

Factors Affecting Work Life Balance of Employees in Indian Manufacturing Companies: An Empirical Analysis Using Structural Equation Modeling (SEM)

Jayeeta Majumder, Arunangshu Giri, Sourav Gangopadhyay

Abstract: *Work Life Balance has emerged as an important and significant aspect in present organizational environment. For balancing personal and professional life, organization should implement some strategies that can resolve the issues related to work-stress, workplace conflict, employee commitment, employee retention, job satisfaction, etc. In this study, secondary data has been used to create a hypothesized model depicting the influencing factors behind work-life balance and primary data has been used to support the model. The responses of 484 employees were collected from 5 types of manufacturing companies (Industrial and Commercial Machinery Industry, Electronic & Electrical Equipment Industry, Petroleum Refining & Chemical Industry, Food & Beverage Industry and Textile & Apparel Companies) in India. This study focuses the critical factors (Organizational Facility, Familial Positive Interference, Employee's Mental Strength) having impact on work life balance and job satisfaction. Exploratory Factor Analysis (EFA) and Structural Equation Modelling (SEM) using SPSS and AMOS Software have been used here. Also it investigates the issues and challenges regarding work life balance in manufacturing companies.*

Keywords: *Work life balance, Organizational Facility, Familial Positive Interference, Employee's Mental Strength, Manufacturing Companies*

I. INTRODUCTION

The work life balance is the existence of good function of work and life with negligible role conflict. Manufacturing sector in India has already emphasized on work life balance for employees because of their critical and meticulous work process. In present scenario, sustainable working environment is the contribution of collective bargaining by labour unions. Though the nature of the jobs in this sector is repetitive, less innovative and challenging, this sector faces several issues like improper implementations of rules and regulations and lack of organizational cultures which work life balance practices. These interventions help to enhance interpersonal skills, confidence level, motivation, satisfaction level and retention of employees (Panda & Sahoo, 2017). Health related issues caused by excessive work stress, cause work life imbalance.

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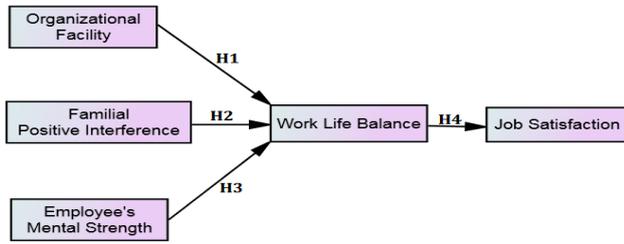
egatively affect employee satisfaction and work life balance. For achieving happy and successful life, employees of the organization have to fulfill and balance their family requirements as well as professional need. Also, Job satisfaction is the output of this effective balancing of work and family (Scholarios & Marks, 2004). The quality work life is the process of changing the socio technical nature of the job which consists of large number of positive social circle, employee friendly system, positive-role of management, team performance, and autonomy of employee.

II. REVIEW OF LITERATURE

In manufacturing sector, employees give more emphasis on job satisfaction which comes from proper work life balance. Increasing turnover rate, negative perception about the job etc. are the output of job dissatisfaction. Training and development program must be delivered to the employees to overcome these issues and enhance their confidence level and creative thinking capabilities about job role (Ashwini & Varma, 2016). Working hours is the most important variable for work life imbalance of employees in Organized Manufacturing Sector (Karpagham & Magesh, 2017). In ever growing competitive labour market the employees are unable to spend quality time with their family members (Saleem & Abbasi, 2015) which make the job inflexible. Family pressure may develop due to parental pressure, extended family pressure, and tension in relation (Greder, et al., 2017). Stress handling capability which is originated from sound mental health of employees influences directly to work life balance and organizational performance (Ganiyu, et al., 2018). HR interventions like training & development, communication, etc. are strongly related to

Flexible working schedule, recreational activities and workshops for stress reduction should be introduced to manage work pressure (Kanwar, et al., 2009). Job autonomy facility and effective supervision help employees to maintain work life balance and increase their performance level (Machuca, et al., 2016). The factors affecting the work life balance can be described in other way – the individual, social, familial and organizational (Burke & Greenglass, 1999). The work life balance is also depending upon support from different areas and people like - family support; friend support; colleague support; and supervisor support (Kreiner, et al., 2009).

