The Antecedents and Consequences of Work-Family Balance Among the Academic, Women in the Private Universities in Egypt

# By

# **Dr. Ahmed Farouk Ali Abdel-Kader**

College of Management and Technology, Arab Academy for Scinece and Technology and Maritime Transport, Egypt

## ملخص البحث

يشكل التوازن بين العمل والأسرة قضية بالغة الأهمية بالنسبة للعديد من النساء العاملات في جميع أنحاء العالم. في هذا الصدد، تهدف هذه الدراسة إلى بيان السوابق والنتائج المترتبة على التوازن بين العمل والأسرة بين النساء العاملات في المجال الأكاديمي في مصر. في هذا الصدد، تم استخدام دراسة كمية من أجل اختبار نموذج (2011) Greenhaus and Allen على التوازن بين العمل والأسرة في سياق الجامعات الخاصة في مصر. تم التحقق من على التوازن بين العمل والأسرة في سياق الجامعات الخاصة في مصر. تم التحقق من على التوازن بين العمل والأسرة في سياق الجامعات الخاصة في مصر. تم التحقق من مسحة النموذج النظري وذلك من خلال عينة تشمل ١٠١ مشاركة وتم تحليل البيانات باستخدام (PLS-SEM). تشير نتائج هذه الدراسة إلى أن جميع معاملات المسار في النموذج باستخدام (التي يعتبر المساهم الرئيسي في الرضا الوظيفي والرضا الأسري ينتجان مشاعر التوازن التي تعتبر المساهم الرئيسي في الرضا عن الحياة بين النساء العاملات في المجال والأكاديمي. علاوة على ذلك، تسهم هذه النتائج إلى فهم أفضل لكيفية تحقيق توازن مُرض بين العمل والأسرة من أجل تحقيق الرضا في الحياة، وأخيراً، فإن الأثار النظرية والعلمية المترتبة على والأسرة من أجل تحقيق الرضا في الحياة. وأخيراً، فإن الأثار النظرية والعلمية المترتبة على والأسرة من أجل تحقيق الرضا في الحياة. وأخيراً، فإن الأثار النظرية والعلمية المترتبة على والأسرة من أجل تحقيق الرضا في الحياة. وأخيراً، فإن الأثار النظرية والعلمية المترتبة على والأسرة من أجل تحقيق الرضا في الحياة. وأخيراً، فإن الأثار النظرية والعلمية المترتبة على والأسرة من أجل تحقيق الرضا في الحياة. وأخيراً، فإن الأثار النظرية والعلمية المترتبة على والأسرة من أجل تحقيق الرضا في الحياة. وأخيراً، فإن الأثار النظرية والعلمية المترتبة على والأسرة من أجل المامية هذا المفهوم، خاصة بالنسبة للنساء، وتقتر ح على صناع التوازن في حياتها بنجاح.

**الكلمات المفتاحية :** التوازن بين العمل والأسرة، الرضا، المرأة العاملة في المجال الأكاديمي، مصر

## Abstract:

Work-family balance is a critical issue for many of the working women all over the world. In this regard, this study aims at examining the antecedents and consequences of work-family balance among the academic women in Egypt. A quantitative-based study has been employed in order to test the Greenhaus and Allen (2011) Model on Work-Family Balance in the context of the private universities in Egypt. The theoretical model was validated in a single cross-sectional empirical study of 101 participants and the data was analyzed using the Partial Least Square Structural Equation Modeling (PLS-SEM). The results of this study indicate that all path coefficients in the model were positively significant. More specifically, both job satisfaction and family satisfaction produce the feelings of balance which is identified as the major contributor to life satisfaction among women academics. These findings also contribute to a better understanding of how to achieve a satisfactory equilibrium between work and family in order to attain satisfaction in life. In addition, this study raises the awareness about the importance of this concept, particularly for women, and suggests to policy makers to integrate flexible work arrangements into the Egyptian Labour Law which may support every working woman in balancing her life successfully.

Keywords: Work-family balance, Satisfaction, Academic women, Egypt.

# 1. Introduction:

The world celebrates each 8<sup>th</sup> of March the International Women's Day. In this day, women are recognized for their achievements without regard to divisions, whether national, ethnic, linguistic, cultural, economic, or political. This day has been observed by the United Nations since the year 1975 which was designated as the International Women's Year (http://www.un.org/en/events/womensday/history.shtml, July 3, 2017).

