Thailand. *IEPDR*, 8, 64 – 68.
- Rock, D., Havis, J., & Jones, B. (2014, August 8<sup>th</sup>). Kill your performance ratings. *Strategy + Business*. Retrieved August 8<sup>th</sup>, 2014, from <http://www.strategy-business.com>
- Ruppel, F., Liersch, S., & Walter, U. (2015). The influence of psychological well-being on academic success. *J Public Health*, 23, 15 – 24.
- Russo, M., & Buonocore, F. (2012). The relationship between work-family enrichment and nurse turnover. *Journal of Managerial Psychology*, 27(3), 216 – 236.
- Saba, I. (2011). Measuring the job satisfaction level of the academic staff in Bahawalpur colleges. *International Journal of Academic Research in Business and Social Sciences*, 1 (1).
- Sadeghi, A., & Pihie, Z. A. L. (2014). The role of transformational leadership style in enhancing lecturers' job satisfaction. *International Journal of Business and Social Science*. 4(8), 264 - 271.
- Sadler, R. (1989). Formative assessment and the design of instructional system. *Instructional Science*, 1, 119-144.
- Safaria, T., Othman, A., & Wahab, M. N. A. (2012). Gender, academic rank, employment status, university type and job stress among academic staff: A comparison between Malaysia and Indonesia Context. *International Journal of Humanities and Social Sciences*, 18(1), 250 – 260.
- Safaria, T. (2013). Job stress among academic staff: A cross-cultural qualitative study. *International Journal of Public Health Science*, 2(2), 43 - 58.
- Salami, S. O. (2011). Job Stress and Burnout among Lecturers: Personality and Social Support as Moderators. *Asian Social Science*. 7 (5), 11 – 121.

- Saleem, A., & Abbasi, A. S. (2015). Impact of life job domain characteristics on work-life balance of textile employees in Pakistan. *Sci. Int. (Lahore)*, 27(3), 2409 – 2416.
- Salehi, P., Rasdi, R. M., & Ahmad, A. (2015). Personal and environmental predictors of academics' work-to-family enrichment at research universities. *The Asia-Pacific Education Researcher*, 24(2), 379 – 388.
- Salmi, J. (2009). *The challenge of establishing world-class universities*. Washington DC: The World Bank.
- Sam, R., Zain, A. N. M., Jamil, H., Souriyavongsa, T., & Quyen, L. T. D. (2013). Academic adjustment issues in Malaysian Research University: The case of Cambodian, Loation, Burmese, and Vietnamese postgraduate students' experiences. *International Education Studies*, 6 (9), 13 – 22.
- Sánchez-López, M. P., & Dresch, V. (2008). The 12-Item general health questionnaire (GHQ-12): Reliability, external validity and factor structure in the Spanish population. *Psicothema*, 20(4), 839 – 843.
- Sanderson, A., Phua, V., & Herda, D. (2000). *The American faculty poll*. TIAA-CREF, New York: National Opinion.
- Santhapparaj, A. S., & Alam, S. S. (2005). Job satisfaction among academic staff in private universities in Malaysia. *Journal of Social Sciences*, 1 (2), 72 – 76.
- Saragih, S. (2011). The effects of job autonomy on work outcomes. *International Research Journal of Business Studies*, 4(3), 203 - 214.
- Sarwar, F., Waqas, M., & Imran, A. (2014). Work-family facilitation as predictor of job satisfaction and organisational commitment: A study of university in Pakistan. *World Applied Sciences Journal*, 32 (1), 146 – 152.
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14(3), 204 – 220.
- Schieman, S., & Glavin, P. (2011). Education and work-family conflict: Explanations, contingencies and psychological health consequences. *Social Forces*, 89(4), 1341 – 1362.
- Schuurman, J. (2011). *Job characteristics, health and satisfaction: Can satisfaction with social life overcome negative job traits?*. Master Thesis, Erasmus University, Rotterdam.

- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. causal and control beliefs* (pp. 35-37). Windsor, England: Nfer-Nelson.
- Sekaran, U. (2003). *Research methods for business (4th ed.)*. Hoboken, NJ John: Wiley & Sons.
- Shaffer, M. A., Joplin, J. R. W., & Hsu, Yu-S. (2011). Expanding the boundaries of work-family research: A review and agenda for future research. *International Journal of Cross Cultural Management*, 11 (2), 221 – 268.
- Shah, I. A., Fakhir, Z., Ahmad, M. S., & Zaman, K. (2010). Measuring push, pull and personal factors affecting turnover intention: A case of university teachers in Pakistan. *Review of Economic and Business Studies*, 3(1), 167 – 192.
- Shahzad, K., Rehman, U., Shad, I., Gul, A., & Khan, M. A. (2011). Work-life policies and job stress as determinants of turnover intentions of customer service representatives in Pakistan. *European Journal of Social Sciences*, 19 (3), 403 - 411.
- Sharp, J. G., Hemmings, B., Kay, R., & Callinan, C. (2012). An application of the revised 'lecturer self-efficacy questionnaire': An evidence-based route for initiating transformational change. *Journal of Further and Higher Education*, 37(5), 643 - 674.
- Shaufeli, W. B., Bakker, A. B., Van der Heijden, F. M. M. A., & Prinngs, J. T. (2009). Workholism, burnout and well-being among junior doctors: The Mediating role of role conflict. *Work & Stress*, 23 (2), 155 – 172.
- Shin, D., & Johnson, D. (1978). avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5(1), 475 – 492.
- Shin, J. C. & Jung, J. (2014). Academics job satisfaction and job stress across countries in the changing academic environment. *Journal Higher Education*, 67, 603 - 620.
- Shukri, M. (2015). The relationship of work-family conflict and socio cognitive variables to healthy eating in Malaysia. *Social Sciences and Humanities*, 23 (2), 339 – 354.

- Shyman, E. (2011). Examining mutual elements of the job strain model and the effort—reward imbalance model among special education staff in the USA. *Educational Management Administration & Leadership*, 39 (3), 349 -363.
- Sidani, Y. M., & Al Hakim, Z. T. (2012). Work-family conflicts and job attitudes of single women: A developing country perspective. *International Journal of Human Resource Managemen*, 23 (7), 1376-1393.
- Sidek, S., Dora, M. T., Kudus, N., Hassan, M. A., Arif, S., Mohamed, S., Bidin, N. A., & Idris, M. F. M. (2015). Achieving excellence in academic work practices: The experience of Malaysian distinguished Professors. *Asian Social Sciences*, 11 (17), 83 – 89.
- Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological Review*, 39 (4), 567 – 578.
- Silman, F. (2014). Work-related basic need satisfaction as a predictor of work engagement among academic staff in Turkey. *South African Journal of Education*, 34(3), 1 – 5.
- Siti Aisyah, P. (2010). *Impact of work design on psychological work reactions and job performance among technical workers: A longitudinal study in Malaysia*, PhD thesis. University of Waikato, Hamilton, New Zealand.
- Siti Aisyah, P., Siti Khadijah, Z. B., Azizah, R. & Rosman, M. Y. (2011a). Work-family conflict and work-related attitude: The mediating effects of stress reactions. *International Journal of Social Sciences and Humanity Studies*, 4(1), 377 – 387.
- Siti Aisyah, P., Siti Khadijah, Z. B., Rajab, Hamidah, A. R., & Ishak, M.D. (2011b). The impact of work family conflict on psychological health among school teachers in Malaysia. *Procedia - Social and Behavioral Sciences*, 29, 1500 – 1507.
- Siti Aisyah, P., Azizah, R., Roziana, A., Ishak, M. S., Hamidah, R., & Siti Khadijah, Z. B. (2012a). Impact of work-related stress on well-being among academicians in Malaysian research university. *IEPDR*, 30, 37 – 41.
- Siti Aisyah, P., Azizah, R., Ishak, M. S., Hamidah, R., Yusoff, M. D., & Siti Khadijah, Z. B. (2012b). Work-family conflict, stress and psychological strain in higher education. *IEPDR*, 30, 67 - 71.

