

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

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

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

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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.

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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

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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 was 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 20th 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.

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