In Egypt, it was the year 2017 that was declared as the "Year of the Woman", after witnessing a remarkable progress on the women's empowerment and gender equality agenda during the three previous years (ECWR, 2017). Progress was recognized on several levels, such as a 15 percent increase in the number of women holding seats in parliament after the 2014 elections, and a 20 percent increase in the number of women holding cabinet positions. The celebration of the Egyptian Woman's Year was complemented with the launch of the "National Woman's Strategy 2030" (ECWR, 2017). This strategy aims at achieving the sustainable development goals for women by 2030 through enhancing the integration of women into the government and civil institutions, and increasing the social awareness about the importance of women's participation in the economic life across all sectors, in order to build a stronger economy.

Although females represent about 49 percent of the total Egyptian population (CAPMAS, 2017a), and despite the rapidly rising educational attainment among women in the recent years as shown in the two figures below, the rates of the female participation in the Egyptian labor market have been low over time and have not increased as expected (Assaad and Krafft, 2015).



#### Figure 1

Source : Higher Council for Universities - Governmental universities and private universities

I IGUI C A
------------



Source : Ministry of Higher Education & Al-Azhar University

According to CAPMAS statistics in 2016–2017, the percentage of working women in Egypt is 22.9 of the total of work force, whereas the percentage of working men is 77.1 (CAPMAS, 2017a). These statistics indicate that work is still considered to be the prime duty of the man, while the woman is expected to take up the vital responsibility of the family. However, the only exceptions where women employment has exceeded 50% of the total employment levels are the education, health, social work, and manufacture of wearing apparel and dressing sectors (CAPMAS, 2017a). Thus, both the working conditions and employment policies play a vital role in determining the female labor force participation. The working woman has, as a result, a stressful dual responsibility and a daily living challenge in finding enough time to balance between her family obligations and work load.

Lewis et al. (2003, P. 838) stated that Work–Family Balance (WFB hereinafter) is a "central issue in the twenty-first century societies". Particularly, the academics' perception regarding balancing between their works and families has recently attracted significant scholarly attentions all over the world (e.g., Pattusamy and Jacob, 2017; Santos and Cardoso, 2008; Rafnsdottir and Heijstra, 2011; Panofsky, 2003; O'Laughlin and Bischoff, 2005; Ogbogu, 2013). Even though there are limited research on WFB in the Egyptian context (e.g., Marafi, 2016; Omran, 2016), there are hitherto no studies in the academic literature that empirically test the WFB among women faculty members in Egypt where circumstances are quite different from any other country. Accordingly, to advance research and practice in this domain, the purpose of this study is to examine the antecedents and consequences of WFB among the academic women in Egypt.

The findings of this study will expand our present knowledge on WFB in several ways. First, this study will widen the understanding of how to achieve a satisfactory equilibrium between work and family among the academic women in Egypt in order to attain satisfaction in life. Second, it will raise the university administrations' awareness about the importance of adopting supportive work–family policies that will enhance a healthy and balanced life in order to attract and retain women in the higher education sector in Egypt. Finally, this study will partially test and validate the conceptual Model on Work–Family Balance proposed by Greenhaus and Allen (2011). This model has been selected for the purpose of this study for the following reasons: (1) this model is the most recent one in which the WFB is a distinct concept from conflict and facilitation that are considered as indirect predictors of WFB through job and family satisfaction; and (2) the previous research has been undertaken mainly in India and the United States of America (e.g., Pattusamy and Jacob, 2017), thus it raises questions about the generalizability of research results to the Egyptian context.

This research is motivated and guided by four main questions. First, what flexible work arrangements are being requested by academic women to meet their needs in balancing work and family? Second, how do job satisfaction relate to the faculty members' work–family balance? Third, how do family satisfaction relate to the work–family balance of the faculty members? Finally, how does work–family balance relate to the faculty members' life satisfaction?

#### 2. The Theoretical Framework of Work–Family Balance:

In the early 1970s, and particularly in the United Kingdom, the WFB concept was introduced in order to assist working mothers in balancing their work and family responsibilities (Frame and Hartog, 2003). Although the term "work–family balance" (or the more inclusive work–life balance) has been widely adopted, yet an explicit definition of this term has remained elusive, because many researchers viewed it based on their perspectives or the angle of the study.

In general, most of the WFB definitions are associated with equilibrium or an overall sense of harmony in life. Higgins et al. (2000) proposed the definition of WFB as a "perceptual phenomenon characterized by a sense of having achieved a satisfactory resolution of the multiple demands of work and family domains", Hill et al. (2001) described it as "the degree to which an individual is able to simultaneously balance the temporal, emotional, and behavioral demands of both paid work and family responsibilities", while Greenhaus and Allen (2011) defined it as "the extent to which an individual's effectiveness and satisfaction in work and family roles are compatible with their life values and priorities at a given point in time". Regarding this study, the most appropriate definition is the one adopted by Greenhaus and Allen (2011).

