# How Work-Family Conflict, Enrichment and their Interaction Influence Work-Family Balance Satisfaction among University Faculty?

Farhan Sarwar, Siti Aisyah Panatik, Zia ur-Rehman

Abstract: The current nature of academic job has blurred the boundaries between faculty's work and family roles. However, it is still unclear how experience of conflict and enrichment between work-family domains influence the overall satisfaction with balance, an indicator of wellbeing. Online data was collected from 450 public sector faculty members of Pakistan and analyzed using variance based structural equation modelling. Results of direct effects hypothesis revealed that work to family conflict and both directions of enrichment predicted the balance outcome. Interaction analysis revealed that low work to family conflict and high work to family enrichment led to a higher overall perception of balance satisfaction. Multi-group analysis revealed no gender difference in path relationships, but females were less satisfied with balance and experienced greater conflict. **Importance-performance** analysis revealed restructuring faculty job roles for less work to family conflict and greater work to family enrichment can enhance their satisfaction with work family balance. Conflict and enrichment arising from family has little influence on balance satisfaction.

*Index Terms*: Balance Satisfaction; Conflict; Enrichment; Importance Performance Map Analysis

## INTRODUCTION

University academic faculty is backbone of higher education system as they generate and dissipate knowledge [1]. However in recent time their jobs are no more relaxed, stress-free and autonomous as were in the past [2]. They are faced with exceeding expectations for publications, teaching workload and administrative tasks. Use of information technology within academia has allowed faculty to perform multiple tasks with more efficiency but has also blurred the boundaries between work and family domains [3]. The potentially boundless nature of academic jobs has made work-family balance a major issue for contemporary university faculty [4, 5]. A recent global level survey carried out by Times Higher Education between October and November 2017 from university staff of 56 countries and 6 continents revealed that academicians were less satisfied with their work-life balance as compared to non-academic

# Revised Manuscript Received on June 10, 2019.

Farhan Sarwar, Azman Hashim International Business School, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.

**Siti Aisyah Panatik**, School of Human Resource Development and Psychology Faculty of Social Science and Humanities, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

**Zia ur-Rehman**, Azman Hashim International Business School, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.

university staff as well as other sectors [6]. In another recent study it was found that academicians faced greater work-family challenges as compared their non-academic counterparts [7]. In Pakistan, policies of higher education commission over past two one and a half decade have increased job status and financial benefits of public sector faculty on one hand but has subjected them to higher workload and greater job pressures as well [8]. Similarly the family structure in Pakistan is also changing with more female opting for jobs and family structure tilting from combined to nuclear [9]. Logically these changes in work and family roles negatively or positively affect roles across the domain in the form of conflict [10] or enrichment [11] respectively. There is ample evidence to believe that work and family overlap and challenges shape up faculty's perception of balance and subjective wellbeing.

The concept of work family balance remained rather elusive and inconsistent through history of work family Previously it a popular common practice to operationalize balance as either absence of work family conflict (conflict) or to assume that high level of bi-directional conflict and low level of bi-directional work to family enrichment (enrichment) represents balance. subsequently researchers found that individual perception of WFB is different from conflict and enrichment. While the former is a unitary non-directional construct which explain myriad of job and family attitudes and performance outcomes over and above the conflict and enrichment [12-14], the latter are directional linking mechanisms which indicate how roles in work(or family) domain influence the roles in family (or work) domain [15]. Among these global appraisals of domain balance, one of the conceptualizations is work family balance satisfaction. Recently it is gaining popularity with researchers since as an attitude, it is a subjective evaluation of a particular aspect of life (i.e. work-family domain interface) and so qualifies to be one of the dimensions of the umbrella term of subjective wellbeing similar to life satisfaction, family satisfaction and work satisfaction [16, 17]. Previous studies have shown WFBS to be a strong predictor of work place attitudes [12, 13].

In the past few decades research related to conflict and enrichment has proliferated while scant research have examined WFBS as a distinct construct [13, 18]. The few

studies that exists are focused on non-academic professionals and based in



# How Work-Family Conflict, Enrichment and their Interaction Influence Work-Family Balance Satisfaction among University Faculty?

USA and Europe [12]. To the best of our knowledge, no study is conducted in Pakistan or with academic faculty in this context. In the same vain there is a dearth of research which has explored WFBS as an outcome variable. Previous research indicated the demands and resource as important predictors of balance satisfaction. There are multiple calls in the literature to examine satisfaction with work family balance as a distinct construct and how conflict, enrichment and their interaction influence this overall balance [12, 18, 19]. A theoretical study has postulated that four types of linking mechanisms may be the mechanisms through which domain characteristics and personality links to the perception of global balance [19]. Exploring the relationship between linking mechanisms and global balance constructs can help to explain how these approaches differ in conceptually meaningful ways. Drawing upon role theory, we endeavored to fulfil three objectives in this study. First, we explored how work to family conflict and enrichment and family to work conflict and enrichment acted as antecedents of WFBS. Second, we tested how multiplicative combination of conflict and enrichment arising from same domain influence perception of balance. Third, we compared the results to find any possible variations in relationship and level of individual constructs based on participants gender.

