

The Role of Work-Life Balance in the Retention of Female Employees in the IT Industry: Responses from the South Indian SME Software Sector

Sree Lekshmi Sreekumaran Nair¹ John Aston² Eugene Kozlovski³

Received: 04/01/2021

Online Published: 22/04/2021

Accepted: 15/03/2021

Abstract

This paper investigates the factors of Work-Life Balance on the retention of IT employees in the South Indian SME software sector. The research mainly concentrates on individual, organisational and technological factors, which influence the retention of female employees. The dimensions under the individual factors' category are personality, well-being, and emotional intelligence, while under the organisational factors' category, the study focuses on Work-Life Balance policies and programmes, work support and job stress. Technology is considered as the third dimension. The study also focuses on the Organisational Role Theory (ORT) of Work-Life Balance. A total of 380 employees in 23 different organisations were targeted by using probability and non-probability sampling techniques; the final number of employees participating in this survey, however, was 270. For data analysis purposes, the IBM SPSS 23.0 package was used, as the study was quantitative in nature. The results indicate that organisational factors help retain female employees in the South Indian software sector rather than individual factors.

Keywords: Work-life balance, retention, IT workforces, individual factors; organisational factor, software sector

JEL Classification: L20, L29, M10, M15

1. Introduction

The significance of the balance between employment and the families of working people is regarded, currently, as a debatable topic. For many years, men were considered as the sole income generators and women as homemakers. At present, however, men and women share a similar status regarding their work and family responsibilities (Marchand & Runyan, 2000). In order to balance work and family, women need to plan their careers appropriately. According to societal perspective, however, household responsibilities are one of the specific categories that determine male and female approaches in society (Baxter, 2002). The research conducted by Budd and Mumford (2006) suggests that organisations can offer benefits in terms of Work-Life Balance but in reality this does not occur. To retain the employees within an organisation, Work-Life Balance is referred to as an important aspect. Employees need flexible working hours in order to concentrate on their personal, as well as their professional lives (Ellenbecker, 2004).

The retention of employees over the long term is constructive for the interests of an organisation (Bidisha & Mukulesh, 2013). Employee retention is an organisation's means of keeping their most productive and creative staff but, at the same time, meeting the needs of the company (Mita, Aarti & Ravneeta, 2014). According to Workforce Planning for the Wisconsin State Government (2015), the retention of employees is a well-organised plan for developing an environment which supports employees, helping them to remain within an organisation and providing policies and practices which cater for their needs. The study by Loan-Clarke, Arnold, Coombs, Hartley & Bosley (2010)

¹ University of Wales Trinity Saint David London Campus, sree.07lechu@gmail.com

² University of Brunel, John.Aston@brunel.ac.uk

³ University of Wales Trinity Saint David London Campus, eugene.kozlovski@uwtsd.ac.uk

suggests that a job has to provide an opportunity for employees to manage their responsibilities to their families, which in turn improves employee retention.

The software industry in India is developing, so it is important to consider how employees might be retained. According to NASSCOM (2009-2010), the software industry in India has been growing steadily since 2011, which has enhanced contributions to the emerging markets. Hence, many software companies have begun to hire employees, which have increased the employment rate; this has grown by nearly 9% (ibid). In addition, the rationale for the selection of IT SMEs mainly includes a 38% contribution to the nation's GDP (Kapuria, 2017). In addition, this sector provides diversity in terms of size, the level of technology used, as well as a variety of products and target markets (ibid).

There is evidence to suggest that researchers and academics have increased interest in the Work-Life Balance concept with regard to female employees within the Indian IT industry. With the increasing numbers of female employees in the IT industry, which constituted almost 3% in 2014 (The Hindu Times, 2016), it is essential to examine the Work-Life Balance of Indian, female IT employees from a wider perspective. There is no conclusive evidence of the retention of female employees in the specific organisational, personal and technological factors of Work-Life Balance in the IT industry. Thus, this study is significant for greater exploration of the above-mentioned factors.

When considering the retention of female employees, these women contribute highly towards both national and global economies. In the Indian software industry, females form a high percentage of the workforce and, therefore, the rate of turnover is also very high. It is important, however, to retain females within the software industry because they manage both their working lives and their families concurrently. Women, whether they are single or married, take responsibility for managing household duties. Organisations and policy makers have very little knowledge about how to create better Work-Life Balance policies that consider employment alongside household responsibilities for females within organisations (Sandra et al., 2000).

The ORT theory of Work-Life Balance considers that the role assigned to employees enacts the social systems, which are mainly task oriented and hierarchical, so that it is considered important to achieve the goals of the organisation (Biddle, 1986). This theory mainly focuses on the role-set of the employees and decides the particular behaviour of the role that employees need to exhibit at their workplace (Katz & Kahn, 1966). The Indian IT sector, therefore, needs to consider the jobs assigned to its female employees at the workplace in order for those employees to improve their performance and avoid leaving their companies to work elsewhere.

The IT sector in India is composed of a diverse workforce. There is an increasing trend within technology firms to employ only women but this is hindered by a lack of female employees with sufficient qualifications. From the report by NASSCOM (2017), it is evident that women in the IT sector in India are qualified enough to perform their job roles; the IT companies face retention challenges, however, when their female employees take maternity leave and are concerned about the number of female staff not returning to work. Men and women begin their careers at their same age but women progress more slowly, so men in senior positions are often younger than women at the same level. In addition, female leadership in India's IT sector is lacking as there are fewer women in senior positions at IT companies (NASSCOM, 2017).