Work-family research has long been guided by several theories to explain the relationship between work responsibilities and family life. These theoretical frameworks include: structural functionalism; ecology systems; segmentation; compensation; role; spillover; resource drain; and supplemental and reactive compensation theories. Recently, researchers (Clark, 2000; Edwards and Rothbard, 2000; Frone, 2003; Greenhaus and Powell, 2006) tried to explain work-family relationship through other new theories such as work enrichment; border; congruence; overall appraisal; and components approach theories.

Based on the above theoretical background, several models of WFB have been proposed by various researchers (e.g., Greenhaus and Allen, 2011; Kelly and Moen, 2007; Greenhaus and Powell, 2006; Voydanoff, 2004; Crooker et al., 2002; Guest, 2002; Frone et al., 1992; Greenhaus and Beutell, 1985). On the basis of the various models of WFB presented above, the researcher, for this study, intends to test the Greenhaus and Allen (2011) Model on Work–Family Balance using samples of academic women. Following the lead of Pattusamy and Jacob (2017), this model has been extended in this study by adding life satisfaction as the final outcome of WFB. The figure below depicts the constructs in the model and the relationships among them.

#### Figure 3

#### Model on Work-Family Balance



Source: Greenhaus and Allen (2011).

As shown above, Greenhaus and Allen (2011) described a conceptual model wherein the characteristics of work and family roles can have indirect impacts on feelings of WFB through conflict and facilitation. Conflict occurs when the role pressures from the work and family domains are mutually incompatible in some respect (Greenhaus and Beutell, 1985, P. 77). Facilitation specifies the conditions under which work and family are associated rather than being in conflict (Greenhaus and Powell, 2006).

As proposed in the theoretical model, the conflict has two distinct constructs, family-to-work conflict ( $F \rightarrow WC$ ) and work-to-family conflict ( $W \rightarrow FC$ ), which have negative consequences towards job satisfaction and family satisfaction respectively. The facilitation is also a two directional construct with family-to-work facilitation ( $F \rightarrow WF$ ) and work-to-family facilitation ( $W \rightarrow FF$ ), which affect positively both job satisfaction and family satisfaction respectively. As shown in Figure 3, the WFB is the outcome of the two types of satisfaction, job and family, and as a result, it influences life satisfaction.

## 3. Research Model and Hypotheses:

The purpose of this study is to examine the antecedents and consequences of WFB among the academic women in Egypt. Based on this objective, the following three hypotheses are formulated as depicted in the figure below.

- H1: There is a significant positive relationship between Job Satisfaction (JS) and Work–Family Balance (WFB).
- H2: There is a significant positive relationship between Family Satisfaction (FS) and Work–Family Balance (WFB).
- H3: There is a significant positive relationship between Work–Family Balance (WFB) and Life Satisfaction (LS).

#### Figure 4





#### 4. Research Method:

#### Questionnaire

To empirically measure and then test the relationships between variables, a review of existing instruments, used in other studies regarding the model variables, was undertaken. Based on this review, the measurement item scales, employed in the survey questionnaire for all constructs, showed high reliability and demonstrated convergent and discriminant validity in previous studies.

A quantitative study, involving the administration of a survey, was used to collect data on the four constructs that were defined in the hypothesized model. In this regard, the researcher prepared a questionnaire in the English language since almost all academics are familiar with English.

Table 1 summarizes the scales utilized to measure the constructs of this study. All the constructs were measured using 13 items, and all the items were measured with the 7-point Likert scales ranging from 1 = strongly disagree to 7 = strongly agree. The Likert scale was used since it is one of the most frequently encountered formats for measuring attitudes and perceptions (Bryman and Bell, 2011).

In the literature, job satisfaction has been conceptualized by some researchers (e.g., Currivan, 2000) as a five-faceted construct: the work itself; quality of supervision; relationship with coworkers; promotion opportunities; and pay. On the other hand, other researchers (e.g., Lee, 2000) agreed that job satisfaction is generally considered as a global construct. According to Lee (2000), the global approach is used when the overall attitude one has towards their job is the area of interest. Following the lead of Pattusamy and Jacob (2017), this study uses the global approach over the facets approach.

#### Table 1

Construct	Source	No. of items
Job Satisfaction (JS)	Hackman and Oldham (1975)	Four
Family Satisfaction (FS)	Edwards and Rothbard (1999)	Four
Work–Family Balance (WFB)	Allen and Kiburz (2012)	Two
Life Satisfaction (LS)	Diener et al. (1985)	Three

#### **Summary of Scales**

# **Participants and sampling techniques:**

In Egypt, the government's policy is to encourage the creation of private universities in order to: (1) ease the burden on the public universities which faced many more applicants than they could absorb. Currently, in Egypt, there are 22 private universities with around 140 thousand students, and 25 public universities with about 2.23 million students (CAPMAS, 2017b); (2) attract private investments into the higher education sector; (3) promote quality to make universities in Egypt more internationally competitive; and (4) ease the problems facing Egyptian students who will be attending universities abroad. The figure below shows the total number of academic teaching staff at the Egyptian private universities.