#### I. LITERATURE REVIEW AND HYPOTHESIS

#### A. Role theory: Conflict, enrichment and balance

According to Frone [20], role theory can be regarded as the base theory for the work family literature as it can be utilized to explain various processes inclusive of conflict, enrichment and WFB. Theoretical perspectives within umbrella of role theory delineates linking mechanisms from work-family balance as summative appraisal of multiple roles across work and family domains[14]. Greenhaus and Beutell [10] based their framework of conflict between two domain on scarcity perspective [21] and inter-role conflict [22]. Work-family conflict is a type of inter-role conflict in which there is an incompatibility between work domain and family domain [20]. This conflict is a stressor and leads to negative effects on performance outcomes as well as health related issues such as depression, anxiety and other psychological and physiological problems [23, 24]. Conlict is found to be the most potent predictor of faculty's burnout [25] and is closely related to their wellbeing [26].

Researchers have also dicussed positive influence of role interaction with theories such as role expansion [27] and role enhancement [28]. The converagance of both these theories is on the notion that human energy is expandable and fulfilling multiple roles can enhance individual wellbeing. Based on these positive role theories, Greenhaus, et al. [29] presented their seminal framework of enrichment and defined it as the extant to which role experiences in work or family domain improve the quality of life across the domain. Accordingly they defined quality of life as product of high role perofrmance and/or positive affect. Enrichment theory assumes that resoruce generated in a domain (work or family) can imporve wellbeing via two possible paths, 1)

Instrumental path: resource in one domain has a direct impact on performance on role across the domain; 2) Affective Path: resources in a domain imporves role experience across the domain in form of positive moods and emotions. Meta analysis revealed strong poistive relationship of conflict with work attitudes and health related constructs [30].

Both conflict and enrichment are bi-directional linking mechanisms. If factors in work domain influence role performance and wellbeing in family domain, this is work-to-family conflict (W-FC) or work-to-family enrichment (W-FE). Similarly if family factors influence role performance and wellbeing in work domain this is family to work conflict (F-WC) or family to work enrichment (F-WE). On the other hand, global balance is a unidimensional construct which is better explained by role balance theory [31]. According to this theory, while engaging in multiple roles, there could be positive or negative role balance. In positive role balance the focal person tries to fullfill every role within the total role system with an attitude of engagement, attentiveness and care. In negative role balance the attitude is tilted towards apathy, low effort and cyniscism. Therefore, role balance is a combination of behavioral tendencies of acting across various roles and corresponding cognitive-affective pattern that formulate in response to managing multiple roles.

Role balance theory posits that employees should pursue a positive role balance and avoid negative overall interaction between work and family domain roles [32]. This overall appraisal which considers entirity of interaction between work- family domains is referred to as "global balance" [12]. Over years many researchers have operationalized global balance in paculiar ways. Early researcher approached it like a "scale balance" based on equality of satisfaction with work and faimly roles [32], Voydanoff [33] introducted the demand and resource perspective of balance. According to this approach balance is achieved when work and family demands are fulfilled by resources present in any of the domain. In continution Valcour [34] presented a focal person's evaluation of global balance as a satisfaction (work family balance satisaction; WFBS). Accordingly, WFBS is a psychological attitude composed of affective and cognitive components. The affective part reflects the level of contentment and cognitive part represents the evaluation whether resources are successful in meeting role demands.

In a very recent study by Wayne et al's [12] study global balance was measured by two types of measures, balance effectiveness and WFBS. However it is suggested in literature that WFBS is more prudent operationalization of balance due to inherent subjectivity of measure and being solely based on view point of the focal person without much interference from external factors [17]. This depicts that instead of mearing balance in a scale like fashion such as balancing time and resources equally in both domains, the

balance is measured based on preference of the individual. Hence a person may be spending great deal of time on



the job yet feel balance due to his or her preferences according to which it's not quantity, but quality of time spent with family which matters. Being a subjective measure of balance, it closely resembles with other measures of subjective wellbeing such as life satisfaction, job satisfaction and family satisfaction [16].

# **B.** Hypothesis development

relationship of bi-directional conflict bi-directional enrichment with global balance is rarely tested. Maertz Jr and Boyar [35] posited that high or low episodes of linking mechanisms uniquely contribute to balance. Drawing from JD-R framework, Wayne, et al. [12] suggested that global balance may be the mechanism through which conflict and enrichment effect the outcomes. Greenhaus and Allen [19] presented a comprehensive framework of balance perception in which linking mechanisms is proposed as indirect antecedent to feeling of balance. In an empirical study W-FC and W-FE were found significantly related to WFBS while family to work direction was not significantly related. In another study work life conflict (-.68) was a very strong predictor of WFBS, followed by work life facilitation (.23) and life work facilitation (.19). Life to work conflict however was not significant in this study as well [18]. Theoretically when there is an enhancement of roles due to ample resources leading to enrichment between both domains, a positive role balance will be the result increasing engagement with multiple roles and an appraisal of satisfaction with domain balance. On the other hand, role-conflict due to scarcity of ample resources would lead to a negative role balance which would manifest in form of lower satisfaction with domain balance. We believe that all four types of linking mechanism will influence WFBS. Therefore, it is hypothesized.

H1: W-FC (a) and F-WC (b) will be negatively related to WFBS

H2: W-FE (a) and F-WE (b) will be positively related to WFBS

Wayne, et al. [12] analyzed Frone [20] four fold taxonomy which considers balance as high level of bi-directional enrichment and low level of conflict and they named it additive spill-over. They contended that additive spill-over is a limited conceptualization of component-based balance while simultaneous experience of both types in a single direction is best captured when interaction is studied as a form of synergic effect. Earlier studies has also analyzed this interactive effect. Grzywacz and Bass [36] found interaction influence of conflict and enrichment on anxiety disorders. Gareis, et al. [37] found that interaction of family to work direction of conflict and enrichment significantly predicted different measures of socio-emotional wellbeing including self-rated mental health, life satisfaction, affect balance and relationship quality. The interaction of opposite direction significantly predicted relationship quality only. More recently Wayne, et al. [12] found interaction of work to family conflict and enrichment to significantly predict WFBS in positive direction, The authors posited that interaction of higher enrichment and lower conflict represents balance as in Frone [20]. Therefore, for interaction we hypothesize that

H3: Interaction of W-FC and W-FE will significantly predict WFBS

H4: Interaction of F-WC and F-WE will significantly predict WFBS.

