

# Job Stress Among IT Industry Employees Tamilnadu, India

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**Abstract-** *The primary objective of this study is to meticulously examine the factors contributing to individual stress, analyze strategies employed by employees to mitigate stress, and ascertain the repercussions of stress. The study aims to discern how team dynamics are affected by elevated stress levels and how these challenges are navigated. The study's scope extends to scrutinizing employee satisfaction during heightened stress, offering insights to the organization regarding the correlation between stress and performance. Employing a descriptive study approach, the research endeavors to address key questions surrounding the who, what, where, and occasionally, how of stress dynamics. Utilizing a meticulously crafted structured questionnaire as the research instrument, findings reveal that a significant proportion of respondents attribute their stress to domestic influences, with a majority expressing ease in relaxation and enjoyment. Noteworthy is the acknowledgment that self-awareness, encompassing strengths and weaknesses, aids stress coping mechanisms.*

**Keywords-** Stress, work Performance, Job stress, workforce, employee.

## I. INTRODUCTION

Stress is a comprehensive term denoting diverse psychological and physiological pressures encountered or perceived by individuals throughout their lives. In contemporary society, stress has become an inherent aspect of the fast-paced lifestyle. The current era of globalization and economic liberalization has intensified competition among organizations, leading managers to strive for superior performance to ascend to the pinnacle. Consequently, modern organizations grapple with the challenges of executive stress and burnout. These issues exact both an economic and human toll on individuals and organizations. The discernment of stress, whether an individual perceives a situation as stressful, is contingent upon one's subjective viewpoint. Stress is characterized as a condition of pressure and adversity, constituting an internal phenomenon intertwined with mental attitudes.

### Objectives of the Study

- Conduct an in-depth examination of job stress among employees at Vibrant NDT Services Pvt Ltd.
- Identify prevalent signs and indicators of stress within the workforce.
- Evaluate the correlation between stress and the overall effectiveness of company operations.
- Investigate the specific factors contributing to stress among employees.
- Identify and assess the requisite tools for measuring stress levels among the workforce.
- Formulate strategic solutions to aid employees in effectively managing work-related stress.

## II. SCOPE OF THE STUDY

The study encompasses the assessment of stress levels within the organization and the implementation of effective measures to mitigate them. It serves as a platform for the company to collect suggestions and address complaints, facilitating necessary changes aligned with the employees' needs to optimize selection processes and enhance future employee collaboration.

## III. DATA ANALYSIS AND INTERPRETATION

This study employing a descriptive study approach, the research endeavors to address key questions surrounding the who, what, where, and occasionally, how of stress dynamics. The sample technique adopted for the study is **Probability Simple Random Sampling** method with sample size of 100.

### 4.1. Chi square test

#### Chi Square Test(X<sup>2</sup>)

Chi square test analysis used for income and experience

Chi-square is the sum of the squared difference observed (o) and the expected (e) data (or the deviation, d), divided by the expected data in all possible categories.

**Null hypothesis (Ho):**

There is a relationship between income and experience.

**Alternate hypothesis (H1):**

There is no relationship between income and experience.

**Chi Square Table Observed Frequency (O)**

	A	B	C	Total
<b>Income</b>	20	54	26	100
<b>experience</b>	40	16	44	100
<b>Total</b>	60	70	70	200

**Chi Square Table Expected Frequency (E)**

	A	B	C	Total
<b>Income</b>	30	35	35	100
<b>experience</b>	30	35	35	100
<b>Total</b>	60	70	70	200

From the table  $P_A=7.235, P_B=6.979$

**Observed and expected frequency ( $X^2$ ) = 31.924**

Degree of Freedom = (n-1)

**For DF=2 and 95% interval Table Value is = 0.9543**

**( $X^2$ ) = 0.0943**

**Table Value = 0.9543**

**( $X^2$ ) > Table Value**

**Z = Z cal > Z tab**

**Z = 31.924 > 0.9543**

From the value chi square value is greater than the Table value so H1 Accepted. So there is no relationship between income and experience.

**Inference:**

Given that the computed value surpasses the tabulated value, we accept the alternative hypothesis, concluding that there is no discernible relationship between income and experience.

**4.2. One-Way Anova Classification**

**Null hypothesis (Ho):**

There is a significance difference between the working area, work pressure and medical check up

**Alternate hypothesis (H1):**

There is no significance difference between the working area, work pressure and medical check up.