Earlier research focuses on the different factors of Work-Life Balance and how they affect employees in the Indian IT sector (Santhi & Sundar, 2012; Rangreji, 2010; Bansal & Agarwal, 2017; Garg, 2018). This research, however, mainly explores the retention of female employees followed by the three main factors of the Work-Life Balance. Previous research (Rahman et al, 2017; Kumarasamy et al, 2015) considers technological factors as part of the organisational factor

of Work-Life Balance. The present study, however, focuses upon technology as a separate factor, which is not categorised under the organisational factors of Work-Life Balance. Moreover, there are few research studies available that are concerned with the retention of female employees in the South Indian SME software sector. In addition, the current research incorporates the Organisational Role Theory of Work-Life Balance, as currently, work-related stress is considered high in the Indian IT sector, owing to role ambiguity, role overload and role stress. The present research, therefore, will be an addition to existing studies, contributing more towards female employees' retention strategies, using the different factors of Work-Life Balance. Moreover, this study concentrates on female employees, understanding the role of Work-Life Balance and how it will help retain the services of female employees at IT companies in South India.

2. Literature Review

2.1. Individual factors affecting work-Life balance

The individual factors affecting Work-Life Balance can be categorised as personality, wellbeing and emotional intelligence. Jennings & McDougald (2007) discovered that the differences in personality of an individual influence issues associated with Work-Life Balance. McCrae & John (1992) have suggested, however, a Big Five factor model for personality traits using five dimensions: extraversion, agreeableness, conscientiousness, neuroticism and openness to experience. Wayne, Musisca & Fleeson's (2004) research focuses upon the relationship between each of the Big Five traits and the roles of Work-Life Balance between work and family. The research suggests that there is a negative association between conscientiousness, extraversion, agreeableness, openness to experience and Work-Life Balance, as well as a positive relationship between neuroticism and Work-Life Balance. Parasuraman & Greenhaus (2002), however, have stated that the characteristics of a person are influenced by the ability to respond to a situation. Furthermore, Aryee, Srinivas & Tan (2005) suggest that the personality of an individual who are is dynamics has to take their own initiatives in order to retain the negotiation to minimise the conflict between work and family, hence increasing work and family life. The study, therefore, concludes that neuroticism is positively correlated with work-family conflicts and negatively correlated with work-family facilitation (ibid).

The research conducted by Gropel & Kuhl (2009) mentioned that needs fulfilment exhibits a mediating role in the relationship between Work-Life Balance and well-being. The study concludes that women have a higher level of wellbeing than men. Hence, women have an enhanced work-life balance combined with fewer work and family conflicts. Work-Life Balance is important for an organisation, as it is connected with the wellbeing of individuals which reduces the stress associated with work and the effects of breakdown (Allen et al 2000; Eby et al 2005; Fox & Dwyer, 1999).

The emotional response of a person influences their interpersonal and psychological availability for a different role (Rothbard, 2001). A person with highest negative affectivity is considered as experiencing an increased negative relationship between work and family (Bekker et al., 2010). Persons who are demonstrating intrinsically oriented behaviours are considered as to focus on the growth of their potential. Moreover, they are interested in satisfying their basic psychological needs, such as autonomy, competence and relatedness (Van den Broeck, Vansteenkiste & Has De Witte, 2010). The study conducted by Rangreji (2010) identified that IT employees in Bangalore city in India exhibit a balanced control of emotion following appraisal and recognition by others. Hence, the relationship between emotional intelligence and Work-Life Balance is weakly related and significant. Appraisal and emotional expressions, however, carry an increased influence.

2.2. Organisational factors affecting work-life balance

Straub (2007) argues that the significance of practices and policies of Work-Life Balance in 14

European countries is to enhance the career development of women in senior management positions. Remuneration during maternity leave, however, has a significant positive impact on Work-Life Balance. Research by Hyman & Summers (2007) discovered that employees working in Scotland's financial sector faced problems related to Work-Life Balance and organisational needs. Hence, trade unions began to intervene in the organisation's Work-Life Balance programmes to provide for the employees according to their needs.

Thompson, Kirk & Brown (2005), however, studied among the female police officers about the importance of the role of supervisors who are exhibiting stress. Warner and Hausdorf (2009) researched the issues of the Work-Life Balance of the health care sector in Canada and revealed that a positive relationship between the organisation and support from the supervisor could reduce conflict in the workplace.

The studies by Stanton et al., (2001) discussed work-related stress as the person's perception of the organisation's environment as threatening or demanding; hence, the employees experience distress. Work-Life Balance is associated with distinct levels of job stress experienced by employees in a variety of work roles (Wallace, 2005; Wong, 2007). Research by Bell, Rajendran & Theiler (2012), however, discussed the relationship between occupational stress, health, Work-Life Balance and work-life conflict in Australian academia and suggested that job stress levels are positively associated with work-family conflict and ill health. The level of job stress is, however, negatively related to Work-Life Balance and wellbeing. According to Nair & Sommerville (2017), female employees in IT SMEs operating in the South of India, exhibit less job related stress than males because of the culture of the organisation. The studies by Haque & Aston (2016) reveal that the female workforce receives support at their workplace, so that they have lower stress levels than males. In addition, the research by Nair & Sommerville (2017) argues that organisational factors have a role in the operations and management of workers.

2.3. Technology

Lester (1999) indicated that technology impacts upon Work-Life Balance by providing a better flexible working environment, at any time, which aids the employees in working from home. Waller & Ragsdell (2012), however, argued that the organisational effect uses the e-mail culture on employees who are working outside of working hours. Interestingly, this study identified both positive and negative effects of the culture on employees.

2.4. Employee retention

Johnson (2008) studied companies who started family-friendly Work-Life Balance programmes to enhance retention and job satisfaction, as well as to reduce absenteeism and stress among employees with dependents. Chimote & Srivastava (2013), however, carried out research on a call centre in Gurgaon, India and suggested that organisational perceptions of Work-Life Balance are mainly correlated with absenteeism, while the employees' perception of Work-Life Balance benefits correlate with job satisfaction and autonomy.

The research by Loan-Clarke et al. (2010) suggests that autonomy, flexibility of work roles and support from society are important to the retention of employees over longer periods of time. Christeen (2015), however, identified eight factors of retention: management, working environment, support from society and opportunities for development, autonomy, reward, workload and Work-Life Balance. Hence, employers need to demonstrate an appropriate Work-Life Balance to improve staff retention (Lener, Roehrs & Piccone, 2006). Osman (2013) found that offering emotional support to employees through Work-Life Balance decreases their intention to leave their jobs. Mita, Aarti & Ravneeta (2014) argued, however, that there is a direct relationship between the decision of the employees to stay in the organisation and Work-Life Balance.