#### C.Gender in Academia

Work and Family domains have strong gender moderation as they may perceive and react entirely different to the work family linkages [38]. Hill [39] reported that working mothers reported greater work-family conflict, greater individual stress and less family satisfaction, marital satisfaction as compared to working fathers. Winslow and Davis [40] claims that gender inequality is a norm in higher education sector despite plenty of scholarly and administrative emphasis is given to raise women status in this sector. There is no second opinion that women faculty members are to face extra challenge of caring for family matters parallel to heavy workplace demands. They have to fulfil myriad of home based tasks and are primary caretaker for children as well increasing pressures from family domain as well [41, 42]. In Pakistan the load of house hold tasks is not limited to working mothers only. Even married or single females are also expected to participate in this activity more than males counterparts of same status which negatively influence females decision to opt for professional life [9]. In a very early research, Gove and Tudor [43] found better mental health of men as compared to women when performing both roles in family and work domain. Therefore, it is hypothesized that:

H5: W-FC (a) and F-WC (b) will be stronger negative predictor of WFBS for women than men

H6: W-FE (a) and F-WE (b) will be a stronger positive predictor of WFBS for men than women

Table I: Demographic distribution of study sample

| Demographic    | Size | Percentage % |
|----------------|------|--------------|
| Age (years)    |      |              |
| <25            | 6    | 1.3          |
| 25-35          | 200  | 44.4         |
| 35-44          | 164  | 36.4         |
| 45-54          | 49   | 10.9         |
| >54            | 24   | 5.3          |
| Gender         |      |              |
| Male           | 296  | 65.9         |
| Female         | 154  | 34.1         |
| Marital Status |      |              |
| Married        | 348  | 77.3         |
| Unmarried      | 99   | 22.0         |
| Not reported   | 3    | 0.7          |
| Degree Level   |      |              |
| 16 Years       | 7    | 1.6          |
| 18 Years       | 211  | 46.9         |

| Doctoral (PhD)      | 228 | 50.7 |
|---------------------|-----|------|
| No response         | 4   | 0.8  |
| Designation         |     |      |
| Lecturers           | 192 | 42.7 |
| Assistant Professor | 202 | 44.9 |
| Associate Professor | 40  | 8.9  |
| Full Professor      | 12  | 2.6  |

#### II. METHOD

## A.Procedure and Participants

Survey based research methodology was employed for current study. Online survey was created and dispatched to academic faculty members of 30 public universities in Pakistan via email. These 30 universities were randomly selected from a total of 97 public sector universities. The link to the google forms-based survey were emailed to focal persons in those university with request for further circulations using a snowball approach. The survey

Table II: Reliability, convergent and discriminant validity

|         | α  | CR  | AVE | 1   | 2   | 3   | 4   | 5  |
|---------|----|-----|-----|-----|-----|-----|-----|----|
|         | .7 |     |     |     |     |     |     | .2 |
| 1.F-WC  | 8  | .87 | .69 | .82 | .33 | .29 | .58 | 8  |
|         | .7 |     |     |     |     |     |     | .7 |
| 2.F-WE  | 6  | .86 | .67 | 27  | .85 | .54 | .34 | 8  |
|         | .8 |     |     |     |     |     |     | .6 |
| 3. WFBS | 2  | .89 | .74 | 26  | .46 | .86 | .63 | 1  |
|         | .8 |     |     |     |     |     |     | .4 |
| 4. W-FC | 0  | .88 | .72 | .45 | 26  | 54  | .83 | 4  |
|         | .9 |     |     |     |     |     |     | .8 |
| 5. W-FE | 1  | .94 | .75 | 23  | .64 | .53 | 35  | 6  |

CR=Composite Reliability, AVE = Average variance extracted lower diagonal = Fornell Larcker Criteria and Upper diagonal = HTMT criteria for discriminant validity

consisted of three sections. First section introduced to the scope of survey and informed consent. Second section was based on demographic questions. Third section consisted of items related to study constructs. Until the cut-off date, 486 responses were received. After screening for missing values, inconsistent and unengaged responses final sample size of 450 was retained for statistical analysis. Missing value criteria was set at less than equal to 5% for a single respondent. Demographic distribution of our sample is depicted in table 1.

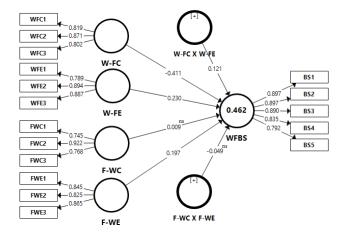


Fig. 1: Measurement and structural model paths (ns= non-significant)

#### **B.Measures**

All the survey items consisted of five-point Likert scale (1 = strongly disagree, 2 = disagree, 3= neutral, 4= agree, 5= strongly agree) and were based on established instruments from existing studies. Work to family conflict and family to work conflict was measured by abridged version of Carlson, Kacmar, & Williams's [44] work family conflict scale. The shorter version has three items for each direction [45]. Sample item for W-FC is "I have to miss family activities due to the amount of time I must spend on work responsibilities." and for F-WC is "Behaviour that is necessary and effective for me at home would be counterproductive at work". Both directions of work family enrichment was measured by six item (three for each side) short version of Carlson, et al. [46] scale recently developed [47]. Sample item for work to family enrichment is "my involvement in my work makes me feel happy and this helps me be a better family member". Sample item for family to work enrichment is A sample item is "my involvement in my family helps me acquire skills and this helps me be a better worker". Finally WFBS was measured by a five item scale developed by [34]. Sample item is "the way you divide your time between work and personal or family life".