#### Figure 5



Total No. Of Teaching Staff In Private Universities (2015/2016)

Source :Government and private universities

The research population of this study is academic women in the privately-owned universities in Egypt. In this regard, the Egyptian Ministry of Higher Education was contacted and asked to provide a list of women's representation among academic teaching staff at the Egyptian private universities in 2016-2017. The list highlights that women held more than half (55.7%) of all academic positions across the 20 universities represented in the Table A.1.

The classification of the Egyptian Ministry of Higher Education divided the population into two groups based upon academic positions, as shown in Table A.1. The first group, staff members, consists of professors, assistant professors, and lecturers, whereas the second group, associate members, includes assistant lecturers and assistant teachers. In order to get a broader and richer perspective regarding academic women, the researcher adopted the ministry's classification.

For a statistical analysis in a comparative study, Gay and Diehl (1992, P. 140) suggest that including 30 subjects per group is acceptable. However, for this study, 200 questionnaires were distributed equally with the help of the coordinators across the private universities in Egypt.

## 5. **Results and Data Analysis:**

#### **Response Rate:**

The response rate for the survey analyzed here is 50.5%, 200 surveys were distributed and 101 valid surveys returned. A further 15 surveys were discarded because of a missing data regarding the academic position. The distribution of the participants according to their academic positions is as follows: staff members group (N=46) and associate members group (N=55).

#### **Descriptive Statistics:**

In order to meet their needs in balancing work and family, academic women requested several flexible work arrangements. Among these arrangements, working with a flexible schedule was the most frequently selected with 87% of the staff members respondents. With a flexible schedule, staff members are given varying degrees of freedom or control over when they choose to fulfill their work commitment. On the other side, compressed hours was the most frequently selected with 91% of the associate members respondents. Through starting early or finishing late, associate members can build up additional hours which will allow them to take a day away from work. However, it is important to note that more than the half reported that they take this day for their post-graduate studies (i.e. master's and doctoral degrees) not for the sake of their families.

#### **Reliability and Validity:**

The measurements are subjected to reliability and validity analyses prior to the research model testing and path analysis. Reliability and validity were applied in this study through measures of internal consistency reliability and convergent validity.

The traditional method applied in this study to test the internal consistency reliability is Cronbach's Alpha ( $\alpha$ ) which was proposed by

Nunnally (1978). According to Nunnally and Berbstein (1994), the internal reliability can be achieved when the Cronbach's  $\alpha$  value is 0.7 or higher. The results, in Table 2, indicate that the alphas of all the constructs for the staff members group and the associate members group are higher than 0.85, which supports the reliability of the measures used in this study.

#### Table 2

Cronbach's alpha (α), Composite Reliability (CR), Average Variance Extracted (AVE)

Variables	A	CR	AVE
Staff member group			
1. JS	0.96	0.97	0.90
2. FS	0.92	0.95	0.82
3. WFB	0.95	0.97	0.94
4. LS	0.96	0.97	0.92
Associate member group			
1. JS	0.97	0.98	0.92
2. FS	0.90	0.92	0.73
3. WFB	0.86	0.94	0.88
4. LS	0.95	0.97	0.93

In addition, convergent validity is accessed through Composite Reliability (CR) and Average Variance Extracted (AVE), as recommended by Fornell and Larcker (1981). As shown in the table above, the testing results of CR and AVE, for both staff members group and associate members group, have exceeded the recommended value of 0.7 for CR and 0.5 for AVE as suggested by Hair et al. (2010). In order to test the unidimensionality of the scale items, a Confirmatory Factor Analysis was conducted on the measurement model. As shown in Table A.2, the factor loadings are ranged from 0.74 to 0.97. Hence, the unidimensionality is achieved since all the items exceed the recommended cut-off value of 0.70, suggested by Hair et al. (2010).

Table 3 presents the discriminant validity of the constructs used in this study. The guideline for the discriminant validity is that the square root of AVE for each construct should be greater than the correlation values of the construct with other constructs (Fornell and Larker, 1981). As reported in the table below, all constructs across the samples passed the guideline supporting their discriminant validity.

Discriminant validity							
Variables	1	2	3	4			
1.JS	0.96 0.95	0.29	0.48	0.47			
2. FS	0.41	0.85 0.90	0.61	0.51			
3. WFB	0.58	0.50	0.94 0.97	0.85			
4. LS	0.56	0.33	0.60	0.96 0.96			

Table 3

Notes: The bold values on the diagonal represent the square root of AVE. Associate group | Staff group

\*Below the diagonal values are the associate sample correlation values and above the diagonal values are the staff sample correlation values.

