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Perceptions of Women Employees on the Quality of Work Life Practices in The Electronics Manufacturing Industry - an Analysis

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ABSTRACT: This study investigates the quality of work-life practices and perceptions among female employees in the electronics manufacturing industry in India. This study aimed to identify and analyze the factors influencing their work-life quality and the interplay between these factors and various demographic and socioeconomic variables. Using purposive sampling, data were collected and analyzed with SPSS to explore the impact of work-life balance policies, workplace assistance, workload, and job satisfaction on women's work–life decisions. The findings provide significant insights into how demographic, socioeconomic, and psychological factors shape female employees' workplace experiences. This study highlights the importance of tailored work-life practices to enhance job satisfaction and well-being among women in this sector, offering valuable guidance for policymakers and organizational leaders to create supportive and equitable work environments.

Keywords: Quality of Work –Life Practices, Perception, Job satisfaction, Electronics Manufacturing Business, Self-Management.

I. INTRODUCTION

In today's fast-paced industry, employees face the challenge of balancing work and family commitments within limited timeframes. The inability to manage these responsibilities effectively can lead to accidents and diminished mental health. Work-life balance (WLB) is crucial for maintaining a healthy environment that allows individuals to manage both work and family obligations, thereby enhancing their mental health and performance. Organizations that foster a supportive rather than a directive one can significantly ease the burden on employees, allowing them to feel at ease and perform better in both domains [1].

The concept of WLB evolves with individual circumstances and time. Employers play a pivotal role in creating positive WLB environments. When organizations take a supportive stance, employees are more likely to engage deeply in their roles without neglecting their duties. Modern employees seek careers rather than mere jobs, making WLB an essential aspect of their professional lives [2].

The increasing participation of women in the workforce highlights their struggle to achieve a balanced life. Healthy WLB positively impacts employee wellness, reduces burnout, lowers stress levels, and indirectly benefits employers by enhancing efficiency, performance, and competitive advantage. Managers who understand and support their employees' WLB must foster an environment in which employees can thrive [3].

In the context of the Indian culture, which emphasizes performance and competitiveness, employees are often expected to be workaholics. This expectation, coupled with excessive working hours, increased responsibilities, unfair expectations, and insufficient training for new roles, exacerbates the WLB issues. The

imbalance between work and life is not solely due to workplace factors; extreme personal goals, social expectations, and pursuit of excellence also play significant roles [4].

Employees' mentality is crucial to achieving WLB. For instance, a 2018 study by the U.S. Travel Association found that 52% of employees did not use their annual leave days, fear of job interference, or backlog. Poor time-management skills and a fixed mindset contribute to this issue. Psychologists recommend taking breaks from demanding tasks in order to reduce stress and improve WLB [5].

The concept of Work Life" (QWL) emerged in the late 1960s, focusing on the impact of jobs on health and well-being. Initially, efforts to improve QWL were centered on work design and conditions. By the 1980s, QWL had expanded to include incentive systems, physical work environments, employee engagement, rights, and esteem [6]. A high QWL is associated with democratic management practices, better employment opportunities, worker dignity, and safe workplaces [7].

In recent years, there has been a growing emphasis on quality of life in the workplace, driven by concerns over industrial productivity and economic growth. Corporate organizations are increasingly focusing on enhancing human experience at work, with many experimenting with changes aimed at boosting employees' satisfaction and productivity [8].

1. STUDY STATEMENT

This study investigates the quality of work-life practices and perceptions among female employees in the electronics manufacturing industry in India. This study seeks to identify and analyze the critical factors influencing their work-life quality and examine the interplay between these factors and various demographic and socioeconomic variables. The study will provide insights into how work-life balance policies, workplace assistance, workload, and job satisfaction impact women's work-life decisions and experiences, offering guidance for creating supportive and equitable work environments.

2. RESEARCH PROBLEM

Despite the growing awareness of the importance of WLB and QWL, there remains a gap in understanding the specific challenges and preferences of female employees in achieving work-life balance, particularly in the context of the electronics manufacturing industry in India. Existing research often overlooks the unique experiences and needs of female workers, thereby hindering the development of targeted interventions and policies to support their wellbeing.

3. IMPORTANCE OF WORK-LIFE BALANCE, PARTICULARLY FOR WOMEN EMPLOYEES IN THE ELECTRONICS MANUFACTURING INDUSTRY

Work-life balance (WLB) is essential for maintaining mental health and enhancing performance among employees, particularly in fast-paced industries. In the electronics manufacturing sector, where demanding work schedules and high expectations prevail, achieving WLB is critical for employee well-being and organizational success.

For women in this industry, balancing professional and family responsibilities is particularly important. A supportive WLB environment not only improves job satisfaction, but also reduces stress and burnout. Organizations that prioritize WLB can foster a more productive and engaged workforce and gain a competitive edge in the process.

This study investigates the quality of work-life practices and perceptions among female employees in the electronics manufacturing industry in India. It aims to identify the key factors influencing their work-life quality and explore how demographic and socioeconomic variables interact with these factors. The findings provide valuable insights for creating supportive and equitable work environments, ultimately benefiting both employees and employers.

II. LITERATURE REVIEW

Vekatesan and Kusuma H. S. (2020) [9], highlights the critical role of work-life balance in healthcare facilities. Their research underscores the importance of a pleasant working environment in hospitals, which significantly affects both the quality of patient care and employee satisfaction. The ward in which an employee works is particularly crucial because it determines their workload, the nature of their tasks, the types of patients they handle, and their interactions with patients' companions. A supportive work environment that facilitates balancing of professional and personal obligations leads to better patient care and higher employee satisfaction.

Yaday (2016) [10], explored the relationship between work-life balance initiatives and organizational commitment. This study identifies several effective work-life balance practices, such as childcare facilities, on-site crèches, maternity benefits, flexible scheduling, telecommuting options, self-management tools, social activities, and employee wellness programs. These initiatives have been shown to enhance organizational commitment and productivity among employees. Yaday concluded that employees are more committed and productive when they actively support work-life balance, thereby benefiting the organization as a whole.

1. IMPACT ON EMPLOYEE WELL-BEING

The thematic analysis of previous research indicates that work-life balance is crucial for employee well-being across various sectors. In healthcare, a balanced work-life environment not only improves the quality of care provided to patients but also enhances job satisfaction among employees. Similarly, in other industries, organizational commitment and productivity are significantly boosted by work-life balance initiatives [11].

Overall, the literature emphasizes that tailored work-life balance practices are essential for fostering a supportive and equitable work environment. These practices not only improve employee well-being and job satisfaction but also enhance organizational performance and commitment.