Table III: Results for structural model with WFBS as outcome

|             |        | P      |            |                 | $\mathbf{F}^2$ |
|-------------|--------|--------|------------|-----------------|----------------|
| Predictors  | β      | Values | 95% BCa-CI |                 |                |
|             |        |        | 2.50<br>%  | 97.50<br>%      |                |
| F-WC        | .01    | .82    | 07         | .10             | .0<br>0        |
| F-WE        | .20    | .00    | .10        | .31             | .0<br>4        |
| W-FC        | 4<br>1 | .00    | 50         | 33              | .2<br>3        |
| W-FE        | .23    | .00    | .12        | .35             | .0<br>5        |
| W-FC X W-FE | .12    | .00    | .04        | .19             | .0<br>3        |
| F-WC X F-WE | 0<br>5 | .36    | 13         | and Engineering | .0<br>1        |

Published By: Blue Eyes Intelligence Engineering

51

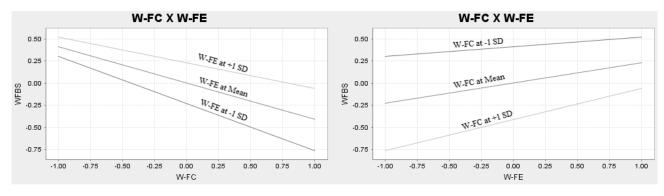


Fig. 2: Interaction plots

| R Square | .46 |  |
|----------|-----|--|
| SRMR     | .06 |  |
| NFI      | .84 |  |

BCa-CI = bias corrected accelerated confidence interval

## III. ANALYSIS

We used partial least square structural equation modelling (PLS-SEM) technique to test study hypothesis. The variance based statistical modelling technique was applied using SMART-PLS software version 3 [48]. PLS SEM offers

different features as compared to covariance-based SEM which makes it a preferred statistical technique for exploratory models. First, it allows testing of complex relationships using small sample. Second, unlike CB-SEM it compromises on normality assumption of data. Third, it conveniently handles constructs with small number of indicators [49]. In addition, SMART-PLS makes it convenient to test the interaction effect either by two stage

process or product indicator approach as recommended by Cox [50]. We adopted the two-step sequence to analyze the research model. First the reliability and validity of outer measurement model was analyzed for accuracy and observing the thresholds as recommended in literature. Next the inner structural model was analyzed on three criteria. Model fit was analyzed by standardized root mean square residual (SRMR) values and normative fits index (NFI). A value under 0.08 indicate adequate model fit [51]. Then coefficient of determination (R2) was determined followed by effect size (F2). Finally, regression weights ( $\beta$ ) were determined to substantiate research hypothesis.

#### IV. RESULTS

## A.Measurement model

First, we tested for common method variance (CMV) in our data. This variance (or bias) exist when there is high covariance among study constructs because of the way they are measured. It often occurs when independent and dependent variables are collected at one point in time. We carried out principal component analysis in SPSS loading all items on a single construct and found that they all accounted for 38% of variance. Based upon recommendations of Podsakoff, et al. [52], if variance of single factor is greater than 50%, it is indication of CMV. Then we tested measurement model in SMART PLS. Fig. 1 shows the factor

loadings of items for five study constructs. Evidently all the factor loadings for each constructs were above the recommended value of 0.7 [53] indicating strong association of reflective items with latent factors. Two approaches were used to assess the reliability of scales. Cronbach alpha is a traditional method which is falling out in favor of composite reliability (CR) as more accurate measure of reliability. While calculating Cronbach alpha all factors loadings are constraint to be equal resulting in equal error variances. On the other hand CR uses relative indicator weights in calculating its value for the whole composite resulting in proportionate error variances [54]. For the current study all the construct had Cronbach alpha and CR values greater than threshold of 0.7. Convergent validity was assessed by average variance extracted (AVE). Values greater than 0.5 indicate adequate convergent validity of the constructs. For this study AVE were greater than threshold. These results are depicted in table III.

Measurement model was also tested for discriminant validity, which means that all the constructs are empirically different. Two approaches were adopted for this study, [55] and Heterotrait-Monotrait (HTMT) ratio [56]. To determine discriminant validity by F-L method, first correlations are calculated. If the square root of AVE of a construct is greater than its correlation with all other constructs, discriminant validity is established. HTMT is a more recent indicator of discriminant validity with a threshold value less than 0.9. As depicted in table III, in this study discriminant validity was established by both methods.

#### **B.Structural Model**

There were no multi-collinearity issues in the exogenous variables as all the inner VIF values were less than 5. Our model fit measure of SRMR (.6) was adequate as it was less than 0.08 while Normative Fit Index (NFI) was also on the higher side. The R2 value (co-efficient of determination) was 0.46 indicating that four exogenous variables and two interaction terms accounted for 46% of variance in WFBS. In terms of F square [57] W-FC had moderate effect size while F-WE and W-FE had small effect size. Table 4 and inner model in fig. 1 depicts the results of path coefficient and their significance calculated by 5000 bootstrapping samples. It was found that W-FC, W-FE and F-WE were significant predictors of WFBS. Therefore H1(a), H2(a) and H2(b) were accepted while H1(b) was not

to leninot lenois

substantiated.

