

A Critical Review on the Work-Life Balance Factors for Women Engineers

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ABSTRACT

Work-life balance (WLB) describes a satisfying, healthy, and productive life that satisfies both work and life demands. This critical review explores the balance between work and life for the purpose of obtaining in-depth understanding on the issues or factors that contribute toward employees' satisfaction and motivation to develop their engineering career rather than resorting to resignation. Numerous studies were selected to conduct comparative investigation. The comparative research method was used to analyze the data. The results derived from empirical studies on the work-life balance among female employees – found that there are four (4) main factors that contribute toward the work-life balance among married female employees, namely childcare, flexible career, parental leave, and social support. Such findings serve as a guideline for future researchers to expand and widen their investigation on career among female engineers. This study also discusses on the relevant theories that can be made as point of references for future studies to explain the WLB among female engineers across the various industries.

Keywords: Female engineers, work-life balance, work-family conflict, flexible careers, Malaysia

INTRODUCTION

Many modern-day workers struggle to balance their work and life demands. Life balance is the policy or procedure established by varied organizations with the aim of enabling employees to perform their duties efficiently. The focus of the life balance policy is to provide flexibility for employees in dealing with personal issues or problems (Sandhya, 2012). In addition, life balance is also described as a juggle between employees' work and their personal life that can make them feel happy to continue working (Sundaresan, 2014). According to Meenakshi et al. (2013), life balance exists based on individuals' perception where there is a mutual compatibility in both work and non-work activities as well as encouraging their growth based on the priorities in their life. Therefore, life balance is considered as a solution in helping employees to equate their work and non-work-related commitments for them to remain committed in their careers.

There are various definitions that attempt to describe life balance. Lyness and Judiesch (2014) regard life balance as a satisfying, healthy, and productive life that integrates work as well as other life activities. Whereas, Yadav and Yadav (2014) explain that life balance is a state of equilibrium where the demands for one's work and personal life are mutual, also known as the work-life balance (WLB). Furthermore, the concept of work-life balance also reflects the existence and maintenance of a well-supported work environment as well as enabling employees to have a balance between work and personal responsibilities in order to strengthen their loyalty and productivity (Yadav & Dabhade, 2014). In other words, work-life balance is a relationship of equality and compatibility between work and personal life that can influence the interest, motivation, and performance of employees to continue working.

Life imbalances can create internal conflicts including stress. Work-family conflict is a form of role conflict in which the pressure of conducting the responsibilities in the employment and family domains clash (Apperson et al., 2012). Such conflict occurs when a certain role in one domain interferes with a role in another domain. In this regard, the duties and responsibilities from the work or household roles that interfere with family life or work demands make it difficult for individuals to fulfill their responsibilities (Mani, 2013). The life balance conflict places significant pressure for the affected

individuals to live their life and balance their daily responsibilities as they need to simultaneously play their roles as an employee as well as a member of the family such as a wife, mother, or child.

PROBLEM STATEMENT

Women are often associated with the work-life issue upon marriage. In Malaysia, substantial number of working women tend to leave the sector despite the eligibility for promotion due to their personal commitment in marriage (Ministry of Women, Family and Community Development, 2014). Mani (2013) stated that household and family responsibilities serve as the major factor for female engineers to remain unemployed. Besides, there are female engineering graduates who join the education sector as a teacher instead of being an engineering practitioner (Balakrishnan, Low & Azman, 2014) or resort to work that can be administered from home (e.g., online business) in order to satisfy the family needs and responsibilities (Imbaya, 2012). Such change in profession results in the shortage of female employees in the engineering sector as well as the lack of female mentors (Abalkhail & Allan, 2015).

It is generally acknowledged that a woman holds a major responsibility to the household as both a wife and a mother and this often influences her decision of choosing between career and family. Abalkhail and Allan (2015) in their study found that female engineers prone to resign after marriage as the responsibilities of taking care of the family overpowers their career particularly when it involves the interest of their children. In addition, Hibel, Trumbell, and Mercado (2014) stated that female engineers with children below six years old are often difficult to achieve job satisfaction in their work. Hence, it is critical to review the relevant literature and studies related to work-life balance for women engineers. However, the findings of this study could be limited based on the analysis of the data reported by previous studies.

THEORITICAL FRAMEWORK

The increase of female workers across the world justifies the need to construct a career model for women in accordance to the current modernization. The 20th century career model is suitable with the career lifestyle that begins as early as 7.00 in the morning until late at night, inflexibility working hours, and the absence of work-life balance between career and marriage life (Mainiero & Sullivan, 2006). Mainiero and Sullivan have proposed the Kaleidoscope Career Model (KCM) for organizations to map the current situation of both male and female employees for them to remain working at the respective organizations. Aligned with the changes in the current working era, Mainiero and Sullivan (2006) asserted that the KCM model could explain how employees, particularly women, think and evaluate their career choice as they face the conflicts in their career.