2. CRITICAL ANALYSIS AND SYNTHESIS OF PREVIOUS STUDIES

The literature review clearly indicates a significant gap in research specifically investigating the perceptions, preferences, and quality of work-life balance (WLB) among female employees, particularly in the context of policy formulation and organizational development. This area is crucial for fostering positive work environments and ensuring the orderly growth of organizations, especially in propagating the importance of WLB in the minds of female employees [12].

3. GAPS IN RESEARCH ON WOMEN IN MANAGEMENT

Despite more than 50 years since Indian women have entered the workforce alongside men, there remains a severe lack of focused studies on female managers in India. Most existing research over the past three decades has primarily dealt with general issues, such as education, often neglecting the specific challenges and needs of women in managerial positions. This oversight is critical, as it limits the development of targeted strategies to enhance WLB for women who aspire to or currently hold managerial roles [13].

4. GENDER DISPARITIES IN MANAGERIAL POSITIONS

The literature highlights a persistent gender disparity in organizational hierarchies, with men predominantly occupying upper-level managerial positions, and women relegated to lower-level roles. This disparity underscores a systemic issue that not only affects the career advancement of women but also impacts their work-life balance. The lack of female representation in senior roles could be a barrier to the implementation of effective WLB policies that address women's unique challenges. Moreover, the focus on

gender problems in the workplace remains superficial, often ignoring the deeper sociocultural factors that influence women's career trajectories and their work-life integration [14].

5. NEED FOR TAILORED WLB STRATEGIES

The findings of previous studies suggest that organizations need to develop appropriate strategies to attract and retain a substantial female workforce. Tailored WLB practices are essential to improve the work-life balance for women, especially in sectors such as electronics manufacturing. However, the current body of research provides limited insight into the effective design and implementation of these strategies. There is a clear need for more nuanced studies that consider the diverse experiences of women in different roles and industries and how demographic, socioeconomic, and psychological factors interact to shape their WLB perceptions and preferences [15].

6. AREAS FOR FURTHER INVESTIGATION

To address these gaps, future research should focus on the following.

In-depth studies on female managers: Investigating the specific challenges and needs of women in managerial positions to develop targeted WLB policies.

Sector-Specific Research: Conducting studies within specific industries, such as electronics manufacturing, to understand the unique WLB issues faced by women in these sectors.

Intersectional Analysis: Exploring how various demographic, socioeconomic, and psychological factors influence women's WLB, recognizing that experiences may vary widely among different groups.

Longitudinal Studies: Implementing longitudinal research to track changes in WLB perceptions and practices over time, providing insights into the effectiveness of different strategies and interventions.

By addressing these areas, research can provide a more comprehensive understanding of WLB issues and contribute to the development of more effective and inclusive policies that support women's well-being and career advancement in the workforce.

III. MATERIAL AND METHOD

1. RESEARCH OBJECTIVES

1. To study the socio-economic profile of the sample women employees.
2. To examine the factors that influences the quality of work life of women employees.
3. To find the perceptions of women employees on various factors of QWL.

2. RESEARCH QUESTIONS

1. What are the underlying factors influencing the quality of work-life practices for female employees in the electronics manufacturing industry in India?
2. How do socioeconomic variables, such as educational background, marital status, and household responsibilities, relate to the quality of work-life practices among female employees?
3. What is the perception of female employees regarding work-life balance policies, workplace support, workload, and job satisfaction in the electronics manufacturing sector?
4. How do female employees perceive workplace culture and management attitudes towards them in the electronics manufacturing industry?
5. Are there any significant differences in the perception of work-life balance and job satisfaction between male and female employees in leadership positions within the electronics manufacturing sector?

6. What strategies can be implemented to improve the quality of work life of female employees in the electronics manufacturing industry, considering the changing dynamics of gender roles and leadership positions?
7. How do perceptions of personal life satisfaction impact the quality of work life of female employees, and what interventions can be introduced to enhance overall satisfaction and well-being?

These research questions aim to delve into the specific factors influencing the quality of work life of female employees in the electronics manufacturing sector in India, while also exploring potential strategies and interventions to address any identified challenges or disparities.

3. HYPOTHESIS OF THE STUDY

H01 - There is no relationship between perceptions and personal life satisfaction in women employees.
H02 - There is no relationship between perceptions and work-life balance in work environment.
H03 - There is no relationship between perceptions and work place support in the work environment.
H04 - There is no relationship between perceptions and self-management practices.
H05 - There is no relationship between perceptions and work load of women employees.

4. METHODOLOGY

This study focuses on analyzing the satisfaction and perception of female workers' quality of work life in various electronics manufacturing industries, employing both analytical and descriptive approaches. Primary data were collected using a structured questionnaire and in-person interactions, while secondary data were gathered from published and unpublished sources, such as journals, books, and records of the electronics manufacturing business. The sample consisted of 500 female employees selected through purposive sampling with a minimum requirement of three years of work experience. The sample comprised of 350 female executives and 150 supervisory women.

5. DATA COLLECTION INSTRUMENTS

5.1 Questionnaire Design

The questionnaire was meticulously crafted to cover various dimensions of work-life balance and employee satisfaction. Multiple sections were included to ensure a comprehensive coverage of the research objectives.

5.2 Statistical Analysis

The collected data were analyzed using the Statistical Package for Social Sciences (SPSS). The following statistical methods were used: (i) Measurements of Dispersion and Central Tendency, to Describing the data and identifying patterns. (ii) One-way Analysis of Variance (ANOVA), to compare means among different groups. (iii) Percentage Analysis, to quantify the proportion of respondents in various categories.

6. SAMPLE SIZE DETERMINATION

The basic data used in this study was obtained through a questionnaire given to investors. Additionally, secondary data are used, which were gathered from public sources including annual reports, books, journals, and magazines. The information gathered from both sources is examined, modified, and tallied. The statistical software for social sciences was used to analyze the data. The study employs the following statistical methods. Measurements of dispersion and central tendency, K-means cluster analysis, one-way analysis of variance, factor analysis, and the Kruskal Wallis test. Additionally, multiple regression analysis,

non-parametric chi-square analysis, percentage analysis, and many discriminate analyses have been used [21].

$$\textbf{Minimum Sample Size } (n) = \frac{t^2 * P * (1-P)}{m^2} \quad (1)$$

Where,
n = required sample size (minimum size)
t = Confidence level at 95% (standard value of 1.96)
p = Estimated fractional population of sub group
m = Margin of error at 5% (standard value of 0.05)

The calculated sample size was 500 female employees, selected using purposive sampling to ensure the inclusion of participants with at least three years of work experience in the electronics manufacturing industry. By providing a detailed description of the data collection instruments and questionnaire design, this study ensured transparency and replicability, facilitating future research in similar contexts.