#### **C.Interaction term**

An interaction occurs when effect of one or more independent variable on dependent variable depends on state of other independent variables such that effect is more of a multiplicative in nature rather than additive [50]. In this study we adopted product indicator approach to test interaction effects recommended for PLS-SEM [58].

In two variable product indicator approach, a latent interaction variable is formed by multiplying each indicator of an independent variable with indicators of other independent variable[59]. Henseler and Fassott [60] recommended this approach for reflective constructs and considered it better than two stage process due to its ability to return results which are less biased. As depicted in fig. 2 interaction of W-FC and W-FE depicted significant relationship with WFBS (0.121). Therefore, H3 was accepted and H4 was rejected. Fig. 2 shows the slope of the interaction term considering W-FC is the moderator variable and W-FE is the independent variable. The graph indicates that low W-FC strengthens the positive relationship between W-FE and WFBS while high W-FE dampens the negative relationship between W-FC and WFBS. In other word both W-FC and W-FE moderates each other.

## **D.Importance-Performance Map Analysis**

Importance-Performance Map Analysis (IPMA) return values on two dimensions; the total effect of an exogenous variable on endogenous variable (importance) and the average latent score of exogenous variables (performance). In the graph of IPMA (fig 3.) Y-axis represents performance and X-axis represents importance. The goal is to identify exogenous variable with high importance but low performance (average latent scores). These variables are first priority for managers to improve (decrease or increase depending upon sign of influence) for a better result in target construct[53]. The results of IPMA with WFBS as target construct identified W-FC as a construct which needs greater managerial attention because of highest importance (-.41) and moderate performance (47.49). One unit decrease in W-FC will increase WFBS by 0.41 units. The moderate performance of W-FC and relatively higher performances of W-FE indicate favorable working conditions of faculty in Pakistan. In addition, it seems that there is ample positive effect of their family live on work roles.

Table IV: t-test based on gender for study constructs

|      | Mean(µ) |        | μ diff. | Significance |
|------|---------|--------|---------|--------------|
|      | Male    | Female |         |              |
| WFBS | 3.66    | 3.37   | 0.29    | 0.00         |
| W-FC | 2.80    | 3.07   | -0.26   | 0.01         |
| F-WC | 2.50    | 2.54   | -0.04   | 0.64         |
| F-WE | 3.77    | 3.76   | 0.01    | 0.95         |
| W-FE | 3.82    | 3.84   | -0.02   | 0.78         |

Table V: MGA of structural relationships based on gender

|       |         | Differenc |
|-------|---------|-----------|
| Males | Females | e         |

| Predictors  | β    | Sig. | β    | Sig. | β   | Sig. |
|-------------|------|------|------|------|-----|------|
|             | -0.4 |      |      |      |     |      |
| W-FC        | 1    | 0    | -0.4 | 0    | .01 | .94  |
|             |      |      | 0.1  | 0.0  |     |      |
| W-FE        | 0.27 | 0    | 8    | 9    | .09 | .43  |
|             | -0.0 | 0.8  | 0.0  | 0.3  |     |      |
| F-WC        | 1    | 1    | 6    | 7    | .08 | .41  |
|             |      | 0.0  | 0.2  |      |     |      |
| F-WE        | 0.14 | 2    | 7    | 0    | .13 | .24  |
|             |      | 0.3  | 0.2  |      |     |      |
| W-FC X W-FE | 0.09 | 0    | 5    | 0    | .16 | .20  |
|             | -0.0 | 0.2  | 0.1  | 0.4  |     |      |
| F-WC X F-WE | 9    | 4    | 1    | 4    | .20 | .17  |

#### **E.Gender Invariance Test**

We tested for any mean difference in levels of work family constructs by conducting independent sample t-test in SPSS. Results in table IV depicts that males had significantly higher perception of WFBS and lower levels of W-FC. For rest of three construct there was no significant difference.

To investigate if our hypothesized model differs by gender, we conducted multi-group analysis (MGA) with two groups. Results of MGA depicted in table V indicated that there was no significant difference in path coefficients of relationship

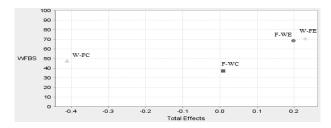


Fig. 3: Importance-Performance Map

between both genders. Both H5 and H6 failed to substantiate.

# V. DISCUSSION

In this research we studied inter-relationship between two types of work family constructs, work family linking mechanisms and work family balance. Linking mechanisms included W-FC, W-FE, F-WC, and F-WE as independent variables. These four transitory and directional variables depict how roles in one domain (work or family) influence roles across the domain (family or work). In essence they are primary psychological response of work-family interaction influenced by domain characteristics or personality which theoretically precede global perception of balance in event of occurrence [19]. Very little work has been done to identify the influence of linking mechanisms and their domain specific interaction on balance outcomes. Drawing on role theory, it was hypothesized that these four constructs and their multiplicative interaction will further influence the overall perception of balance among public university academic faculty. The versatility of this theory lies in its ability to explain multiple types of work family variables. We

theoretically postulated and empirically proved that role conflict and role enhancement both act as predictors for role



balance.