Figure 1: Hypothesized Research Model



III. HYPOTHESES DEVELOPMENT

- H1:** ‘Organizational Facility’ positively influences ‘Work Life Balance’ in Manufacturing Companies.
- H2:** ‘Familial Positive Interference’ positively influences ‘Work Life Balance’ in Manufacturing Companies.
- H3:** ‘Employee’s Mental Strength’ positively influences ‘Work Life Balance’ in Manufacturing Companies.
- H4:** ‘Work Life Balance’ positively influences ‘Job Satisfaction’ in Manufacturing Companies.

IV. RESEARCH METHODOLOGY

In this study, secondary and primary data have been used to establish the hypothesized research model (Figure 1). For

4.1. Respondents Attributes

Industrial and Commercial Machinery Companies		Electronic & Electrical Equipment Companies		Petroleum Refining & Chemical Companies		Food & Beverage Companies		Textile & Apparel Companies	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
44	50	52	42	46	48	43	56	54	49

V. ANALYSIS AND RESULTS

Structural equation modeling (SEM) by using AMOS software has helped to establish the research model and check the hypothesis of this study. Fitness indexes of model were checked in this research. Exploratory Factor Analysis (EFA) using SPSS software was used to extract expected relevant factors and validate the questionnaire in this study.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.752	
Bartlett's Test of Sphericity	Approx. Chi-Square	2802.152
	Df	105
	Sig.	<0.001

collecting the primary data, a research survey was conducted by the help of structured questionnaire (Annexure 1). Research questionnaire was prepared using factors and variables extracted from literature review. Also, 5 point Likert scale (From Strongly Agree-5 to Strongly Disagree-1) has been used for collecting the responses of the employees of manufacturing companies in India. In this study, sampling process was executed in two steps. Out of many categories of manufacturing companies, 5 types of companies (Industrial and Commercial Machinery Industry, Electronic & Electrical Equipment Industry, Petroleum Refining & Chemical Industry, Food & Beverage Industry and Textile & Apparel Companies) were focused for sample-elements collection. In the first stage, selected categories of manufacturing companies in India were chosen by convenience sampling method. After that sample elements from those companies under selected categories with 100 elements each were chosen randomly in the second and last stage. Total 484 complete and fully filled-up responses out of 500 distributed questionnaires were collected for this study. The survey period was from 10th January, 2019 to 20th March, 2019.

Appropriateness of using exploratory factor analysis (EFA) was checked through KMO and Bartlett's Test (Table 1).

Table 2: Overall Reliability Statistics

Cronbach's Alpha	No. of Items
0.835	15

For testing the reliability of the dataset, Cronbach alpha value was checked. Here the alpha value is 0.835 which is more than 0.70 (Table 2) and it proves good reliability of dataset. Rotated Component Matrix (Table 3) has created 5 individual factors along with their variables with ‘factor loadings’ more than 0.5. These extracted factors can explain total 87.504 % of the variations in research model.

Table 3: Result of factor analysis - Rotated Component Matrix

Variables	Factors				
	Organizational Facility	Employee’s Mental Strength	Familial Positive Interference	Work Life Balance	Job Satisfaction
q6	.971	.015	.134	.050	.045
q5	.969	.077	.129	.024	.056
q4	.968	.054	.131	.060	.055
q15	.052	.964	.161	.039	.049
q14	.017	.945	.153	.017	.046
q13	.075	.912	.174	.043	.093
q10	.175	.196	.897	.189	.144
q12	.098	.119	.870	.191	.059

q11	.157	.222	.857	.043	.171
q8	.011	.099	.090	.916	.044
q9	.016	-.013	.146	.902	.072
q7	.093	.007	.124	.853	-.001
q1	.033	.082	.123	.062	.908
q2	.040	.057	.036	.009	.889
q3	.071	.035	.159	.043	.865
% of Variance Explained	19.395	18.573	16.766	16.469	16.301