The implementation of Work-Life Balance policies in organisations has been shown to decrease absenteeism levels and thus affects the job satisfaction and retention of employees (Hill, 2005; Allen, 2001). Grady et al., (2008) identified the possible benefits an organisation can achieve by implementing different aspects of Work-Life Balance such as flexibility, childcare facilities and counselling. Hence organisations can benefit from the relationship between increased Work-Life Balance and the retention of employees, and this has an impact upon commitment and productivity (Ryan & Kossek, 2008; Hill, 2005). Companies that have high Work-Life Balance cultures are more likely to retain their employees through increased Work-Life Balance practices (Kristof, 1996). This has to meet with the expectations of the employees, otherwise they tend to leave the organisation and seek work at companies with high Work-Life Balance cultures. Grady et al., (2008) identified that an organisation has to differentiate between the significance of employee wellbeing and job satisfaction. This is linked to motivation, commitment and retention, which affects both the productivity of an organisation and the total performance of the employees.

It is evident from the above literature (Gropel & Kuhl, 2009; Straub, 2007) that there are a limited number of studies related to the retention of female employees and factors of Work-Life Balance. There is literature available that considers leadership aspects and retention of female employees (NASSCOM, 2017), as well as studies which cover the personal and professional factors of Work-Life Balance. However, research on the individual and organisational factors of Work-Life Balance, which considers other sub-factors, is limited. The turnover of female staff in the IT sector is increasing and a study is needed to explore this, particularly in relation to gender. The present paper focuses on the factors which impact upon the Work-Life Balance of female employees and their retention. The IT sector in India is traditionally male dominated but, nowadays, the gender gap appears to be closing (NASSCOM, 2018). Moreover, women form less than a third of India's overall workforce, according to World Bank data (ibid). It is important, therefore, to research female retention in the IT sector, considering the individual, organisational and technological factors of Work-Life Balance.

3. Hypotheses

Based on the literature review section above, we can arrive at certain hypotheses, which are developed below.

3.1. The impact of individual factors

Different authors have suggested that there is a relationship between individual factors and female employee retention (Gropel & Kuhl, 2009; Straub, 2007). However, the latter have mostly analysed them as a whole without looking into the impact of each particular factor. Hence, it appears important to test how different individual factors affect female employee retention separately.

For this purpose, the present study further developed sub-hypotheses by considering various aspects of individual factors, as mentioned in the literature review above. The different factors under the individual factors' category of Work-Life Balance include personality, wellbeing and emotional intelligence, and how these are individually connected to employee retention.

As discussed previously, the personality of the individual has an important relationship with work-family conflict, which has a direct relationship with retention (Jennings & McDougald, 2007; Wayne, Musisca & Fleeson, 2004; Aryee, Srinivas & Tan, 2005). In addition, females enjoy a higher level of wellbeing than males and, thus, have a more balanced work life and reduced family conflict (Gropel & Kuhl, 2009). Allen et al., (2000); Eby et al., (2005) and Fox & Dwyer (1999), however, have argued that Work-Life Balance should be considered an important factor by all organisations for decreasing occupational stress and increasing employee retention. Moreover, emotional intelligence exhibits an effect on the Work-Life Balance of employees working in the IT sector. Rangreji (2010), however, has argued that there is weak relationship between emotional

intelligence and retention of employees with the IT sector.

Taking the aforementioned considerations into account, we have analysed how these factors could be individually connected with employee retention by formulating the following first group of sub-hypotheses H1.

H1a: There is a relationship between female employee retention and Personality.

H1b: There is a relationship between female employee retention and well being

H1c: There is a relationship between female employee retention and emotional intelligence.

3.2. The impact of organisational factors

The literature suggests that there is a relationship between the organisational factors of Work-Life Balance and female employee retention. The second group of hypotheses has been formulated by analysing the impact of individual organisational factors of Work-Life Balance on female employee retention in the context of the Indian IT industry.

Respectively, the sub-hypotheses can be formulated by comparing the different aspects of organisational factors of Work-Life balance. Straub (2007) identified that organisations provide better Work-Life Balance policies and practices for their employees, which are considered as significant regarding retention, whereas Hyman & Summers (2007) contradict the relationship between Work-Life Balance and organisational needs. Moreover, the researchers suggest that support from supervisors and co-workers within an organisation enhances job satisfaction and, thus, the level of employee retention can be improved (Thompson, Kirk & Brown, 2005; Warner & Hausdorf, 2009). In addition, work support has an important impact on the Work-Life Balance of employees. As identified by Bell, Rajendran & Theiler (2012), the levels of job stress within an organisation are related to work-family conflict. Thus, the group of sub-hypotheses related to organisational factors, H2, should include the work life balance policies and programs, work support and job stress, and can be stated as follows.

H2a: There is a relationship between female employee retention and work life policies and programs

H2b: There is a relationship between female employee retention and work support

H2c: There is a relationship between female employee retention and job stress.

3.3. The impact of technology

The third hypothesis has been formulated by comparing the technological factors in an organisation and how they relate to female employee retention in the Indian IT sector. When considering technological factors, Lester (1999) states that they influence the Work-Life Balance within an organisation and, therefore, affect female employee retention. Waller & Ragsdell (2012) have argued, however, that there is both a positive and negative impact of culture on employees in relation to Work-Life Balance. We tested this impact by formulating the third hypothesis, H3, as follows.

H3: There is a relationship between female employee retention and Technology

4. Theoretical Framework

The theoretical framework has been developed based on the reviewed literature in the above section. It clearly explains the relationship between Individual factors, Organisational factors and Technology with female employee retention in India's IT sector. The Individual factors are subdivided into three categories including personality, wellbeing and emotional intelligence. The Organisational factors are again sub-divided into three categories including Work-Life policies and programmes, Work support and job stress. Technological factors are considered as different from personal and organisational factors. The theoretical framework has three independent variables, namely: Individual factors, Organisational factors and Technology (See Figure 1). In addition,

retention is considered as a dependent variable and the present study demonstrates how the three different factors affect female employee retention in the IT sector of South India.

