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Article

Impact of Work-Life Balance on Firm Innovativeness: The Different Strategies Used by Male and Female Bosses

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Abstract: The idea of work–family balance has generated considerable interest for researchers who tried to focus mainly on the increased female engagement in the labor market, the rise in dual-income households, as well as the changing nature of organizations, work and the workplace. While some individuals prefer work-life balance (WLB) strategies that set fair and realistic limits between their professional and personal lives, others prefer initiatives that provide harmony between the different aspects of their lives. By surveying both Lebanese male and female employees, this research explored work-life strategies that can be implemented by men and women leaders to balance their work and non-work activities and promote their roles as leaders. In addition, it aims to explore if those work-life strategies enhance organizational performance by means of increased innovativeness, and research and development. The results reveal that there is no significant relationship between employee WLB and organizational performance, indicating that satisfied employees do not necessarily deliver increased or weakened performance. Our results also reveal that supervisor support is positively related to employee WLB. In addition, the study examines the effects of individual coping WLB strategies and organizational provision of WLB policies on employee affective well-being. The results indicate that Lebanese individuals who have positive attitudes and life coping strategies are more capable of achieving overall well-being.

Keywords: work-life balance (WLB); men and women leaders; organizational performance; supervisor support; WLB policies



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1. Introduction

The work-life balance (WLB) is a contemporary issue that has been recognized as an important aspect of a healthy work environment. This area of Human Resource Management (HRM) has always been an apprehension for individuals who are concerned with the quality of working and the way it affects the broader quality of life. Furthermore, it has attracted the attention of organizations since WLB can influence organizational productivity and the welfare of employees in so many different ways.

One theoretical approach to comprehending the notion of WLB is the spillover theory, which helps in understanding the impact of work on family life, either positively or negatively (Lakshmypriya and Krishna 2016). For instance, if an employee has a stressful day at work, they may bring the negative thoughts home, thus affecting their private life. Consequently, employees either are expected, or personally need to devise healthy coping strategies and skills to meet the new needs of work and family (Pienaar 2008). Women, for instance, may find themselves giving up leadership positions due to family commitments and responsibilities. However, Cheung and Halpern (2010) noticed that female bosses have realized that they do not have to do it alone. “Instead of being superwomen who hold themselves to the highest standards for all the role-related tasks of being wives and mothers,

they adopt different internal and external strategies to redefine their roles” (Cheung and Halpern 2010, p. 185). For many men, the desire to be more engaged in their personal and family life is met with incompatible professional and career expectations. Men may also experience such conflict. For some men, they try to find a balance between being more involved in their family life and the societal beliefs that classify men as the economic providers for their families (Halrynjo 2009). This could be the reason why men who have children actually put in more paid hours at work than men without children do (Lundberg and Rose 2002; Percheski and Wildeman 2008).

A number of researchers (Martín and Carrasquer 2005; Hughes and Bozionelos 2007) suggest that WLB practices assist employees in reducing the levels of workplace stress, improving their quality of life and enhancing their organizational performance and commitment. Consequently, the literature emphasizes that WLB practices can improve organizational performance including increased productivity and reduced turnover.

The research aims to examine how the organization’s commitment to work-life balance leads to greater involvement of employees in achieving the organization’s objectives. Thus, linking it to organizational performance and innovativeness. A healthy WLB positively affects the physical and psychological development of an individual as well as the sustainability of organizations. Thus, in order to foster and nurture employees’ well-being and improve their performance, organizations must provide access to work-life balance arrangement (WLBA). Organizational performance can be assessed through different aspects, including career motivation, employee attendance, employee recruitment, employee retention, organizational commitment, and productivity (Beauregard and Henry 2009; Sheppard 2016). For instance, some studies have shown that workplace health programs have a positive effect on organizational performance (Shephard 1992; Täuber et al. 2018). When organizations provide adequate policies, employees will be motivated to contribute more, which leads to higher productivity, attendance, and retention (Berkeley et al. 2017). The more employees are productive at work, the better the organizational performance (Dobre 2013). Conversely, the organization’s R&D intensity and R&D activities can improve employees’ knowledge and skills and produce new knowledge, enhancing organizational performance (Chen et al. 2019).

The significance and relevance of work-life strategies of both male and female bosses and their impact on the organizational innovativeness have not been previously assessed. Therefore, the objective of this study is to determine the impact of the different WLB strategies of male and female bosses on the firm innovativeness. To achieve this objective, this paper presents a literature review and formulates the research hypotheses. Next, the hypotheses are tested in an empirical study developed using a survey of 141 Lebanese employees who work in a Lebanese private university. The implications for academics and recommendations for practitioners that are obtained from the research are provided in the closing section.

2. Literature Review

2.1. Work-Life Balance

The research directed at the concept of the work-life balance (WLB) has focused primarily on the work and family theories such as work-family conflict (Hill et al. 2001) and work-family balance (Kahn et al. 1964). The aim of these theories was to resolve any conflict that people face as they play different social roles in life. The notion investigates the interplay between work and non-work activities (Fisher 2001; Hobson et al. 2001; Zulch et al. 2012). WLB can be achieved when a person achieves equilibrium between one’s career and all the remaining aspects of life (Kirchmeyer 2000). According to Greenblatt (2002), as people try to juggle a demanding career and non-job responsibilities, they might encounter an acceptable level of conflict.

Research on the WLB demonstrates that it falls within three categories: individual, organizational and society. On the individual level, people can achieve the WLB when they split their time and energy between work and other aspects of life such as spending time

with their families and enjoying social activities (Reece et al. 2009). Thus, WLB can cause positive mental states such as contentment, happiness, confidence, and feeling at peace with oneself (Clarke 2000; Clarke et al. 2004). Maintaining equilibrium between work and the demands of one's personal life is the key to a healthy, happy more creative human being (McGee-Cooper 1983)—individuals feel more accomplished, more productive, and are more satisfied with their lives (Robak 2010). Arnett (2000) believes that in order for people to have an adequate mental growth and balance, they must sufficiently meet their family commitments, adequately perform their work responsibilities, and be actively involved in their local communities. Nevertheless, the way people balance those three areas differ from one individual to another, and finding harmony between organizational and life can be achieved through effective time management and a supportive network of family and friends (Arcimowicz 2008; Połaska et al. 2013).

At the organizational level, companies should promote WLB in the workplace by regularly reviewing their employees' workloads and offering them flexible work arrangements (Tipping et al. 2012). Organizations must always develop tools and strategies in order to promote healthy work-life balance (Borkowska 2004). From an organizational perspective, greater employee productivity, higher organization profitability, and increased creativity (Naithani 2010). Organizations can support a better work-life balance for their employees by implementing a variety of strategies (Skarzyński 2007). This includes providing their employees with flexible work arrangements such as an alternative schedule that gives them a greater freedom in selecting his or her particular hours of work or the option to change their work schedule, and/or deviating from standard full-time employment. Organizations may also offer leave benefits that allow employees to take time off from work for various reasons including non-work family obligations. Employers may also provide some form of childcare support by adopting measures to help their employees with childcare such as a workplace nursery. Furthermore, organizations can offer their employees incentives to drive productivity and engagement such as bonuses, rewards, recognition and appreciation.

At a societal level, the balance between life and work is achieved when an organization has a simple hiring process and provides job security for its employees (Borkowska 2004). Furthermore, family policies that favor or encourage traditional family structures and values can help balance people's professional and personal life. In addition, the initiatives of the labor market institutions can also help promote WLB even for entrepreneurial firms. A good example of the work-family reconciliation policies is the European experience which promotes working options for high quality, reduced-hour, and part-time employment. Parents who live in European countries are managing work and family demands with significantly more help from government. Another approach focuses on employers who willingly encourage a healthy work life balance by adopting work-life initiatives also known as the American Model. This model uses different tools to attract and retain top talent as well as maintain a positive work environment where all employees feel valued and treated equally (Borkowska 2010).

Many studies have analyzed the undesirable outcomes of the disadvantages when there is a lack of WLB at either the individual, organizational or the societal levels. The repercussions at the individual level may result in employed workers leaving the labor force and becoming socially marginalized. As for the organizational level, companies would have a lack of a skilled workforce, higher wage rates, ineffective capacity utilization and would eventually lose their competitive advantage. The negative consequences for societies are manifested through public financial deficit, a slow economic growth and a reduced competitiveness at microeconomic level.

2.2. Work-Life Balance for Male and Female Leaders

Working men and women share different experiences on the subject of social support and work-family conflict (WFC) (Adame et al. 2016; van Daalen et al. 2006). Research suggests a relationship between WFC and work-life imbalance. This imbalance is not the

same for both men and women. Women witness an absence of social support from their coworkers and bosses, whereas men receive remarkable and valuable support from their coworkers and bosses, which creates the foundations of WLB (Ferguson et al. 2016; French et al. 2018; van Daalen et al. 2006). van Daalen et al. (2006) stated that women provide more social support to their spouses than men do. On the other hand, men tend to receive less support from family and friends than female do. Regardless of the sources of social support that men and women receive, they both take advantage of this support in a way that helps them minimize work-life imbalance and conflict (McMullan et al. 2018; van Daalen et al. 2006). Some researchers (Eng et al. 2010; Julien et al. 2011) have deduced that the social support that women receive at home can minimize family-work conflict and that the social support from coworkers and bosses can minimize WFC. However, other researchers concluded that only social support obtained at home is capable of minimizing family-work conflict (Liao 2011; van Daalen et al. 2006).

Females have revealed the massive personal costs that are linked to occupying leadership positions (Loeffen 2016). Women face many challenges of balancing the competing demands of dual roles. Thus, they try to juggle conflicting priorities related to their careers, families and lifestyles. Loeffen (2016) implied that women could not attain successful leadership positions without making personal and family sacrifices nor without having a solid support system. Moreover, expectations can constrain women leadership behaviors. Consequently, they try to prove that they have good technological skills and a sufficient level of competence. In addition, women leaders try hard to be more productive than their male counterparts (Ely et al. 2011), possibly resulting in a greater demand for WLB.

Research shows that men benefit from an effective work-life balance. Work-life balance is an important aspect of a healthy work environment. In addition, men who maintain a healthy work-life balance tend to exhibit positive attitudes and increased productivity in the workplace (Perrone et al. 2009). Furthermore, and as part of this balance, men who contributed more to family life reported an improved overall enjoyment of life (Aumann et al. 2011; Greenhaus et al. 2003). In addition, men who work in organizations that support a better work-life, enjoy more their current jobs, are more satisfied with their jobs, and are more satisfied with the friendship relations and community commitment (Burke 2000). It is worth mentioning that the definitions and conceptualizations of work-life balance that men provide are different from the ones provided by women (Duckworth and Buzzanell 2009). The aim is not to spend equal time on professional and personal life, but to customize a balance that can be applied across the different roles in ways that make sense to them (APA 2004; Reiter 2007).

