Impact of Leadership Engagement, Work Life Balance and Conflict Management on Job Satisfaction among Women in Technology in the Project based sectors in Pakistan

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## **Abstract**

Job satisfaction is of primary importance in the professional world. The best performers are most noticed as overall satisfied workers. While performing well on the job is a very important part of any professional's life, it is closely linked to a balance that they maintain with their life, overall. It is believed that Work Life Balance (WLB) leads to job satisfaction (JS). In addition to WLB, Leadership Engagement in the Workplace (LEW) and Conflict Management Training (CMT) has also been observed as a key variable in terms of Job Satisfaction (JS) during the development of this research model. This research has been specifically conducted on Women in Technology (WT) in Pakistan. A quantitative research method was used to carry out analysis of these factors affecting the JS in project-based work environments. In this research the focal point of reference for identification of impacts of LEW, WLB and CMT through structured research on various project levels. The results clearly represent the need to emphasize the importance of the role of structured management techniques through certain beneficial behaviours of LEW, CMT and WLB in order to ensure employee retention and avoid turnover rate of employees due to job dissatisfaction. The theoretical model proposed is recommended to be tested for application in other parts of the world as well. It has been revealed through this study that JS is particularly dependent on the aforementioned variables.

**Key words:** Work life balance, Women in technology, Leadership Engagement in the Workplace, Conflict management training, Conflict Management, Project Management, Job Satisfaction

## Introduction

## 1.1. Background:

Job satisfaction is of primary importance in the professional world. Happier people may be more satisfied with their jobs and perhaps vice versa. The best performers are most noticed as overall satisfied workers. While performing well on the job is a very important part of any professional's life, it is closely linked to a balance that they maintain with their life, overall. It is believed that Work Life Balance (WLB) leads to job satisfaction (JS). In addition to WLB, Leadership Engagement in the workplace (LEW) and also conflict management training (CMT) has also been observed as a key variable in terms of Job Satisfaction (JS). Keeping in view the gender demands in the general professional sector of Pakistan with a special focus on women in technology of Pakistan, a questionnaire survey was conducted from the Telecom companies, Defense organizations and IT women professionals in Pakistan. This paper determines the importance of the impact of LEW, CMT and WLB on JS in the female professionals.

The impact of the term work life balance (WLB) is heard of but previously, its importance was not clearly undertaken as management's responsibility. The advent of the awareness of evolved leadership practices could bring a positive influence and impact a significant amount on Job Satisfaction (JS) in the form of reduced employee turnover. With the advent of Multinational projects, corporations and more notably "Project Management Practices" the perception of managing the WLB and turnover intentions of employees due to job dissatisfaction in successful project teams has also evolved. This study is an

effort to contribute to the database that exists regarding women in technology nd how the variables undertaken in this research interact to provide clarity on a potential working model which is recommended to be implemented in other professional work environments as well.

When an employee of any gender is faced with physical, mental and emotional exhaustion they resort to various coping behaviors. The negative and positive effect of any chosen coping behaviors on work/ project performance and their impact on functional capabilities is also widely misinterpreted. The management's role in setting a standard to balance an employees work and domestic life has been widely ignored, in general, until the project management practices and researches in WLB have come to light, more significantly in 2005-2010, which was accompanied by an intense project management practices' awareness in Pakistan's work environment. The requirement being that the process itself should be structured and conducted properly. Leadership engagement in the workplace has set the trend for overall more satisfied team members at the project level itself. In most cases the importance WLB and Leadership indulgence in the project work itself is waived aside because they are often misinterpreted or misunderstood due to the wrongful cultural and traditional leadership techniques. Also WLB are often misconstrued being the point of focus for resolution in an imbalance of Work & Life of an employee. Whereas this may be the case in some organizations, it is not true for most, as project management has evolved so as the project management teams' exposure to changing management/leadership styles. Compared to the past Pakistani trends, the strategies for JS is now more focused on applying the latest project management styles and hence the concept of a "WLB" is coming into being a more and more reliable way to build effective or "happy" teams or direct a project keeping in mind that the correct methods are focused upon for successful implementation of said strategies. Some organizations which have a very high turnover rate in female employees have resorted to regular Time/Stress/Anger/Conflict management training sessions as one way to resolve the emotional burnout aspect of WLB imbalances.