	A	B	C	D	E
<b>Workingarea</b>	32	16	10	28	14
<b>Pressure</b>	45	10	15	20	10
<b>medical</b>	35	15	25	10	20

**Anova: Single Factor**

**Summary**

Groups	Count	Sum	Average	Variance
<b>Column 1</b>	3	112	37.33333	46.33333
<b>Column 2</b>	3	41	13.66667	10.33333
<b>Column 3</b>	3	50	16.66667	58.33333
<b>Column 4</b>	3	58	19.33333	81.33333
<b>Column 5</b>	3	44	14.66667	25.33333

**ANOVA**

Source of Variation	SS	df	MS	F	P-value	F criteria
<b>Between Groups</b>	1140	4	285	6.428571	0.007917	3.47805
<b>Within Groups</b>	443.3333	10	44.33333			
<b>Total</b>	1583.333	14				

From the table ANOVA value is **3.478** degree of freedom is 14.

Anova Table Value for **95%** level of interval is **3.093**

**Anova Value > Table Value**

**F = F cal > F tab F = 3.478 > 3.093**

Anova value is greater than the Table Value so **H0 rejected and H1 Accepted.**

**Inference:** As the calculated value of F exceeds the tabulated value, the null hypothesis is rejected. Consequently, we conclude that there are no significant differences among the working area, work pressure, and medical checkup.

**4.3. MANN-WHITNEY U TEST**

**Null hypothesis (H0):**

There is a significance difference between the stress relief program and employees expectation.

**Alternate hypothesis (H1):**

There is no significance difference between the stress relief program and employees expectation.

**Samples:**

Sample 1	40	18	10	20	12
Sample 2	22	12	30	18	18

**Sample with Rank**

Sample 1	10	12	18	20	40
Rank	1	2.5	2.5	7	10
Sample 2	12	18	18	22	30
Rank	2.5	5	5	8	9

**Result Details**

**Sample 1**

Sum of ranks: 25.5

Mean of ranks: 5.1

Expected sum of ranks: 27.5

Expected mean of ranks: 5.5

U-value: 14.5

Expected U-value: 12.5

**Sample 2**

Sum of ranks: 29.5

Mean of ranks: 5.9

Expected sum of ranks: 27.5

Expected mean of ranks: 5.5

U-value: 10.5

Expected U-value: 12.5

**Sample 1 & 2 Combined**

Sum of ranks: 55

Mean of ranks: 5.5

Standard Deviation: 4.7871

**U value = 10.5**

**Z value =-0.313**

According to table Value **P value is 0.05**

**Z cal < Z tab P < 0.05**

**The null hypothesis (H0) is accepted, while the alternative hypothesis (H1) is rejected, indicating a significant difference between the environments and technology improvement.**

**Inference:**

The calculated Z-value surpasses the tabulated value, leading to the rejection of the alternative hypothesis. Consequently, we conclude that there is a significant difference between the stress relief program and employees' expectations.

**4.4. Analysis using karl Pearson's correlation**

Correlation analysis is the statistical tool used to measure the degree to which two variables are linearly related to each other. Correlation measures the degree of association between two variables.

**Null hypothesis (H0):**

There is a positive relationship between the organization has employee expectations and employee attrition.

**Alternate hypothesis (H1):**

There is a negative relationship between the organization has employee expectations and employee attrition.

expectation (X)	34	20	22	17	15
attrition(Y)	40	18	10	20	12

$$r = \frac{N\sum XY - \sum X\sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

r = 0.846359

**Inference:**As the value is positive, it indicates a positive correlation between the organization's employee expectations and employee attrition.

**4.5. Regression Analysis**

**Null hypothesis (H0):**

There is a positive relationship between the Employee comfort and employee mind setup about job.

**Alternate hypothesis (H1):**

There is a negative relationship between the Employee comfort and employee mind setup about job.

<b>Employee comfort(X)</b>	21	23	22	18	16
<b>Employee mindset(Y)</b>	10	46	10	10	24

**SUMMARY OUTPUT**

Regression Statistics	
<b>Multiple R</b>	0.283144
<b>R Square</b>	0.080171
<b>Adjusted R Square</b>	-1.66667
<b>Standard Error</b>	17.44009
<b>Observations</b>	1

**ANOVA**

	df	SS	MS	F	Significance F
Regression	5	79.52941	15.90588	0.261475	0.261475
Residual	3	912.4706	304.1569		
Total	8	992			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
XVariable 4	-10.5882	60.32535	-0.17552	0.87185	-202.57	181.3939	-202.57	181.3939
XVariable 5	1.529412	2.990951	0.511346	0.644366	7.98913	11.04795	7.98913	11.04795

**Regression Value is =0.261475**

The positive value indicates a positive relationship between employee comfort and the mindset employees have about their job.