This study employed a variety of statistical analysis methods to analyze the collected data. These methods were chosen to provide comprehensive insights into the quality of work life of women in the electronics manufacturing industry. The statistical analysis methods used were as follows:

7. RESEARCH DESIGN AND FRAMEWORK

The research design involved a cross-sectional study that utilized both quantitative and qualitative data collection methods. A structured questionnaire was designed to collect quantitative data on socioeconomic profiles, perceptions, and factors influencing the quality of work life. Qualitative data were obtained through in-person interactions to gain insights into participants' experiences and perceptions.

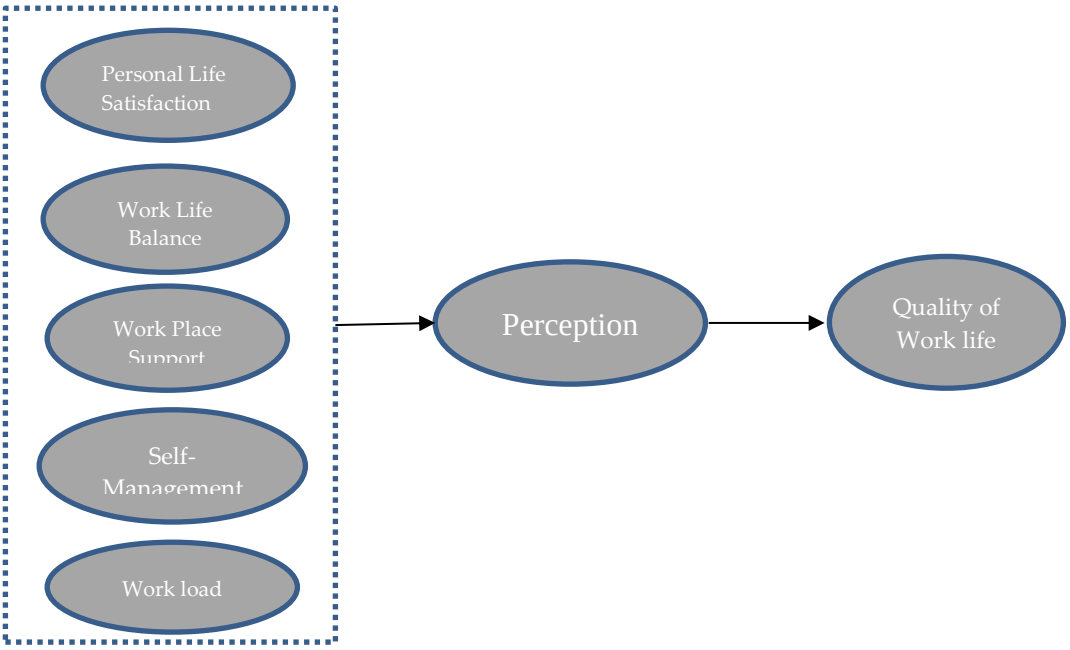

FIGURE 1. Research Framework Proposal, Source: Prepared by Authors (2024)

The research framework included variables such as socio-economic characteristics, work-life balance, workplace support, self-management practices, workload, and personal life satisfaction, which were analyzed to understand their relationships and impact on the quality of work life for female employees.

8. LIMITATION OF THE STUDY

8.1 Industry-Specific Scope:

This study is limited to the electronics manufacturing industry, which means that the findings may not be generalizable to other industries. This sector-specific focus restricts the applicability of conclusions, recommendations, and findings to women employees' quality of work life, including aspects such as work-life balance, working conditions, workplace culture, and management attitudes.

8.2 Geographical limitations:

The research is confined to the context of India, potentially limiting the relevance of the results to different cultural or economic settings.

8.3 Sampling Bias:

The use of purposive sampling may introduce bias, as the sample may not fully represent the entire population of female employees in the electronics manufacturing industry. This method, while ensuring the inclusion of participants with relevant experience, may overlook other segments of the population.

8.4 Data Collection Constraints:

Gathering primary data through structured questionnaires and in-person interactions could be influenced by respondents' willingness to provide honest answers, potentially leading to a response bias. Moreover, time and resource constraints may limit the depth and breadth of data collection.

8.5 Cross-sectional Study Design:

The study's cross-sectional nature captures data at a single point in time, which may not reflect changes over time or the dynamic nature of work-life balance and employee satisfaction.

8.6 Diverse Sampling

To mitigate sampling bias, this study ensured a diverse sample by including female employees from different levels within the organization (executive and supervisory cadres) and those with varying years of experience. This approach aims to capture a broad spectrum of perspectives in the electronics manufacturing industry.

8.7 Comprehensive Data Collection

Employing both primary and secondary data sources helped triangulate the findings and enhance their reliability and validity. Primary data were collected using structured questionnaires and in-person interactions, whereas secondary data were gathered from published and unpublished journals, books, industry records, and relevant websites.

8.8 Robust Questionnaire Design:

The questionnaire was meticulously designed to cover multiple dimensions of work-life balance and employee satisfaction. Pre-testing the questionnaire with a small subset of the target population helped to identify and rectify any ambiguities, ensuring clarity and comprehensiveness.

IV. DATA ANALYSIS

The opinion provided by the electronics manufacturing sector is used to determine the validity and reliability of the statistical data; nevertheless, this judgment may occasionally differ due to individual differences in psychological makeup. Lack of understanding of work-life balance in the electronics manufacturing sector might be a significant barrier.

Table 1. Distribution of respondents by demographic characteristics.

Si. No	Demographic	Respondents	Position		Total	Chi- Square test
			Executives	Non-Exe		
1	Age	Below 30	102(20.4%)	17(3.4%)	119(23.8%)	Pearson Chi-Value 22.610[a] DF=3 N=500 Result accepted
		30 – 40	76(15.2%)	29(5.8%)	105(21.0%)	
		41 – 50	46 (9.2%)	32(6.4%)	78(15.6%)	
		Above 50	126 25.2%)	72 (14.4%)	198(39.6%)	
		Total	350 70.0%)	150(30.0%)	500(100.0%)	
2	Education	Below Degree	62(12.4%)	24 (4.8%)	86(17.2%)	Pearson Chi- Value 23.230[a] DF=3 N=500 Result accepted
		Degree	240(48.0%)	78(15.6%)	318(63.6%)	
		P. G	34 (6.8%)	32 (6.4%)	66(13.2%)	
		Technical	14(2.8%)	16(3.2%)	30 (6.0%)	
		Total	350(70.0%)	150(30.0%)	500(100.0%)	
3	Economic Sector	HR	117(23.4%)	48(9.6%)	165 (33.0%)	Pearson Chi- Value 2.841[a] DF=3 N=500 Result accepted
		Marketing	68(13.6%)	21(4.25)	89(17.8%)	
		Finance	132(26.4%)	64(12.8%)	196 (39.2%)	
		Tech /Prod	33(6.6%)	17(3.4%)	50 (10.0%)	
		Total	350 70.0%)	150(30.0%)	500(100.0%)	
4	Work	5 - 10 years	108(21.6%)	18(3.6%)	126(25.2%)	Pearson Chi- Value 23.571[a] DF=3 N=500 Result accepted
		11 - 15 years	68(13.6%)	26(5.2%)	94(18.8%)	
		16 - 20 years	25(5.0%)	13(2.6%)	38 (7.6%)	
		20 – 25 years	149(29.8%)	93(18.6%)	242 (48.4%)	
		Total	350(70.0%)	150(30.0%)	500(100.0%)	
5	Income	Below 50,000	26(5.2%)	9 (1.8%)	35(7.0%)	Pearson Chi- Value 41.253[a] DF=4 N=500 Result accepted
		50,000-70,000	63(12.6%)	33(6.6%)	96(19.2%)	
		70,001-90,000	222(44.4%)	62(12.4%)	284(56.8%)	
		90000-110,000	32(6.4%)	26(5.2%)	58(11.6%)	
		Above1,10,000	7(1.4%)	20(4.0%)	27(5.4%)	
		Total	350(70.0%)	150(30.0%)	500(100.0%)	
6		Married	324(64.8%)	138(27.6%)	462(92.4%)	Pearson Chi- Value 1.530[a]