Project sponsors, Project managers and Project teams have become more and more aware of project management practices, the importance of conflict management techniques and skills along with the positive impact WLB management may have on the overall outcome of a project as a result of Job Satisfaction JS..

## 1.2. Rationale of the study:

The rationale of this study is to stress upon the importance of the LEW, WLB, CMT & JS factors and behaviors as well as their impact on successful project outcomes in any project oriented environment.

Work Life Balance's concept has gained the importance in recent past. Initially, this subject was raised by the working mothers during the 1960s and 1970s in the UK. This concept has emerged as a result of the performance culture that expects more and more from the employees, especially now, with more and more women stepping actively in equality with men in the work force even in developing countries like Pakistan.

It is pertinent to note that in this research, we discuss the WLB and JS in women in the telecom, engineering and IT profession in Pakistan. Although an argument can arise that their WLB and CMT factors vary due to the cultural aspect such as leaving work after getting married and/or vice versa but in fact, the cosmopolitan women that we have chosen for this research are not bringing the perceived culture of our region into this professional research at the moment. They believe they are at par with the male peers and make a valuable contribution to this cause. They have answered questions based on

purely professional and basic domestic responsibilities that now even men have to participate in such as caring for children and paying timely bills, balancing family time and such.

The influence of Work Life Balance on overall job satisfaction needs to be stressed to a greater limit. Previously, a similar study was specifically undertaken to evaluate the Work life balance (WLB) and Job Satisfaction (JS) of doctors in Pakistan. Organizations are now prone to recognize the positive role of management techniques through research. The misconception that we have in Pakistan that organizations will be unwilling to share their data or information for such a research is no more, as more and more organizations are willing to partake in research to find helpful ways of evaluating which conflict management factors have a positive or negative impact on the outcome of their projects.

# 1.3. Aim of the study:

The study intends to add to the database of knowledge that exists in terms of project based women in technology and their WLB and JS with their effect on overall Job Satisfaction (JS). In addition to WLB, the effect of LEW and CMT in the workplace is also observed quantitatively and its impact on JS is studied. This study is aimed at breaking down those variables provided in a prior study along with two additional variables which have not been observed together with WLB in any prior research the author has observed. The applicability of these three variables is tested in the mentioned professional sectors in Pakistan and the study intends to recommend a model which can be applied to other developing and developed countries around the globe. The reason for choosing these Independent variables i.e. Leadership Engagement in the Workplace (LEW), Work Life Balance (WLB) and Conflict Management Training and Resolution (CMT) is to explore and gather correct data and to research, one by one, what factors in the process have a significant positive or negative impact on Job Satisfaction (JS).

# 1.4. Research Objective:

The research objective of this study is to gather insight from Project Managers and project based teams members, specifically women in technology on the project level on how they identify the existence of LEW, WLB and CMT and its impact on their JS. This research is going to focus on these three independent variables and their effect on overall JS in female professionals in telecom, engineering and in IT in Pakistan.

### 1.5. Research Question:

The research question for this study is do the factors i.e. Leadership Engagement in the Workplace (LEW), Work Life Balance (WLB) and Conflict Management Training and Resolution (CMT) have a significant positive relationship with job satisfaction?

### 1.6. Delimitations of the study:

The delimitations of the study are the application of this research to construction, asynchronous teams, academia and other project related industries around the globe.

### 2. Literature Review:

## 2.1. Concept & Definitions:

Different authors give various definitions of job satisfaction. Job satisfaction is defined as a pleasurable, emotional, state resulting from appraisal of one's job, an effective reaction to one's job (Weiss, 2002). Moreover, job satisfaction is considered a strong predictor of overall individual well-being (Diaz-Serrano & V.Cabral, 2005), as well as a good predictor of intentions or decisions of employees to leave a job

(Gazioglu and Tansel, 2002). Job satisfaction is defined, as it is result of various attitudes the person hold towards the job, towards the related factors and towards the life in general (Glimmer Consultants 1999). Job satisfaction is defined as "any contribution, psychological, physical, and environmental circumstances that because a person truthfully says, 'I am satisfied with my job" (Vroom, 1964). Job satisfaction is also identified as employee's judgment of how well his job on the whole is satisfying his various needs (Smith, 1969). Job satisfaction is defined as a pleasurable or positive state of mind resulting from appraisal of one's job or job experiences (Locke, 1976).

