



## ANALYSIS OF OVERALL SATISFACTION ON FACTORS AFFECTS IN BALANCING WORK LIFE AND PERSONAL LIFE OF WOMEN TEACHERS WORKING IN SELF FINANCING COLLEGES IN THANJAVUR DISTRICT BY USING THE NEURAL NETWORK (NN) METHOD

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### Abstract

Work-Life Balance does not mean an equal balance. It means the capacity to schedule the hours of professional and personal life so as to lead a healthy and peaceful life. It is not a new concept. It emphasizes the values, attitudes and beliefs of women regarding their age to work in organizing and balancing their work and personal life. When a woman achieves a successful work-life balance, she has job satisfaction and becomes highly committed and productive and succeeds in her career. But, in certain cases the women is not able to succeed due to incapability in balancing her work and personal life. She is unable to set her priorities. As a result she withdraws from her work due to simple reasons like taking care of her children, aged in laws/parents, and other family pressures. Work-Life Balance does not mean an equal balance. It means the capacity to schedule the hours of professional and personal life so as to lead a healthy and peaceful life. It is not a new concept. It emphasizes the values, attitudes and beliefs of women regarding their age to work in organizing and balancing their work and personal life. When a woman achieves a successful work-life balance, she has job satisfaction and becomes highly committed and productive and succeeds in her career. But, in certain cases the women is not able to succeed due to incapability in balancing her work and personal life. She is unable to set her priorities. As a result she withdraws from her work due to simple reasons like taking care of her children, aged in laws/parents, and other family pressures. Several studies have quoted the relationships among the role conflict, job satisfaction, career orientation and work life balance. However, there are not many studies which have been carried out on working women teachers. Therefore, the researcher has undertaken to study the factors affecting WLB and the demographic variables among working women teachers in self – financing colleges. The study was confined to women faculty. The results of the study will be useful and contribute to the organization to work out schemes that would not only attract and retain the employees for a longer period but also make them highly productive.

**Keywords:** Work Life, Personal Life, Balancing Practices .

### 1.1 Introduction

The increasing demands and pressures of work-life, leads to conflicts between work and personal roles. Proper work life balance can be achieved when an individual is able to fulfill all his/her needs in respect of family, work and society. In every workplace, the metrics of quality and performance are usually developed according to the potential of each individual or team, which are ultimately translated as their association, dedication or passion for the work or the incorporating workplace. Understandably, any imbalance between organizational and personal commitments and the inefficient management of life priorities can lead to serious consequences such as diminished job satisfaction, poor productivity and performance, lower organizational commitment, inferior career ambitions & success, increased absenteeism & intention to leave, as well as employee burnout, job stress, poorer physiological and psychological health, and diminished performance in personal life & family.

For many individuals, women and men alike, work life balance has become the proverbial “brass ring” for which they strive in their efforts to balance family, work, and personal interests. Nevertheless, work life balance is not simply essential for the health and well-being of individuals, but is also cost-efficient and stability enhancing for institutions and work-environments (Perrons, 2003). Hammig and Bauer (2009) investigated and discovered that when work-life imbalance and mental health issues developed in males as well as females, they tend to develop further issues such as negative emotions, depression, low energy, pessimism, fatigue and sleep disorders. August and Waltman (2004) identified that the job satisfaction of female employees is related to the environmental condition, departmental climate, and demographics of the organization in which they used to work.

#### 1.1.1 Individual Factors Influencing Work Life Balance

Parasuraman and Greenhaus (2002) suggested that personality characteristics could be influenced by the ability of individuals to interact and react to a situation and also help to proactively shape the environment. Aryee, Srinivas and Tan (2005) observed that individuals with proactive personalities may take steps to obtain support and engage in role reformation or negotiation to minimize work– family conflict and encourage work–family facilitation. The study also revealed that neuroticism is positively correlated to work– family conflict and negatively correlated to work–family facilitation. In addition, optimists would have the ability to extract social support and implement appropriate coping strategies to cope up

with stressful circumstances, demonstrated by negative relation with work– family conflict and positive relation with work– family facilitation.