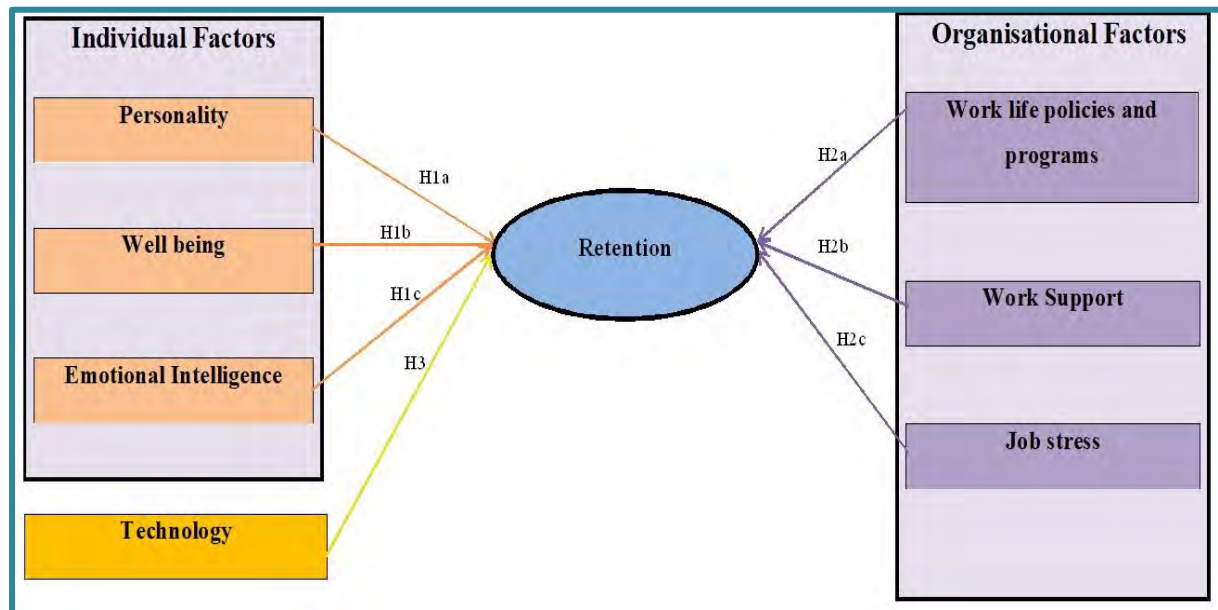


Figure 1: Theoretical Framework

5. Methodology

The responses from female employees working in the software sector were gathered by using the five-point Likert scale. This cross-sectional research used a random sampling technique; we selected companies from South India and then used networking, snow ball and connections to gain approval from the HR departments of these organisations. We combined both probability and non-probability sampling techniques to reach a wider audience. Research studies show that non-probability sampling is not ideal for quantitative research, as it leads to bias which affects the validity of the research study (Wijnhoven, Ehrenhard & Kuhn, 2015). Non-probability sampling techniques, however, can be used in quantitative analysis when the probability sampling techniques deployed in the study lead to impractical or costly because of the reduced access to the respondents, the increased non-response rate and additional complicating factors of random sampling (Haque, Aston & Kozlovski, 2018). To reduce the bias for non-probability sampling, we used stratification to represent all of the major groups of respondents fairly and we ran a Shapiro-Wilk test to ensure that the data was normally distributed across the population (Sekaran, 2003; Field, 2009; Haque, Aston & Kozlovski, 2018; Haque et al. 2020; Haque et al. 2020). A positivist philosophy and deductive approach was adopted to test the hypothesis. The researcher developed an online survey and distributed the questionnaire via Googledoc. The questionnaire was divided into three main sections consisting of demographic, attitudinal and behavioural questions. The study was targeted at 380 female employees in the software sector, although 270 participated in the survey reflecting an approximate 66% response rate. There were more than 200 responses, which were sufficient for reaching a logical conclusion (Sekaran & Bougie, 2012). According to Bernoulli (1713), the average of the research results obtained from a large sample size tends to be nearer to the expected value and will always become closer through the repetitive running of tests.

The questionnaire contains 19 items including personality, well-being and emotional intelligence under the individual factors' category, as well as Work-Life Balance policies and programmes, work support, and job stress under the organisational factors' category. There is another category which represents Technological factors. HR departments were asked to circulate the Googledoc questionnaire link to female employees on behalf of the researcher. The researcher was assured by

them that they had circulated the questionnaire to female employees only. For ensuring the credibility of the research, we used demographic variables by cross checking their backgrounds with the HR departments and their confirmation allowed the researchers to proceed. This ensured the integrity of the responses.

For the quantitative analysis, IBM SPSS 23.0 was used and for ensuring validity and reliability, the researcher employed the triangulation approach. Moreover, reliability has been attained through Cronbach's alpha value of 0.773. We ran a Shapiro-Wilk test to assess the normality and this reflects that the data is normally distributed. Since the data is normally distributed, the researcher used Pearson's correlation for the study. An independent t-test and correlation was carried out to measure the relationship between the factors of Work-Life Balance and employee retention, and their statistical significance.

The reliability of the research was ensured by distributing questionnaires to respondents with the same characteristics in a similar context (Creswell, 2007). An increased number of questions were asked on the topic, in order to ensure reliability (Cohen et al., 2007). The questions were presented with clarity to increase reliability. Expert piloting was performed on 20 females so that the sample size also increased the validity. Confidentiality and the integrity of the respondents were maintained throughout this study.

The ethical considerations of the research were ensured by guaranteeing that the responses would be confidential and that there would be no sharing of data. In addition, respondents were assured that, after the study was completed, all responses would be destroyed. Participation in the study was voluntary and respondents were allowed to withdraw at any stage from the research, if they did not feel comfortable. Thus, the researcher ensured that ethical considerations, regarding the participants, were adhered to.