	Unmarried	20(4.0%)	7(1.4%)	27(5.4)	DF=3
	Divorced	2(4%)	2(4%)	4(8%)	N=500
	Widowed	4(4%)	3(6%)	7(1.4%)	Result accepted
	Total	350(70.0%)	150(30.0%)	500(100.0%)	

Table 1 shows that 39.6% of respondents are over 50, 15.6% are between 41 and 50, 21% are between 30 and 40, and 23.8% are under 30. It can be deduced that around 39% of the study's respondents are over 50 years old, extremely experienced, and have a solid understanding of their line of work. For ease of analysis, the respondents have been divided into four groups based on their educational backgrounds: below graduate, graduate, post graduate, and technical. According to the statistics, 63.6 percent of respondents had a graduate degree, compared to 17.2 percent who have less than a graduate degree and just 6 percent who are strictly technical.

It is evident that the majority of respondents (39.2 percent) work in the finance department, followed by 33 percent in the HR department, 17.8 percent in the marketing department, and only 10 percent in the technical or production department. Majority While 25.2% of respondents had experience of 5 to 10 years, 18.8% of respondents had experience of 11 to 15 years, and 48.4% of respondents had experience of 20 to 25 years. 7.6% of respondents have experience ranging from 16 to 20 years. Employee experience improves an organization's ability to provide high-quality work. The study's organization has been strengthened by the cadres' collectively fruitful experience.

With this knowledge, the respondents said the company's productivity will rise. Therefore, the company benefits from having a team with more expertise. It is evident that the majority of respondents (56.8%) fall into the income range of $70,001 to $90,000, while 19.2% fall into the $50,000 to $70,000 range. Only 7. Percent of respondents had incomes below 50,000, while 11.6 percent of respondents are in the 90,000–1, 10,000 income range. It is clear that the bulk of respondents (92.4%) are married, with only 5.4% of respondents being single. Divorced and widowed people are a rare breed.

Table 2. Reliability testing

Sl. No	Dimension	No. of Items	Cronbach's Alpha value
1	Personal Life satisfaction	12	0.789
2	Work Life Balance Policies	08	0.885
3	Work Place support	14	0.887
4	Self-Management	07	0.794
5	Work load	11	0.900
6	Financial Assistance	10	0.816
7	Work Satisfaction	19	0.907

Cronbach's alpha demonstrated the reliability and validity. A thorough analysis of the literature was done, and seven different features were identified as a result. Then, via discussions with people who belonged to all sorts of employees of various organizations in Chennai, 81 items linked to those aspects were established. Participants gave their responses using a 5-point Likert scale. To increase the survey's reliability and validity, the questionnaire was then pre-tested on a small sample of workers before being finalized [23].

Questions that were repetitive or similar in nature were removed based on comments and the outcomes of the pretest. There were 81 legitimate statements in total after some things that were redundant or repetitious were eliminated. A Cronbach's alpha value of 0.70 or above is often regarded as statistically acceptable. But prior research has shown that any number better than 0.90 is regarded as outstanding [24].

Table 3. The relationship between age and quality of work life

Sl. No	Factors	Age	N	Mean	Std. D	F-value	P-value
1	Personal Life Satisfaction	Below 30	119	50.6891	4.60241	8.854	.000 *
		30 – 40	105	47.8000	4.49230		
		41 – 50	78	51.4231	5.28787		
		Above 50	198	49.9394	5.81582		
		Total	500	49.9000	5.32190		
2	Work Life Balance Polices	Below 30	119	33.7395	3.78548	7.555	.000 *
		30 – 40	105	32.4952	2.89603		
		41 – 50	78	32.8333	3.59443		
		Above 50	198	31.1212	6.54275		
		Total	500	32.3000	5.01281		
3	Work Place Support	Below 30	119	59.6134	5.39006	6.574	.000 *
		30 – 40	105	56.3905	5.44464		
		41 – 50	78	58.3333	5.96889		
		Above 50	198	56.4848	8.38764		
		Total	500	57.4980	6.93991		
4	Self- Management	Below 30	119	29.4746	3.10421	.802	.493
		30 – 40	105	29.0571	2.94118		
		41 – 50	78	28.7179	3.26293		
		Above 50	198	28.9091	4.56558		
		Total	500	29.0441	3.74569		
5	Work load	Below 30	119	44.8151	5.26898	17.253	.000 *
		30 – 40	105	44.5333	4.09518		
		41 – 50	78	43.1026	6.74313		
		Above 50	198	39.6414	9.42767		
		Total	500	42.4400	7.59010		
6	Financial Assistance	Below 30	119	41.8403	5.29628	1.753	.155
		30 – 40	105	40.4571	3.26999		
		41 – 50	78	41.7051	4.44040		

		Above 50	198	41.1162	5.54370		
		Total	500	41.2420	4.92869		
		Below 30	119	80.6639	8.21458		
		30 – 40	105	78.0381	6.64617		
7	Job Satisfaction	41 – 50	78	80.3590	8.17976		
		Above 50	198	76.6818	11.06945	5.941	.001*
		Total	500	78.4880	9.32071		

* Significance at 0.01 ** Significance at 0.05

Table 3 above categorizes the respondents' opinions on the quality of their work-life balance based on their ages. The table clearly shows that the p-values for parameters including personal life satisfaction, work-life balance policies, workplace support, work load, and job satisfaction are less than 0.01. As a result, respondents' opinions on the quality of the work life vary depending on their age. P-values for the other dimensions are more than 0.05. The opinions of employees across age groups about financial aid and self-management are therefore consistent.