### **1.1.2 Organizational Factors influencing Work Life Balance**

Many studies have suggested that flexible work arrangements would help the employees to attain a better blend between work and non-work activities and help the organizations to recruit, retain and motivate their employees. *Christensen and Staines (1990)* identified that flexible time work arrangement reduced late comings, absenteeism, and turnover. The study concluded that flexible time strategy improved employee productivity by minimizing absenteeism, turnover and work family conflict. Wayne et al. suggested that limiting work hours may benefit workers to increase the level of work family balance because fewer work hours may contribute to reduction in work family conflict. *Hill et al. (2010)* propounded that, flexi time helps employees to manage their work and family responsibilities effectively there by allowing them to minimize work family conflict and to improve the performance at work & home. *Julien, Somerville and Culp (2011)* had examined the role of alternative work arrangements that helps to reduce work life conflict in the public sector. The Results revealed that a compressed work week is considered as an alternative work life arrangement that reduces work-life conflict and helps to enhance work-life balance.

### **1.1.3 Societal Factors Influencing Work Life Balance**

Various studies had suggested that family related factors such as number of children and childcare responsibilities lead to imbalance in work and family roles. Fathers experienced stress in child caring during the absence of employed wives from home. Increased number of children at home results in increased home demands causing additional stress and work family conflict. *Elliott (2003)* investigated on major difficulties faced by the employed parents of small children particularly of age below six years, in providing adequate child care. Additionally, child care as well as care for elderly, imposes more emotional burden on females compared to males. *Ross and Mirowsky (1988)* showed that employed mothers finding difficulties in child-care arrangements experienced high depression. Societal factors namely family support including spouse support was observed to have an impact on work life balance of individuals. *Adams et al. (1996)* in his studies observed that emotional and instrumental support from family as well as society was associated with lower levels of work family imbalance.

## **1.2 Work Life Balance Among Women Teachers**

*Madipelli, Sarma & Chinnappaiah (2013)* investigating on factors influencing work life imbalance among female teachers at home and at work place observed that, organizations having ineffective work arrangements, poor working conditions, long working hours, lower income, pressurized work environment etc., may be responsible for monotony, frustration and stress towards work and home among employees, which leads to work life imbalance. Marital relationship, attitude and cooperation of husband and family members were the other factors may also relate to Work life balance amidst working women. *Padma and Reddy (2013)* conducted a study among teachers from various schools located in Hyderabad and Andhra Pradesh, India to investigate the influence of child demographics namely; number of children and their age on WLB. The results revealed that school teachers with more number of children (three children) and also the childless teachers perceived similar WLB. Work-life balance is a term that is always used in context of employees in general, but nowadays teachers are found to be overburdened due to their academic work load and career issues (*Hakanen et al., 2006*).

*Warren (2004)* explained that women with domestic responsibilities have taken on part-time jobs as a beneficial way to maintain their labor market skills, as a secondary source of income and sustain interest outside of the home. However, there is also resulting conflict between their work and family commitments and responsibilities (*Drew, 2005; Innstrandt, Langballe, Falkum, 2010*). The reason for this has been explained as women typically assume the majority of childbearing duties (*Porter & Ayman, 2010*). This responsibility can influence both role stress and negative attitudes at work (e.g. role conflict, job burnout and dissatisfaction) and are positively associated with disruptions at home (*Bacharach, Bamberger & Conley, 1991*). *Nayeem & Tripathy (2012)* examined the relationship of Job satisfaction with Work-Life Balance (WLB), turnover intentions and burnout levels among teachers in technical Institutions. The study pointed out that WLB to be a major contributor toward Job satisfaction and males experience higher degree of burnout compared to female teachers.

## **1.3 Need for the Study**

Work-life balance is the maintenance of a balance between responsibilities at work and at home. Work and family have increasingly become antagonist spheres, equally greedy of energy and time and responsible for work–family conflict (WFC). These conflicts are intensified by the "cultural contradictions of motherhood", as women are increasingly encouraged to seek self-fulfillment in demanding careers; they also face intensified pressures to sacrifice themselves for their children by providing "intensive parenting", highly involved childrearing and development. Additional problems faced by employed women are those associated with finding adequate, affordable access to child and elderly care. The concept of work life

imbalance and eventually role conflict of employed women, has gathered attention in the recent times on the work life balance. The study of work/life balance involves the examination of employees especially women's ability to manage simultaneously the multi-faceted demands of life. Although work/life balance has traditionally been assumed to involve the devotion of equal amounts of time to paid work and non-work roles, more recently the concept has been recognized as more complex and has been developed to incorporate additional components.