6. Results

The results section starts with a descriptive analysis of the respondents where their age group, work experience and qualifications are listed using the funnel approach. The descriptive statistics reveal that the majority of the female respondents are in the 26-30 years age group (35%) with work experience of 4-5 years (40%) and have Master's qualifications (55%).

Table 1: Descriptive statistics

Demographic Variables	Responses				
Age	20-25	26-30	31-35	36-40	41 and above
	15%	35%	20%	16%	14%
Qualifications	Higher Secondary	Bachelors	Masters	Doctorate	Professional certification
	5%	20%	55%	15%	5%
Experience	Less than 1 year	1-3 years	4-5 years	6-8 years	9 or above
	10%	15%	40%	15%	20%

The statistical test was performed with a normality test by following a Shapiro-Wilk test, which examined the skewness and kurtosis. This research analysis reveals that, through the Shapiro-Wilk's test ($p > .05$) (Shapiro & Wilk, 1965; Razali & Wah, 2011) and the examination of histograms and box-plots, the data were approximately normally distributed with a sig value= 0.100, skewness of -0.236 (SE=0.512) and kurtosis of -0.814 (SE= 0.992) (Cramer, 1998; Cramer

& Howitt, 2004; Doane & Seward, 2011). Following this, research was carried out to identify the correlation between the different variables of interest through the Pearson correlation.

Table- 2: Correlation between variables of interest

Correlation Variables	Pearson Correlation	Sig Value	Results	Interpretation
Personality & Employee Retention	0.282**	0.682	$P > \alpha$	No significance
Wellbeing & Employee Retention	0.155**	0.513	$P > \alpha$	No significance
Emotional Intelligence & Employee Retention	0.105**	0.744	$P > \alpha$	No Significance
Work Life Balance Policies & Employee Retention	0.780**	0.001	$P < \alpha$	**
Work Support & Employee Retention	0.172**	0.003	$P < \alpha$	**
Job Stress & Employee Retention	0.980**	0.000	$P < \alpha$	***
Techology & Employee Retention	0.623**	0.011	$P < \alpha$	*

* Correlation is significant at the 0.05 level (2-tailed).

From the above table, it is evident that there is no statistically significant relationship between personality and employee retention ($p > \alpha$ 0.682). Moreover, a 28% variation in employee retention is due to the personality factor. Thus, the H1a hypothesis needs to be rejected. There is also no statistical significance between wellbeing and employee retention ($p > \alpha$, 0.513); a 15% variation in employee retention results from wellbeing. Thus, the H1b hypothesis needs to be rejected. Similarly, there is no statistical significance between employee retention and emotional intelligence ($p > \alpha$, 0.744), with an 11% variation in employee retention resulting from emotional intelligence. Hence, there is strong evidence against the H1c hypothesis. Altogether, the H1 Hypothesis needs to be rejected.

From the above statistical analysis, it is evident that individual factors of Work-Life Balance do not have any effect on female employee retention in the South Indian IT sector. In addition, the sub-factors do not influence female employee retention within the IT sector. The personality, wellbeing and emotional intelligence of the female employees do not help to retain female employees in this particular sector. Hence, individual factors do not help with the retention of female employees. In other words, there is a high statistical difference between the individual factors of female employees and their retention within this sector. If individual factors were to have an impact on the retention of the female workforce, then organisations would need to concentrate on improving their wellbeing and emotional intelligence at the workplace. From this study, it is evident that the retention of female employees is affected by other factors.

It is evident that there is a significant relationship between Work-Life Balance policies and employee retention ($p < \alpha$, 0.001). Interestingly, a 78% variation in employee retention results from work life balance policies. Thus, the H2a hypothesis fails to be rejected. Additionally, there is a strong, positive relationship between work support and employee retention ($p < \alpha$, 0.003), as evidenced by a 17% variation in employee retention resulting from work support. Thus, the H2b hypothesis fails to be rejected. Furthermore, job stress and employee retention have a strong, significant relationship ($p < \alpha$, 0.000); there is a 98% variation in Work-Life Balance which is due to job stress. Thus, H2c hypothesis fails to be rejected. From this, it is evident that females are suffering from job stress at their workplace and this supports the study by Nair, Aston and Kozlovski (2017). Based on these findings, hypothesis H2 fails to be rejected. From the analysis, it can be concluded that the organisational factors of Work-Life Balance (Work-Life Balance policies, work support and job stress) and female employee retention do have a relationship with each other in the Indian software sector.

This statistical study concludes that the retention of female employees within the IT sector of South India is impacted upon by the organisational factors of Work-Life Balance. In other words, the retention of the female workforce is affected by organisational factors within the sector. Moreover, the sub-elements under the organisational factors' category, such as work-life policies and programmes, work support and job stress, have a direct impact upon the retention of female employees. Additionally, these three sub-factors have an impact upon the retention of female employees within the organisation. From this, it can be concluded that female employees need additional support from their organisations in relation to work-life policies and programmes, in order to balance their personal and professional lives, whereas they need work support from the organisation. Moreover, female employees are suffering from job stress and, therefore, their employers need to consider how to reduce the amount of stress that their female employees are experiencing.

The relationship between technology and retention of employees, however, has moderate significance ($p < \alpha$, 0.011) having a variation of 1%. Thus, H3 hypothesis fails to be rejected and has only moderate significance for female employee retention in the Indian software sector.

Additionally, when considering the technological factors within an organisation in relation to the retention of female employees, these have an impact but only at a decreased level. In other words, technological factors influence the retention of female employees in the IT sector, but not in a significant way. Organisations, therefore, need to consider technological factors within the workplace in order to improve the retention of female staff.