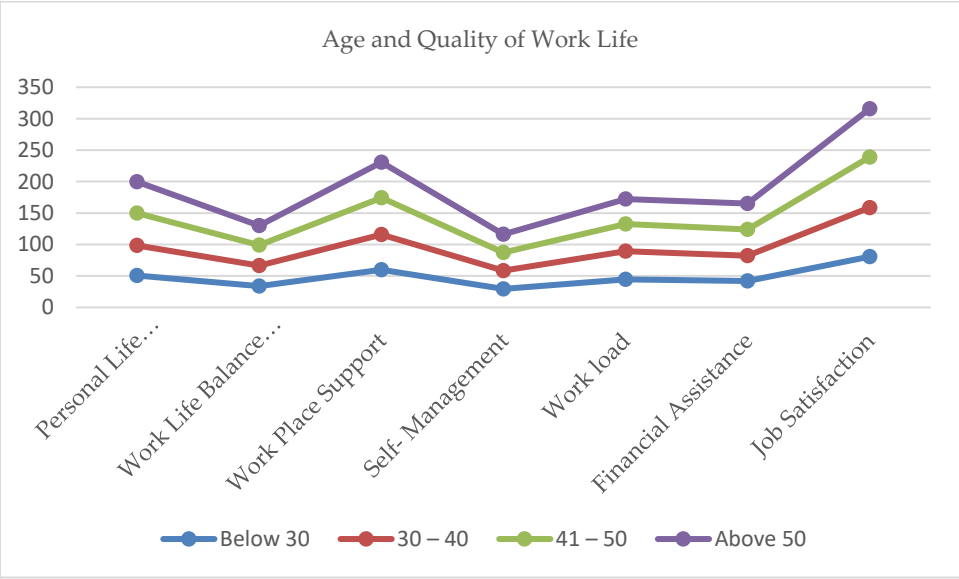

FIGURE 2. The relationship between age and quality of work life

Table 4. The relationship between education qualification and quality of work life

Sl. No	Education Qualification	Qualification	N	Mean	Std. Deviation	F-value	p-value
		Below Degree	86	51.1977	4.35706		
1	Personal Life Satisfaction	Degree	318	49.3113	5.25807		
		PG	66	50.5606	6.26131		

		Technical	30	50.9667	5.53661		
		Total	500	49.9000	5.32190	3.805	.010 *
		Below Degree	86	33.6047	3.70462		
		Degree	318	31.8616	5.15988		
2	Work Life Balance policies	PG	66	33.3030	4.88316		
		Technical	30	31.0000	6.04010		
		Total	500	32.3000	5.01281	4.394	.005 *
		Below Degree	86	59.9186	4.97811		
		Degree	318	56.7201	6.94505		
3	Work place support	PG	66	58.1970	8.12824		
		Technical	30	57.2667	7.45531		
		Total	500	57.4980	6.93991	5.181	.002 *
		Below Degree	86	30.1860	2.20967		
		Degree	318	28.6845	4.03091		
4	Self- Management	PG	66	29.1970	3.78344		
		Technical	30	29.2333	3.48082		
		Total	500	29.0441	3.74569	3.762	.011 **
		Below Degree	86	42.0116	7.52485		
		Degree	318	42.4245	7.59912		
5	Work load	PG	66	43.6970	6.22889		
		Technical	30	41.0667	10.05136		
		Total	500	42.4400	7.59010	1.023	.382
		Below Degree	86	43.1395	3.58809		
		Degree	318	40.5849	4.89808		
6	Financial Assistance	PG	66	42.1061	5.67621		
		Technical	30	40.8667	5.34166		
		Total	500	41.2420	4.92869	7.120	.000 *
		Below Degree	86	80.4302	8.28541		
		Degree	318	77.8082	9.61946		
7	Job Satisfaction	PG	66	79.8636	8.48145		
		Technical	30	77.1000	9.91811		
		Total	500	78.4880	9.32071	2.533	.056

* Significance at 0.01 ** Significance at 0.05

According to their credentials, the respondents' perspectives on several aspects of work-life quality were categorized, and the results are displayed in table 4 above. The table clearly shows that the p-values for factors including personal life satisfaction, work-life balance policies, workplace support, self-management, and "financial assistance" are less than 0.05. As a result, there are variations in respondents' perceptions based on their level of qualification for the aforementioned dimensions. All other p-values are higher than 0.05. As a result, individuals with varied qualifications had similar judgments of the other characteristics, such as work load and job satisfaction.

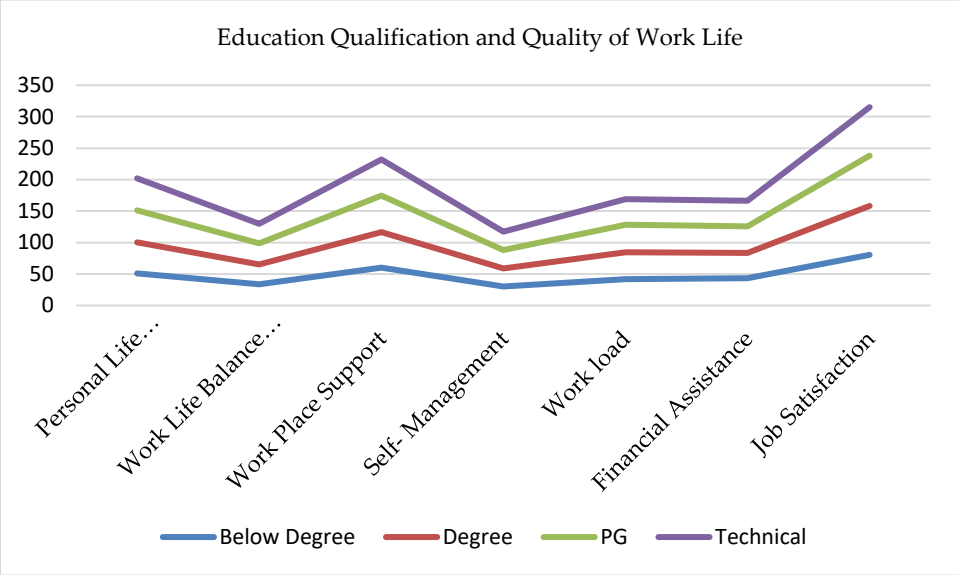

FIGURE 3. The relationship between education qualification and quality of work life

Table 5. The relationship between employee's dimensions and quality of work life

Sl. No	Employee's Dimensions	Position	N	Mean	St.	F-value	p-value
		Executive	350	50.0629	4.91026		
1	Personal Life Satisfaction	Non-Executive	150	49.5200	6.17825		
		Total	500	49.9000	5.32190	1.093	.296
		Executive	350	32.3143	4.74068		
2	Work Life Balance policies	Non-Executive	150	32.2667	5.61358		
		Total	500	32.3000	5.01281	.009	.923
		Executive	350	57.5829	6.35103		
3	Work placesupport	Non-Executive	150	57.3000	8.17079		
		Total	500	57.4980	6.93991	.174	.677
		Executive	349	29.2321	3.59605		
4	Self- Management	Non-Executive	150	28.6067	4.05151		
		Total	499	29.0441	3.74569	2.936	.087