- Siu, O-L., Lu, J-F., Brough, P., Lu, C-Q, Bakker, A. B., Kalliath, T., & Shi, K. (2010). Role resources and work–family enrichment: The role of work engagement. *Journal of Vocational Behavior*, 77(3), 470 – 480.
- Smith, T. L., Josh, T., Anthony, D., & David K. (2011). Reforming regulation of research universities. *Issues in Science and Technology*, 27(4).
- Spector, P. E. (1986). Perceived control by employee: A meta analysis of studies concerning autonomy and participation at work. *Human Relations*, 39(11), 1005 - 1016.
- Srivastava, U. R., & Singh, M. (2013). Linking job characteristics and mental health among middle level Indian managers: Testing the mediating role of psychological empowerment. *Psychol Stud*, 58(2), 18 - 200.
- St-Amour, N., Laverdure, J., Devault, A., & Manseau, S. (2007). *The difficulty of balancing work and family life: Impact on the physical and psychological health of Quebec families*. Du Quebec: Institut National De Sante
- Stets , S. T., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, 63(3), 224-237.
- Steyn, R., & Vawda, N. (2014). Job characteristics: Their relationship to job satisfaction, stress and depression. *J Psychol Afr*, 24(3), 281-284.
- Stoddard, M., & Madsen, S. R. (2007). Toward an understanding of the link between work-family enrichment and individual health. *Institute of Behavioral and Applied Management*, 1 – 15.
- Stone, W., & Hughes, J. (2000). What roles for social in family. *Family Matters*, 56(21), 21 – 27.
- Streiner, D. L. (2003). Being inconsistent about consistency: When coefficient alpha does and doesn't matter. *Journal of Personality Assessment*, 80 (3), 217 – 222.
- Stromquist, N. P., Gil-Anton, M., Balbachevsky, E., Mabokela, R., Smolentseva, A., & Colatrella, C. (2007) 'The Academic Profession in the Globalization Age: Key Trends, Challenges and Possibilities', in P.G. Altbach and P.M. Peterson (eds.) *Higher Education in the New Century: Global Challenges and Innovative Ideas*, Rotterdam: Sense Publishers.



- Sushil, S. (2014). Role of job enrichment and job enlargement in work-life balance. *Global Journal of Finance and Management*, 6(3), 239 – 244.
- Sveningsson, S., & Alvesson, M. (2003). Managing managerial identities: Organisational fragmentation, discourse and identity struggle. *Human Relations*, 56(10), 1163 – 1193.
- Swhee-Fung, F., Aminah, A., & Zoharah, O. (2012). Work-Family Enrichment: It's Mediating Role in the Relationships between Dispositional Factors and Job Satisfaction. *International Journal of Academic Research in Business & Social*, 2 (11), 73.
- Symoens, S., & Bracke, P. (2015). Work-family conflict and psychological health in newlywed and recently cohabiting couples: A couple perspectives. *Health Sociology Review*, 24(1), 48 – 63.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics (3rd ed.)*. New York: HarperCollins.
- Tai, F-M., Chuang, P-O. (2014). Job satisfaction of university staff. *The Journal of Human Resources and Adult Learning*, 10(1), 51 - 64.
- Takawira, N., Xoetzea, M., & Schreuder, D. (2014). Job embeddedness, work engagement and turnover intention of staff in higher education institution: An exploratory study. *SA Journal of Human Resource Management*, 12 (1), 1- 10.
- Tang, S. W., Siu, O. L., & Cheung, F. (2012). A study of work-family enrichment among chinese employees: The mediating role between work support and job satisfaction. *Applied Psychology*, 63(1), 130 – 150.
- Taylor, B. L., Delcampo, R. G., & Blancero, D. M. (2009). Work-family conflict/facilitation and the role of workplace supports for US hispanic professionals. *Journal of Organisational Behavior*, 30, 643 – 664.
- Tement, S., & Chirstian, K. (2013). Does Trait Affectivity Predict Work-Enrichment Beyond Job Characteristics?. *The Journal of Psychology*, 147(2), 197 – 216.
- Tement, S., & Korunka, C. (2015). The moderating impact of types of caregiving on job demands, resources, and their relation to work-to-family conflict and enrichment. *Journal of Family Issues*, 36, 31 – 55.