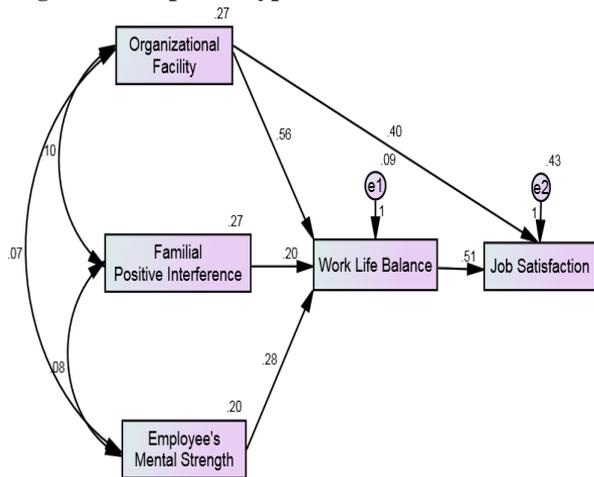
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 5 iterations.

The fitness of the research model was checked by the indices (Table 4) of Structural model.

Table 4: Fit indices for Structural Model

Fit Index	Acceptable Threshold Levels	Structural Model Values
χ^2/df (Chi-square / degree of freedom)	Values less than 3	1.079
RMSEA (Root mean-square error of approximation)	Values less than 0.06	0.016
GFI (Goodness of fit index)	Values greater than 0.90	0.997
AGFI (Adjusted goodness of fit index)	Values greater than 0.90	0.978
NFI (Normed fit index)	Values greater than 0.90	0.996
CFI (Comparative fit index)	Values greater than 0.90	0.998

Figure 2: Output of hypothesized structural model



Path Analysis was conducted for evaluating the influences of the factors on Work Life Balance and Job Satisfaction of Employees in Indian Manufacturing Companies.

Table 5: Path analysis of Structural Model

Measurement Path		Hypothesis	Estimate	S.E.	C.R.	P-Value	Assessment
Work Life Balance	← Organizational Facility	H1	.561	.037	15.136	<0.01*	Supported
Work Life Balance	← Employee Mental Strength	H3	.280	.043	6.501	<0.01*	Supported
Work Life Balance	← Familial Positive Interference	H2	.198	.037	5.307	<0.01*	Supported
Job Satisfaction	← Work Life Balance	H4	.513	.108	4.751	<0.01*	Supported
Job Satisfaction	← Organizational Facility	New	.402	.105	3.821	<0.01*	Supported

Note: * indicates 1% level of significance

VI. HYPOTHESIS TESTING AND FINDINGS

H1: ‘Organizational Facility’ positively influences ‘Work Life Balance’ in Manufacturing Companies.

Significant P-value (p<0.01) with positive (+.561) path coefficient supports the above hypothesis. Excessive work pressure and working hours, poor working conditions, less opportunity to develop skills, high interference of government policies and poor pay have a huge impact on work life balance (Poulouse & Sudarsan, 2017).

H2: ‘Familial Positive Interference’ positively influences ‘Work Life Balance’ in Manufacturing Companies.

Structural model supports the above hypothesis because path coefficient is having significant value (p<0.01) and expected positive sign (+.198).

Family related negative interferences towards employees are day by day increasing because changing social structures such as dual career couples, aged parents, families without parents, child care arrangements, etc. Therefore time allocation for different activities is a vital part in work life balance for employees. Work life imbalance creates several issues which results in lower efficiency, performance, productivity and extreme stress and burnout of employees. On the other hand, proper work life balance motivates employees to handle stress.

H3: ‘Employee’s Mental Strength’ positively influences ‘Work Life Balance’ in Manufacturing Companies.