One of the biggest preludes to the study of job satisfaction was the Hawthorne studies. These studies (1924–1933), primarily credited to <u>Elton Mayo</u> (1926-1940) of the <u>Harvard Business School</u>, sought to find the effects of various conditions (most notably illumination) on workers' productivity. These studies ultimately showed that novel changes in work conditions temporarily increase.

The term job satisfaction was brought to lime light by Hoppock in1935. He revived 35 studies on job satisfaction conducted prior to 1933 and observes that Job satisfaction is combination of psychological, physiological and environmental circumstances. That causes a person to say. "I am satisfied with my job". Such a description indicate the variety of variables that influence the satisfaction of the individual but tell us nothing about the nature of Job satisfaction.

Job satisfaction has been most aptly defined by Pestonjee in 1973 as a job, management, personal adjustment & social requirement. Morse (1953) considers Job satisfaction as dependent upon job content, identification with the company, financial & job status & priding group cohesiveness.

These studies ultimately showed that novel changes in work conditions temporarily increase productivity (called the Hawthorne Effect). It was later found that this increase resulted, not from the new conditions, but from the knowledge of being observed.

This finding provided well-built evidence that people work for purposes other than pay, which lined the way for researchers to examine other factors in job satisfaction.

Scientific management (aka Taylorism) also had a significant impact on the study of job satisfaction. Frederick Winslow Taylor's 1911 book titled Principles of Scientific Management, argued that there was a single best way to perform any given work task. This book contributed to a change in industrial production philosophies, causing a shift from skilled labor and piecework towards the more modern approach of assembly lines and hourly wages.

The initial use of scientific management by industries greatly increased productivity because workers were forced to work at a faster pace. However, workers became exhausted and dissatisfied, thus leaving researchers with new questions to answer regarding job satisfaction.

It should also be noted that the work of W.L. Bryan, Walter Dill Scott and Hugo Munsterberg set the tone for Taylor's work.

Sometimes it is argued that Maslow's hierarchy of needs theory, a motivation theory, laid the foundation for job satisfaction theory. This theory explains that people seek to satisfy five specific needs in life – physiological needs, safety needs, social needs, self-esteem needs, and self-actualization. The model by Maslow also served as a good basis from which early researchers could develop job satisfaction theories.

## 2.2. Literature Gaps:

Impact of different factors on job satisfaction has been analyzed in the literature Review. Some studies focus on demographic determinants of workers job satisfaction but, the others relate it with nature of work and working conditions at the workplace. Similarly, work life balance and burnout factors are also among the popularly studied variables. This study contributes the impact of role of leadership engagement and stress management skill set at work and work life balance on job satisfaction. The above literature review leads to the conclusion that when it comes to scholarly work, a database exists regarding the analysis of WLB behavioral factors of women (non specifically but not typically in the healthcare sector) impacting Job Satisfaction (JS) but not in the specific context of women in technology. In fact, this subject has mostly been explored in healthcare professionals but rarely in professionals in technology and more specifically only women. The adoptability of the model extracted from the research carried out by Muhammad Imran Malik\*, Farida Saleem and Mehboob Ahmad in their research carried out in 2010 titled "Work-Life Balance and Job Satisfaction Among Doctors in Pakistan" has not been integrated with any other proposed model and applied to Pakistan's project oriented work environment as yet. The applicability of Job Satisfaction (JS) attainability while maintaining a LEW,WLB and CMT is explored and integrated in the proposed model applied to the tech sector in Pakistan in this research in the pursuit to shed some light on this often unexplored area.