- Thakur, A., & Kumar, N. (2015). The effect of perceived organisational support, role related aspects and work involvement on work-life balance: Self-efficacy as a moderator. *International Journal of Scientific and Research Publications*, 5(1), 1 – 8.
- Tharmalingam, S. D., & Bhatti, M. A. (2014). Work-family conflict: An investigation on job involvement, role ambiguity and job demand: Moderated by social Support. *Journal of Human Resource Management*, 2 (3), 52 – 62.
- Thibaut, J. W., & Kelley, H. H. (1959). The social psychology of groups. *New York: John Wiley & Sons*.
- Tiedje, L. B., Wortman, C. B., Downey, G., Emmons, C., Biernat, M., & Lang, R. (1990). Women with multiple roles: Role-compatibility perceptions, satisfaction and mental health. *Journal of Marriage and the Family*, 52, 63 – 72.
- Tiegs, R. B., Tetrick, L. E., & Fried, Y. (1992). Growth need strength and context satisfaction as moderators of the relations of the job characteristics model. *Journal of Management*, 18(3), 575 – 593.
- Tori, L. C., & Hammer, L. B. (2013). *Work-family enrichment: A systematic review of antecedents, outcomes, and mechanisms*. In A. B. Bakker (Ed.), *Advances in positive organisational psychology*,(pp.303-328). Emerald Group Publishing Limited
- Turban, D. B., & Greening, D. W. (1997). Corporate social performance and organisational attractiveness to prospective employees. *Academy of Management Journal*, 40, 658 - 672.
- Turliuc, M. N., & Bluiga, D. (2014). Job and family satisfaction and work-family enhancement mediating processes. *Procedia-Social and Behavioral Sciences*. 159, 115 – 119.
- Tuttle, R., & Garr, M.(2009). Self-employment, work-family fit and psychological health among female workers. *Journal of Family and Economic Issues*, 30, 282 – 292.
- Van der Bijl, J. J., & Shortridge-Baggett, L. M. (2002). *The theory and measurement of the self-efficacy construct*. In E. A. Lentz & L. M. Shortridge-Baggett

- (Eds.), *Self-efficacy in nursing: Research and measurement perspectives* (pp. 9-28). New York: Springer.
- Vercruyssen, A., & Van de Putte, B. (2013). Work–family conflict and stress: Indications of the distinctiveness of role combination stress for Belgian working mothers. *Community, Work & Family*, 16(4), 351 – 371.
- Vieira, J. M., Lopez, F. G., & Matos, P. M. (2013). Further validation of work–family conflict and work–family enrichment scales among Portuguese working parents. *Journal of Career Assessment*, 22(2), 329 – 344.
- Vorster, M., Buys, M.A., Olckers, C., & Schaap, P. (2005). The construct equivalence of the job diagnostic survey for diverse South African cultural groups. *Journal of Industrial Psychology. Health & Medicine*, 31(1), 31 – 37.
- Voydanoff, P. (2000). Social Integration, Work-Family Conflict and Facilitation, and Job and Marital Quality. *Journal of Marriage and Family*, 67, 666 – 679.
- Voydanoff, P. (2005). The differential salience of family and community demands and resources for family-to-work conflict and facilitation. *Journal of Family and Economic Issues*, 26(3), 395 – 417.
- Wall, T. D., Clegg, C. W., & Jackson, P. R. (1978). An evaluation of the job characteristics model. *Journal of Occupational Psychology*, 51(2), 183 - 196.
- Wan Edura, W. R., Mohamad Shahari, N., Azura, O., & Izhairi, I. (2012). Work/family conflict: The link between self-esteem and satisfaction outcomes. *Procedia - Social and Behavioral Sciences*, 65, 564 – 569.
- Wan Endura, W. R., Mohd Sahari, N., Azura, O., & Izahairi, I. (2011). Self-esteem, work-family enrichment and life satisfaction among married nurses in health care service. *International Journal of Trade, Economics and Finance*, 2(5), 424 – 429.
- Wang, M., Liao, H., Zhan, Y., & Sh, J. (2011). Daily customer mistreatment and employee sabotage against customer: Examining emotion and resource perspectives. *Academy of Management Journal*, 54(2), 312 - 334.
- Warr, P. (1994). A Conceptual Framework for the Study of Work and Mental Health. *Work & Stress*, 8 (2), 84 - 97.