#### **Structural Model Results and Discussion:**

The present study used Partial Least Square Structural Equation Modeling (PLS-SEM) to test the theoretical model. This statistical tool is a powerful approach because of the minimal demands about measurement scales, sample size, and the distribution of residuals (Chin et al., 2003). The structural model is evaluated by assessing the R-Square (variance accounted for) and the path coefficient.

Table 4 shows the standardized path co-efficient ( $\beta$ ) of the relationship that exists among the construct in the theoretical model. The results of the three hypotheses of this study are as follows: Hypothesis 1 suggests the positive effect of job satisfaction on work–family balance. As shown in the table below, the job satisfaction has a significant and positive path coefficient (staff members group;  $\beta = 0.32$ , P < 0.01, associate members group;  $\beta = 0.44$ , P < 0.01) to WFB in both samples, thereby accepting Hypothesis 1. Likewise, Hypothesis 2, which suggests the positive effect of family satisfaction on work–family balance, has a significant and positive path coefficient (staff members group;  $\beta = 0.52$ , P < 0.01, associate members group;  $\beta = 0.32$ , P < 0.01) in the two samples, and thus Hypothesis 2 is supported. Finally, Hypothesis 3, which suggests the positive effect of work–family balance on life satisfaction, has a significant and positive path coefficient (staff members group;  $\beta = 0.80$ , P < 0.01, associate members 2 is group;  $\beta = 0.41$ , P < 0.01) in both samples, thereby accepting Hypothesis 3.

The hypotheses results of this study are consistent with the Greenhaus and Allen (2011) Model on Work–Family Balance and are in line with the previous studies findings (e.g., Pattusamy and Jacob, 2017; Haar et al., 2014).

#### Table 4

#### Structural model results

Construct	Н	Path description	Group	β	Result		
			Staff members	0.32*			
Work–Family	1	WFB < JS	Associate members	0.44**	Supported		
Balance	2	WFB < FS	Staff members	0.52**			
			Associate members	0.32*	Supported		
			Staff members 0.80**				
Life Satisfaction	3	LS < WFB	Associate members	0.41**	Supported		
Note: **P. Value < 0.01; *PValue < 0.05							

#### Table 5

#### Explanatory power (R<sup>2</sup>)

Construct	R <sup>2</sup>	Group
Work Family Palance	0.47	Staff members
work-rainiy balance	0.42	Associate members
I :fo Sofiefo di on	0.72	Staff members
Life Sausfaction	0.43	Associate members

The table above presents the explanatory power of the two endogenous variables, namely, life satisfaction and work–family balance, which are evaluated by the  $R^2$ . The WFB is determined by JS and FS in an explanatory power ( $R^2$ ) of 47% (staff members group) and 42% (associate members group). Moreover, the explanatory power of the life satisfaction variable in the staff members group, which is 72%, is found to be higher than the one of the associate members grouP.

## 6. Conclusion:

The main purpose of this study is to examine the antecedents and consequences of WFB among the academic women in Egypt. In the present study, the researcher partially tested the theoretical Model on Work–Family Balance proposed by Greenhaus and Allen (2011). The three hypotheses derived from the research model were tested in the Egyptian private universities. The results of this study are consistent with the conceptual model (Greenhaus and Allen, 2011) and are generally supported by the existing literature, thus confirm previous findings (e.g., Pattusamy and Jacob, 2017; Haar et al., 2014). As in examining the relationships among the constructs, the SEM showed that all path coefficients were significant and confirmed positive inter-construct relations. More specifically, the researcher found that both job satisfaction and family satisfaction produce the feelings of balance which is identified as the major contributor to life satisfaction among women academics.

In addition, the results reveal that despite the number of tasks, duties, and responsibilities that the academics have to perform (e.g., teaching, research, service and administration), they have in general considerable flexibility to decide their schedules. This goes in line with the previous research which indicated that flexibility in academia encourages and attracts specifically women, as they will be able to make a balance between work and family (Panofsky, 2003, P. 104).

In terms of the explanatory power, it is seen that WFB in both samples (staff members and associate members) explained considerable variance in the dependent variable (life satisfaction) which suggests that the model has adequate predictive power. One possible explanation for having the R<sup>2</sup> value in the staff sample higher than the one in the associate sample is due to the career progression (i.e., to become a Lecturer or Professor) which offers more power and flexibility, thus a better equilibrium between housework and childcare activities on one hand and work responsibilities and duties on the other hand, and as a result leads to a higher satisfaction in life.