		Executive	350	42.4286	7.81588		
5	Work load	Non-Executive	150	42.4667	7.06030		
		Total	500	42.4400	7.59010	.003	.959
		Executive	350	41.3714	4.87779		
6	Financial Assistance	Non-Executive	150	40.9400	5.04906		
		Total	500	41.2420	4.92869	.804	.370
		Executive	350	78.8029	8.66197		
7	Job Satisfaction	Non-Executive	150	77.7533	10.69713		
		Total	500	78.4880	9.32071	1.332	.249

According to the respondents' organizational positions, the perspectives of the respondents on several aspects of good work-life balance practices were categorized and are displayed in the above table. The table clearly shows that the p-values for the components personal life satisfaction, work-life balance policies, workplace support, self-management of work load, and job satisfaction are all higher than 0.05. As a result, there are no changes in respondents' perceptions based on their organizational position.

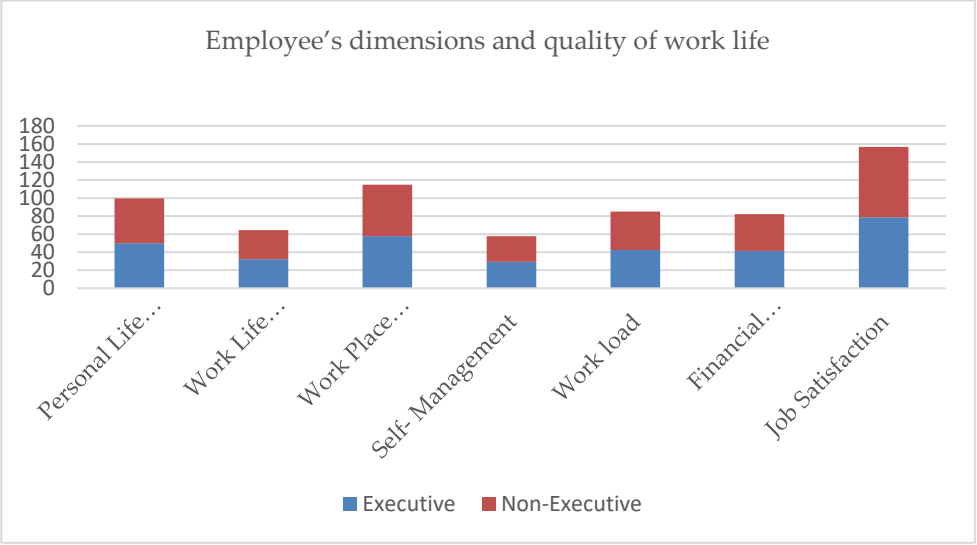

FIGURE 4. The relationship between employee's dimensions and quality of work life

Table 6. Relationship between experience and quality of work life

Sl. No	Quality of work life	Experience	N	Mean	Std. Deviation	F-value	P-value
		5 - 10 years	126	50.4683	4.70181		
		11 - 15 years	94	47.7979	4.44459		
1	Personal Life Satisfaction	16 - 20 years	38	51.1316	4.14058		
		21 - 25 years	242	50.2273	5.88919		
		Total	500	49.9000	5.32190	6.563	.000 *

		5 - 10 years	126	33.5873	3.81213		
		11 - 15 years	94	32.5532	2.85724		
2	Work Life Balance policies	16 - 20 years	38	32.6053	4.29670		
		21 - 25 years	242	31.4835	6.07711	5.163	.002 *
		Total	500	32.3000	5.01281		
		5 - 10 years	126	59.2698	5.59487		
		11 - 15 years	94	56.7553	5.37554		
3	Work placesupport	16 - 20 years	38	58.8684	4.75435		
		21 - 25 years	242	56.6488	8.12331	4.911	.002 *
		Total	500	57.4980	6.93991		
		5 - 10 years	125	29.4240	3.11931		
		11 - 15 years	94	29.2340	2.90134		
		16 - 20 years	38	28.5263	3.59231		
4	Self- Management	21 - 25 years	242	28.8554	4.31149		
		Total	499	29.0441	3.74569	9.2	.413
		5 - 10 years	126	44.7381	5.25384		
		11 - 15 years	94	44.5957	3.91666		
5	Work load	16 - 20 years	38	44.0000	6.19066		
		21 - 25 years	242	40.1612	9.10991	15.414	.000 *
		Total	500	42.4400	7.59010		
		5 - 10 years	126	41.7381	5.23859		
		11 - 15 years	94	40.5638	3.33621		
6	Financial Assistance	16 - 20 years	38	41.6053	3.56817		
		21 - 25 years	242	41.1901	5.42977	5.56	.413
		Total	500	41.2420	4.92869		
		5 - 10 years	126	80.4762	8.20509		
		11 - 15 years	94	77.7553	6.47856		
7	Job Satisfaction	16 - 20 years	38	79.4474	8.54463		
		21 - 25 years	242	77.5868	10.69197	7.56	.413
		Total	500	78.4880	9.32071		

* Significance at 0.01 ** Significance at 0.05

The table makes it evident that the p-values for the variables personal life satisfaction, work life balance policies, workplace support, work load, financial help, and job satisfaction are less than 0.05. Depending on how long they had worked for the company, respondents' opinions on several "quality of work life" practices were categorized. As a result, the respondents' impressions vary depending on how long they've worked for the company. The remaining p-values for the factors "self-management" and "financial assistance" are more than 0.05. Therefore, the opinions of several experienced employees on the aforementioned aspects are consistent.