In their study on WLB, Allen and Russell (1999) deduced that using work-life balance programs (WLBP) in organizations have negative effects on employees' reward allocation such as being entitled to bonuses and raises in salaries and promotions. Furthermore, employees who use WLBP are perceived by their coworkers as having low levels of commitment towards their organization (Allen and Russell 1999). Judiesch and Lyness (1999) have also reported that managers suffer negative career consequences associated with family-related leaves of absence, which affects their career or organizational. Consequently, employees try to refrain from using WLBP because they have negative impact on employees' career paths development (Bailyn 1997; Whitehouse and Zetlin 1999). If employees feel that their organization does not encourage a healthy work-life balance, and that by using WLBP they will suffer career setbacks, employees may abstain from using the WLBP in order not to put their careers into a slump (Brenninkmeijer et al. 2010).

2.3. Work-Life Balance, Organization Commitment and Performance

Many research studies have analyzed the relationship between employees' emotional attachment and participation in the organization, also known as affective performance, and the levels of performance and effectiveness of both the individual and the organizational levels (Casper et al. 2002; Kim 2014). For instance, Casper et al. (2002) observed how both work-to-life and life-to-work could affect working mothers' commitment to their organiza-

tions. Their findings showed that a positive relationship exists between work-to-life and affective commitment. Furthermore, researchers [Wood and de Menezes \(2010\)](#) affirmed that when organizations implement WLB initiatives, affective commitment increases, and employees' turnover intentions decrease. Nevertheless, a number of researchers have reported that there is a negative correlation between work-to-life and employees' affective commitment ([Thompson et al. 1999](#); [Netemeyer et al. 1996](#)). Nevertheless, the results of a research conducted by [Kim \(2014\)](#) suggested that employees' emotional attachment and participation in the organization increase when organizations implement WLB programs. As a result, employees feel more devoted to their organization.

A growing number of WLB studies across several industries have led to more indications that support the relationship between WLB programs and increased employee productivity and loyalty ([Hyman and Summers 2007](#)). This indicates that affective commitment increases when organizations implement WLB programs because they improve employee performance and commitment towards the organization. Thus, when employers implement work-life balance support programs, employees tend to always put their organizations' goals above their personal interests. This will increase their affective commitment and consequently the organizational performance ([Allen and Meyer 1996](#)). A large number of research studies have demonstrated the positive relationship between WLBPs and employees' and organizational performance ([Parkes and Langford 2008](#); [Harrington and Ladge 2009](#)). In their studies on topics related to work-life and work-family, [Muse et al. \(2008\)](#) and [Casper et al. \(2011\)](#) affirmed that employees' affective commitment to their organizations is positively influenced by WLB, however other researchers believe that work-life conflict can negatively influence employees' performance ([Beauregard 2006](#)). A study conducted in the US by [Perry-Smith and Blum \(2000\)](#) which included a sample of 527 firms, shows that organization that encouraged WLB practices experienced a more recognizable market performance, an increase in sales and profit growth, and an improved organizational performance. In a study conducted by [Tunji-Olayeni et al. \(2017\)](#) in Lagos, Nigeria on work-life balance, the result shows that females who work in jobs that are dominated by males are more likely to have conflicts at home and at work. However, these women do not quit their jobs as they worry about not being able to find replacement. Moreover, other researchers such as [Allen \(2001\)](#), [Schutte and Eaton \(2004\)](#) realized that the area related to WLB practices and the way they influence employees' and organizational performance is not systematically investigated and remains ambiguous to scholars and practitioners in various industries.

Employees' commitment to their organizations greatly improves organizational performance, which is the key element on which organizations are founded ([Prasetya and Kato 2011](#)). In addition, higher levels of employees' commitment lead to lower levels of staff turnover, absenteeism and tardiness ([Bandula and Jayatilake 2016](#)). When employees feel a strong sense of organizational commitment, they believe that they ought to continue working for their organization. They also feel that they can reach their full potential when their goals are aligned with organizational goals. This view has been supported by [Kaplan and Kaplan \(2018\)](#), [Udu and Ameh \(2016\)](#), as well as [Irefin and Mechanic \(2014\)](#).

This leads to suggest the following hypotheses and to Figure 1 which shows our conceptual model:

H1. *Supervisor's support of WLB is positively related to employee work-life balance.*

H2. *Individual's WLB is positively related to employee work-life balance.*

H3. *Organizational provisioning of WLB strategies is positively related to employee work-life balance.*

H4. *Employee work-life balance (EWLB) is positively related to organizational research and development performance.*

H5. *Individual's WLB is positively related to organizational research and development performance.*

H6. Organizational provisioning of WLB strategies is positively related to organizational research and development performance.

H7. There are significant gender differences in the relationship between EWLB and organizational R&D performance.

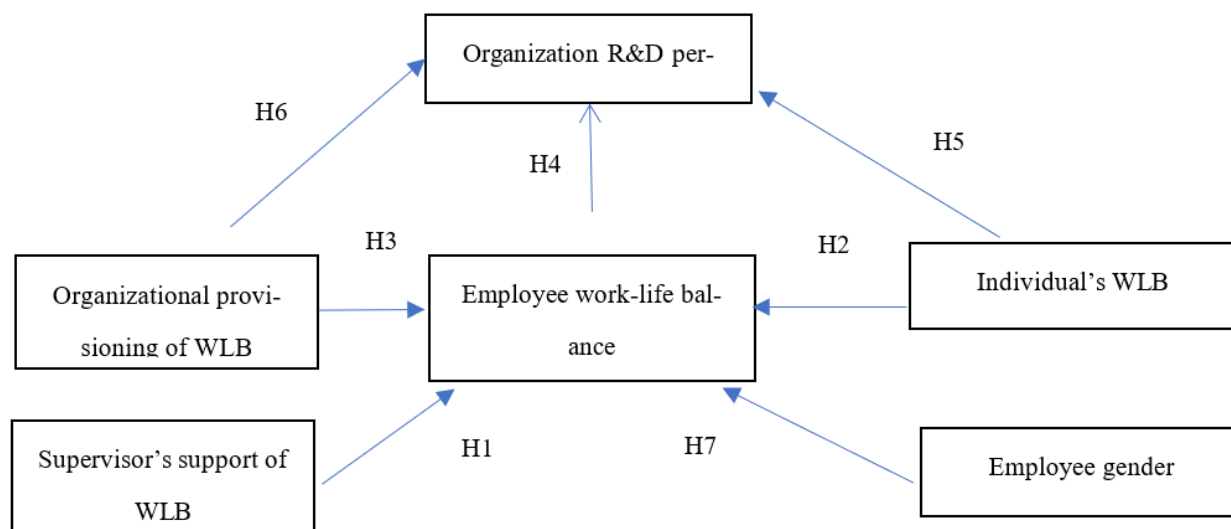


Figure 1. The conceptual model of the research.

3. Research Methods

3.1. Sample and Data Collection

As previously mentioned, the aim of this study is to explore whether the work-life strategies used by male and female bosses enhance organizational performance by means of increased innovativeness and research and development. Thus, an online survey created in Google Forms was distributed via email to male and female employees who work in a Lebanese private university. Participants held different types of positions such as teaching, admissions, academic advising, finance, computer and information technology, and registrar.

To begin the assessment, the research participants had to give their permission to be part of the study by reading and approving an informed consent form. The informed consent provided adequate information to the participants about the study and the approximate time required completing the survey. It also guaranteed participants of the anonymity and confidentiality of their responses throughout the study process. The survey was disseminated to 148 people out of whom 141 responded (response rate of 95%) of which 70 (49.6%) were men and 71 (50.4%) were women.

The survey consisted of five major sections. The first section gathered demographic information about participants including their educational qualifications, experience, and years with current employer. The second section was designed to measure participants' work-life balance (See measures below). The third section of the survey assessed whether participants' supervisor was supportive of work-Life balance. The fourth section consisted of questions related to participants' work-Life balance strategies and their organizational provisioning of WLB. Moreover, the aim of the fifth section was to rate the participants' firm's overall performance during the past 3 years in comparison with competitors in the industry.

3.2. Measures

Employee work–life balance. Employee WLB was measured using 14 items, which assessed participants' work-life balance. The 14-item scale has been adapted from a 19-item scale originally developed by Fisher-McAuley et al. (2003) that was designed to capture employee perceptions on WLB. Respondents were asked to show their agreement

or disagreement to each statement given on a Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5).

Supervisor’s support of work-life balance. Supervisor’s support of employees’ WLB was measured using 4 items, which assessed the supervisor’s support of employee family responsibilities and flextime; adapted from an instrument reported by [Carlson et al. \(2013\)](#). Respondents were asked to show their agreement or disagreement to each statement given on a Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5).

Individual employee WLB strategies. This was measured using 6 items, which assessed the strategies that respondents use to maintain a healthy work-life balance; adapted from an instrument reported by [Fisher-McAuley et al. \(2003\)](#). These items were assessed on the basis of a five-point Likert scale, ranging from “not at all important” (1) to “extremely important” (5).

Organizational provisioning of WLB strategies. This was measured using 7 items, which assessed the WLB policies and strategies employed in organizations to advance a better quality of work and life of employees; adapted from an instrument reported by [Zheng et al. \(2015\)](#). Respondents were asked to show their agreement or disagreement to each statement given on a Likert scale ranging from “not at all important” (1) to “extremely important” (5).

Organizational research and development performance. This was measured using 7 items, which assessed the respondents’ organizational research and development in the past 3 years in comparison with competitors in the industry; adapted from an instrument reported by [Fey and Birkinshaw \(2005\)](#). Respondents were asked to show their agreement or disagreement to each statement given on a Likert scale, ranging from “very poor” (1) to “excellent” (5).

4. Results

Prior studies on firm innovativeness have focused on the impact of technology adoption ([Gil et al. 2012](#)), organizational learning capability, managerial capability, R&D investment intensity, and integration of R&D and marketing ([Akgün et al. 2007](#); [Da Rocha et al. 1990](#); [Lefebvre et al. 2000](#); [Walsh et al. 2002](#); [Ho et al. 2005](#); [Chen et al. 2007](#); [Hernandez 2006](#)). However, no study has examined firm innovativeness by jointly studying firm innovativeness, supervisor support, employee WLB, individual WLB and organizational provisioning of WLB strategies.

The dataset used in analysis contained the entire 141 responses since no questions had any missing responses. The participants’ ages varied between 25 and 64 years, the percentage of men and women participants was quite balanced (50.4% female participants and 49.6% male participants). As for the number of years that participants have been working with their current employer, 38% of respondents revealed that they have been working in the same organization for more than 10 years. Among the 141 respondents 28% were single, 66% married, 1% widowed and 5% were divorced or separated. 3% of the respondents had more than 5 children, 64% had between 1–4 children while 33% had no children. In addition, most of the respondents (56%) had a master’s degree. [Table 1](#) presents detailed descriptive statistics of the sample.