#### **Theoretical and Practical Implications:**

From a theoretical perspective, the current study contributes to the existing literature of WFB in several ways. First, the results indicate that the Model on Work–Family Balance developed by Greenhaus and Allen (2011) is a powerful model for capturing the antecedents and consequences of WFB. Second, they contribute to widen the understanding of how to achieve a satisfactory equilibrium between work and family in order to attain satisfaction life. Finally, the results obtained in the Egyptian context provide strong support for the generalizability and reliability of this model, especially that it has been undertaken previously in India and the United States of America (e.g., Pattusamy and Jacob, 2017).

The results of this study have also several valuable practical implications which may address the policy makers, including government officials at the macro level, as well as the university administrations, at the micro level. First, the present study raises the government awareness about the importance of WFB concept, particularly for women, and suggests to policy makers to integrate flexible work arrangements into the Egyptian Labour Law as a means to increase the level of women participation in the labor market, which will lead to a win-win situation for both the national economy and women employees. However, it is worth mentioning that the Labour Law of 2003 and the new Civil Service 2015 Law gave privileges to women, as cited in the women section in each of the two laws, such as a fully paid maternity leave and the right to obtain a non-paid leave for a maximum of 24 months. Second, this study encourages universities to take

into consideration the working environment of the women associate members through adopting more flexible work arrangements, which may support them in balancing their lives successfully.

All these recommendations may help academic women while they struggle to find time for all of their responsibilities. When balance is achieved between work and family, each will have its share of gain. The universities will get productive and stress-free academics, whereas the families will have healthy, peaceful, and happy lives.

### **Limitations and Future Research:**

As in all research, there are few limitations with regards to this study which call for future research in order to gain a better understanding of the antecedents and consequences of WFB. The first limitation is that this study adopts only a part of the Model on Work-Family Balance (Greenhaus and Allen, 2011). Based on a more precise understanding of relevant theories and a more comprehensive review of existing studies, it is recommended, for future research, to examine additional variables of the model. Another limitation is related to the sample of this study which was collected from a single sector, the higher education sector, and gathered solely from the Egyptian private universities. This setting may limit the generalizability of this study's findings; therefore, future research should expand the sample size by including public universities as well in order to obtain a complete picture regarding WFB in this sector. Finally, the current research employed a quantitative-based study using questionnaires and statistical evidence. In this regard, future research may consider using a different methodology, such as a qualitative study based on interviews, which will allow for a more in-depth examination regarding the academic women's perceptions of the importance of WFB at universities.

# References

- 1. Allen, T.D. & Kiburz, K.M. (2012). Trait mindfulness and workfamily balance among working parents: The mediating effects of vitality and sleep quality, Journal of Vocational Behavior, 80(2), 372– 379.
- 2. Assaad, R. & Krafft, C. (2015). The Evolution of Labor Supply and Unemployment in the Egyptian Economy: 1988–2012. In The Egyptian Labor Market in an Era of Revolution. R. Assaad and C. Krafft (Eds.) Oxford, UK: Oxford University Press.
- 3. Bryman, B. & Bell, E. (2011). Business research methods, 3rd edn. Oxford: Oxford University Press.
- 4. CAMPAS (2017a) Statistical Yearbook-Economy. Cairo: Central Agency for Public Mobilization and Statistics.
- 5. CAMPAS (2017b) Statistical Yearbook-Education. Cairo: Central Agency for Public Mobilization and Statistics.
- 6. Chin, W.W. Marcolin, B.L. & Newsted, P.R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. Information Systems Research, 14, 189–217.
- 7. Clark, S.C. (2000). Work/family border theory: A new theory of work/family balance. Human Relations, 53(6), 747–770.
- 8. Crooker, K.J. Smith, F.L. & Tabak, F. (2002). Creating Work-Life Balance: A Model of Pluralism across Life Domains. Human Resource Development Review, 1(4), 387–419.
- 9. Currivan, D.B. (2000). The causal order of job satisfaction and organizational commitment in the models of employee turnover. Human Resource Management Review, 9(4), 495–524.
- 10. Diener, E, Emmons, R.A. Larsen, R.J. & Griffin, S. (1985). The Satisfaction with Life Scale. Journal of Personality Assessment, 49(1), 71–75.
- 11. ECWR. (2017). The Annual Report of 2017. Cairo: The Egyptian Center for Women's Rights.