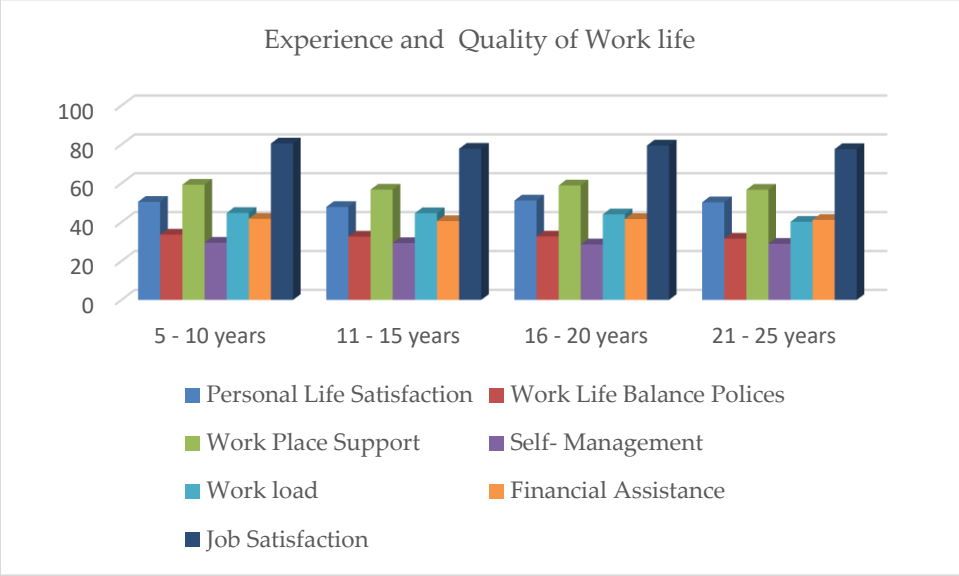

FIGURE 5. The Relationship between experience and quality of work life

Table 7. Regression model to know the impact of quality of work life

Model	R	R Square	Adjusted R Square	Std. Error of theEstimate
1	.591	.349	.333	7.61215

The model's R2 value is 0.349, which indicates that predictors account for 34.9% of the perception of the effectiveness of work-life balance initiatives. How successfully the model generalizes the difference (0.349 - 0.333), or 0.6%, may be inferred from the updated R2 value. Because of this shrinkage, the model would explain for around 0.6% of the variation in the result if it were generated from the population rather than a sample. At the 1% level of significance it improves the accuracy of the prediction of work life quality.

Table 8. Analysis of variance (ANOVA) results

ANOVA						
	Model	**Sum of Squares**	**DF**	**Mean Square**	**F**	**Sig.**
1	Regression	15131.805	12	1260.984	21.762	.000[a]

	Residual	28219.123	487	57.945
	Total	43350.928	499	

The total sum of squares represents the total variance in the dependent variable. The degrees of freedom for the total are 499, which is the total number of data points minus 1. Overall, the regression model appears to be highly significant, indicating that the predictors collectively have a substantial influence on the dependent variable.

Table 9. Results of the regression model

Model	R	R Square	Adjusted R Square	Std. Error of theEstimate
1	.755	.570	.563	6.16030

The model's R2 value is 0.570, which indicates that predictors account for 57.0% of the perception of the effectiveness of work-life balance techniques. How successfully the model generalizes the difference (0.570 - 0.563), or 0.7%, may be inferred from the updated R2 value. This shrinkage indicates that the model would account for around 0.7% of the outcome's likelihood of variation if it were generated from the population as opposed to a sample. At the 1% level of significance, the F-value 81.417 from the table, with p=0.00, is significant.

Table 10. Analysis of variance (ANOVA) results

ANOVA						
Model		Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	24717.806	8	3089.726	81.417	.000[a]
	Residual	18633.122	491	37.949		
	Total	43350.928	499			

The total sum of squares represents the total variance in the dependent variable. The degrees of freedom for the total are 499, which is the total number of data points minus 1. Overall, the regression model appears to be highly significant, indicating that the predictors collectively have a substantial influence on the dependent variable.

Table 11. Results of hypotheses testing

Sl. No	Hypothesis	Decision
1	There is no discernible difference in how respondents in the electronics manufacturing industry feel about their own quality of life	significant
2	There is no discernible difference in how the respondents feel about work-life balance in the workplace	significant

3	There is no discernible difference between the respondents' assessments of workplace assistance in the workplace	significant
4	Regarding respondents' opinions on self-management practices in the electronics manufacturing industry, there is no discernible difference	significant
5	There is no discernible variation between respondents' assessments of the workload in the electronics manufacturing industry	significant
6	There is no discernible difference between the respondents' assessments of the financial help provided by the electronics manufacturing industry	significant
7	There is no discernible variation in the respondents' work satisfaction in the electronics manufacturing industry	significant

1. HYPOTHESIS - 1

According to a statistical analysis of the electronics manufacturing industry, there is no correlation between perceptions and personal life happiness. The aforementioned hypothesis was examined using a one-way ANOVA 'F' test.

Table 12. Summary of descriptive statistics

S. No	Parameter	Position	N	Mean	S.D
1	personal lifesatisfaction	Executives	350	50.0629	4.91026
		Non-Executives	150	49.5200	6.17825
		Total	500	49.9000	5.32190

Table 13. Results of significance testing

Parameter		Sum ofSquares	DF	Mean Squares	F	Sig.
personal lifesatisfaction	Between Groups	30.943	1	30.943		
	Within Groups	14102.057	498	28.317	1.093	.296
	Total	14133.000	499			

It is clear from the above table that all of the parameters for the different personal life satisfaction methods have p-values larger than or equal to 0.01. This indicates that the concepts related to personal life happiness are not significant at 0.05. As a result, the null hypothesis is TRUE, and it is inferred that there are no appreciable variations between the respondents' assessments of the various techniques for achieving personal life happiness.

2. HYPOTHESIS - 2

According to the statistical test, there is no correlation between perceptions and work-life balance in the workplace. The aforementioned hypothesis was examined using a one-way ANOVA 'F' test.

Table 14. Summary of descriptive statistics

S. No	Parameter	Position	N	Mean	S.D
1	Work life Balancepolicies	Executives	350	32.3143	4.74068
		Non-Executives	150	32.2667	5.61358
		Total	500	32.3000	5.01281

Table 15. Results of significance testing

Parameter		Sum ofSquares	DF	Mean Squares	F	Sig.
Work life Balance policies	Between Groups	.238	1	.238	.009	.923
	Within Groups	12538.762	498	25.178		
	Total	12539.000	499			

It is clear from the above table that all of the parameters for the different work-life balance strategies have p-values larger than 0.05. This indicates that the policies' work life is not noteworthy at 0.05. The conclusion is that there are no appreciable variations in the respondents' impressions of the various Work life balance policies as a result of the null hypothesis being true.

3. HYPOTHESIS - 3

There is no connection between perceptions and workplace assistance in the Statistical test's working environment. The aforementioned hypothesis was examined using a one-way ANOVA 'F' test.

Table 16. Summary of descriptive statistics

S. No	Parameter	Position	N	Mean	S.D
1	work-place support	Executives	350	57.5829	6.35103
		Non-Executives	150	57.3000	8.17079
		Total	500	57.4980	6.93991

Table 17. Results of significance testing

Parameter		Sum ofSquares	DF	Mean Squares	F	Sig.
work-place support	Between Groups	8.401	1	8.401	.174	.677
	Within Groups	24024.597	498	48.242		
	Total	24032.998	499			

**Significant at the 0.01 probability level.

It is clear from the above table that all of the parameters for the different workplace assistance policies have p-values larger than 0.05. This indicates that the support at work is not statistically significant at 0.05. The conclusion is that there are no appreciable changes in the respondents' views of the various workplace assistance policies as a result of the null hypothesis being true.