# Women in Technology (WT)

In the past decades, more and more organizations are striving to encourage more girls and young women to develop computer skills and pursue technology jobs and careers. According to an online article by Courtney Hunt (2014) many of these groups focus on STEM (science, technology, engineering and math) fields more broadly, but there's a particular emphasis on computer science in most of them. While there is a consensus among women that we need more females in STEM fields and support the individuals and organizations that are striving to break down barriers and create opportunities to improve the gender balance in technology fields and firms in particular. However the term is not specified to only individuals who Code or work solely in Information Technology. Women are considered "Women in Technology (WT)" whether they are a coder, a tech entrepreneur or not – at least not in the commonly-assumed sense. Women who are making strong contributions in technologyfocused areas without being employed by technology firms or educated only in technology-related fields. Such is the diverse field of work where WT contribute and hence particularly the organizations striving to encourage more girls and young women to develop computer skills and pursue technology jobs and careers. Many of these groups focus on STEM (science, technology, engineering and math) fields more broadly, but there's a particular emphasis on computer science in most of them. The consensus is in favor of more females in STEM fields and also in the support of the individuals and organizations that are striving to break down barriers and create opportunities to improve the gender balance in technology fields and firms in particular. However, one can't escape the fact that women are considered "Women in Technology," even if they are neither a coder nor a tech entrepreneur – at least not in the commonly-assumed sense. And the professional industry is regularly reminded that there are many women who are making strong contributions in technology-focused areas without being employed by technology firms or educated in technology-related fields.

## • Determinants of Job Satisfaction (JS)

According to Lee and Ho (1989) participation of employees in decision making process adds positively in employee's job satisfaction. Job satisfaction and work motivation among the managers of Chinese restaurant in Hong Kong was studied by Lam et al. (2001). The result of the study showed that the job itself, work environment and rewards are the important determinants of job satisfaction in that industry. WLB has important consequences for employee attitudes towards their organizations as well as for the lives of employees (Scholarios & Marks, 2004).

The work-life boundary may be important in the management of the highly-skilled workers for instance, technical professionals, whose commitment may be a challenge to the employer (Scandura & Lankau, 1997; Davenport, 1999). Ivancevich et al. in 1997, defined job satisfaction as feeling and perception of a worker regarding his/her work and how he or she feels himself well in an organization. According to Davis & Newstrom in1999, job satisfaction is an experience which has various aspects. The most significant aspects are those which are relevant to working conditions and the nature of work. Low job autonomy, low job security, low wages and lack of expectation for promotion negatively affect job satisfaction of employees (Guest, 2004 & Silla et al.,2005). Garrido et al. also conducted the research in 2005 to discover the factors that determine the job satisfaction of sales managers.

When work interferes with family life it also reduces the satisfaction from job and from life as a whole (Adams et al., 1996). Markow and Klenke in 2005 and Milliman et al. in 2003 documented that leadership spiritually is a major determinant to enhance the employees' efficiency, job satisfaction, and loyalty coupled with a decrease in employees' turnover intentions. According to Hackman and Oldham in 1980 job satisfaction is a multifaceted phenomenon that consists of factor such as supervision at work, work itself, compensation and benefits, promotion policies of organization, appraisal and coworkers' attitude. People are much concern about pay and leadership behavior. Having a group culture is a key factor in the extent to which leadership behavior is adopted, as well as how effective adopting HRM practices are for increasing labor productivity and job satisfaction (Patel & Cardon, 2010). The importance of work spiritually is consistently found to be growing as the spiritual cause leads to strategic benefits to the business unit and due to the significant contribution of team work spiritually (Gogoi, 2005).

A team or group of people in work area (Dunkerley, 1975) direction is provided by top management and alignment with customers also. Dynamic changes in a company are only possible with complete understanding of management. An effective management has capability to understand failure in a team work. The concept autonomy has its roots in political, bioethical and moral attitude. Having this background, it represents the capacity to make an unforced and informed decision by a rational individual. In the literature of political and moral philosophy, autonomy is considered as a foundation for determination of moral responsibility for an individual's actions. This term also refers to state of the self-governing of the people (Smith, 1993). Leadership create the eagerness for improvement in productivity, growth and abilities of workers by building perception of organization based on the principles of love, sincerity and care to achieve the objective of loyalty of workers with organizations (Aydin & Ceylan, 2009).