It implies a sample power of 99.83%, with an effect size of 0.15 and an error of 0.05, obtained using G*Power software ([Faul et al. 2009](#)). Power indicates the probability of rejecting the null hypothesis when it is false. In the social sciences, power levels above 80% are required ([Cohen 1988](#)).

Table 1. Descriptive statistics of the sample ($N = 141$).

Variable	Responses	Frequency	Percentage
Gender	Female	71	50.4
	Male	70	49.6
Age	18–24 Years	6	4.3
	25–34 Years	32	22.7
	35–44 Years	51	36.2
	45–54 Years	37	26.2
	55–64 Years	15	10.6
Highest qualification	PhD	42	29.8
	Master’s Degree	79	56
	Bachelor’s Degree	19	13.5
	High School Graduate	1	0.7
Years with current employer	Less than a year	7	5
	2–5 Years	38	27
	6–10 Years	42	29.7
	Over 10 Years	54	38.3
Hours worked per week	Less than 34 h	50	35
	36–40 h	54	38.6
	More than 40 h	37	26.4
Marital status	Single	39	27.6
	Married	93	66
	Widowed	2	1.4
	Divorced/Separated	7	5
Number of children	No children	47	33.6
	1–4 Children	90	63.6
	More than 5 Children	4	2.8
Supervisor’s gender	Male	87	61.7
	Female	54	38.3
Total		141	100

4.1. Analytical Approach

Data was analyzed using structural equation modeling with partial least squares (PLS-SEM) in the latest release of the software application SmartPls 3.3.7 (Ringle et al. 2015). PLS-SEM is a method that allows researchers to calculate very complex models that have many constructs and indicator variables, particularly when the aim of the analysis is prediction. Partial least squares (PLS) is used to assess the measurement model which represents the relationships between the observed data and the latent variables including internal consistency (composite reliability), convergent validity (indicator reliability and average variance extracted), and discriminant validity. In addition, structural equation modeling (SEM) is used for the evaluation of the structural model and assessing the significance and relevance of hypothesized relationships.

4.2. Evaluation of Measurement Model

In order to prevent the common method variance (CMV), the full collinearity test was administered. The occurrence of a VIF greater than 3.3 is proposed as an indication of pathological collinearity, and as an indication that a model may be contaminated by common method bias. In our model, all VIFs resulting from a full collinearity test were lower than 3.3 (Table 2), and the model can be considered free of common method bias. In addition, the anonymity of the response and confidentiality has been restated throughout the data collection stage.

Table 2. Full Collinearity Test.

	DEMO	EWLB	IWLB_	OP	RDP	SS
DEMO		1.0519				
EWLB					1	
IWLB_		1.9083				
OP		2.0105				
RDP						
SS		1.1213				

Note. Demo = Demographics; EWLB = Employee work-life balance; IWLB = Individual work-life balance; OP = Organizational Provisioning of WLB Strategies; RDP = Research and development performance; SS = Supervisor's support.

Table 3 displays the factor loadings of items belonging to a common construct, Cronbach's alpha, rho A, composite reliability (CR), and average variance extracted (AVE) for the latent variables. It is recommended to use loadings having values above 0.70 since they provide acceptable item reliability (Hair et al. 2019). The values presented in Table 3 indicate that not all indicators exhibit a sufficient level of reliability (i.e., values close to 0.70). Therefore, all factor loadings having a value less than 0.65 were deleted. In addition, in order to measure the internal consistency of constructs, Cronbach's alpha and composite reliability were used and the results are shown in Table 3. Although some researchers prefer using Composite Reliability (CR) rather than Cronbach Alpha, "it may be used as a conservative measure of internal consistency reliability" (Hair et al. 2016, p. 101). When the values of Alpha and CR are above 0.70, this indicates a good measure of internal consistency of a construct. The CR values shown in Table 3 are all satisfactory. As for the average variance extracted (AVE), its value should be higher than the minimum threshold of 0.5. In our case, the obtained AVE value for all constructs is higher than 0.5. Therefore, it can be said that convergent validity was established.

In addition to the above validity measures, discriminant validity was used to measure the degree of differences between the overlapping constructs (Hair et al. 2014a). Discriminant validity is usually assessed using two main criteria: cross-loadings, and Fornell and Larcker's (1981). Using the cross-loadings approach, "an indicator's outer loading on the associated construct should be greater than all of its loadings on other constructs (i.e., the cross loadings)" (Hair et al. 2016, p. 105). Table 4 demonstrates that all indicators load more strongly on their corresponding constructs than they do on other constructs. Therefore, discriminant validity was established. As for the Fornell-Larcker testing criterion, in order to assess discriminant validity, the square root of each construct's average variance extracted (AVE) is compared with its bivariate correlations with all opposing constructs (Grégoire and Fisher 2006). Discriminant validity is established when the AVE square root for each construct is greater than the values of its bivariate correlations (Ringle et al. 2010). For instance, Table 3 shows that the AVE for the research and development performance (RDP) construct is 0.85, and its square root is 0.92 as displayed in Table 5. This value is greater than RDP's bivariate correlations with all opposing constructs and demonstrates that discriminant validity has been established for the RDP construct.

Table 3. Evaluation of Measurement Model.

Construct	Item	Indicator	Loadings	t-Statistic (Bootstrap)	p-Value	Cronbach's Alpha	ρ_A	CR	AVE
Employee's Demographic (Demo)	What is your gender	Demo1	1			1	1	1	1
	My personal life suffers because of work	EWLB1	0.63	5.8	0.0000				
Employee Work-life Balance (EWLB)	My job makes my personal life difficult	EWLB2	0.49	3.44	0.0006				
	I often neglect my personal needs because of work	EWLB3	0.51	3.39	0.0007				
	I often put my personal life on hold because of work	EWLB4	0.43	2.76	0.0059				
	I often struggle to balance between work and non-work	EWLB5	0.54	4.7	0.0000				
	I am satisfied with the amount of time I spend on non-work-related activities.	EWLB6	0.24	1.75	0.0800				
	My personal life is draining my energy which is affecting my work	EWLB7	0.67	7.47	0.0000	0.79	0.82	0.83	0.67
	I often feel too tired to be effective at work	EWLB8	0.57	5.32	0.0000				
	My work suffers because of my personal life	EWLB9	0.65	7.23	0.0000				
	I often find it hard to work due to personal matters	EWLB10	0.72	8.6	0.0000				
	My personal life gives me energy for work	EWLB11	0.43	3.71	0.0002				
	My job gives me energy to pursue my personal activities.	EWLB12	0.36	2.5	0.0126				
	My personal life boosts my mood at work	EWLB13	0.44	3.55	0.0004				
	My job boosts my mood	EWLB14	0.47	4.73	0.0000				
	Supervisor's Support of WLB (SS)	My supervisor understands and supports employees' family responsibilities	SS1	0.81	4.72	0.0000			
My supervisor allows employees to use flextime to attend to family matters		SS2	0.81	3.8	0.0002	0.84	0.84	0.89	0.67
My supervisor is understanding/accommodating when family matters pull me away from work		SS3	0.85	4.15	0.0000				
My supervisor facilitates work-life balance		SS4	0.80	4.14	0.0000				

Table 3. Cont.

Construct	Item	Indicator	Loadings	t-Statistic (Bootstrap)	p-Value	Cronbach's Alpha	ρ_A	CR	AVE
Individual Work Life Balance (IWLB)	Maintaining a positive outlook	IWLB1	0.81	7.27	0.0000	0.72	0.73	0.87	0.78
	Minimizing stressful situations	IWLB2	0.79	8.18	0.0000				
	Arranging time to fit in others' work commitments	IWLB3	0.52	3.9	0.0001				
	Juggling with childcare responsibilities	IWLB4	0.54	4.49	0.0004				
	Meeting lifestyle commitments	IWLB5	0.47	3.6	0.0003				
	Meeting community commitments	IWLB6	0.43	2.87	0.0043				
Organizational provisioning of WLB strategies (OP)	A flexible working arrangement	OP1	0.75	8.61	0.0000	0.86	0.87	0.89	0.58
	Health and wellness programs	OP2	0.78	9.91	0.0000				
	Health and wellness programs at work	OP3	0.71	9.15	0.0000				
	Childcare benefits or services	OP4	0.75	9.03	0.0000				
	Taking leaves from work as required	OP5	0.60	5.37	0.0000				
	Organizational understanding and support	OP6	0.80	9.64	0.0000				
	Availability and usage of work-life balance policies	OP7	0.76	9.02	0.0000				
Research and Development Performance (RDP)	Getting new products or services to market quickly.	RDP1	-0.15	0.32	0.7433	0.94	1.01	0.95	0.85
	Creating with radical/breakthrough technologies	RDP2	0.69	1.38	0.1674				
	Bringing breakthrough technologies to market	RDP3	0.89	1.50	0.1325				
	Attracting and enrolling more students	RDP4	-0.16	0.35	0.7206				
	Gaining a higher market share	RDP5	0.69	1.38	0.1679				
	Increasing employee job satisfaction	RDP6	-0.14	0.31	0.7563				
	Improving university ranking	RDP7	0.89	1.50	0.1326				

Demo = Demographics; EWL = Employee work-life balance; IWL = Individual work-life balance; OP = Organizational Provisioning of WLB Strategies; RDP = Research and development performance; SS = Supervisor's support.

Table 4. Cross Loadings.

	DEMO	EVLB	IWLB	OP	RDP	SS
DEMO1	1	−0.0428	0.1748	0.1562	0.0115	0.0999
EVLB7	−0.098	0.8203	−0.3751	−0.4047	−0.1052	0.1419
EVLB9	0.0054	0.832	−0.3092	−0.3113	−0.0027	0.2664
EVLB10	−0.0027	0.8175	−0.2499	−0.3438	−0.1839	0.1672
IWLB1	0.1448	−0.3615	0.9034	0.4916	0.112	−0.0969
IWLB2	0.167	−0.3126	0.8684	0.6796	0.0072	−0.1248
OP1	0.0778	−0.2314	0.5499	0.7383	−0.0044	−0.1651
OP2	0.1004	−0.3279	0.4732	0.7959	0.0085	−0.2341
OP3	0.071	−0.3964	0.3854	0.7311	0.1571	−0.2908
OP4	0.1413	−0.2948	0.4284	0.7456	0.0095	−0.1791
OP6	0.2612	−0.368	0.6089	0.7983	−0.0856	−0.2274
OP7	0.0437	−0.3132	0.5659	0.7681	−0.0755	−0.2391
RDP2	0.0425	−0.0725	0.0633	−0.0274	0.8831	0.2194
RDP3	−0.0082	−0.1276	0.0616	0.0211	0.965	0.1821
RDP5	0.0364	−0.0765	0.0673	−0.0234	0.8827	0.2129
RDP7	−0.0025	−0.1387	0.0733	0.03	0.964	0.1817
SS1	0.0961	0.2104	−0.1709	−0.301	0.1286	0.8097
SS2	0.1103	0.1446	0.042	−0.1767	0.211	0.8047
SS3	0.0734	0.1923	−0.0589	−0.2529	0.203	0.8588
SS4	0.0544	0.1927	−0.1766	−0.2303	0.1534	0.8092

Note. Demo = Demographics; EVLB = Employee work-life balance; IWLB = Individual work-life balance; Organizational Provisioning of WLB Strategies = OP; RDP = Research and development performance; SS = Supervisor's support.