#### 1.4 Statement of the Problem

The concept of work life has been abstracted from the job satisfaction level of an employee, which is an extrinsic factor of job satisfaction. It aimed to provide quality of life for an employee at the same time retaining the productivity levels of an employee at the work place. The balance work life score provides an organization with a productive and innovative employee (Greenhaus, 2003), whereas disparity in the work life balance tends to develop depressed and dissatisfied staff (Kofodimos, 1993).

The idea of work life balance may be approached directly with tips and tricks to improve multitasking or with suggestions to shave needed minutes from often-mundane responsibilities (Blanchard, Blanchard, & Edington, 1999; Fanning & Mitchener, 2001; Johnston & Smith, 2001; Merrill & Merrill, 2003). It is believed that balancing a successful career with a personal or family life can be challenging and impact on a person's satisfaction in their work and personal life's roles (Broers, 2005). Dundas (2008) argued that work-life balance is about effectively managing the juggling act between paid work and all other activities that are important to people such as family community activities, voluntary work, personal development and leisure and recreation. The ability to balance between workplace's needs and personal life's needs is perceived as an important issue among workers globally and the academic higher education institutions were not excluded (Mohd Noor, Stanton, & Young, 2009).

This study sought to identify how work life balance is achieved or not achieved in their lives and how higher education and the development profession can help to minimize competing demands on them and increase their job satisfaction among academic disciplines. It attempts to analyse the problems encountered by married women professionals by virtue of combining family and career roles and to understand how they achieve equilibrium between family and profession. Women in especially in teaching profession are studied in order to understand the common as well as the unique problems experienced, and the strategies adopted to balance family and professional roles.

#### 1.5 Research Objectives

Following research objectives are in the present research study:

1. To identify the impact of the socio economic factors that influence the work life balance of the women teachers of self - financing colleges in Thanjavur District.
2. To determine the factors affecting work-life balance of women teachers of self – financing colleges in Thanjavur District.

#### 1.6 Sources of Data Used

Both types of data i.e., secondary and primary data have been used in the present study. The secondary data was collected at first from the text books, web sites, journals and other secondary sources. The primary data was collected from the sample of 289 women faculty of self-financing colleges in Thanjavur district and was put into reliability test accordingly.

#### 1.7 Population and Samples

Before identifying the samples it is necessary to define the population in terms of elements, sampling units, and the sampling area. In this study, the sample elements are the women teachers under the sampling unit of self-financing colleges in the sample area of Thanjavur district. The population frame for the study is taken from the self-financing arts and science colleges which accounts to 18 colleges out of the 32 arts and science colleges, where about 770 women teachers are employed in various departments under different designations. Therefore the population for this study consists of 770 women teachers from which about 257 women employees are considered as the sample respondents. The sampling unit is the basic unit containing the elements of target population and the sample units are selected using the sampling technique Stratified probability sampling.

The sample size is determined with the help of the following formula:

$$\text{Sample Size} = \frac{z^2 \cdot p(1-p)}{1 + \left(\frac{z^2 \cdot p(1-p)}{e^2 N}\right)}$$

Where N=Population Size; e=Margin of error; Z= is the desired confidence level

**Table -1, Sample size across women teachers working in self financing colleges**

S.No	Self-Financing College Name	Total Number of Women Teachers (Population)	No. of Samples ((Population in the college / total population) X Total Samples)
1	Abi and Abi College	14	5
2	Adaikalamatha College	43	14
3	Annai College of Arts and Science	51	17
4	Bharath College of Science and Management	40	14
5	Bon Secours College for Women	103	34
6	Dharmambal Ramasamy Arts and Science College	16	5
7	Dr. Nallikuppusamy Arts College	60	20
8	Enathi Rajappa College of Arts and Science	33	11
9	Idhaya College of Arts and Science for Women	65	22
10	Maruthupandiyar College	28	9
11	Mass College of Arts and Science	39	13
12	Meenakshi Chandrasekaran College of Arts and Science	62	21
13	Rajagiri Dawood Batcha College of Arts and Science	48	16
14	S.K.S.S. Arts College	23	8
15	Swami Vivekananda Arts and Science College	19	6
16	Sri Venkateswara College of Arts and Science	33	11
17	Sri Sankara Arts and Science College	41	14
18	Sulthana Adbullah Rowther College for Women	52	17
	<b>Total</b>	<b>770</b>	<b>257</b>