- Job Satisfaction (Dependent Variable)
- Job satisfaction can be defined as the extent to which a person's desires, hopes and expectations about the employment he is engaged in are fulfilled. Job satisfaction is dependent variable in this study. Job satisfaction depends on the various factors; few of them are discussed in the study; Leadership Engagement at Work, Work Life Balance and Conflict Management Training and Resolution (CMT). Job Satisfaction is impacted and affected by the Independent variables.
- Leadership Engagement at Work LEW(Independent Variable)
   Leadership Engagement at work offers multiple facets out of which we will observe three. The psychological state engagement, behavioral engagement and trait engagement of leadership in the observed population. Being another one of the independent variables in this study, this was one of the variables highly encouraged during questionnaire testing phase. In addition, we offer recommendations regarding the effects of leadership engagement on various levels in the workplace itself.
- Work Life Balance WLB(Independent Variable)
  Work-life balance is a wide model including suitable prioritizing between 'work' (career) on the one hand and 'life' (Health, sports, family, pleasure) on the other. Work Life Balance is one of the

Independent Variables in this study. Work life balance is known to affect the job satisfaction and it is aimed to study to what significant value or insignificant value it does.

Conflict Management Training/ Skill building – CMT (Independent Variable)
 Conflict management training comprises of associated management components such as stress management and anger management during conflict management techniques. A simple component such as CMT creates the awareness and was found in this study to reduce the conflict engagement by trained professionals The reason quoted during interviews as being that they were better skilled to manage their anger during conflict and also identify the causes of conflict in their environment. Hence, CMT training aids in managing and mitigating various negative feelings that interfere with the task during a project life cycle itself. CMT is one of the Independent Variables in the study. CMT is also found to affect the job satisfaction.

Also, it is observed that the same model may be researched for its applicability on virtual asynchronous teams working from within Pakistan and may be extended to other regions of the world.

## 2.3. Critical analysis of the literature

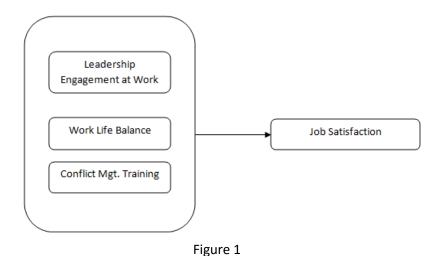
Factors of job satisfaction (Dawson, 1987), the effect of rank, age, gender and length of service on job satisfaction of employees was studied by Oshagbemi (2003) for the universities in United Kingdom (UK). The study establishes individual's rank within the organization as a main forecaster of job satisfaction and there was significant correlation between the rank and job satisfaction. Further on the length of service was significantly and negatively correlated to the job satisfaction. But the relationship between job satisfaction, gender & age was found to be insignificant for employees of the UK institutes.

There is a lot of conversation in literature on the position of gender in job satisfaction but, there is a great controversy in such studies. Some studies institute that women employees are more satisfied with their jobs than men employees but, the other studies on the gender issue prove the opposite (Weaver, 1974; Shaprio and Stern, 1975; Forgionne and Peters, 1982; Clark, 1997; Ward and Sloane, 1998). According to him this difference in expectation may be the cause of difference in the level of job satisfaction between women and men. According to Lee and Ho in1989, participation of employees in decision making process adds positively in employee's job satisfaction. According to Eason, 1989, lack of training, insufficient support of top management and workers union and non-supportive behavior of supervisors are main obstruction in building high powered teams. This is where an attempt to study LEW and CMT skills are integrated in the proposed research, in order to study the effects of some of these factors better. Improper planning is among the largest mistakes made at the time of attractive reward system and team building is the easiest thing to forget. And anywhere you have teams, conflict is natural and possibly productive. For the survival and proprietary of self- directed teams, extrinsic reward systems as well as intrinsic play a vital role according to Hackman in1990. In a recent study it was found that among conflict management behaviors (CMB), competition CMB has been seen to have the most significant impact on a successful outcome in a project, possibly due to the work culture and effective techniques to deal with high stress situations in most turnkey projects. CMBs all mirror some apprehension for the mission as all parties look for full information and work resolutely for the solution. For time-limited project teams, a conflict management method may assist arrange and focus team communications such that information is discovered more swiftly and more effective work is permitted. This may raise the productivity with performance of the teams and can have a positive outcome on project success (Shirazi, S., 2014). It is very important to look into the factors behind the declining job satisfaction. Satisfaction level of the employees working as a team is very important because it directly involves their performance on their job. Identification of such factors precisely becomes the key to hang on to and elevate the satisfaction level of the employees (James, 1996).