Table 5. Fornell and Larcker's Criterion.

	DEMO	EVLB	IWLB	OP	RDP	SS
DEMO	1 *					
EVLB	−0.0428	0.8233 *				
IWLB	0.1744	−0.3919	0.8861 *			
OP	0.1536	−0.4328	0.6524	0.7633 *		
RDP	0.0115	−0.1201	0.0715	0.0079	0.9246 *	
SS	0.0999	0.2292	−0.1238	−0.2993	0.2076	0.8209 *

Note. * Square root of AVE. Square root of AVE (diagonal); Off diagonal are Pearson correlations; Demo = Demographics; EVLB = Employee work-life balance; IWLB = Individual work-life balance; OP = Organizational Provisioning of WLB Strategies; RDP = Research and development performance; SS = Supervisor's support.

However, recently a new approach to assess discriminant validity has been proposed, which is able to achieve higher specificity and sensitivity than the two previously mentioned methods. This other measure for discriminant validity is the Heterotrait-monotrait (HTMT) ratio of correlation (Henseler et al. 2015). HTMT “is the average of the heterotrait-heteromethod correlations (i.e., the correlations of indicators across constructs measuring different phenomena), relative to the average of the monotrait-heteromethod correlations (i.e., the correlations of indicators within the same construct)” (Henseler et al. 2015, p. 121). Thus, HTMT is used to estimate the correlation between constructs. If two constructs' indicators have an HTMT value smaller than 1, then these constructs are different from each other because their true correlation is different from 1 (Henseler et al. 2015). Some authors propose a threshold value of 0.85 (Clark and Watson 1995; Kline 2011), while others propose a value of 0.90 (Gold et al. 2001; Teo et al. 2008). Table 6 shows that all HTMT values between constructs are below 0.85 and 0.9. Thus, based on HTMT.85 and HTMT.90 criteria, discriminant validity has been established.

Table 6. Heterotrait-Monotrait Ratio (HTMT).

	DEMO	EWLB	IWLB	OP	RDP	SS
DEMO						
EWLB	0.0491					
IWLB	0.2062	0.5048				
OP	0.1637	0.5156	0.8421			
RDP	0.0248	0.1460	0.0808	0.0929		
SS	0.1109	0.2858	0.1771	0.3348	0.2444	

Note. Demo = Demographics; EWLB = Employee work-life balance; IWLB = Individual work-life balance; OP = Organizational Provisioning of WLB Strategies; RDP = Research and development performance; SS = Supervisor’s support.

4.3. Evaluation of the Structural Model

In order to measure the structural model, this paper adopts the coefficient of determination (R^2 values), effect size (f^2 values), blindfolding (Q^2 values), model fit indicators, and structural model path coefficients (Figure 2).

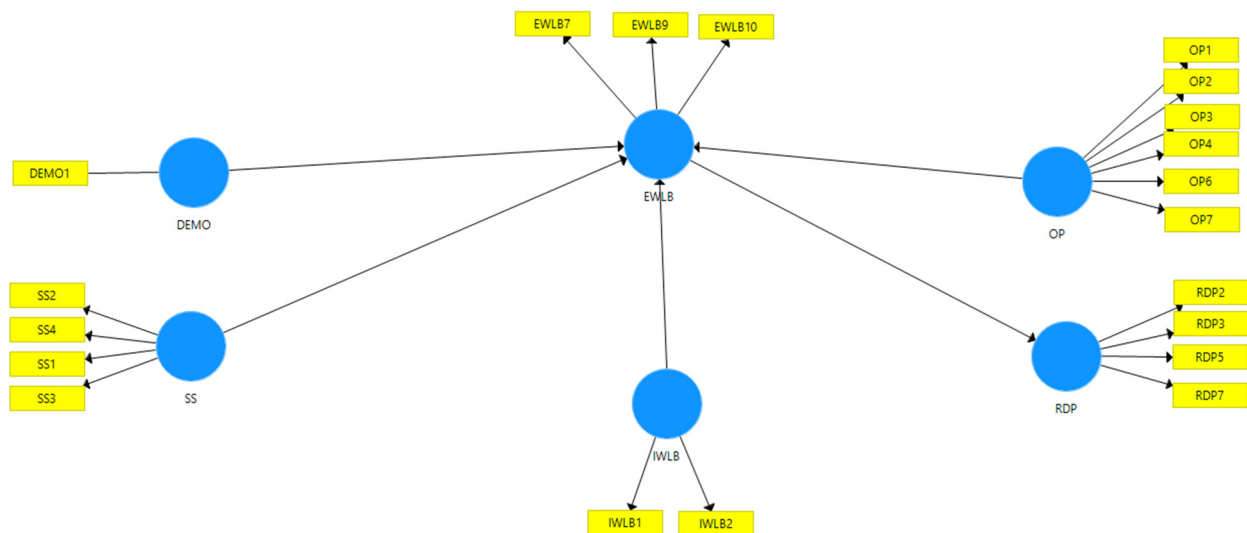


Figure 2. Structural model.

The details of each step involved in the evaluation of the structural model are listed below.

Step 1: Coefficient of determination— R square

In this step, we measure the R^2 value of the endogenous constructs, which is a measure of the model’s explanatory power (Shmueli and Koppius 2011). Although acceptable R^2 values are subject to the research context, values of R^2 vary between 0 and 1, where higher values can be considered more substantial (Hair et al. 2014b; Sarstedt et al. 2014a), i.e., R^2 values that are close to 1 indicate that there is an almost perfect relationship between the model and the data. Accordingly, Chin (1998) considers R^2 values of 0.670 to be substantial, values around 0.333 average and values of 0.190 and lower weak. Table 7 shows the values of R^2 where $EWLB = 0.218$ and $RDP = 0.014$. Thus, EWLB explains 21 per cent of the variance in organizational research and development performance, which implies that EWLB has an average impact on organizational research and development performance.

Table 7. R² matrix.

	R SQUARE	R SQUARE ADJUSTED
EWLB	0.2189	0.1959
RDP	0.0144	0.0073

Note. EWLB = Employee work-life balance; RDP = Research and development performance.

Step 2: Effect size—F square

The effect size can be determined by calculating Cohen's f^2 . The effect size measures if an independent construct has a significant impact on the dependent construct (Cohen 1988). The effect size f^2 of less than 0.02 shows that a predictor latent variable has no effect on an endogenous latent variable. However, values between 0.020 and 0.150, between 0.150 and 0.350 and above 0.350 represent small, medium, and large effect sizes, respectively (Sarstedt et al. 2017). The results show that IWLB has a small effect on EWLB ($f^2 = 0.0264$), and OP has a small effect on EWLB ($f^2 = 0.0505$). As for SS, it has no effect on EWLB ($f^2 = 0.0165$). In addition, EWLB has no effect on RDP ($f^2 = 0.0146$). Finally, Demo has no effect on EWLB ($f^2 = 0.0006$).

Step 3: Blindfolding—Q square

Q² values are constructed using the blindfolding method, which is an iterative process that provides an internal measure of consistency between the original and cross-validation predicted data. In general, Q² values should be greater than zero for a particular endogenous construct to indicate predictive accuracy of the structural model for that construct. As a guideline, Q² values greater than 0, 0.25 and 0.50 represent small, medium and large predictive relevance of the PLS-path model. In blindfolding, the recommended omission distance (D) ranges between 5 and 7 (Hair et al. 2016). In this paper, blindfolding procedure was applied with D = 7. As demonstrated in Table 8, the construct cross-validated redundancy is greater than zero for all six endogenous variables, explicitly, DEMO, EWLB, IWLB, OP, RDP, and SS, indicating the path model's predictive accuracy.

Table 8. Construct cross-validated redundancy (Q²).

CONSTRUCTS	SSO	SSE	Q ² (=1 – SSE/SSO)
DEMO	141	141	1
EWLB	423	367.3242	0.1316
IWLB	282	282	1
OP	846	846	1
RDP	564	559.3784	0.0082
SS	564	564	1

Note. Demo = Demographics; EWLB = Employee work-life balance; IWLB = Individual work-life balance; OP = Organizational Provisioning of WLB Strategies; RDP = Research and development performance; SS = Supervisor's support.

Step 4: Model fit indicators

The model fitness of this work was examined using the standardized-root-mean-square-residual (SRMR), normed fit index (NFI), chi-square (χ^2) and RMS Theta values. The purpose of SRMR is to estimate the fitness of the model. According to Hu and Bentler (1998), if the values of SRMR are less than 0.08 ($SRMR \leq 0.08$), the model is adequate to fit. In this study, the values of SRMR were 0.07, which showed the model had good fit, whereas the values of NFI and Chi-Square were equal to 0.7 and 337, respectively (Table 9), with Chi-Square significance level of 0.001. The closer the NFI to 1, the better the fit. NFI values above 0.9 usually represent acceptable fit. Furthermore, the value of RMS theta was used to appraise the outer model residuals' correlation degree (Lohmöller 1989). When the RMS theta value is closer to zero, the PLS-SEM model will be considered to have a good fit.

RMS theta values below 0.12 indicate a well-fitting model, whereas higher values indicate a lack of fit (Hair et al. 2014a). According to Table 9, the RMS Theta value was around 0.1046, which means that in order to exhibit the global PLS model validity, the required goodness-of-fit for the PLS-SEM model is sufficient.

Table 9. Model Fit Summary.

MODEL CRITERIA	COMPLETE		
	SATURATED MODEL	ESTIMATED MODEL	p-VALUE
SRMR	0.0751	0.0922	
CHI-SQUARE	337.8954	346.6713	0.001
NFI	0.9035	0.8958	
RMS THETA			0.1046

Step 5: Path coefficients

Bootstrapping was used to evaluate the path coefficients' significance and assess their values, which usually fall in the range of -1 and $+1$, where coefficients closer to $+1$ indicate a strong positive relationship and coefficients closer to -1 indicate a strong negative relationship (Hair et al. 2014b; Sarstedt et al. 2014b). While taking into consideration the significance and relevance of the inner model relationships, the results showed (with sub samples 5000, no sign changes option, Bca bootstrap confidence interval and two-tailed sample test at 0.05 significance level) that only two structural relationships between variables are significant. Thus, it can be seen that, out of the six hypotheses, two are supported, since they have a critical t-value of more than 1.96 and p values less than 0.05 (refer to Table 10). For the hypotheses reading, the predicted hypotheses of this study were (i) H1, supervisor's support of WLB is positively related to employee WLB, (ii) H2, individual's WLB is positively related to employee work-life balance, (iii) H3, organizational provisioning of WLB strategies is positively related to employee work-life balance, (iv) H4 employee work-life balance (EWLB) is positively related to organizational research and development performance, (v) H5, individual's WLB and organizational provisioning of WLB strategies is positively related to organizational research and development performance, and (vi) H6, organizational provisioning of WLB strategies is positively related to organizational research and development performance. Table 10 shows the results of the analysis where only H1, H2 and H3 are accepted which confirms that supervisor's support of WLB and individual's WLB and organizational provisioning of WLB strategies have significant relationship in affecting employee work-life balance with p values of 0.0058, 0.0000, and 0.0000, respectively.