Source: Data collected from the Principals office, Sample size calculated with the help of RAOSOFT SOFTWARE

### 1.11 Analysis of Overall Satisfaction on Factors Affects in Balancing Work Life And Personal Life of Women Teachers Working in Self Financing Colleges by Using The Neural Network (NN) Method

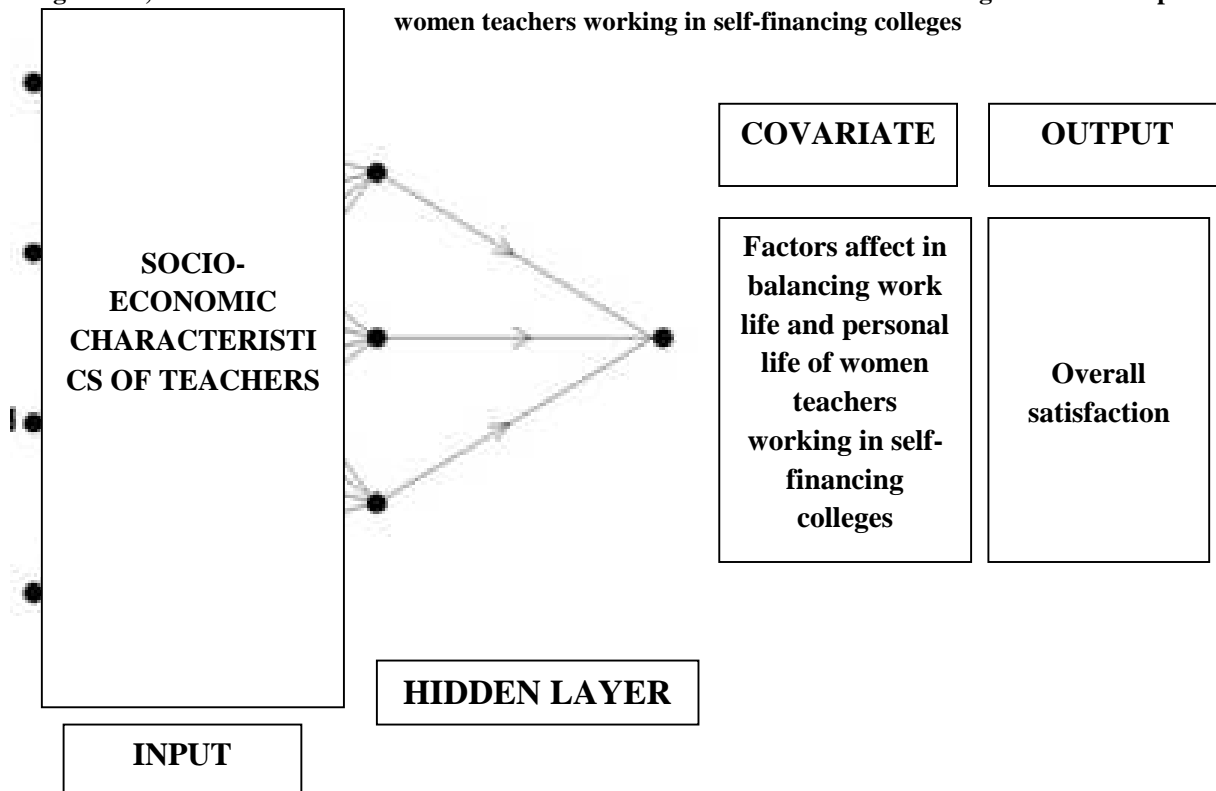
The Neural Network architecture, used in this study, is a multilayer feed forward network using SPSS 20. The architecture which provides the best fit for the data is the network with three hidden layers and an output layer. The learning and momentum parameters are 0.6 and 0.9 respectively and error convergence falls below 0.01 Percent. Tan sigmoid is the activation function chosen for the hidden layers, and the pure linear function is used to get the output layer which is the real time values. The architecture which provides the best fit for the data is the network with eight input layers, ten covariate variables and one hidden layers and one output layer, as shown in figure 4.1.