- Wayne, J. H., Grzywacz, J. G., Carlson, D. S., & Kacmar, K. M. (2007). Work–family facilitation: A theoretical explanation and model of primary antecedents and consequences. *Human Resource Management Review*, 17(1), 63 – 76.
- Wayne, J. H., Randel, A. E., & Stevens, J. (2006). The role of identity and work–family support in work–family enrichment and its work-related consequences. *Journal of Vocational Behavior*, 69(3), 445 – 461.
- Weer, C. H., Greenhaus, J. H., & Linnehan, F. (2010). Commitment to nonwork roles and job performance: enrichment and conflict perspectives. *Journal of Vocational Behavior*, 76(2), 306 - 316.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). *Structural equation models with non-normal variables: Problems and remedies*. In RH Hoyle (Ed.). *Structural equation modelling: Concepts, issues and applications* (pg. 56-75). Newbery Park, CA: Sage.
- White, M., Hill, S., McGovern, P., Mills, C., & Smeaton, D. (2003). High-performance' management practices, working hours and work–life balance. *British Journal of Industrial Relations*, 41(2), 175 – 195.
- Willis Towers Watson (2015, January 9). Employee retention remains a key challenge in malaysia: claim supervisors face challenges in making time to perform their most important task. *Willis Towers Watson*. Retrieved 1<sup>st</sup> November 2016 from <https://www.towerswatson.com>
- Winefield, A. H., & Jarrett, R. (2001). Occupational stress in university staff. *International Journal of Stress Management*, 8(4), 285 – 298.
- Winefield, H. R., Boyd, C., & Winefield, A. H. (2014). Work-family conflict and well-being in university employees. *The Journal of Psychology*, 148 (6), 683 - 697.
- Winne, P. H., & Butler, D. L. (1994). *Student cognition in learning from teaching*. In T. Husen & T. Postlewaite (Eds.). *International Encyclopedia of Education*. Oxford, UK: Pergamon.
- Witt, L. A., & Carlson, D. S. (2006). The work–family interference on job performance: Moderating effects of conscientiousness and perceived organisational support. *Journal of Occupational and Health Psychology*, 11(4), 343 - 357.