KCM is a career model that is relatively new. It was developed based on the empirical data from more than 3,000 professionals in the United States of America (Mainiero & Sullivan, 2006; Sullivan, 2011). KCM could be used to explain how individuals alter the trend in their careers by manipulating various aspects of their life. Individuals evaluate choices through the kaleidoscope lens to determine the importance between career demands, challenges, and opportunities (to be satisfied) and their relationship with personal values and interest. KCM comprised three main elements:

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| a. | Authenticity: | The internal value of individuals (working intentions) is aligned with their external behavior as well as the organizational values of the employers. |
| b. | Balance: | Every individual must strive to achieve a balance between work and non-work (such as families, friends, relatives, and personal interests). |
| c. | Challenges: | The hardship faced by individuals in their career development. |

These elements move in a parallel motion along with the workers' active working life. The decision to continue working depends on what is happening around one's life. As a woman who is constantly looking for suitability in life, her original intentions toward her career can be reflected as a motivation to continue working. The Kaleidoscope Career Model is a useful framework to explain women's career development. Numerous empirical studies have validated the model and its three parameters – authenticity, balance, and challenges – the elements that explain the issues faced by women in their career. The model is introduced as a tool to explain how women attempt to operate rationally in life and why they quit in the midst of their career. In addition, this review shall identify other critical factors that drive women to end their careers.

WORK-LIFE BALANCE FACTORS

The difficulty to attract female graduates into the field of engineering is still significant along with the perception that questions the ability for female engineers to compete with their male counterparts. According to Chawada et al. (2012), gender discrimination exists in the workplace where women faced challenges to climb career ladder as engineers. Furthermore, de Celis et al. (2017) asserted that despite the significant number of female graduates from numerous higher education institutions, only a small portion are successful in climbing the career ladder and sit at the top positions in the engineering industry.

Besides the negative perception within the industry itself, career pattern also plays a prominent role in determining women participation in the engineering career. In the technical industry, engineers involved with the implementation of a project are expected to conduct technical and administrative works (Kumari, Bahuguna, & Pandey, 2012). Hence, the technical industry is known for its demanding and extended working hours that often result in a conflict between meeting job responsibilities and finding enough time to enjoy life after work (Malone, 2013). Worrall (2012) argued that the challenges in career were more prominent among female engineers with families as their maternal responsibilities often clash with the balance between their personal and professional goals (Watts, 2017). Such multiple roles result in conflicting priorities and subsequently create negative psychology within the affected parties (Apperson et al., 2012). Therefore, the factors that influence work-life balance required by female engineers with families should be investigated. Previous studies have suggested four main factors that contribute toward a balance between career and life among female engineers.

Childcare

Married women are often associated with the handling of their children during their working hours. Childcare is a right for women, however it is difficult when such responsibility conflicts with their career (Ibem et al., 2011). Childcare, or finding a suitable day care, is never easy especially with the rise of child abuse cases nowadays. As a result, working mothers tend to spend a significant amount of time and effort to consider various childcare related factors such as the distance between the day care and their workplace, the condition and surrounding environment of the day care, and the carer's competency in taking care of their children (Ro, 2011). This indicates that women's focus are significantly affected by the childcare factor.

Several studies have indicated that the childcare issue is mostly prominent among partners with small children. Luppi and Arpino (2016) reported that most female engineers with children of 18 years old or below as well as mothers with part time careers have to alternate their time between career and household chores as opposed to their male counterparts. In this regard, 40% of mothers who work as engineers are negatively affected by the childcare issue as compared to male engineers with families (Schochet, 2018). Furthermore, more than half of parents who work as engineers admitted that childcare is the biggest challenge for them to achieve work-life balance (Luppi & Arpino, 2016). Such issue often arises among parents with small children as it requires their effort and consideration on various factors such as attention, childcare area and environment, and competent carers.

The suitability of the day care is among the main factors considered by most parents before deciding to put their children under the care and responsibility of an outsider. In addition, female engineers also need to consider factors such as the childcare hour due to their extensive working hours. According to Ro (2011), the absence of flexible childcare hour will make it difficult for mothers within

the engineering industry to manage their children to and fro the day care. Moreover, Madara and Cherotich (2016) believed that the day care and workplace distance may negatively affect mothers who work as engineers, particularly when it involves the need to breastfeed their new-borns. Several studies have indicated significant pressure experienced by female engineers who were squeezed between their career and maternal responsibilities (Hibel et al., 2014). Thus, most female engineers believed that the availability of day care facilities at their workplace shall serve as a rectification to the issue – reducing the percentage of absentees, and motivating female engineers to work extra time.

The focus on childcare may limit the female engineers' opportunity to work outside the comfort of their home. According to Samman et al. (2016), a day care that is located far from their workplace may potentially limit female employees to focus on their children. Hence, organizations that prepare a suitable and conducive day care shall provide positive influence to the work-life balance particularly among female employees as well as producing female employees who are productive and competitive in the labor market (Skafida, 2012). Thus, the benefits of having day care facilities that are within or nearby to the workplace is evident.