Table 10. Path Coefficients Matrix.

Constructs	Path Coefficients	t-Statistic (Bootstrap)	p Values ***
SS → EWLB	0.2470	2.7715	0.0058
IWLB → EWLB	−0.3876 ***	5.8018	0.0000
OP → EWLB	−0.4344	7.3428	0.0000
EWLB → RDP	−0.1769 ***	1.1817	0.2379
IWLB → RDP	0.1088 ***	0.7985	0.4250
OP → RDP	−0.2224	0.9098	0.3634

Note. Demo = Demographics; EWLB = Employee work-life balance; IWLB = Individual work-life balance; OP = Organizational Provisioning of WLB Strategies; RDP = Research and development performance; SS = Supervisor's support. *** $p < 0.05$

Consequently, evidence allows the acceptance of H1 with respect to supervisor's support of WLB is positively related to employee work-life balance. Supervisors play a vital role in helping employees deal with the organization's work-family policies, and are therefore considered a mediator between the organization and its employees. As a result, employees' work attitudes and their performance in the workplace are affected by their supervisor's support (Mills et al. 2014). Our study is consistent with the job-demands resources (JD-R) model, which suggests that the more supervisors support employees, the higher are their levels of work-life balance (Seiger and Wiese 2009). Our results also confirm Talukder and Galang (2021) findings, which indicate that employee performance not only depends on supervisor support but also on their WLB and this can either positively or negatively influence the relationship between supervisor support and employee performance.

H2 and H3 can also be accepted, as individual's WLB and organizational provisioning of WLB strategies are positively related to employee work-life balance. The results confirm Pienaar's (2008) finding that individuals can efficiently play several roles in both life and work areas when they are capable of managing work/life interface, attaining an improved level of affective well-being (see also arguments by Culbertson et al. 2012; Warr 1990, 2007). Our research is also in line with Zheng et al. (2016) finding, which states that employees' life coping strategies (LCS) were positively related to their overall well-being. Their results show that organizational WLB policies have a direct impact on improving individual coping abilities, and an indirect effect on improving employee well-being. These results strongly suggest that both individuals and organizations are responsible for the employee well-being and WLB.

On the other hand, the results obtained do not allow the acceptance of H4 as they show that the employee WLB is not related to organizational research and development performance. This is because there are so many different factors that influence the organization's ability to innovate besides employees WLB such as technology, innovation process, corporate strategy, organizational structure, organizational culture, resources, knowledge management, and management style and leadership (Smith et al. 2019). In addition, H5 and H6 are not supported as the results show that the individual's WLB and organizational provisioning of WLB strategies are not related to organizational research and development performance. This is because organizational performance must take into consideration several perspectives, including career motivation, employee attendance, employee recruitment, employee retention, organizational commitment, and productivity (Wong et al. 2020).

4.4. Multigroup Analysis

Multigroup analysis (MGA) is a method to test predefined data groups to verify the presence of significant differences across group-specific parameter estimates (e.g., outer weights, outer loadings, and path coefficients) (Hair et al. 2017). In this study, MGA is used to test hypothesis 7 and find out if there are significant gender differences in the relationship between EWLb and organizational R&D performance. In addition, MGA is also used to find out if there are significant gender differences in the relationship between supervisor support and employee WLB, individual WLB and employee WLB, and individual WLB and RDP. The permutation test results in Table 11 confirm that there is no significant difference between Female and Male groups for the structural model, as the "Permutation p -value" is above the 0.05 cutoff. By examining the t -parametric column, we realize that the difference is not significant. Therefore, we may say that the same PLS structural path model applies to both Males and Females. In addition, the p -values show whether the path coefficient was significantly larger in the first group (i.e., Female) than in the second group (i.e., Male). The results indicate that the relationship between EWLb and RDP does not have a significant p -value ($p > 0.05$), which implies that both male and female employees who adopt work-life balance strategies can help improve organizational innovativeness and R&D performance.

Table 11. Results of Multigroup Analysis (MGA).

	Path Coefficients Original (Female)	Path Coefficients Original (Male)	t-Statistic Female (Bootstrap)	t-Statistic, Male (Bootstrap)	Diff.	t-Parametric	t-Permutation	P-Henseler	Bias-Corrected 5–95% Confidence Intervals Female	Bias-Corrected 5–95% Confidence Intervals Male	Significance (Yes, No)
EWLB → RDP	−0.3114	−0.0982	1.2121	0.4989	−0.2132	0.6492	0.2510	0.5173	[−0.4712, 0.4606]	[−0.2616, 0.4007]	No
SS → EWLB	0.2746	0.2805	1.1411	2.3342	−0.0059	0.0221	0.9640	0.8256	[−0.5812, 0.4135]	[−0.4214, 0.4283]	No
IWLB → EWLB	−0.4912	−0.3087	6.0034	2.6155	−0.1825	1.2830	0.2060	0.2016	[−0.6114, −0.3023]	[−0.4793, −0.1769]	No
OP → EWLB	−0.4366	−0.4469	4.6444	5.7261	0.0102	0.0843	0.9480	0.9389	[−0.6001, −0.2501]	[−0.5732, −0.307]	No
IWLB → RDP	0.1611	−0.1886	1.1876	0.8037	0.3497	1.3040	0.2100	0.1944	[−0.3358, 0.3231]	[−0.5097, 0.2750]	No
OP → RDP	0.2607	−0.2078	1.2614	0.9702	0.4686	1.5856	0.4070	0.1151	[−0.4915, 0.3598]	[−0.3313, 0.4393]	No

Note. Demo = Demographics; EWLB = Employee work-life balance; IWLB = Individual work-life balance; OP = Organizational Provisioning of WLB Strategies; RDP = Research and development performance; SS = Supervisor's support.

The multigroup analysis shows that the H7 cannot be accepted; with which evidence has been found of the non-existence of difference between men and women in terms of the impact that the employee WLB strategies have on the organizational R&D performance. As for gender and supervisor support, women may experience less support than their male counterparts do since most supervisors are male (European Commission 2015), and research shows that men have a more masculine understanding of leadership than women do (Koenig et al. 2011). Consequently, female subordinates are less likely than men to be appointed to top roles by male supervisors. Therefore, male supervisors may provide less support to female subordinates. Since these gender differences in female subordinate support are caused by gender biases that men hold more intensely than women, it is anticipated that female supervisors are more supportive of female subordinates than male supervisors are. However, our research is not in line with previous research as it shows that there is no relationship between supervisor support and employee WLB based on employee gender. As for gender differences in WLB, some studies that have observed both Western and Eastern cultures have concluded that there is no evidence of real or substantial gender differences (Milkie and Peltola 1999; Sav and Harris 2013). According to these studies, the experience of WLB is related to job and life satisfaction equally in both men and women. Our research is consistent with these studies as it shows that the effect of gender remains insignificant when balancing work and family responsibilities. Casper and Harris (2008) found that among women, the establishment of WLB is positively related to organizational commitment when this balance is mediated by organizational policies. Regarding the organizational provisioning of work-life policies (WLPs) and its effect on male and female employees WLB, findings by Casper and Harris (2008) are supported by the suggestion by Allen (2001) which affirms that the existence of WLB in an organization mediates the relationship between WLPs, as well as affective commitment and job satisfaction. In addition, research has revealed that WLB is related to organizational commitment (Lingard et al. 2007; Kim 2014). Our research is in line with past studies as it demonstrates that the effect of WLPs is the same on both male and female employees. As far as the relationship between EWLb and organizational R&D performance is concerned, researchers confirmed that female leaders who successfully balance work and family responsibilities are more innovative (Busaibe et al. 2017). The implementation of WLB practices will help male and female employees in finding a balance between work and family responsibilities, which contributes to improved employee productivity and considerable improvements in business outcomes. WLB policies, such as supporting employees with caregiving responsibilities, can minimize or eliminate levels of work-life conflict, and thereby increase employee productivity with innovation and organizational effectiveness (Beauregard and Henry 2009). Our research is consistent with previous studies as it demonstrates that there are significant gender differences in the relationship between EWLb and organizational R&D performance.

5. Discussion

A growing number of employees are seeking flexible work arrangements as they aspire to find the right balance between their work and personal life. Therefore, companies are trying to accept this request for flexibility as it may lead to a number of performance benefits as well as better candidates. Systematic reviews on the topic of WLB show that women are more likely to face negative career consequences due to flexible working since they are the ones responsible for domestic work and thus, will not be able or willing to adhere to the ideal worker culture, where work obligations are above everything else (Chung 2019). Thus, the findings of the study were in alignment with past research, demonstrating that females, as both employees and individuals, are more affected by WLB strategies than men are. Furthermore, organizations that implement gender diverse leadership and work-life balance strategies enjoy a variety of advantages such as enhanced performance, organizational branding, and perceptions regarding organizational desirability by internal

and external stakeholders (Kalysh et al. 2016; Olsen et al. 2016). According to researchers, work-life balance programs (WLBPs) are considered among the set of quality and flexibility enhancement management practices that have the potential to provide organizations with competitive advantages. Therefore, this research is also in accordance with past research since it shows that employee WLB is positively related to the organization work-life balance practices. In previous research, supervisors' support was found to be directly related to employees' well-being, including life satisfaction, job satisfaction and family satisfaction (Achour et al. 2017). Our study is in line with previous research showing that there is a positive relationship between supervisor's support and employee WLB. We have also examined in this study the relationship between employees' WLB and organizational research and development performance and deduced that employee WLB and organizational R&D performance are not significantly related. This result is in line with Park and Rahmani (2020) finding, which indicates that in order for organizations to improve their innovation performance, they should not over-capitalize on employees' WLB. They should focus instead on improving employees' satisfaction with career opportunities.