The empirical results indicated that W-FC, W-FE and F-WE significantly predicted WFBS. F-WC on the other hand did not had any significant impact. This depicts that for faculty in Pakistan the way their family life negatively influences their work life does not account for much change in how they perceive overall satisfaction with domain balance. These results were in accordance to previous findings by Grawitch, et al. [18] and Wayne, et al. [12] as both studies reported non-significant relationship of F-WC with WFBS.

Our results also suggested that conflict and enrichment arising from work domain had stronger association with holistic perception of balance over and above family to work conflict and enrichment. This is not surprising since when it is it is generally believed that balance is achieved when work interferes less with and enrich more family life [12]. Previous published research has depicted that the way work domain influence family domain contributes greater to health and satisfaction outcomes as compared to family to work direction of conflict [24] and enrichment [30].

Ours was the second study to test the interaction effect of bi-directional conflict and enrichment on WFBS based on recommendations of Wayne, et al. [12]. The authors posited that Frone [20] interactive effect should be examined in addition to additive effect of conflict and enrichment. The results of current study were comparable as for both studies interaction of W-FC and W-FE indicated significant relationship with WFBS. As role balance theory emphasize a systematic perspective of how an individual integrates roles across multiple domains [31], therefore it is suggested that multiplicative effect of lower conflict and higher enrichment accounts for variance in attitudinal and performance outcomes over and above additive effect [12]. Interaction plots indicate that at lower level of W-FC the relationship between W-FE and WFBS strengthens. In the same lieu for higher level of W-FE the relationship between W-FC and WFBS dampens indicating a multiplicative synergic effect.

The results of independent sample T-test revealed that male faculty was more satisfied with work family balance as compared to female who had higher perception of work interfering with family (W-FC). These findings deviates from Valcour [34] study in which no gender difference was found in levels of WFBS for males and females. Our results unexpectedly did not find a gender-based difference in path coefficient for the study model. It seems that for our sample of faculty from Pakistan, gender is not the moderator. Although generally in academia it is occasionally reported that females have to face greater imbalance [40], it seems this effect primary arise from family domain factors [42]. Since in our study factors arising from work domain greatly influenced WFBS, the gender effect did not come into play.

The study has various implications for university administration as well as managers from other similar profession since role theory is quite ubiquitous and widely applicable. Previous research has shown that both linking mechanisms and global balance have varying influence on wellbeing and performance outcomes [12, 13, 18]. It is

therefore important for managers to focus upon both types of constructs. Considering that work to family direction of linking mechanism have more effect, university administrators can exercise greater influence on balance satisfaction by modifying workplace characteristics suitable for lower W-FC and higher W-FE. This way managers can indirectly influence global percept of balance as well overcoming the limitation to influence family factors of their employees. In addition our study verified many previous researcher which indicated that females faculty experience greater conflict in which work life interferes with family life and less WFB in higher education academia [40]. This calls for greater effort to make academia family friendly for working ladies, mother or single.

# VI. LIMITATION AND FUTURE RECOMMENDATIONS

Every research has some limitation. In our study we used cross-sectional data therefore causality is only established as per theory and previous findings. Secondly our data was collected from single source which can be a potential source of common method variance. Using Harman [61] single factor test it was found that this variance was not a problem with our data. However, we recommend future researchers to focus on longitudinal within subject designs which can be better source for establishing causality and avoiding methodologically introduced common method bias. In addition, self-reported surveys can be aided with data collected from peers or spouses. This will give a more realistic picture of interface between work and family domains. Future researchers can extend the current model to both sides left and right and test these constructs as serial mediators.

#### REFERENCES

- [1] P. D. Umbach and M. R. Wawrzynski, "Faculty do matter: The role of college faculty in student learning and engagement," *Research in Higher Education*, vol. 46, no. 2, pp. 153-184, 2005.
- [2] G. Kinman, "Doing more with less? Work and wellbeing in academics," *Somatechnics*, vol. 4, no. 2, pp. 219-235, 2014.
- [3] T. M. Heijstra and G. L. Rafnsdottir, "The Internet and academics' workload and work–family balance," *The Internet and Higher Education*, vol. 13, no. 3, pp. 158-163, 2010.
- [4] J. W. Curtis, "Balancing work and family for faculty: why it's important," *Academe-bulletin of the AAUP*, vol. 90, pp. 21-23, 2004.
- [5] M. Watanabe and C. D. Falci, "A demands and resources approach to understanding faculty turnover intentions due to work–family balance," *Journal of Family Issues*, vol. 37, no. 3, pp. 393-415, 2014.
- [6] E. Bothwell. (2018). Work-life balance survey 2018: long hours take their toll on academics.

  Available:

# How Work-Family Conflict, Enrichment and their Interaction Influence Work-Family Balance Satisfaction among University Faculty?