- 12. Edwards, J.R. & Rothbard, N.P. (2000). On the nature and direction of relationships between constructs and measures. Psychological methods, 5(2), 155–174.
- 13. Edwards, J.R. & Rothbard, N.P. (1999). Work and Family Stress and Well-Being: An Examination of Person-Environment Fit in the Work and Family Domains. Organizational Behavior and Human Decision Processes, 7(2), 85–129.
- 14. Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18, 39–50.
- 15. Frame, P. & Hartog, M. (2003). From rhetoric to reality. Into the swamp of ethical practice: implementing work life balance. Business Ethics: A European Review, 12(4), 358–368.
- 16. Frone, M.R. Russell, M. & Cooper, M.L. (1992). Antecedents and outcomes of work- family conflict: Testing a model of the work-family interface. Journal of Applied Psychology, 77(1), 65–78.
- 17. Frone, M.R. (2003). Work–Family Balance, in Quick, J.C. & Tetrick, L.E. (eds.) Handbook of occupational health psychology. Washington, DC: American Psychological Association, 13–162.
- 18. Gay, L.R. & DIEHL, P.L. (1992). Research Methods for Business and Management. New York: Maxwell Macmillan International.
- 19. Greenhaus, J.H. & Allen, T.D. (2011). Work-family balance: A review and extension of the literature. In J.C. Quick, & L.E. Tetrick (Eds.), Handbook of occupational health psychology, 2, 165–183. Washington, DC: American Psychological Association.
- 20. Greenhaus, J.H. & Powell, G.N. (2006). When Work and Family Are Allies: A Theory of Work-Family Enrichment. The Academy of Management Review, 31(1), 72–92.
- 21. Greenhaus, J.H., & Beutell, N.J. (1985). Sources of Conflict between Work and Family Roles. Academy of Management Review, 10, 76–88.
- 22. Guest, D.E. (2002). Perspectives on the study of work-life balance. Social Science Information, 41(2), 255–279.
- 23. Haar, J.M. Russo, M. Suñe, A. & Ollier-Malaterre, A. (2014). Outcomes of work-life balance on job satisfaction, life satisfaction and mental health: A study across seven cultures. Journal of Vocational Behavior, 85(3), 361–373.

- 24. Hackman, J.R. & Oldham, G.R. (1975). Development of the job diagnostic survey. Journal of Applied Psychology, 60(2), 159–170.
- 25. Hair, J.F. Black, W.C. Babin, B.J. & Anderson, R.E. (2010). Multivariate data analysis, 7th edn. Upper Saddle River, New Jersey: Prentice Hall.
- 26. Higgins, C. Duxbury, L. & Johnson, K.L. (2000). Part-time work for women: does it really help balance work and family? Human Resource Management, 39(1), 17–32.
- 27. Hill, E.J. Hawkins, A.J. Ferris, M. & Weitzman, M. (2001). Finding an extra day a week: The positive influence of perceived job flexibility on work and family life balance. Family Relations, 50(1), 49–58.
- 28. Kelly, E.L. & Moen, P. (2007). Rethinking the clockwork of work: Why schedule control may pay off at work and at home. Advances in Developing Human Resources, 9(4), 487–506.
- 29. Lee, H.R. (2000). An empirical study of organizational justice as a mediator of the relationship among leader-member exchange and job satisfaction, organizational commitment, and turnover intentions in the lodging industry. PhD dissertation, Faculty of the Virginia Polytechnic Institute and State University, Blacksburg, VA.
- 30. Lewis, S. Rapoport, R. & Gambles, R. (2003). Reflections on the Integration of Paid Work and the Rest of Life. Journal of Managerial Psychology, 18, 824–841.
- 31. Marafi, D. (2016). Work-life balance approaches among educated working married mothers in Egypt. Published master's thesis, AUC, Cairo: Egypt.
- 32. Nunnally, J.C. and Bernstein, I. H. (1994). Psychometric theory, 3rd edn. New York: McGraw Hill.
- 33. Nunnally, J.C. (1978). Psychometric theory, 2nd edn. NewYork: McGraw Hill.
- 34. O'Laughlin, E.M. and Bischoff, L.G (2005). Balancing Parenthood and Academia: Work/Family Stress as Influenced by Gender and Tenure Status, Journal of Family Issues, 26, 79–106.
- 35. Ogbogu, C.O. (2013). Work-Family Role Conflict among Academic Women in Nigerian Public Universities, WEI International Academic Conference Proceedings, 19–24.

- 36. Omran, S. (2016). Work-family balance dilemma among employed parents (an empirical study). International Journal of Business and Economic Development, 4(1), 31–46.
- 37. Panofsky, R. (2003). Professor/Mother; the Uneasy PartnershiP. Journal of Association for Research on Mothering, 5, 103–111.
- 38. Pattusamy, M. & Jacob, J. (2017). A Test of Greenhaus and Allen (2011) Model on Work-Family Balance. Current Psychology, 36(2), 193–202.
- 39. Rafnsdóttir, G.L. & Heijstra, T.M. (2011) Balancing work–family life in academia: The power of time. Gender, Work and Organization, 20(3): 283–296.
- 40. Santos, G.G. & Cardoso, C.C. (2008). Work-Family Culture in Academia: A Gendered View of Work-Family Conflict and Coping Strategies. Gender in Management: An International Journal, 23, 442– 457.
- 41. Voydanoff, P. (2004). The Effects of Work Demands and Resources on Work-to- Family Conflict and Facilitation. Journal of Marriage and Family, 66(2), 398–412.