The neural network model stems from the studies on the working of human brain systems, and serves as an associative memory between the input and output patterns. These models contain many densely interconnected elements called Neurons or Nodes. The neuron has a set of "n" inputs "x"<sub>j</sub>, where the subscript "j" takes a value from 1 to "n" and indicates the source of the input signal. Each input "x"<sub>j</sub> is weighted before reaching the main body of the processing elements, by the connection strength or weight factor "w"<sub>j</sub>. (Multiplied by "w"<sub>j</sub>). In addition, it has a bias term "w"<sub>0</sub>, a threshold value that has to be reached or exceeded for the neuron to produce a signal, a non-linearity function F that acts on the produced signal (or activation) R, and an output O. The non-linearity function used in this network is the sigmoid. The sigmoid is very popular because it is monotonic, is bounded, and has a derivative: f'(s) = kf (s) [1-f(s)]. The model used in this work is the Feed Forward Multilayer perception, using the Back Propagation Algorithm. Where (4-3-1)

- 8-Input layers
- 10-Covariates layers
- 1-Hidden layers
- 1-Output layer

All inputs are analyzed in the experimental validation part, with appropriate output results by the illustration of graphs so that the influences of the parameters of tensile strength are taken into consideration. The network information presented in the table. The validation of the estimated NN and Experimental value illustrations is shown in figure.4.1.

**Figure – 1, Basic Neuron Model for overall satisfaction on factors affects in balancing work life and personal life of women teachers working in self-financing colleges**



**Table -2, Model Summary for factors affects in balancing work life and personal life of women teachers working in self-financing college’s Neural Network Model**

Training	Sum of Squares Error	58.823
	Relative Error	.665
	Stopping Rule Used	1 consecutive step(s) with no decrease in error <sup>a</sup>
	Training Time	0:00:00.102
Testing	Sum of Squares Error	27.179
	Relative Error	.670
Dependent Variable: OVERALL SATISFACTION		
a. Error computations are based on the testing sample.		

Source: Output generated from SPSS 20

**Table –3, Neural Network Model for overall satisfaction on factors affects in balancing work life and personal life of women teachers working in self-financing colleges**

Input Layer	Factors	1	Age
		2	Marital Status
		3	Number of Children
		4	Educational qualification
		5	Monthly income
		6	Location of your residence
		7	Type of the family status
		8	Total Number of the Family members

	Covariates	1	Working Hour
		2	Overtime
		3	Work from home after working hours (Documentation work)
		4	Work on holidays (For Preparing)
		5	Distance between college and home
		6	Excessive household work
		7	Negative attitude of Spouse / Family
		8	Negative attitude of superiors
		9	Negative attitude of co-workers
		10	Negative attitude of the students
Hidden Layer(s)		Number of Units <sup>a</sup>	40
		Rescaling Method for Covariates	Standardized
		Activation Function	Hyperbolic tangent
Output Layer	Dependent Variables	1	OVERALL SATISFACTION
		Number of Units	1
		Rescaling Method for Scale Dependents	Standardized
		Activation Function	Identity
		Error Function	Sum of Squares

a. Excluding the bias unit

Source: Output generated form SPSS 20.

The factors of factors affects in balancing work life and personal life of women teachers working in self-financing college's model parameters are modeled by using the Neural Network Method. The parameters are optimized so as to determine the set of parameters, which will influence the increase in the overall satisfaction of the women teachers working in self-financing college's Neural Networks Architecture and network information.