**Inference:**

Given the positive nature of the value, it signifies a positive relationship between employee comfort and the mindset employees hold regarding their job.

**1. Environments and Technology Improvement:**

- Null hypothesis (H0) accepted.
- Alternative hypothesis (H1) rejected.
- Signifying a significant difference between environments and technology improvement.

**2. Stress Relief Program and Employee Expectations:**

- Calculated Z-value greater than tabulated value.
- Rejecting the alternative hypothesis.
- Concluding a significant difference between the stress relief program and employees' expectations.

**3. Employee Expectations and Employee Attrition:**

- Positive relationship indicated by the positive value.
- Suggesting a correlation between organizational employee expectations and employee attrition.

**4. Employee Comfort and Employee Mindset about Job:**

- Positive relationship inferred from the positive value.
- Pointing to a positive correlation between employee comfort and the mindset employees hold regarding their job.

**V. FINDINGS**

- The predominant age group among respondents is between 25-30 years, comprising 70% of the participants.
- A majority of 53% of respondents possess 1-10 years of job experience.
- Approximately 31.3% of respondents report experiencing work pressure stress.
- About 33.3% of respondents acknowledge working overtime to fulfill job requirements.
- A notable 26% of respondents express dissatisfaction when faced with stress.
- A substantial 31.3% of respondents strongly disagree with the assertion that workforce absenteeism is induced by stress.

- A significant 34.7% of respondents strongly disagree with the notion that poor job performance is linked to stress.
- Home environment significantly influences 40% of respondents.
- A majority of 46.7% of respondents strongly agree that the company provides opportunities for knowledge enhancement.
- Approximately 34.7% of respondents find it challenging to relax when confronted with problems.
- A majority of 44% of respondents occasionally control irritation at work.
- The majority, comprising 73% of respondents, do not find it difficult to relax and have fun.
- A significant 40% of respondents disagree that they experience frustration at work.
- Approximately 34.7% of respondents report having good interpersonal relationships.
- The majority, accounting for 60.6% of respondents, agree that they engage in idea exchange for team improvement.
- About 33% of respondents do not perceive their work environment as friendly.
- Approximately 39.3% of respondents assert that awareness of one's strengths and weaknesses facilitate effective stress coping.
- Implement stress management programs to address work pressure and discourage frequent overtime, promoting a healthier work-life balance.
- Develop interventions to address the 26% of respondents expressing dissatisfaction during stressful periods, ensuring employee well-being and job satisfaction.
- Explore and implement initiatives to dispel the perception that absenteeism and poor job performance are linked to stress, fostering a positive work culture.
- Acknowledge and accommodate the influence of home environments by introducing support mechanisms or flexible policies to enhance overall employee well-being.
- Leverage the positive perception (46.7%) regarding knowledge enhancement opportunities by expanding and promoting professional development programs.
- Offer stress-relief initiatives to the 34.7% finding it challenging to relax and introduce mechanisms to manage occasional irritation at work.
- Strengthen interpersonal relationships (34.7%) by fostering a collaborative and inclusive work environment through team-building activities and communication channels.
- Capitalize on the majority's agreement (60.6%) regarding idea exchange for team improvement by encouraging a culture of innovation and collaboration.
- Address concerns (33%) about the perception of an unfriendly work environment by fostering a positive workplace culture and encouraging open communication.
- Develop programs to enhance awareness of strengths and weaknesses (39.3%) among employees, promoting self-reflection and effective stress coping strategies.

## VI. SUGGESTIONS

- Implement strategies to bridge the identified significant differences between environments and technology improvement.
- Foster an organizational culture that promotes seamless integration of technological advancements within various work environments.
- Revise and enhance the stress relief program to better align with the expectations of employees.
- Conduct regular assessments and solicit feedback from employees to continually improve the stress relief initiatives.
- Address the correlation between employee expectations and attrition by refining organizational policies and practices.
- Focus on aligning organizational goals and employee expectations to reduce attrition rates.
- Cultivate an environment that prioritizes employee comfort, considering its positive correlation with employees' mindset about their job.
- Implement measures to enhance workplace satisfaction, ultimately fostering a positive mindset among employees.
- Tailor professional development programs to cater to the needs and aspirations of the predominant age group (25-30 years) to maximize engagement and retention.

## VII. CONCLUSION

In conclusion, the study provides a comprehensive understanding of employee experiences, shedding light on areas of improvement and offering practical suggestions for fostering a more positive and conducive work environment. Implementing these suggestions can contribute to enhanced employee satisfaction, well-being, and overall organizational success. Challenges related to relaxation, occasional irritation, and interpersonal relationships call for the implementation of stress-relief initiatives and team-building activities.

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