- https://www.timeshighereducation.com/features/work-life-balance-survey-2018-long-hours-take-their-toll-academics
- [7] S. Torp, L. Lysfjord, and H. H. Midje,
  "Workaholism and work–family conflict among
  university academics," *Higher Education*, pp. 1-20,
  2018
- [8] A. Parveen, K. Rashid, M. Z. Iqbal, and S. Khan, "System and Reforms of Higher Education in Pakistan," *International Journal of Business and Social Science*, vol. 2, no. 20, 2011.
- [9] F. Sarwar and A. S. Abbasi, "An In-Depth Analysis of Women's Labor Force Participation in Pakistan," *Middle-East Journal of Scientific Research*, vol. 15, no. 2, pp. 208-215, 2013.
- [10] J. H. Greenhaus and N. J. Beutell, "Sources of conflict between work and family roles," *Academy of management review*, vol. 10, no. 1, pp. 76-88, 1985.
- [11] J. H. Greenhaus and G. N. Powell, "When work and family are allies: A theory of work-family enrichment," *The Academy of Management Review*, vol. 31, no. 1, pp. 72-92, 2006.
- [12] J. H. Wayne, M. M. Butts, W. J. Casper, and T. D. Allen, "In search of balance: a conceptual and empirical integration of multiple meanings of work–family balance," *Personnel Psychology*, pp. 1-44, 2017.
- [13] W. Casper, H. Vaziri, J. H. Wayne, S. DeHauw, and J. H. Greenhaus, "The jingle-jangle of work–nonwork balance: A comprehensive and meta-analytic review of its meaning and measurement," *Journal of Applied Psychology*, vol. 103, no. 2, p. 182, 2018.
- [14] D. S. Carlson, J. G. Grzywacz, and S. Zivnuska, "Is work—family balance more than conflict and enrichment?," *Human Relations*, vol. 62, no. 10, pp. 1459-1486, 2009.
- [15] M. S. DiRenzo, J. H. Greenhaus, and C. H. Weer, "Job level, demands, and resources as antecedents of work–family conflict," *Journal of Vocational Behavior*, vol. 78, no. 2, pp. 305-314, 2011.
- [16] E. Diener *et al.*, "Findings All Psychologists Should Know From the New Science on Subjective Well-Being," *Canadian Psychology/Psychologie canadienne*, vol. 58, no. 2, pp. 87-104, 2016.
- [17] K. E. Cahill, T. K. McNamara, M. Pitt-Catsouphes, and M. Valcour, "Linking shifts in the national economy with changes in job satisfaction, employee engagement and work–life balance," *Journal of Behavioral and Experimental Economics*, vol. 56, pp. 40-54, 2015.
- [18] M. J. Grawitch, P. W. Maloney, L. K. Barber, and S. E. Mooshegian, "Examining the nomological network of satisfaction with work–life balance," *Journal of occupational health psychology*, vol. 18, no. 3, pp. 276-284, 2013.
- [19] J. H. Greenhaus and T. D. Allen, "Work-family balance: A review and extension of the literature," in *Handbook of occupational health psychology*,

- vol. 2, J. C. Quick and L. E. Tetrick, Eds.: American Psychological Association, 2011, pp. 165-183.
- [20] M. R. Frone, *Work-family balance* (Handbook of occupational health psychology). Washington, DC: American Psychological Association, 2003.
- [21] V. K. Smith, "Measuring natural resource scarcity: Theory and practice," *Journal of Environmental Economics and Management*, vol. 5, no. 2, pp. 150-171, 1978.
- [22] R. L. Kahn, D. M. Wolfe, R. P. Quinn, J. D. Snoek, and R. A. Rosenthal, *Organizational stress: Studies in role conflict and ambiguity*. New York: John Wiley, 1964.
- [23] J. S. Michel, J. K. Mitchelson, L. M. Kotrba, J. M. LeBreton, and B. B. Baltes, "A comparative test of work-family conflict models and critical examination of work-family linkages," *Journal of Vocational Behavior*, vol. 74, no. 2, pp. 199-218, 2009.
- [24] F. T. Amstad, L. L. Meier, U. Fasel, A. Elfering, and N. K. Semmer, "A meta-analysis of work–family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations," *Journal of occupational health psychology*, vol. 16, no. 2, pp. 151-169, 2011.
- [25] K. Zábrodská, J. Mudrák, I. Šolcová, P. Květon, M. Blatný, and K. Machovcová, "Burnout among university faculty: the central role of work–family conflict," *Educational Psychology*, pp. 1-20, 2017.
- [26] H. R. Winefield, C. Boyd, and A. H. Winefield, "Work-family conflict and well-being in university employees," *The Journal of psychology*, vol. 148, no. 6, pp. 683-697, 2014.
- [27] S. R. Marks, "Multiple roles and role strain: Some notes on human energy, time and commitment," *American Sociological Review,* pp. 921-936, 1977.
- [28] S. D. Sieber, "Toward a theory of role accumulation," *American Sociological Review*, vol. 39, no. 4, pp. 567-578, 1974.
- [29] J. H. Greenhaus, T. D. Allen, and P. E. Spector,
  "Health consequences of work–family conflict: The
  dark side of the work–family interface," in
  Employee health, coping and methodologies:
  Emerald Group Publishing Limited, 2006, pp.
  61-98
- [30] L. A. McNall, J. M. Nicklin, and A. D. Masuda, "A Meta-Analytic Review of the Consequnces Associated with Work-Family Enrichment," *Journal of Business Psychology*, vol. 25, pp. 381-396, 2010.
- [31] S. R. Marks and S. M. MacDermid, "Multiple roles and the self: A theory of role balance," *Journal of Marriage and the Family*, pp. 417-432, 1996.
- [32] J. H. Greenhaus, K. M. Collins, and J. D. Shaw, "The relation between work-family balance and quality of life," *Journal of Vocational Behavior*, vol. 63, no. 3, pp. 510-531, 2003.
- [33] P. Voydanoff, "Toward a Conceptualization of Perceived Work-Family