# **Appendices:**

# Table A.1

# Ministry of Higher Education: List of women's representation among academic teaching staff at the Egyptian private universities in 2016-2017.

	h a Ni			اعضاء هيئة التدريس									
	الاجلاس		<del>ī</del>	м	مساعد	مدرس	U.	مدر	ساعد	استاذه	استاذ ذکور اناٹ		الجامعة
جملة	201	نكور	20	نكور	201	نكور	20	نكور	20	نكور			
148	416	***	111	٧ŧ	1.1	۷۳	45	114	۲۸	۴.	n	Ψ٧	جامعة السادس من اكتوبر
1.11	114	40	141	٨٠	150	۷۳	١٥٨	111	۲۸	01	٤.	14	أكتوبر للعلوم الحديثة و الآداب
47.	0.4	£11	***	167	116	m	114	11	٣٤	**	14	٥٢	مصر للعلوم و التكنولوجيا
111	144	111	116	44	14	۳١	٤٨	14	١٤	١٤	۱۸	14	مصر الدولية
٥٩	٤٢	١٧	١٨	*	1.	*	4	۲	١	١	ŧ	*	الفرنسية
۸۱	٥٨	11	n.	11	١٢	۲	1	۲	١	٥	۳	۲	هليوبوليس
141	۲V	n.	111	1.8	1.4	01	۲۲	- 81	۲۱	**	1.	۳۸	البريطانية
٧.١	٤٧٤	***	141	٧٤	١٤٧	4.	٨٦	- 11	۲٥	١٤	۲٥	۳۳	فاروس
***	۲.٤	118	118	16	٥١	١٧	11	۲٥	11	۲	۳	١٣	الأهرام الكندية
<b>٤</b> ٨٨	YVY	*11	111	۲۲	44	٥٧	0 į	۳١	٩	11	١.	٣٥	الحديثة للتكنولوجيا والمعلومات
m	٨١	٨٠	11	44	11	14	4	4	Y	١	1.	١٢	جامعة بدر
141	141	*1*	111	14	16	4.	4.	٣٤	11	11	۲۲	- 11	المستقبل
	144	147	W.	1.8	۲۱	۳۲	۲۷	۳۸	٥	ŧ	٨	۲.	المصرية الروسية
¥0%	۱۸.	۱۷۸	1.1	١٨	11	٣٤	۲۲	٤٨	Y	١٣	ŧ	10	النهضة
197	147	***	٨٨	٩٨	۲.	۴.	11	•*		۲:	٩	۲۷	مبيناء
14	11	٥	ŧ	۲	۲		٧	۲	١			1	العربية المفتوحة
٧١	Y£	٤٧	٧	1.	ŧ		4	۲۱		1	ŧ	1.	المصرية للتعليم الانكتروني
417	۱۳٤	١٨٢	67	Y٧	۳١	٤٣	۲0	۲۸	٥	١٧	١٢	١٧	الدلتا للعلوم و التكنولوجيا
۲٥	1	14	۲	١			۳	۷		٥	١	1	النيل
													الإلمانية
Y0.Y	<b>\$</b> 18Y	. 144	۱۸۸.	111.	1.40	١٥٢	٨٣١	۸۳۸	*1*	444	141	£193	الاجمالى

# Table A.2

# Factor loadings ( $\lambda$ )

Ttoma	Statemente	Λ			
Items	Statements	Staff	Associate		
JS1	Generally speaking, I am very satisfied with this job	0.93	0.96		
JS2	I rarely think of quitting this job	0.96	0.97		
JS3	I am generally satisfied with the kind of work I do in this job	0.95	0.97		
JS4	I am satisfied with the working conditions	0.94	0.93		
FS1	My family life is very enjoyable	0.91	0.83		
FS2	I feel satisfied with the amount of time I spend with my family	0.81	0.74		
FS3	In general, I am satisfied with my family life	0.92	0.89		
FS4	All in all, the family life, I have is great	0.95	0.93		
WFB1	I am satisfied with the balance I have achieved between my work life and my family life	0.97	0.93		
WFB2	I balance my work and family responsibilities so that one does not upset the other.	0.97	0.93		
LS1	I am satisfied with my life	0.97	0.96		
LS2	So far I have got the important things I want in life	0.96	0.97		
LS3	If I could live my life over, I would change almost nothing	0.94	0.93		