Flexible Career

As suggested by its name, flexible career refers to a career that allows a certain degree of adaptability according to the current needs. Flexible career is commonly defined as having the privilege to conduct several adjustments to one's job such as the number of working hours, work scheduling, working location, part time working, or sharing responsibilities. The main categories of flexible career include flexible schedule and location as it allows the work-life balance. Flexible career is one of the efficient solutions for an organization to promote work-life balance among its employees. Hussain et al. (2014) explains that the concept of work-life balance refers to the ability of the employees to divide their time to mutually satisfy both work and life responsibilities, be more productive, and subsequently achieve job satisfaction.

Furthermore, employers hold the duty of care in protecting their employees from risks related to health and safety. According to Hussain et al. (2014), a significant number of engineers were reported to experience extreme difficulty to achieve work-life balance due to the absence of flexible working hour. The study by Kaewsri and Tongthong (2014) showed that there were cases where female engineers who experienced emotional stress due to the lack of work time flexibility. It is also suggested that the majority of female engineers would be more focused and loyal if they were provided with the option of flexible working schedule. Moreover, de Celis et al. (2017) reported that flexible career would improve the level of health and well-being among engineers by reducing the percentage of absentees, enhancing participation at work, and thus, increasing their productivity. So, it is critical for employers to provide opportunities for their workers to have flexible work schedule.

Parental Leave

Leave refers to an employee's absence at any time and on any reasons such as medical leave, emergency leave, maternity leave, and leave to take care of sick family members. Nevertheless, the parental leave is the most desired and prominent particularly among female engineers (Solanki, 2013). This is because parental leave allows parents to manage their children without affecting their career which subsequently promotes work-life balance. A study by West (2015) found that a company policy that was family friendly and offered parental leave have contributed toward its success due to the high motivation and loyalty among the employees.

Parental leave also includes the availability of maternity leave that is often a privilege for working mothers. The Australian national data consistently showed that any forms of paid or unpaid parental leave, mainly maternity leave, have motivated female engineers to return to work after delivery (Boushey & Glynn, 2012). The amount of maternity leave for female engineers often relies on the consideration of the respective company and it may be extended depending on the employees' health condition (Wassell, 2015). West (2015) found that female engineers tended to be more motivated when family related leaves were easy to be obtained and discussed with the employers. Hence, parental leave related to family issues as well as the health condition of the employees or their families should be given certain leniency in helping women engineers to achieve work-life balance.

Social Support

Social support refers to the encouragement that one receives from his/her employers, family members, and colleagues in doing the work. Factors such as the uncertain economy has enhanced the need for social support from family members and colleagues in reducing the work pressure experienced by a worker (Ariani, 2015). In addition, a working environment that offers encouragement and support from the employer to the employees has shown positive responses from the employees (Ariani, 2015). Yang et al. (2015) found that having strong support from both colleagues and employer has reduced the employees' pressure and increased their motivation to continue working. Thus, social support has the potential of encouraging self-determination, attitudes, and involvement among employees toward their career.

Positive support from fellow colleagues, supervisors, and employers is vital in reducing work pressure as it involves creativity, and innovation. A study by Teoh and Afiah (2010) found that personality and social support were among the critical factors to enhance female engineers' motivation to continue working. Sembien (2016) stated that the poor relationship and support among colleagues may have influenced the engineers to quit their position. Several research have indicated that support in work has an impact to an organization where encouragement in the organizational activities help to reduce stress among the employees and for them to achieve job satisfaction (Fouad et al., 2011; Mustapha, 2009).

Family support especially from their husbands is essential for women to equally divide their time between career and family. Imbaya (2012) found that the majority of female engineers who worked in companies that practiced social support has experienced less work-life balance conflicts. In the nutshell, most female engineers believe in the need for family friendly support especially those pertaining to childcare and day care facilities at the workplace, taking care of sick children, and backup care that are persistent to their current needs. Besides that, the availability of day care facilities within or nearby their respective workplaces will also provide support to employees – especially the female engineers to perform their duties at the workplace (Kumari et al., 2012). Therefore, the cooperation from the employers in facilitating the workers' personal matters will contribute toward the workers' job satisfaction particularly when the issue of childcare often contributes toward significant pressure among female employees to continue working.

CONCLUSION

This critical review explores the balance between work and life for the purpose of obtaining in-depth understanding on the issues or factors that contribute toward employees' satisfaction and motivation to develop their engineering career rather than resorting to resignation. The Kaleidoscope Career Model (KCM) proposed by Mainiero and Sullivan was used in conducting this review. KCM model comprised of three main elements: (a) authenticity, (b) balance, and (c) challenges. The main findings include – first, the decision to continue working depends on what is happening around one's life. As a woman who is constantly looking for suitability in life, her original intentions toward her career can be reflected as a motivation to continue working. Second, the factors that influence work-life balance required by female engineers with families should be investigated. This review found four critical factors, namely, childcare, flexibility, parental leave, and social support. And finally, the numerous challenges faced by female engineers to maintain their jobs should be solved cordially by negotiation and facilitation rather than direct confrontation.

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