- Fit and Balance: A Demands and Resources Approach," *Journal of Marriage and Family*, vol. 67, no. 4, pp. 822-836, 2005.
- [34] M. Valcour, "Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance," *Journal of applied psychology*, vol. 92, no. 6, pp. 1-12, 2007.
- [35] C. P. Maertz Jr and S. L. Boyar, "Work-family conflict, enrichment, and balance under "levels" and "episodes" approaches," *Journal of Management*, vol. 37, no. 1, pp. 68-98, 2011.
- [36] J. G. Grzywacz and B. L. Bass, "Work, Family, and Mental Health: Testing Different Models of Work Family Fit," *Journal of Marriage and Family*, vol. 65, no. 1, pp. 248-261, 2003.
- [37] K. C. Gareis, R. C. Barnett, K. A. Ertel, and L. F. Berkman, "Work-Family Enrichment and Conflict: Additive Effects, Buffering, or Balance?," *Journal of Marriage and Family*, vol. 71, no. 3, pp. 696-707, 2009.
- [38] C. Andrade and M. Matias, "Gender differences in work-to-family facilitation in portuguese employees," *Exedra*, no. 2, pp. 161-172, 2009.
- [39] E. J. Hill, "Work-family facilitation and conflict, working fathers and mothers, work-family stressors and support," *Journal of Family Issues*, vol. 26, no. 6, p. 793, 2005.
- [40] S. Winslow and S. N. Davis, "Gender inequality across the academic life course," *Sociology Compass*, vol. 10, no. 5, pp. 404-416, 2016.
- [41] L. Wolf-Wendel and K. Ward, "Academic mothers: Exploring disciplinary perspectives," *Innovative Higher Education*, vol. 40, no. 1, pp. 19-35, 2015.
- [42] J. Misra, J. H. Lundquist, and A. Templer, "Gender, Work Time, and Care Responsibilities Among Faculty" in *Sociological Forum*, 2012, vol. 27, no. 2, pp. 300-323: Wiley Online Library.
- [43] W. R. Gove and J. F. Tudor, "Adult sex roles and mental illness," *American journal of Sociology*, pp. 812-835, 1973.
- [44] D. S. Carlson, K. M. Kacmar, and L. Williams, "Construction and initial validation of a multidimensional measure of work-family conflict," *Journal of Vocational Behavior*, vol. 56, no. 2, pp. 249-276, 2000.
- [45] R. A. Matthews, L. M. Kath, and J. L. Barnes-Farrell, "A short, valid, predictive measure of work–family conflict: Item selection and scale validation," *Journal of occupational health psychology*, vol. 15, no. 1, p. 75, 2010.
- [46] D. S. Carlson, K. M. Kacmar, J. H. Wayne, and J. G. Grzywacz, "Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale," *Journal of Vocational Behavior*, vol. 68, no. 1, pp. 131-164, 2006.
- [47] K. M. Kacmar, J. H. Wayne, D. S. Carlson, M. Ferguson, and D. Whitten, "A short and valid measure of work-family enrichment," *Journal of occupational health psychology*, vol. 19, no. 1, pp. 32-45, 2014.
- [48] C. M. Ringle, S. Wende, and J.-M. Becker, "SmartPLS 3," *Boenningstedt: SmartPLS GmbH*, 2015.

- [49] J. F. Hair, L. M. Matthews, R. L. Matthews, and M. Sarstedt, "PLS-SEM or CB-SEM: Updated guidelines on which method to use," *International Journal of Multivariate Data Analysis*, vol. 1, no. 2, pp. 107-123, 2017.
- [50] D. R. Cox, "Interaction," *International Statistical Review/Revue Internationale de Statistique*, pp. 1-24, 1984
- [51] L. Hu and P. M. Bentler, "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives," *Structural Equation Modeling: A Multidisciplinary Journal*, vol. 6, no. 1, pp. 1-55, 1999.
- [52] P. M. Podsakoff, S. B. MacKenzie, J.-Y. Lee, and N. P. Podsakoff, "Common method biases in behavioral research: a critical review of the literature and recommended remedies," *Journal of applied psychology*, vol. 88, no. 5, p. 879, 2003.
- [53] J. F. Hair, G. T. M. Hult, C. Ringle, and M. Sarstedt, A primer on partial least squares structural equation modeling (PLS-SEM), 2nd ed. Sage Thousands Oaks, 2017.
- [54] T. K. Dijkstra and J. Henseler, "Consistent Partial Least Squares Path Modeling," *MIS quarterly*, vol. 39, no. 2, 2015.
- [55] C. Fornell and D. F. Larcker, "Structural equation models with unobservable variables and measurement error: Algebra and statistics," *Journal of marketing research*, vol. 18, no. 3, pp. 382-388, 1981.
- [56] J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," *Journal of the academy of marketing science*, vol. 43, no. 1, pp. 115-135, 2015.
- [57] J. Cohen, *The analysis of variance* (Statistical power analysis for the behavioral sciences). 1988, pp. 273-403.
- [58] W. W. Chin, B. L. Marcolin, and P. R. Newsted, "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*, vol. 14, no. 2, pp. 189-217, 2003.
- [59] G. Fassott, J. Henseler, and P. S. Coelho, "Testing moderating effects in PLS path models with composite variables," *Industrial management & data systems*, vol. 116, no. 9, pp. 1887-1900, 2016.
- [60] J. Henseler and G. Fassott, "Testing moderating effects in PLS path models: An illustration of available procedures," in *Handbook of partial least squares*: Springer, 2010, pp. 713-735.
- [61] D. Harman, "A single factor test of common method variance," *Journal of Psychology*, vol. 35, no. 1967, pp. 359-378, 1967.