4. HYPOTHESIS - 4

In the Electronics Manufacturing Industry, there is no connection between self-management practices and perceptions. The aforementioned hypothesis was examined using a one-way ANOVA 'F' test.

Table 18. Summary of descriptive statistics

S. No	Parameter	Position	N	Mean	S.D
1	self-management practices	Executives	350	29.2321	3.59605
		Non-Executives	150	28.6067	4.05151
		Total	500	29.0441	3.74569

Table 19. Results of significance testing

Particular	Parameter	Sum ofSquares	DF	Mean Squares	F	Sig.
self-management practices	Between Groups	41.036	1	41.036	2.936	.087
	Within Groups	6945.994	497	13.976		
	Total	6987.030	498			

**Significant at the 0.01 probability level.

It is clear from the above table that all of the parameters for the different self-management techniques have p-values larger than 0.05. This indicates that at 0.05, the self-management techniques are not significant. As a result, it is found that there are no appreciable variations between respondents' perceptions of various self-management practices and policies. The null hypothesis is therefore TRUE.

5. HYPOTHESIS - 5

In the Electronics Manufacturing Industry Statistical test, the respondents' perceptions of the job load did not differ significantly. The aforementioned hypothesis was examined using a one-way ANOVA 'F' test.

Table 20. Summary of descriptive statistics

S. No	Parameter	Position	N	Mean	S.D
1	work load	Executives	350	42.4286	7.81588
		Non-Executives	150	42.4667	7.06030
		Total	500	42.4400	7.59010

Table 21. Results of Significance Testing

Parameter		Sum of Squares	DF	Mean Squares	F	Sig.
work load	Between Groups	.152	1	.152	.003	.959
	Within Groups	28747.048	498	57.725		
	Total	28747.200	499			

**Significant at the 0.01 probability level.

It is clear from the above table that all of the parameters for the different work load factors have p-values larger than 0.05. The work load practices are therefore not significant at 0.05, according to this. The null hypothesis is therefore TRUE, and it is inferred that there are no appreciable variations between the respondents' assessments of the various work load regimes.

6. HYPOTHESIS - 6

The perspectives of the respondents regarding the financial help obtained from the Electronics Manufacturing Industry Statistical test do not differ significantly. The aforementioned hypothesis was examined using a one-way ANOVA 'F' test.

Table 22. Summary of Descriptive Statistics

S. No	Parameter	Position	N	Mean	S.D
1	Financial assistance	Executives	350	41.3714	4.87779
		Non-Executives	150	40.9400	5.04906
		Total	500	41.2420	4.92869

Table 23. Results of Significance Testing

Parameter		Sum ofSquares	DF	Mean Squares	F	Sig.
Financial assistance	Between Groups	19.544	1	19.544	.804	.370
	Within Groups	12102.174	498	24.302		
	Total	12121.718	499			

**Significant at the 0.01 probability level.

It is clear from the above table that all of the parameters for the different types of financial aid have p-values larger than 0.05. This indicates that the practices involving financial help are not important at 0.05. Since the null hypothesis is TRUE, it is inferred that there are no appreciable variations in the respondents' perceptions of the various financial aid schemes.

7. RESULTS OBTAINED

The results presented in this study were obtained using a combination of quantitative and qualitative research methods. The following findings were derived:

7.1 Quantitative Data Analysis

Quantitative data, such as responses to structured questionnaires, were analyzed using statistical techniques.

Statistical methods such as descriptive statistics, correlation analysis, and inferential statistics (e.g., t-tests, ANOVA, and regression analysis) were employed to identify patterns, relationships, and associations among variables.

For example, quantitative data on female employees' perceptions of compensation, training programs, evaluation methods, work-life balance, and safety concerns were analyzed to understand the extent of satisfaction or dissatisfaction and identify areas for improvement.

7.2 Qualitative Data Analysis

Qualitative data obtained from in-person interactions or open-ended survey questions were analyzed using thematic or content analysis.

Researchers have examined responses from female employees regarding their experiences, feelings, and suggestions in various aspects of their work life.

Themes and patterns that emerged from qualitative data were identified to understand the nuances of female employees' perceptions and experiences in the workplace.

For instance, qualitative data provide insights into female employees' feelings towards workplace relations, stress symptoms, family support, and societal biases.

7.3 Synthesis and Interpretation

Quantitative and qualitative findings were synthesized to provide a comprehensive understanding of the quality of work life of female employees in manufacturing companies in Chennai.

Patterns, trends, and themes identified from both types of data were interpreted to draw conclusions and implications for the organization.

Recommendations were formulated based on the insights gained from the data analysis to address the gaps and improve the quality of work life of female employees.

By integrating both quantitative and qualitative approaches, this study was able to capture the multifaceted nature of female employees' experiences and perceptions in the workplace, leading to actionable recommendations for organizational improvement.

V. CONCLUSION

The findings from the study indicate gaps in quality of work life of women employees in Manufacturing Companies in Chennai. The organization may take the following initiatives to create a more conducive environment for women employees. The feelings of the women employees particularly on compensation, they revealed that they are happy but expressed more rewards mechanisms for hard working employees. Top management should have commitment to encourage the women also to reach top positions.

Women employees felt that they have good and cordial relations with their colleague and there is no specific complaint. Most of the women employees expecting more training and skill development programs where they can compete with male by honing the latest skills and knowledge the women employees are having mixed feelings regarding evaluation methods and feedback mechanism in the organization. They are expecting more transference in evaluation. As per as work life balance aspect, they are somewhat happy but they said they need more flexibility in work schedule.

The capacity of women to combat societal biases against them, as well as their commitment to pursue equality and defy cultural and religious norms in order to work in high executive positions, are the most crucial variables. Women need to make a number of adjustments and adaptations in order to complete this task, such as providing technological innovation to enable, policies that support the creation of a workplace that is welcoming to women, training programmes, awareness campaigns to highlight the value of women managers, and putting an end to workplace discrimination.

Most of the supervisory employees expressed they need more safety work place and may also need more safety training. The results show that the women employees are having some stress symptoms and the company has to evolve a system where we can reduce stress. One thing may be by creating pleasant work environment and having better work life balancing facility. Both executives and supervisors expressed that they are getting good support from their family members and they said their family members are not interfering in their office works.

The basic objectives of an effective quality of work life are improved working conditions and greater organizational effectiveness. A win-win situation may result if quality of work life is positively linked to business performance. A happy and healthy employee will give better turnover, make good decisions and positively contribute to the organizational goal. An assured good quality of work life will not only attract young and new talents but also retain the existing experienced talents. Hence the authorities of Manufacturing and Women Employees of Various district are advised to consider the important findings and suggestions presented in the study to develop their oragnisations to reach better level than the existing level by increasing the quality of work life of their employees.

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