5.1. Theoretical and Managerial Implications

WLB is an important aspect of a healthy work environment. With an adequate work-life balance, employers can obtain a variety of benefits from higher productivity, to lower absenteeism, and higher commitment and motivation to work. Our study shows that organizations can promote WLB by offering flexible work arrangements such as health and wellness programs, childcare benefits or services and taking leaves as required. In addition, as women tend to take on more responsibility and workload in their private lives, when organizations improve their WLB policies, they can retain their women talent and close the gap between the proportion of women in junior management and in senior management. Both men and women must have equal access to working flexibly, without negative judgements or consequences for career advancement. According to a study conducted by Zurich Insurance Group in collaboration with the UK government's Behavioral Insight Team, when organizations offered flexible work arrangements, the number of female applicants to leadership roles increased by 20%. Thus, when organizations offer work benefits that fit flexibly around family life, women can advance into higher positions. In addition, supervisors must set an example to their subordinates on how to balance work and life. Our study shows that supervisors can improve their employees' WLB by understanding and supporting their family responsibilities, allowing them to use flextime to attend to family matters, and by accommodating when family matters pull them away from work. Organizations must keep in mind that non-work-related activities would allow employees to expand their networks, develop new skills and gain a greater sense of personal and professional purpose.

Furthermore, research shows that the competencies that employees possess usually power organizational R&D performance (Barney and Wright 1998; Van Esch et al. 2016). However, there is a lack of empirical research on the impact of employees' WLB on organizational R&D performance. Our findings show that employee WLB is significantly related to organizational R&D performance. In addition, both male and female employees who adopt work-life balance strategies can help organizations improve their innovativeness and R&D performance. Therefore, in order for organizations to excel at R&D, their main concern should not only be how to recruit and retain individuals with outstanding research skills (Torbeck et al. 2013) and intensive experience in their fields (Thompson and Heron 2006; Coccia 2008). Nevertheless, they must ensure that their employees are not trapped in the work-life balance conflict and are provided with the adequate work life balance policies that go beyond traditional practices such as health and wellness programs, childcare benefits and flexible work arrangement.

Although WLB can influence the lives of men and women differently, it is definitely a job necessity that goes beyond gender (Greenhaus et al. 2003; Evans et al. 2013). This is because the idea of the "traditional family" is disappearing, dual-earner couples are

on the rise, and the number of single parent households has increased. Thus, employees must find a good balance between work and the growing household responsibilities (Lazar et al. 2010).

5.2. Limitations and Future Research

This study has some limitations that insinuate avenues for new research. First, future research should evade the usual problem of selecting only one organization to conduct the study, and it should expand the analysis to several organizations. Furthermore, future research can also acknowledge the nature of positive spillovers between WLB, job satisfaction and organizational R&D performance. In addition, it is recommended that future studies use longitudinal analysis in order to examine if the implementation of work-life balance policies improve organizational R&D performance over time. Although this paper offers an original contribution to the existing literature, especially in Lebanon, we hope that organizations can revisit their work life balance policies to foster a healthy work environment and train their managers on how to detect problems such as burnout and providing support to their team members. In conclusion, our study empirically supports the relationship between employee WLB and organizational provisioning of WLB. Hence, the results from this study suggest that employee-friendly policies and practices are important tools that can help reach desirable outcomes within the workplace.

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References

- Achour, Meguellati, Shahidra Binti Abdul Khalil, Bahiyah Binti Ahmad, Mohd Roslan Mohd Nor, and Mohd Yakub Zulkifli Bin Mohd Yusoff. 2017. Management and supervisory support as a moderator of work–family demands and women’s well-being: A case study of Muslim female academicians in Malaysia. *Humanomics* 33: 335–56. [CrossRef]
- Adame, Consolación, Eva-María Caplliuere, and María-José Miquel. 2016. WLB and firms: A matter of women? *Journal of Business Research* 69: 1379–83. [CrossRef]
- Akgün, Ali E., Halit Keskin, John C. Byrne, and Selim Aren. 2007. Emotional and learning capability and their impact on product innovativeness and firm performance. *Technovation* 27: 501–13. [CrossRef]
- Allen, Natalie J., and John P. Meyer. 1996. Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior* 49: 252–76. [CrossRef]
- Allen, Tammy D. 2001. Family-supportive work environments: The role of organizational perceptions. *Journal of Vocational Behavior* 58: 414–35. [CrossRef]
- Allen, Tammy D., and Joyce EA Russell. 1999. Parental Leave of Absence: Some Not So Family-Friendly Implications. *Journal of Applied Social Psychology* 29: 166–91. [CrossRef]
- American Psychological Association. 2004. Public Policy, Work, and Families: The Report of the APA Presidential Initiative on Work and Families. Available online: <http://www.apa.org> (accessed on 13 March 2008).
- Arcimowicz, Krzysztof. 2008. Relacje partnerskie w rodzinie: Korzyści z nich płynące i konieczne działania w Polsce na rzecz ich poprawy. In *Równowaga: Praca-życie-rodzina*. Edited by Cecylia Sadowska-Snarska. Białystok: Wydawnictwo Wyższej Szkoły Ekonomicznej w Białymstoku.
- Arnett, Jeffrey J. 2000. Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist* 55: 469. [CrossRef]
- Aumann, Kerstin, Ellen Galinsky, and Kenneth Matos. 2011. *The New Male Mystique*. New York: Families and Work Institute.

- Bailyn, Lotte. 1997. The Impact of Corporate Culture on Work-Family Integration. In *Integrating Work and Family: Challenges and Choices for a Changing World* 209: 219.
- Bandula, P. M. K. U., and Lakmini V. K. Jayatilake. 2016. Impact of Employee Commitment on Job Performance: Based on Leasing Companies in Sri Lanka. *International Journal of Arts and Commerce* 5: 8–22.
- Barney, Jay B., and Patrick M. Wright. 1998. On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resources Management* 37: 31–46. [\[CrossRef\]](#)
- Beauregard, T. Alexandra. 2006. Predicting interference between work and home: A comparison of dispositional and situational antecedents. *Journal of Managerial Psychology* 21: 244–64. [\[CrossRef\]](#)
- Beauregard, T. Alexandra, and Lesley C. Henry. 2009. Making the link between work-life balance practices and organizational performance. *Human Resource Management Review* 19: 9–22. [\[CrossRef\]](#)
- Berkery, Elaine, Michael J. Morley, Siobhan Tiernan, Helen Purtill, and Emma Parry. 2017. On the uptake of flexible working arrangements and the association with human resource and organizational performance outcomes. *European Management Review* 14: 165–83. [\[CrossRef\]](#)
- Borkowska, Stanisława, ed. 2004. *Przyszłość pracy w XXI wieku*. Warszawa: Instytut Pracy i Spraw Socjalnych.
- Borkowska, Stanisława. 2010. Równowaga między pracą a życiem pozazawodowym. *Acta Universitatis Lodzianensis, Folia Oeconomica* 240: 18–19.
- Brennkmeijer, Veerle, Evangelia Demerouti, Pascale M. le Blanc, and I. J. Hetty van Emmerik. 2010. Regulatory focus at work: The moderating role of regulatory focus in the job demands-resources model. *Career Development International* 15: 708–28. [\[CrossRef\]](#)
- Burke, Ronald. 2000. Do managerial men benefit from organizational values supporting work-personal life balance? *Women in Management Review* 15: 81–87. [\[CrossRef\]](#)
- Busaibe, Leena, Sanjay Kumar Singh, Syed Zambari Ahmad, and Sanjaya S. Gaur. 2017. Determinants of organizational innovation: A framework. *Gender in Management: An International Journal* 32: 578–89. [\[CrossRef\]](#)
- Carlson, Dawn S., K. Michele Kacmar, Joseph G. Grzywacz, Bennett Tepper, and Dwayne Whitten. 2013. Work-family balance and supervisor appraised citizenship behavior: The link of positive affect. *Journal of Behavioral & Applied Management* 14: 87–106.
- Casper, Wendy Jean, and Christopher M. Harris. 2008. Work-life benefits and organizational attachment: Self-interest utility and signaling theory models. *Journal of Vocational Behavior* 72: 95–109. [\[CrossRef\]](#)
- Casper, Wendy Jean, Christopher Harris, Amy Taylor-Bianco, and Julie Holliday Wayne. 2011. Work-family conflict, perceived supervisor support and organizational commitment among Brazilian professionals. *Journal of Vocational Behavior* 79: 640–52. [\[CrossRef\]](#)
- Casper, Wendy Jean, Jennifer A. Martin, Louis C. Buffardi, and Carol J. Erdwins. 2002. Work-family conflict perceived organizational support and organizational commitment among employed mothers. *Journal of Occupational Health Psychology* 7: 99–108. [\[CrossRef\]](#)
- Chin, Wynne W. 1998. The partial least squares approach to structural equation modeling. *Modern Methods for Business Research* 295: 295–36.
- Chen, Haisheng, Jinhua Chen, Shandan Li, and Ze Wei. 2007. Double Dimension Control Method for Performance Measurement on R&D Process. Paper presented at the 2007 International Conference on Wireless Communications, Networking and Mobile Computing, Shanghai, China, September 21–25; pp. 6209–14.
- Chen, Tsung-chun, Dong-Qiang Guo, Hsiao-Min Chen, and Tzu-ti Wei. 2019. Effects of R&D intensity on firm performance in Taiwan's semiconductor industry. *Economic Research-Ekonomika Istraživanja* 32: 2377–92.
- Cheung, Fanny M., and Diane F. Halpern. 2010. Women at the top: Powerful leaders define success as work-family in a culture of gender. *American Psychologist* 65: 182–93. [\[CrossRef\]](#)
- Chung, Heejung. 2019. 'Women's work penalty' in access to flexible working arrangements across Europe. *European Journal of Industrial Relations* 25: 23–40. [\[CrossRef\]](#)
- Clarc, Sue Campbell. 2000. Work/family border theory: A new theory of work/family balance. *Journal of Human Relation* 53: 747–70. [\[CrossRef\]](#)
- Clark, Lee Anna, and David Watson. 1995. Constructing validity: Basic issues in objective scale development. *Psychological Assessment* 7: 309–19. [\[CrossRef\]](#)
- Clarke, Maribeth C., Laura C. Koch, and E. Jeffrey Hill. 2004. The work-family interface: Differentiating balance and fit. *Family and Consumer Science Research Journal* 33: 121–40. [\[CrossRef\]](#)
- Coccia, Mario. 2008. Research performance and bureaucracy within public research labs. *Scientometrics* 79: 93–107. [\[CrossRef\]](#)
- Cohen, Jacob. 1988. *Statistical Power Analysis for the Behavioral Sciences*, Revised ed. Hillsdale: Lawrence Earlbaum Associates.
- Culbertson, Satoris S., Maura J. Mills, and Clive J. Fullagar. 2012. Work engagement and work-family facilitation: Making homes happier through positive affective spillover. *Human Relations* 65: 1155–77. [\[CrossRef\]](#)
- Da Rocha, Angela, Carl H. Christensen, and Newton A. Paim. 1990. Characteristics of innovative firms in the Brazilian computer industry. *Journal of Product Innovation Management* 7: 123–34. [\[CrossRef\]](#)
- Dobre, Ovidiu-Iliuta. 2013. Employee motivation and organizational performance. *Review of Applied Socio-Economic Research* 5.
- Duckworth, John D., and Patrice M. Buzzanell. 2009. Constructing work-life balance and fatherhood: Men's framing of the meanings of both work and family. *Communication Studies* 60: 558–73. [\[CrossRef\]](#)
- Ely, Robin J., Herminia Ibarra, and Deborah M. Kolb. 2011. Taking gender into account: Theory and design for women's leadership programs. *Academy of Management Learning & Education* 10: 474–93.