Significant P-value ($p < 0.01$) with positive (+.280) path coefficient supports the above hypothesis. The psychological or the mental wellbeing is a state when someone fully understand his or her abilities, can adjust the normal stresses of life, can work productively and fruitfully, and is always able to and want to contribute his or her community. The psychologically or the mentally strong people are able to lead and fulfill the requirement of family and the work (Whaley, et. al., 2005). The balance of work life is depending upon the behaviour and the thinking pattern of the employees (Clark, 2000).

H4: ‘Work Life Balance’ positively influences ‘Job Satisfaction’ in Manufacturing Companies.

Structural model supports the above hypothesis because path coefficient is having significant value ($p < 0.01$) and expected. It shows if any employee is not getting support from the family they will not be able to concentrate on the work and the output will be hampered. The study shows some variables which are included in the familial influence. So the study recommends that if any organization wants to get optimum output they need to understand or take some decisions to sort-out the familial issues. In this study another aspect is also analyzed – mental state of the employees. The mental strength of the employee is playing an important role in both work and family life. Every organization should arrange some events which help to increase the mental strength of the employee so that they can fight against every odd.

VIII. CONCLUSION

This research study is mainly concentrated on the factors influencing on the work life balance of the manufacturing industry. The work life balance is the main deciding factor of the employee satisfaction. Every organization is driving

positive sign (+.513). The quality of work life balance is the depending factor of job satisfaction so every organization should deal their employee on humanitarian way (Hilan & Einstein, 1990).

VII. IMPLICATION OF THE STUDY

The organizational influence on the work life balance is huge. In competitive market where challenges is growing more and more, the employee retention is became a major challenge for every employer as there is always an increasing demand for the skilled employees. Job opportunities are increasing so every organization should be skilled enough to retain their employees. If they failed to do that, they will never get skillful employee by that they will never achieve their target and by that they will be perished from the face of the market. The quality of the work life is essential because an employee with balanced work and family life is able to give more service for the organization as they are satisfied with family and organization. Our study shows that the organizational strategies have highest influence on the work life balance as they are playing a direct and important role in the employee’s work life and indirectly in their family life too. If any organization does not allow their employee to spend quality time with their family then it will surely hamper the family life as well as the output of the employee. The study also revealed that the familial influence is also affects the work life balance of the employee.

towards the uplifting the employee satisfaction because it helps to retain the skillful employee in the organization. The manufacturing industry is growing day by day so the demand for the skillful employee is also growing. Helping the employees by providing enough opportunity to maintain the work life balance is an excellent way to sustain job satisfaction and earn loyalty from them. Many manufacturing companies in India are not practicing properly their work life balance policies and also they have not any full proof plan regarding this. Employers should prepare the policies which will provide facilities to the employees like friendly working environment, flexible schedule, proper leave facilities, good compensation packages, promotion, health care and child care services, transportation facilities, etc. Proper implementation of these policies can easily maintain work life balance. This work life balance is the major determinant of employee’s job satisfaction.

ANNEXURE: 1

Factors	Structure Questionnaire with Different Variables
Organizational Facility	Flexible working hours help to manage work and family.
	Proper leave-facilities help employees to maintain work life balance.
	Good working environment manages work life balance.
Familial Positive Interference	Family-support gives you the strength to manage work and family.
	Proper time allocation for different activities helps to maintain work life balance.
	Suitable child care arrangements help to handle work and personal life smoothly.
Employee’s Mental Strength	Employee’s mental maturity supports to manage work and family.
	Employee’s mental stability helps to maintain work life balance.
	Employee’s patience handles work life balance properly.
Work Life Balance	Organizational facilities help to promote work life balance.

	Familial Positive Interference helps to promote work life balance.
	Employee's Mental Strength helps to promote work life balance.
Job Satisfaction	Work Life Balance helps to promote job satisfaction.
	Organizational facilities help to promote job satisfaction.
	Familial positive intervention helps to promote job satisfaction.

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