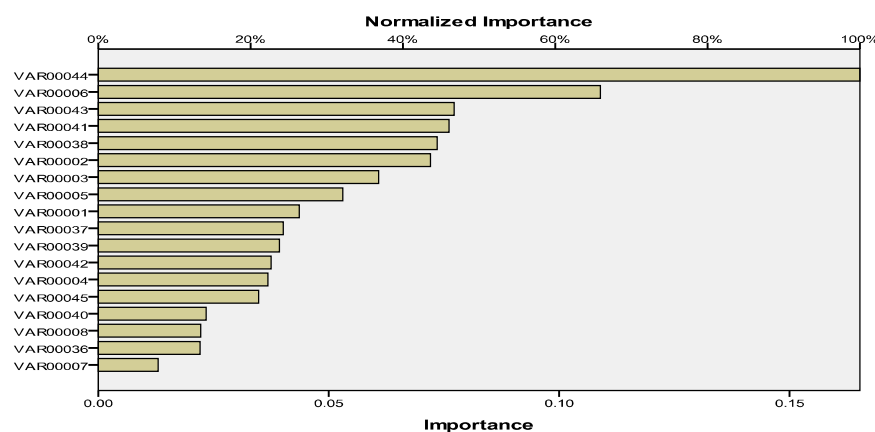
**Table – 4.4,Independent Variable importance for the overall satisfaction on factors affects in balancing work life and personal life of women teachers working in self-financing college's Neural Network Model**

Independent Variable importance	Importance	Normalized Importance
Age	.044	26.4%
Marital Status	.072	43.6%
Number of Children	.061	36.8%
Educational qualification	.037	22.3%
Monthly income	.053	32.1%
Location of your residence	.109	66.0%
Type of the family status	.013	7.9%
Total Number of the Family members	.022	13.4%
Working Hour	.022	13.4%

Overtime	.040	24.3%
Work from home after working hours (Documentation work)	.074	44.5%
Work on holidays (For Preparing)	.039	23.8%
Distance between college and home	.023	14.2%
Excessive household work	.076	46.1%
Negative attitude of Spouse / Family	.037	22.7%
Negative attitude of superiors	.077	46.7%
Negative attitude of co-workers	.165	100.0%
Negative attitude of the students	.035	21.1%

Source: Output generated from SPSS 20

**Figure – 2, Normalized importance for overall satisfaction on factors affects in balancing work life and personal life of women teachers working in self-financing colleges**



### 1.12 Findings

The table and diagram shows the factors affects in balancing work life and personal life of women teachers working in self-financing colleges in respect of “Negative attitude of co-workers” is contribute more towards the output of the overall satisfaction of the women teachers. The result identifies that out of all ten factors, the statement, and ‘Negative attitude of the coworkers’ is the only factor having greater interference over the overall satisfaction towards the factors affecting work life balance of the women teachers.

### 1.13 Suggestions

- The Colleges or institutions may implement their policy so as to encourage the women faculty to obtain higher degrees such as Ph.D and other qualifications as the study revealed that majority of the respondents who are having only PG and M.Phil qualifications have high career orientation and role conflict. On the other hand it was observed that well qualified respondents having doctorate do not have high role conflict and career orientation. This will help the women teachers to enjoy better quality of work life.
- Work Life Balance initiatives can assist employers and employees to be productive and healthy in their work and community lives. Organizations can give employees greater flexibility in how they work .This will support the employers in attracting and retaining employees. Flexible work arrangements are the need of the hour, as in today’s scenario most of the employees at different times in their lives work and simultaneously study courses that uplift them in their career. Some indulge in part time jobs other than their teaching profession. The Right to Request Flexible Working hours to all employees is needed to be incorporated by the organizations. The flexible working hours may be introduced by the way of insisting job rotation among the women employees in various designations.
- An innovative arrangement in employees’ working hours is proposed for the better organization of working time in the education institutions. It is recommended that male and female employees working full time should be entitled to work part time for a period of between six and 12 months in their child’s first three years. When this period of part-time employment ends, they should be allowed to return to their previous full-time status.

#### 1.14 Conclusion

In today's trend work is likely to invade personal life and maintaining work-life balance is not a simple task. Still, work-life balance is not out of reach. The managing of work life balance among women employees continuously vary at different circumstances. It is also learnt that the invoking strategies employed by women at work and family to manage work life balances are purely depends on the situations. The study enlists certain dimensions and its implications over work life balance were identified. It also learnt from the present study that managing work life balance is channelized by the psychological makeup of an individual's especially women and that is purely as an attitude based issue. Therefore, the study concludes that work life balance practices improve the quality of work life of working women. Further work life balance among women teachers lead to job satisfaction.

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