Independent t-test

Further research was conducted, after the main body of research had been carried out, to identify the factors affecting the overall performance of females in the workplace by using Levene's Test for Equality of Variances. Levene's test was used to calculate the homogeneity of the variances (Steyn, Ewing, van Heerden & Pitt, 2011); it considers the variances of the dependent variable for each group as equal. Moreover, this test was used to analyse the variances for comparison of the group means (Nordstokke & Zumb, 2007).

Table 3: Independent t-test factors affecting the overall performance of females

Table 3: Independent t-test factors affecting overall females' performance						
	Levene's Test for Equality of Variances					
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference
Individual factors	25.3	.082	8.79	269	.000	.26278
Organisational factors	25.3	.001	11.25	269	.079	.15727
Technology	25.3	.000	10.01	269	.082	.13764

The above t-test examines the relationship between the factors affecting Work-Life Balance (individual, organisational and technological) and the overall female performance. The results indicate that the performance of female employees is significantly positively affected by organisational factors ($p < \alpha$, 0.001), as well as technological factors ($p < \alpha$, 0.000). On the other hand, there is weak evidence for the relationship between the females' performance and individual factors. Thus, this research supports the study by Nair, Aston & Kozlovski (2017).

When considering the individual factor personality, the results of this study do not support the studies by Aryee, Srinivas & Tan (2005). Emotional support, however, does not help in retaining female employees in the Indian software sector. Hence, it does not support the studies by Osman (2013) and Lener, Roehrs & Piccone (2006). Interestingly the studies by Mita, Aarti & Ravneeta (2014) also do not support the present research, as there is a direct relationship between the employees' decision to stay at their organisation of employment. This study does not support the research conducted by Grady et al., (2008) either.

When considering Work-Life Balance programmes as an organisational factor, it is not significant with regard to female employee retention in the Indian software sector. Thus, this supports the studies by Johnson (2008) and Christeen (2015). The research by Hill (2005) and Allen (2011) does support the assumption that Work-Life Balance policies in the organisation tend to reduce the level of absenteeism and thus retain employees. The present study also supports the research by Kristof (1996), who discovered that improved Work-Life Balance cultures help to retain employees within the organisation.

Job stress has a direct connection with the culture of an organisation. According to the findings of Nair & Sommerville (2017) related to SMEs operating in South India, female employees demonstrate lower stress levels compared to males. From this it can be concluded that, because female employees have only low levels of job stress, they tend more towards retention within the software sector in India. This study, therefore, supports the research by Nair & Sommerville (2017) and Nair, Aston & Kozlovski (2017).

From the statistical analysis, it can be concluded that there is no significant relationship between the retention of female employees and the individual factors of Work-Life Balance (personality, well-being and emotional intelligence). There is a significant relationship between female employees' retention and the organisational factors of Work-Life Balance (work-life balance policies and programmes, work support, job stress). There is also a significant, positive relationship between the retention of female employees and technology.

7. Conclusion and Recommendations

The present research can conclude that individual factors of Work-Life Balance do not support the retention of female employees in South India's software industry. Although several studies have revealed that individual factors of Work-Life Balance are related to female employee retention, this does not apply to South Indian IT SMEs. The retention of female employees, however, is evident in organisational and technological factors. The IT SME sector in South India has to assign more importance to other factors, such as work arrangements, organisational support, supervisor support, colleague support, role conflict, role ambiguity and role overload. If the above factors are provided by an organisation to its employees, then they will have a positive effect on the retention of female employees.

Societal factors also have a relationship with the Work-Life Balance of female employees and their retention by employers. These include family support, social support, personal and family demands, as well as family conflict. Indian culture is mainly associated with society and family. Female employees who are single, as well as those who are married, need support from their families so that they can continue their careers. Interestingly, the retention of female staff may have a relationship with some societal factors because Indian culture is more open to societal influence. The study conducted by Adams et al., (1996) proves that emotional and instrumental support from family and society is connected with job satisfaction at the workplace. The research conducted by Parasuraman & Simmers (2001) also suggests that gender and type of job have an important impact on work-family issues, job involvement and job satisfaction. Hence, societal factors have a relationship with Work-Life Balance and the retention of female employees in the Indian software sector. Moreover, some environmental factors may affect the retention of female employees in the software sector.

Implications for Management

The main implication of this research for management is that it focuses on the phenomenon which will help IT sector managers in South India to improve the retention of their female employees. As is evident from section 6, the results indicate that the performance of female employees is significantly and positively affected by organisational factors ($p < \alpha$, 0.001), as well as technological factors ($p < \alpha$, 0.000). The results of the study will help management to avoid similar types of problems within organisations so that competitiveness can be achieved. Moreover, the results of the study can be used to improve the effectiveness and efficiency of female employees in the workplace and, when the performance of female employees improves, it will contribute to a lower staff turnover. Employee turnover is considered as an additional cost and, thus, turnover can be reduced within the IT sector by providing more opportunity for female employees to become involved with their family responsibilities (Laoan-Clarke, Arnold, Coombs, Hartley & Bosely, 2010).

Implications for Human Resources (HR)

This study focuses on HR functioning, to some extent, and provides a platform for discovery of the retention strategies of female employees in relation to human resources' practices. As is evident from section 6, one of the organisational factors, i.e., job stress ($p < \alpha$), has more significance for employee retention. HR can analyse the reasons for job stress within the sector and can help resolve them. The research study can help HR professionals to integrate the retention of female employees with their organisation's policies, vision, goals and strategy. Moreover, the Work-Life Balance policies created by HR can help improve the commitment and flexibility of female employees through Work-Life Balance programmes.

The current research is mainly focused upon female employees in the IT sector. It emphasises the importance of the retention of female employees in this sector, as policymakers have little knowledge about opportunities for better Work-Life Balance policies. The overall retention rate is very high for females after their maternity leave compared with males. It is important, therefore, to consider the issues surrounding gender specific retention, especially within the IT sector of

South India. This study demonstrates that HR needs to improve the organisational, as well as technological, factors in order to retain female employees within the sector.