- Wolfram, H.-J., & Gratton, L. (2014). Spillover between work and home, role importance and life satisfaction. *British Journal of Management*, 25(1), 77 - 79.
- Woolfolk, A. E., Rosoff, B., & Hoy, W. K. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6, 137–148.
- World Health Organisation (2000). *Mental health and work: Impact, issues and good practices*. Switzerland: International Labour Organisation.
- World Health Organisation (2011). *Psychological health: A state of well-being*. Retrieved on September 10<sup>th</sup>, 2012 from [http://www.who.int/features/factfiles/mental\\_health/en/](http://www.who.int/features/factfiles/mental_health/en/)
- World Health Organisation. (1997). WHOQOL measuring quality of life. *Geneva: World Health Organisation*.
- World Health Organisation. (2013, May 27<sup>th</sup>). *Comprehensive psychological health action plan 2013-2020* Retrieved 23th January 2015 from Google.
- Xiaobing Z., & Shiyun Z. (2011). The effects of work-family enrichment on knowledge workers' job burnout and psychological health. *Management Science and Industrial Engineering (MSIE) 2011 International Conference*. 8-11 January. Harbin, China.
- Yadav, S. (2015). Work-family conflict and psychological health of women in banking and teaching profession. *Indian Journal of Health and Wellbeing*, 6(3), 277 – 281.
- Yanchus, N. J., Periard, D., Moore, S. C., Carle, A. C., & Osatuke, K. (2015). Predictors of job satisfaction and turnover intention in VHA mental health employees: A comparison between psychiatrists, psychologists, social workers and mental health nurses. *Management, Leadership & Governance*, 39 (3), 219 -244.
- Yeager, S. J., Rabin, J., & Vocino, T. (1985). Feedback and administrative behavior in the public sector. *Public Administration Review*, 45(5), 570 – 575.
- Yeo, G. B., & Neal, A. (2013). Revisiting the functional properties of self-efficacy: A dynamic perspective. *Journal of Management*, 39 (6), 1385-1396.

- Yiengprugsawan, V., Lazzarino, A. I., Steptoe, A., Seubsman, S., & Sleigh, A. (2015). Psychosocial job characteristics, wealth, and culture differential effects on mental health in UK and Thailand. *Globalisation and Health, 11*(31), 1 - 8.
- Yin, R. K. (1989). *Case study research: Design and methods (Vol. 5)*. London: SAGE.
- Young, M., Schieman, S., & Milkie, A. A. (2014). Spouse's work-to-family conflict, family stressors, and psychological health among dual-earner mothers and fathers. *Society and Psychological Health, 4*(1), 1 – 20.
- Zabrodska, K., Mudrak, J., Kveton, P., Blatny, M., Machovcova, K., & Solcova, I. (2014). Work environment and well-being of academic faculty in CZECH universities: A pilot study. *Studia Paedagogica, 19*(4), 122 – 144.
- Zainuddin, N., Mad, N. N. N., & Johari, H. (2015). Turnover intention (job characteristics perspective) among electronics sub-sector employees in Malaysia. *Journal of Technology and Operations Management, 10* (2), 106 – 119.
- Zakerian, S. A., Asghari, M., Rahmani, A., Ahmadnezhad, I., Kangavari, M., Gholizadeh, Y., & Abbassinia, M. (2014). Job characteristics model and quality of work life: a case study of an automobile parts manufacturing plant. *Advances in Environmental Biology, 8* (7), 2277 - 2283.
- Zanariah, I., & Mohamad, S. N. (2012). Teachers' work-family conflict in Malaysia: Scale validation. *International Journal of Business and Social Research, 2*(5), 122 – 132.
- Zhang, J., & Liu, Y. (2011). Antecedents of work-family conflict: Review and prospect. *International Journal of Business and Management, 6* (1).
- Zhang, M., Griffeth, R. W., & Fried, D. D. (2012). Work-family conflict and individual consequences. *Journal of Managerial Psychology, 7*(7), 696 – 713.
- Zhao, X., & Mattila, A. S. (2013). Examining the spillover effect of frontline employees' work-family conflict on their affective work attitudes and customer satisfaction. *International Journal of Hospitality Management, 33*, 310 – 315.

- Zimmerman, K. L., & Hammer, L. B. (2010). Work-family positive spillover. *Contemporary Occupational Health Psychology*. UK: Wiley-Blackwell.
- Zolnierczyk-Zreda, D. (2012). Work-time control and mental health of workers working long hours: The role of gender and age. *International Journal of Occupational Safety and Ergonomics*, 18 (3), 311 – 320.
- Zulfiqar, A., Khan, N. U., Afiq, O., & Khan, S. (2013). Evaluating the relationship between work-family conflict and job satisfaction (A survey of nursing staff in public sector hospitals of Bhakkar District). *Gomal University Journal of Research*, 29(2), 128 – 135.