#### 3. Theoretical Framework

# 3.1. Theoretical/Conceptual Framework and Description of Variables

In this research the independent variables are the "Leadership Engagement at Work, Work Life Balance and Conflict Management Training" and the dependent variable is "Job Satisfaction". These variables will be measured thorough data collection which we will gather through questionnaire and their impact will be analyzed through the measuring technique selected for this research.



## 3.2. Proposed Model

The dependent variable in the study is Job Satisfaction, whereas independent variables i.e.; Leadership Engagement at Work, Work Life Balance and Conflict Management Training. The relationship between independent and dependent variable is measured with the help of the selected questionnaire. Based on interviews of project managers from a few firms, there are significant evidences that those working in the project based telecom/engineering/IT sector in Pakistan are not accustomed to the presence of a more obvious WLB and CMT oriented management concern, especially after the telecom and IT boom took place in the region around 2005. The fact that LEW, WLB and CMT is making waves in the current landscape of the industry is credited to the multinational work environment, project management practices and a shift in the project management styles which the Pakistani professionals were exposed to and that they eagerly accepted. It has been observed and through interviewing techniques in this research paper, that project based professionals are now acknowledging the presence of job satisfaction and dissatisfaction among teams as it is very basic human nature to have an independent point of view instead of perceiving it as insubordination. Conflict management awareness and training has caused a greater understanding of what drives conflict and how to manage it best during various project phases in order to gain productivity out of various conflict management behaviours. The focus of organizations has shifted from firing de-motivated employees to reinforcing systems that aid in increasing LEW, WLB and CMT in order to retain their top and up and coming performers. The hypotheses for this study are:

H1: Leadership Engagement at Work has a significant positive relationship with job satisfaction

H2: Work life balance has a significant positive relationship with job satisfaction

H3: Conflict Management Training has a significant positive relationship with job satisfaction

# 4. Research Methodology

## 4.1. Sample Selection

In this research data is collected from various sources including Engineering, IT & Telecom Project based organizations and interviews. Fortunately, the strict terminology of "Work Life Balance and Job Satisfaction" is well known to respondents, so it was convenient to brief the respondents about the subject initially. To gather the data, a list was initially prepared the list of potential respondents through brainstorming and expert judgment techniques. Based on the convenience sampling technique, questionnaire was to various respondents. Convenient sampling was used for the collection of the data by questionnaires. Response rate greater than 80 % was achieved.

#### 4.2. Measurement Frame

This study inspects the relationship between job satisfaction with WLB, LEW and CMT on JS in women in Technology. The questionnaire was developed in 2014, tested and then data was gathered from the relevant organizations. Part of the questionnaire was adopted from the study done by Muhammad Imran Malik, Farida Saleem and Mehboob Ahmad - Work-Life Balance and Job Satisfaction among Doctors in Pakistan in 2010. The sections of the questionnaire that were applied were the ones that relate only to the relevant variables which is the correlation between WLB & JS.

As these areas, especially job satisfaction (JS) indicates, work life balance can have a very demanding and complex impact on a professional's capability to perform effectively on a project. The questionnaire was measured on a five point scale from 1-5 where 1 = Strongly Agree, 2 = Agree, 3 = Neutral, 4 = Disagree, and 5 = Strongly Disagree. This scale was pre-tested and found to be valid and reliable with Chronbach's Alpha equal to more than 0.7. As most market researchers prefer that the optimal level of scale entries should be content specific and respondents should make a specific response instead of a socially acceptable neutral midpoint rating scale.

# 4.3. Procedure

This study was supported on primary data. The questionnaire was personally explained to groups which further monitored the respondents in their organizations and professional circles. The questionnaire was distributed among 140 respondents. Only one questionnaire was given to each respondent. Before handing over the questionnaires, questions were explained to the respondents so they could complete the questionnaire and the results could be extracted.

### 4.4. Unit of Analysis

The collection of data in any study can be focused on organization, departments, work group and individuals. For this study the main source of information was Project based engineering, IT & telecom organizations and concerns. Basically wherever we have women in tech, these questionnaires were distributed. The population frame chosen for this particular research is a number of engineering organizations and software companies comprising of performance related tech projects, the respondents who answered the questionnaires prefer to remain anonymous in order to deliver honest responses.