Implications for theory

This study has significant implications related to theory, as it contributes by portraying the individual and organisational factors of the Indian IT sector's Work-Life Balance by considering the sub-variables in the system, as well as an additional technological factor and the aspect from Organisational Role Theory. There are some limitations to this research, but they do not have an impact on the validity and reliability of the findings. These limitations can act as a platform for future researchers to explore further with their own studies. The first limitation is with the time horizons, as this study mainly focuses on attaining the responses from the respondents once in a given time frame. It will be more exciting to view the variations using different time intervals. In addition, this study mainly focuses on the numerical aspects without considering a qualitative analysis. Future researchers could consider this approach by interviewing in order to explore the variables of interest further. In addition, this study only focuses on one part of India and, therefore, future researchers could extend the research by focusing on different parts of India, as well as other countries.

References

- Adams G. A, King L. A & King D. W. (1996). Relationships of job and family involvement, family social support, and work-family conflict with job and life satisfaction. *Journal of Applied Psychology*, 81, 411-420.
- Allen, T. D. (2001). Family-supportive work environments: The role of organisational perceptions. *Journal of Vocational Behaviour*, 58(2), 414-435.
- Allen, T. D., Herst, D. E., Bruck, C. S & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology*, 5, 278-308.
- Aryee, S., Srinivas, E. S & Tan, H. H. (2005). Rhythms of life: antecedents and outcomes of work-family balance in employed parents. *Journal of Applied Psychology*, 90(1), 132-146.
- Baxter, J. (2002). Patterns of change and stability in the gender division of household labour in Australia. *Journal of Sociology Communication*, 38(4), 399-424.
- Bekker, M., Willemse, J., & De Goeij, J. (2010). The role of individual differences in particular autonomy-connectedness in women's and men's work-family balance. *Women & Health*, 50, 241-261.
- Bell, A. S., Rajendran, D & Theiler, S. (2012). Job stress, wellbeing, work-life balance and work-life conflict among Australian academics. *Electronic Journal of Applied Psychology*, 8(1), 25-37.
- Bidisha, L. D & Mukulesh, B. (2013). Employee Retention: A Review of Literature. *Journal of Business and Management*, 14, 8-16.
- Budd, J. & Mumford, K. (2006). Family-friendly Work Practices in Britain: Availability and Perceived Accessibility. *Human Resource Management Journal of Communication*, 45, 23 – 42.
- Chimote, N. K & Srivastava, V. N. (2013). Work-life balance benefits: From the perspective of organisations and employees. *The IUP Journal of Management Research*, 12(1), 62-73.
- Christeen, G. (2015). Retaining Professional Workers: What Makes Them Stay? *Employee Relations*, 37, 102-121.
- Cohen, L., Manion, L. & Morrison, K. (2007). *Research Methods in Education*. 6th edition. London: Routledge.
- Cramer, D. (1998). *Fundamental statistics for social research*. London: Routledge.
- Cramer, D; & Howitt, D. L. (2004). *The Sage Dictionary of Statistics: A practical resource for students in the social sciences*. London: Sage.

- Creswell, J. W. (2007) *Qualitative inquiry and research design: Choosing among five approaches*. 2nd edition. Thousand Oaks, CA: Sage.
- Doane, D.P; & Seward, L. E. (2011). *Applied Statistics in Business and Economics*. 3rd ed. McGraw-Hill: Irwin, 154-156.
- Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980-2002). *Journal of Vocational Behavior*, 66(1), 24-197.
- Ellenbecker, C. H. (2004). A Theoretical Model of Job Retention for Home Health Care Nurses. *Journal of Advanced Nursing*, 47,303-310.
- Fox, M. & Dwyer, D. (1999). An investigation of the effects of time and involvement in the relationship between stressors and work-family conflict. *Journal of Occupational Health Psychology*, 4, 64-174.
- Grady, G., McCarthy, A., Darcy, C. & Kirrane. M. (2008). *Work Life Balance Policies and Initiatives in Irish Organisations: A Best Practice Management*. Cork: Oak Tree Press.
- Gropel, P. & Kuhl, J. (2009). Work-life balance and subjective well-being: The mediating role of need fulfilment. *British Journal of Psychology*, 100,365-375.
- Haque, A. U. & Aston, J. (2016). A relationship between occupational stress and organisational commitment of it sector's employees in contrasting economies. *Polish Journal of Management Studies*, 14 (1), 95-105.
- Haque, A.U., Aston, J., and Kozlovski, E. (2018). The impact of stressors on organisational commitment of managerial and non-managerial personnel in contrasting economies: Evidences from Canada and Pakistan, *International Journal of Business*, 23(2),152-168.
- Haque, A.U., Aston, J., Kozlovski, E., & Caha, Z. (2020). Role of External CSR and Social Support Programme for Sustaining Human Capital in Contrasting Economies, *Polish Journal of Management Studies*, 22(1), 147-168.
- Haque, A.U., Nair, S.L.S., & Kucukaltan, B. (2019). Management and Administrative Insight for the Universities: High Stress, Low Satisfaction and No Commitment, *Polish Journal of Management Studies*, 20(2), 236-255.
- Hill, E. (2005). Work-family Facilitation and Conflict: working fathers and mothers work-family stressors and support. *Journal of Family Issues*, 26, 793- 819.
- Hyman, J. & Summers, J. (2007). Work and life: can employee representation influence balance? *Employee Relations*. 29(4), 367-384.
- Jakob Bernoulli (manuscript, ca. 1684 – 1690; partial publication 1975), *Meditationes* [Diary]. In Bernoulli (1975, pp. 21 – 90).
- Jennings, J. & McDougald, M. (2007). Work-family interface experiences and coping strategies: Implications for entrepreneurship research and practice. *Academy of Management Review*, 32 (3), 747-760.
- Johnson, R. (2008).An analysis of equity perception related to family-friendly work-life balance of female employees without dependents Capella University, 123p. Ph.D., Pub No: 3296717.
- Kapuria, D. (2017). MSME Sector: Epitomising Vitality - Make In India. [Online] Makeinindia.com. Available at: <http://www.makeinindia.com/article/-/v/nurturing-a-manufacturing-culture> [Accessed 29 October 2017].
- Kristof, A. (1996). Person-organisation fit: An integrative review of its conceptualizations, measurement and implications. *Personnel Psychology*, 49(1), 1-49.
- Leners, D., Roehrs, C. & Piccone, A. (2006). Tracking the Development of Professional Values in Undergraduate Nursing Students. *Journal of Nursing Education*, 45,504-511.
- Lester, S. (1999). Technology's effect on work-life balance. *Journal of European Industrial Training*, 23(7), 141-147.