- Eng, Wylie, Sarah Moore, Leon Grunberg, Edward Greenberg, and Pat Sikora. 2010. What influences work-family conflict? The function of work support and working from home. *Current Psychology* 29: 104–20. [CrossRef]
- European Commission. 2015. *Report on Equality between Women and Men—2014*. Brussels: European Union.
- Evans, Amanda M., Jamie S. Carney, and Morgan Wilkinson. 2013. Work–life balance for men: Counseling implications. *Journal of Counseling & Development* 91: 436–41.
- Faul, Franz, Edgar Erdfelder, Axel Buchner, and Albert-Georg Lang. 2009. Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods* 41: 1149–60. [CrossRef] [PubMed]
- Ferguson, Merideth, Dawn Carlson, K. Michele Kacmar, and Jonathon R. B. Halbesleben. 2016. The supportive spouse at work: Does being work-linked help? *Journal of Occupational Health Psychology* 21: 37–50. [CrossRef]
- Fey, Carl F., and Julian Birkinshaw. 2005. External Sources of Knowledge, Governance Mode, and R&D Performance. *Journal of Management* 31: 597–621.
- Fisher, Gwenith Gwyn. 2001. *Work/Personal Life Balance: A Construct Development Study*. Doctoral dissertation, Bowling Green State University, Bowling Green, OH, USA.
- Fisher-McAuley, Gwenith, Jeffrey Stanton, Jeffrey Jolton, and James Gavin. 2003. Modelling the relationship between work life balance and organisational outcomes. Paper presented at the 2003 Annual Conference of the Society for Industrial-Organisational Psychology, Orlando, FL, USA; vol. 1, p. 26.
- Fornell, Claes, and David F. Larcker. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18: 39–50. [CrossRef]
- French, Kimberly A., Soner Dumani, Tammy D. Allen, and Kristen M. Shockley. 2018. A meta-analysis of work–family conflict and social support. *Psychological Bulletin* 144: 284–314. [CrossRef] [PubMed]
- Gil, Nuno, Marcela Miozzo, and Silvia Massini. 2012. The innovation potential of new infrastructure development: An empirical study of Heathrow airport’s T5 project. *Research Policy* 41: 452–66. [CrossRef]
- Gold, Andrew H., Arvind Malhotra, and Albert H. Segars. 2001. Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems* 18: 185–214. [CrossRef]
- Greenblatt, Edy. 2002. Work-life balance: Wisdom or whining. *Organizational Dynamics* 31: 177–93. [CrossRef]
- Greenhaus, Jeffrey H., Karen M. Collins, and Jason D. Shaw. 2003. The relation between work–family balance and quality of life. *Journal of Vocational Behavior* 63: 510–31. [CrossRef]
- Grégoire, Yany, and Robert J. Fisher. 2006. The effects of relationship quality on customer retaliation. *Marketing Letters* 17: 31–46. [CrossRef]
- Hair, Joseph F., Jr., G. Tomas M. Hult, Christian M. Ringle, and Marko Sarstedt. 2014a. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 1st ed. Los Angeles: SAGE Publications.
- Hair, Joseph F., Jr., Jörg Henseler, Theo K. Dijkstra, and Marko Sarstedt. 2014b. Common Beliefs and Reality about Partial Least Squares: Comments on Rönkkö and Evermann. Available online: <https://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=4675&context=facpubs> (accessed on 13 March 2008).
- Hair, Joseph F., Jr., G. Tomas M. Hult, Christian M. Ringle, and Marko Sarstedt. 2016. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. London: Sage Publications.
- Hair, Joseph F., Jr., Jeffrey J. Risher, Marko Sarstedt, and Christian M. Ringle. 2019. When to use and how to report the results of PLS-SEM. *European Business Review* 31: 2–24. [CrossRef]
- Hair, Joseph F., Jr., Marko Sarstedt, Christian M. Ringle, and Siegfried P. Gudergan. 2017. *Advanced Issues in Partial Least Squares Structural Equation Modeling*. Thousand Oaks: SAGE Publications.
- Halryngo, Sigtona. 2009. Men’s work-life conflict: Career, care and self-realization: Patterns of privilege. *Gender, Work & Organization* 16: 98–125.
- Harrington, Brad, and Jamie Ladge. 2009. Present dynamics and future directions for organizations. *Organizational Dynamics* 38: 148–57. [CrossRef]
- Henseler, Jörg, Christian M. Ringle, and Marko Sarstedt. 2015. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science* 43: 115–35. [CrossRef]
- Hernandez, Abram. 2006. Linking R&D and marketing for innovation: A literature review. Paper presented at the 2006 Technology Management for the Global Future-PICMET 2006 Conference, Istanbul, Turkey, July 8–13; vol. 2, pp. 630–39.
- Hill, E. Jeffrey, Alan J. Hawkins, Maria Ferris, and Michelle Weitzman. 2001. Finding an extra day a week: The positive influence of perceived job flexibility on work and family life balance. *Family Relations* 50: 49–58. [CrossRef]
- Ho, Yew Kee, Hean Tat Keh, and Jin Mei Ong. 2005. The effects of R&D and advertising on firm value: An examination of manufacturing and nonmanufacturing firms. *IEEE Transactions on Engineering Management* 52: 3–14.
- Hobson, Charles J., Linda Delunas, and Dawn Kesic. 2001. Compelling evidence of the need for corporate work/life balance initiatives: Results from a national survey of stressful life events. *Journal of Employment Counseling* 38: 38–44. [CrossRef]
- Hu, Li-tze, and Peter M. Bentler. 1998. Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods* 3: 424. [CrossRef]
- Hughes, Joanna, and Nikos Bozionelos. 2007. Work-life balance as source of job dissatisfaction and withdrawal attitudes: An exploratory study on the views of male workers. *Personnel Review* 36: 145–54. [CrossRef]

- Hyman, Joanna, and Juliette Summers. 2007. Work and life: Can employee representation influence balance? *Employee Relations* 29: 367–84. [\[CrossRef\]](#)
- Irefin, Peace, and Mohammed Ali Mechanic. 2014. Effect of Employee Commitment on Organizational Performance in Coca-Cola Nigeria Limited Maiduguri. *Borno State IOSR Journal of Humanities and Social Science* 19: 33–41. [\[CrossRef\]](#)
- Judiesch, Michael K., and Karen S. Lyness. 1999. Left behind? The impact of leaves of absence on managers' career success. *Academy of Management Journal* 42: 641–51.
- Julien, Mark, Karen Somerville, and Neil Culp. 2011. Going beyond the work arrangement: The crucial role of supervisor support. *Public Administration Quarterly* 35: 167–204.
- Kahn, Robert L., Donald M. Wolfe, Robert P. Quinn, J. Diedrick Snoek, and Robert A. Rosenthal. 1964. *Organizational Stress: Studies in Role Conflict and Ambiguity*. Hoboken: John Wiley.
- Kalysh, Kateryna, Carol T. Kulik, and Sanjeewa Perera. 2016. Help or hindrance? Work-life practices and women in management. *The Leadership Quarterly* 27: 504–18. [\[CrossRef\]](#)
- Kaplan, Metin, and Asli Kaplan. 2018. The Relationship between Organizational Commitment and Work Performance: A case of Industrial Enterprises. *Journal of Economic and Social Development* 5: 46–50.
- Kim, Hye Kyoung. 2014. Work-life balance and employees' performance: The mediating role of affective commitment. *Global Business & Management Research* 6: 37–51.
- Kirchmeyer, Catherine. 2000. Work-life initiatives: Greed or benevolence regarding workers' time? In *Trends in Organizational Behavior*. London: John Wiley & Sons Ltd., pp. 79–93.
- Kline, Rex B. 2011. *Principles and Practice of Structural Equation Modeling*, 3rd ed. New York: The Guilford Press.
- Koenig, Anne M., Alice H. Eagly, Abigail A. Mitchell, and Tiina Ristikari. 2011. Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin* 137: 616. [\[CrossRef\]](#)
- Lakshmypriya, K., and G. Rama Krishna. 2016. Work Life Balance and Implications of Spill Over Theory—A Study on Women Entrepreneurs. Paper presented at the 1-Day National Conference on "Innovation for Growth, Sustainability, Inclusion and Preservation", Bangalore, India, June 12; p. 76.
- Lazar, Ioan, Codruta Osoian, and Patricia Iulia Ratiu. 2010. The role of work-life balance practices in order to improve organizational performance. *European Research Studies Journal* 13: 201–14. [\[CrossRef\]](#)
- Lefebvre, Élisabeth, Louis A. Lefebvre, and Stéphane Talbot. 2000. Environmental initiatives, innovativeness and competitiveness: Some empirical evidence. Paper presented at the 2000 IEEE Engineering Management Society, EMS-2000 (Cat. No. 00CH37139), Albuquerque, NM, USA, August 15; pp. 674–79.
- Liao, Pen-Yuan. 2011. Linking work-family conflict to job attitudes: The mediating role of social exchange relationships. *The International Journal of Human Resources Management* 22: 2965–80. [\[CrossRef\]](#)
- Lingard, Helen, Kerry Brown, Lisa Bradley, Caroline Bailey, and Keith Townsend. 2007. Improving employees' work-life balance in the construction industry: Project alliance case study. *Journal of Construction Engineering and Management* 133: 807–15. [\[CrossRef\]](#)
- Loeffen, Olivia. 2016. Women in senior leadership: What it took to get to the top. *New Zealand Journal of Human Resource Management* 16: 5–18.
- Lohmöller, Jan-Bernd. 1989. *Predictive vs. Structural Modeling: Pls vs. ml. in Latent Variable path Modeling with Partial Least Squares*. Heidelberg: Physica.
- Lundberg, Shelly, and Elaina Rose. 2002. The effects of sons and daughters on men's labor supply and wages. *Review of Economics and Statistics* 84: 251–68. [\[CrossRef\]](#)
- Martín, Antonio, and Pilar Carrasquer. 2005. La política de conciliación de la vida laboral y familiar en la negación colectiva: Un aspecto de la estrategia europea de empleo. *Cuadernos de Relaciones Laborales* 23: 131–50.
- McGee-Cooper, Ann. 1983. *Time Management for Unmanageable People*. New York: Bantam Books.
- McMullan, Alicia D., Laurent M. Lapierre, and Yanhong Li. 2018. A qualitative investigation of work-family-supportive coworker behaviors. *Journal of Vocational Behavior* 107: 25–41. [\[CrossRef\]](#)
- Milkie, Melissa A., and Pia Peltola. 1999. Playing all the roles: Gender and the work-family balancing act. *Journal of Marriage and the Family*, 476–90. [\[CrossRef\]](#)
- Mills, Maura J., Russell A. Matthews, Jaime B. Henning, and Vivian A. Woo. 2014. Family-supportive organizations and supervisors: How do they influence employee outcomes and for whom? *The International Journal of Human Resource Management* 25: 1763–85. [\[CrossRef\]](#)
- Muse, Lori, Stanley G. Harris, William F. Giles, and Hubert S. Feild. 2008. Work-life benefits and positive organizational behavior: Is there a connection? *Journal of Organizational Behavior* 29: 171–92. [\[CrossRef\]](#)
- Naithani, Pranav. 2010. Overview of Work-Life Balance discourse and its relevance in current economic scenario. *Asian Social Science* 6: 148–55. [\[CrossRef\]](#)
- Netemeyer, Richard G., James S. Boles, and Robert McMurrian. 1996. Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology* 81: 400–10. [\[CrossRef\]](#)
- Olsen, Jesse E., Charles K. Parsons, Luis L. Martins, and Vera Ivanaj. 2016. Gender diversity programs, perceived potential for advancement, and organizational attractiveness: An empirical examination of women in the United States and France. *Group & Organization Management* 41: 271–309.