# 4.5. Type of Study

This research is quantitative as well as qualitative as the interview technique was also used in some cases to get a theoretical point of view of the typical project manager and teams. The study can be categorized in to exploratory research, descriptive research and hypothesis testing. Exploratory research is under taken to gain better understand of dimensions of a problem whereas descriptive research is use to describe the characteristics of a population. Hypothesis testing is use to explain relationship between different variables.

#### 4.6. Time Horizon

This study was conducted in multiple engineering, IT & telecom project based organizations. This research & model may be extended to larger and asynchronous project teams, education and academia as well.

Hence, respondents in this study also form three types. On the other hand, this study is only focused on three dimensions or factors of WLB on Job Satisfaction (JS). More factors may be incorporated to extend the model for more diversity such as conflicting perceptions of individual roles in project teams and conflicting cultural and /or personal values among project team members.

# 5. Data Analysis Methodology

### 5.1. Data Collection

Suitable data collection method was used; incomplete and faulty questionnaires were discarded. Problems faced during data collection were that each project manager had to be explained the concept and expectation from the perspective of this research personally. The master training technique was also used in about 20 cases in order to ensure that the questionnaires filled by people who the author was unable to interact with are properly educated by the project manager who acts as a master trainer as well as a liaison between the author and the respondents.

# 5.2. Description of participating organizations:

The participants that responded to the questionnaire were from a variety of female professionals in Engineering, IT & Telecom Project based organizations. Faulty questionnaires were discarded and the results were calculated based on 70 correct questionnaires. Table 1 shows a brief breakdown of types of organizations and number of respondents picked from each organization.

**Table 1. Participating Organizations** 

Sr. No.	Organization Type	Respondents	Remarks
1	Defence Organization:	35	Identities of organizations and respondents is
2	IT in healthcare	15	confidential upon request
3	Telecom/ IT sector	35	to ensure honest responsses
	Total	85	

# 5.3. Data Analysis Techniques

The instrument chosen to be adapted for the data collection is the questionnaire developed in 2010, also for a similar research on asynchronous teams. The Likert scale is used on a scale of 5. The Data analysis software was SPSS, also known as PASW (Predictive Analytic Software) within which Correlation and Regression techniques were used to investigate the impact, strength, direction and significance between Independent Variables and the Dependent Variable.

# 5.5. Data Analysis and Reliability Tests

After the completion of data collection and data input, a check was run for any missing values or outliers, having found none, the normality of data was checked and since the skewness was between -1 to +1, the data was found to be normal. Statistical Package for Social Sciences (SPSS) software was used to apply various statistical tests to the data gathered via questionnaires. Before running more complex tests to analyze he relationship and variance between variables, a pretest was conducted to check the reliability and validity of the instrument. In order to qualify for the reliability the Chronbach's coefficient must be greater than 0.6 (Hair et al., 2006). 0.6 is said to be a safe range for data. Chronbach's Alpha (reliability) for all the variables is more than 0.7. Collected data is reliable. Table 2 shows Chronbach's Alpha' for each research construct. It has been proved through the gathered results that, the constructs are quite reliable and acceptable.

Table 2 Reliability Test - Chronbach's Alpha

Variables	Chronbach's Alpha				
Leadership Engagement	0.768				
Work-Life Balance	0.898				
Conflict Res. Trng	0.774				
Job Satisfaction	0.756				

To test our hypotheses, we have conducted Correlation analyses on LEW, WLB, and CMT& JS as independent variables and Job Satisfaction (JS) as the dependent variable. As the data is normally distributed so the Pearson's correlation two-tailed significance test is applied. This test is used to measure the relationship between independent and dependent variable. The positive correlation validates that the variables are significant at the 0.01 level and all independent variables are strongly correlated with Job Satisfaction (JS). Hence, it verifies one of the research assumptions that LEW, WLB, CMT have a significant impact on Job Satisfaction (JS). Correlation was tested following the Chronbach's Alpha reliability test. Table 3 displays the findings of the correlation testing and the relationship of the factors (the correlation results between LEW, WLB, CMT & JS).