- Loan-Clarke, J., Arnold, J., Coombs, C., Hartley, R. & Bosley, S. (2010). Retention, Turnover and Return—A Longitudinal Study of Allied Health Professionals in Britain. *Human Resource Management Journal*, 20, 391-406.
- Marchand, M. H. & Runyan, A. S. (2000). *Gender and Global Restructuring: Sightings, Sites and Resistances*. London: Routledge.
- McCrae, R. R & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60, 175-215.
- Mita, M., Aarti K. & Ravneeta, D. (2014). Study on Employee Retention and Commitment. *International Journal of Advance Research in Computer Science and Management Studies*, 2, 54-164.
- Nair, S.L.S & Sommerville, S. (2017) Impact of Organisational Culture on the Indian I.T Workforce's Job Satisfaction and Stress: Qualitative Report from SMEs operating in Trivandrum. *International Journal of Academic Research in Business and Social Sciences*, 7(2), 237-246.
- Nair, S.L.S., Aston, J., Kozlovski, E., (2017) How 'organizational factors' outclass 'personal factors' in retaining Female Employees in Indian IT SMEs, "International Journal of Applied Business and Management Studies", 2(1).
- NASSCOM (2010) *The IT-BPO sector in India: Strategic review* New Delhi
- NASSCOM. (2017). *Women and IT Scorecard – India*. [Online] Available at: <https://www.nasscom.in/knowledge-center/publications/women-and-it-scorecard-%E2%80%93-india> [Accessed 20 June. 2018].
- Nunnally, J.C. (1978). *Psychometric theory*. 2nd edn. New York: McGraw-Hill.
- PSEP (2013). *Information Technology*. Accessed at: <http://www.pakistanpressfoundation.org/tag/pseb/>.
- Osman, M. K. (2013). High-Performance Work Practices and Hotel Employee Performance: The Mediation of Work Engagement. *International Journal of Hospitality Management*, 32, 132-140.
- Parasuraman .S & Simmers C. A (2001). Type of employment, work-family conflict and well-being: a comparative study. *Journal of Organisational Behaviour*, 22, 551-568.
- Parasuraman, S. & Greenhaus, J. H. (2002). Toward reducing some critical gaps in work–family research. *Human Resource Management Review*, 12, 299-312.
- Rangreji, D. D. (2010). A study on emotional intelligence and work life balance of employees in the information technology industry in Bangalore, India. Submitted in partial fulfillment of the requirements for the degree of Master of Philosophy.
- Razali, N. M., & Wah, Y. B. (2011). Power Comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling Tests. *Journal of Statistical Modelling and Analytics*, 2, 21-33.
- Rothbard, N. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46, 655-684.
- Ryan, A.M. & Kossek, E. E. (2008). Work-life policy implementation: Breaking down or creating barriers to inclusiveness? *Human Resource Management*, 47, 295–310.
- Sandra Hofferth. (2000). Child Care and Employment Turnover. *Population Research and Policy Review*, 19(4), 357-395.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students*. 6th edition. Harlow, England: Prentice Hall.
- Sekaran U., Bougie R., 2012, *Research methods for business: A skill building approach*, (6th ed.), West Sussex, UK: John Wiley & Sons Ltd.
- Shapiro, S. S. & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, 52, 591–611.
- Stanton, J. M., Balzer, W. K., Smith, P. C., Parra, L. F. & Ironson, G. (2001). A general measure of work stress: The Stress in General Scale. *Educational and Psychological Measurement*,

- 61(5), 866-888.
- Straub, C. (2007). A comparative analysis of the use of work life balance practices in Europe: Do practices enhance female's career advancement?. *Gender in Management: An International Journal*, 22(4), 289-304.
- Thompson, B. M., Kirk, A. & Brown, D. F. (2005). Work based support, emotional exhaustion, and spill over of work stress to the family environment: A study of policewomen. *Stress and Health*, 21(3), 199-207.
- Van den Broeck, A., Vansteenkiste, M. & Has De Witte, W. (2010). Unemployed individuals work values and job flexibility: An explanation from expectancy-value theory and self-determination theory. *Applied Psychology: An International Review*, 59 (2), 296-317.
- Wallace, J. E. (2005). Job stress, depression and work-to-family conflict: a test of the strain and buffer hypotheses. *Relations industrials*, 60(3), 510-539.
- Waller, A. D. & Ragsdell, G. (2012). The impact of e-mail on work-life balance. *Aslib Proceedings*, 64(2), 154-177.
- Warner, M. A., & Hausdorf, P.A. (2009). The positive interaction of work and family roles: Using need theory to further understand the work-family interface. *Journal of Managerial Psychology*, 24(4), 372-385.
- Wayne, J. H., Musisca, N. & Fleeson, W. (2004). Considering the role of personality in the work-family experience: Relationships of the big five to work-family conflict and facilitation. *Journal of Vocational Behaviour*, 64, 108-130.
- Wilkinson, M. (2013). Work-life balance and psychological well-being in men and women. A dissertation proposal submitted to the Graduate Faculty of Auburn University in partial fulfilment of the Degree of Doctor of Philosophy.
- Wong, J. & Lin, J. (2007). The role of job control and job support in adjusting service employee's work-to-leisure conflict. *Tourism Management*, 28(3), 726-735.
- Workforce Planning for Wisconsin State Government, (2005). Employee Retention, Retrieved 11, 14, 2016, from <http://workforceplanning.wi.gov/category.asp?linkcatid=15&linkid=18>.