- Park, Hyunwoo, and Morvarid Rahmani. 2020. Employee Satisfaction and Firm Innovation Performance. *SSRN Electronic Journal*. [CrossRef]
- Parkes, Louise P., and Peter H. Langford. 2008. Work-life balance or work-life alignment? A test of the importance of work-life balance for employee engagement and intention to stay in organizations. *Journal of Management & Organization* 14: 267–84.
- Percheski, Christine, and Christopher Wildeman. 2008. Becoming a dad: Employment trajectories of married, cohabiting, and non-resident fathers. *Social Science Quarterly* 89: 482–501. [CrossRef]
- Perrone, Kristin M., Stephen L. Wright, and Z. Vance Jackson. 2009. Traditional and nontraditional gender roles and work-family interface for men and women. *Journal of Career Development* 36: 8–24. [CrossRef]
- Perry-Smith, Jill E., and Terry C. Blum. 2000. Work-life human resource bundles and perceived organizational performance. *Academy of Management Journal* 43: 1107–17.
- Pienaar, Jaco. 2008. *Skeleton Key or Siren Song: Is Coping the Answer to Balancing Work and Wellbeing?* Cambridge: Cambridge University Press.
- Pońska, Magdalena, Paweł Berłowski, Justyna Godlewska, and Małgorzata Rzewuska. 2013. *Równowaga praca–życie*. Warszawa: Wolters Kluwer Polska.
- Prasetya, Arik, and Masanori Kato. 2011. The effect of financial and non financial compensation to the employee performance. Paper presented at the 2nd International Research Symposium in Service Management, Yogyakarta, Indonesia, July 26–30.
- Reece, Katherine T., Jane A. Davis, and Helene J. Polatajko. 2009. The representations of work-life balance in Canadian newspapers. *Work* 32: 431–42. [CrossRef]
- Reiter, Natalie. 2007. Work-life balance: What do you mean? *Journal of Applied Behavioral Science* 43: 273–94. [CrossRef]
- Ringle, Christian M., Marko Sarstedt, and Erik A. Mooi. 2010. Response-based segmentation using finite mixture partial least squares. In *Data Mining*. Boston: Springer, pp. 19–49.
- Ringle, Christian M., Sven Wende, and Jan-Michael Becker. 2015. *SmartPLS 3*. Boenningstedt: SmartPLS GmbH, p. 584.
- Robak, Elżbieta. 2010. Kształtowanie równowagi między pracą a życiem osobistym pracowników jako istotny cel współczesnego zarządzania zasobami ludzkimi. In *Wyzwania dla współczesnych organizacji w warunkach konkurencyjnej gospodarki*. Kraków: Wydawnictwa AGH.
- Sarstedt, Marko, Christian M. Ringle, and Joseph F. Hair. 2017. Partial least squares structural equation modeling. In *Handbook of Market Research*. Cham: Springer International Publishing, pp. 587–632.
- Sarstedt, Marko, Christian M. Ringle, Donna Smith, Russell Reams, and Joseph F. Hair Jr. 2014a. Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy* 5: 105–15. [CrossRef]
- Sarstedt, Marko, Christian M. Ringle, Jörg Henseler, and Joseph F. Hair. 2014b. On the emancipation of PLS-SEM: A commentary on Rigdon (2012). *Long Range Planning* 47: 154–60. [CrossRef]
- Sav, Adem, and Neil Harris. 2013. Work-life conflict in Australian Muslims: Is gender important? *Gender in Management: An International Journal* 28: 468–504. [CrossRef]
- Schutte, K. J., and Susan C. Eaton. 2004. Perceived Usability of Work/Family Policies. Sloan Work and Family Encyclopedia Entry. Available online: https://wfm.org/wp-content/uploads/2018/09/Perceived_Usability_of_Policies-encyclopedia.pdf (accessed on 13 March 2008).
- Seiger, Christine P., and Bettina S. Wiese. 2009. Social support from work and family domains as an antecedent or moderator of work–family conflicts? *Journal of Vocational Behavior* 75: 26–37. [CrossRef]
- Sheppard, George. 2016. *Work-Life Balance Programs to Improve Employee Performance*. Doctoral dissertation, Walden University, Minneapolis, MN, USA.
- Shephard, Roy J. 1992. Twelve years experience of a fitness program for the salaried employees of a Toronto life assurance company. *American Journal of Health Promotion* 6: 292–301. [CrossRef]
- Shmueli, Galit, and Otto R. Koppius. 2011. Predictive analytics in information systems research. *MIS Quarterly*, 553–72. [CrossRef]
- Skarzyński, Michał. 2007. *Work-Life Balance. Poradnictwo Interdyscyplinarne*. Białystok: Białostocka Fundacja Kształcenia Kadr.
- Smith, Marisa, Marco Busi, Peter Ball, and Robert Van Der Meer. 2019. Factors influencing an organisation’s ability to manage innovation: A structured literature review and conceptual model. *International Journal of Innovation Management* 12: 655–76. [CrossRef]
- Talukder, AKM Mominul Haque, and Maria Carmen Galang. 2021. Supervisor support for employee performance in Australia: Mediating role of work-life balance, job, and life attitude. *Journal of Employment Counseling* 58: 2–22. [CrossRef]
- Täuber, Susanne, Laetitia B. Mulder, and Stuart W. Flint. 2018. The impact of workplace health promotion programs emphasizing individual responsibility on weight stigma and discrimination. *Frontiers in Psychology* 9: 2206. [CrossRef] [PubMed]
- Teo, Thompson S., Shirish C. Srivastava, and Li Jiang. 2008. Trust and electronic government success: An empirical study. *Journal of Management Information Systems* 25: 99–132. [CrossRef]
- Thompson, Cynthia A., Laura L. Beauvais, and Karen S. Lyness. 1999. When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment and work-family conflict. *Journal of Vocational Behavior* 54: 392–415. [CrossRef]
- Thompson, Marc, and Paul Heron. 2006. Relational quality and innovative performance in R&D based science and technology firms. *Human Resources Management Journal* 16: 28–47.

- Tipping, Sarah, Jenny Chanfreau, Jane Perry, and Clare Tait. 2012. *The Fourth Work-Life Balance Employee Survey*. London: Department for Business Innovation and Skills.
- Torbeck, Laura, Ravi Sidhu, Douglas S. Smink, and Sarah E. Peyre. 2013. How to Recruit, Retain, and Reap the Rewards of Working with PhD/EdD Educators in Surgery. *Journal of Surgery Education* 70: 212–16. [[CrossRef](#)]
- Tunji-Olayeni, Patience Fikiemo, Adewale Opeoluwa Ogunde, Okpanachi Joshua, and Anthony Alaba Oni. 2017. Work-life balance of women in male dominated fields. *International Journal of Mechanical Engineering and Technology* 8: 1197–205.
- Udu, Ama Aka, and Abu Amodu Ameh. 2016. Effects of Employee Commitment on Organizational Performance in the Banking Industry: An Evidence from First Bank Zonal Office. *Journal of Business Administration* 6: 1–7.
- van Daalen, Geertje, Tineke M. Willemsen, and Karin Sanders. 2006. Reducing work-family conflict through different sources of social support. *Journal of Vocational Behavior* 69: 462–76. [[CrossRef](#)]
- Van Esch, Emmy, Li Qun Wei, and Flora F. T. Chiang. 2016. High-performance human resource practices and firm performance: The mediating role of employees' competencies and the moderating role of climate for creativity. *International Journal of Human Resources Management* 29: 1683–708. [[CrossRef](#)]
- Walsh, Steven T., Bruce A. Kirchoff, and Scott Newbert. 2002. Differentiating market strategies for disruptive technologies. *IEEE Transactions on Engineering Management* 49: 341–51. [[CrossRef](#)]
- Warr, Peter. 1990. The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology* 63: 193–210. [[CrossRef](#)]
- Warr, Peter. 2007. *Work, Happiness, and Unhappiness*. London: Lawrence Erlbaum Associates.
- Whitehouse, Gillian, and Di Zetlin. 1999. 'Family friendly' policies: Distribution and implementation in Australian workplaces. *The Economic & Labour Relations Review* 10: 221–39.
- Wong, Kapo, Alan HS Chan, and Pei-Lee Teh. 2020. How is work-life balance arrangement associated with organisational performance? A meta-analysis. *International Journal of Environmental Research and Public Health* 17: 4446. [[CrossRef](#)]
- Wood, Stephen J., and Lilian M. de Menezes. 2010. Family-friendly management, organizational performance and social legitimacy. *The International Journal of Human Resource Management* 21: 1575–97. [[CrossRef](#)]
- Zheng, Connie, John Molineux, Soheila Mirshekary, and Simona Scarparo. 2015. Developing individual and organisational work-life balance strategies to improve employee health and wellbeing. *Employee Relations* 37: 354–79. [[CrossRef](#)]
- Zheng, Connie, Kia Kashi, Di Fan, John Molineux, and Mong Shan Ee. 2016. Impact of individual coping strategies and organisational work-life balance programmes on Australian employee well-being. *The International Journal of Human Resource Management* 27: 501–26. [[CrossRef](#)]
- Zulch, Gert, Patricia Stock, and Daniel Schmidt. 2012. Analysis of the strain on employees in the retail sector considering work-life balance. *Work* 41: 2675–82. [[CrossRef](#)]