Table 3 Correlation

	Leadership Engagement		Work Life Balance	Conflict ResTrng	Job Satisfaction
Leadership		1	0.861**	0.627**	0.740**
Engagement					
WorkLifeBalance			1	0.638**	0.769**
ConflictResTrng				1	0.775**
Job Satisfaction					1

<sup>\*\*.</sup> Correlation is significant at 0.01 level (2-tailed)

The findings are that there is positive and high correlation between the three IVS and DV. LEW, WLB, CMT are highly correlated to Job Satisfaction (JS) whereas out of these three variables WLB is the least

at 0.769. LEW is positively and highly correlated with a value of r=0.74 with a significant value of p=<0.5. CMT is positively correlated with a high value of r=0.775 with a significant value of p=<0.05. WLB is also positively correlated with a high value of 0.769 with a significant value of p=<0.05. The correlation between the three independent variables is also found to be satisfactory.

Followed by correlation, regression analysis was computed to assess overall impact of LEW, WLB, CMT on Job Satisfaction (JS). In the findings of the Table 4 it has been ascertained that a statistical value of R-square is 0.857 which means that the relationship among dependent and independent variables is very strong and positive, while the Adjusted R Square value shows that the effect of other variables is also very highly significant.

Table 4 Regression Analysis

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate				
1	0.857ª	.734	.722	.39855				

a. Predictors: (Constant), CRT, LEW, WLB

The regression results show a positive relationship between the dependent and independent variables so hypotheses 1, 2 and 3 are accepted that LEW,WLB, CMT have a positive significant impact on the Job Satisfaction (JS) in the women in tech industry in Pakistan. The results of the regression models provide support for the research question is that the factors i.e. LEW, WLB, CMT have a significant positive relationship with JS. These results provide support to our research question that the factors or variables (LEW, WLB, CMT) taken into research do, in fact, affect Job Satisfaction (JS) significantly. It has been revealed through the above mentioned results that Job Satisfaction (JS) is greatly dependent on the variables as identified as LEW, WLB, and CMT.

In past researches the author has not come across such sure and strong responses as such but due to the nature of the research area, a strong consensus was observed whether it was in favor of the leadership participating at work or their absence.

Easy and open access to higher management also seems to be a contributing factor in increased Job Satisfaction (JS) according to data collected by interview techniques, one reason being consistently quoted as; it improves mutual trust among members of the organization regarding career and project progression and further improves the chances of a reduced turnover rate.

## 6. Discussion and Recommendations

Past small group research suggests that supporting behavior of supervisors benefits Job Satisfaction (JS) significantly. This specific behavior is cooperative and a solution oriented approach for team conflict. LEW has been seen to have the most significant impact on JS, possibly due to the work culture and effective techniques to deal with high stress situations in most turnkey projects. Past research also suggests that conflict when accepted and managed, may raise the productivity with performance of the teams and can have a positive outcome on project success as well. WLB mirrors some apprehension at work as all parties look for full information and work resolutely for the solution. For project teams and employees working on projects with a long life-cycle, a life and career planning method may assist in employee retention, JS and WLB in the long term.

#### 6.1. Conclusion:

b. Dependent Variable: JS

A comprehensive literature search on reference databases (Research papers, PMI Journals, WSEAS Journals and Internet) resulted in the significant number of references that the author expected to find addressing the role of WLB in women but it was mostly with regards to healthcare professionals, typically nurses and doctors. The model developed in 2010 by Muhammad Imran Malik, Farida Saleem and Mehboob Ahmad is recommended to be expanded, integrated and applied to women working in asynchronous teams working in Pakistan.

### 6.2. Future Work:

Additionally future work can be conducted on the following lines:

- 1) This work may be expanded upon specifically and solely for Academic industry across Pakistan in order to build a similar framework for their evaluation, based on the extensive student interaction and conflict occurrence in one of the busiest professional work environments.
- A comparison between the public and private sector efficiencies based on their levels of TOI and WLB and if they have a significant impact on project success and job satisfaction can also be evaluated.
- 3) A similar study can also be conducted to compare the performance of the service versus manufactured goods providing units of Pakistan based o project outcomes before and after JS levels have been monitored.

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