



RESEARCH ON ANXIETY MANAGEMENT OF WORKERS IN SOFTWARE INDUSTRIES

Varadan Kala

Professor

Department of Psychology

Takshashila University

Abstract:

In today's world, the software industry is one of the fastest-growing sectors in India. It has become increasingly competitive, offering a wide range of opportunities. However, this growth has also presented the industry with various challenges, including technological innovation, service diversification, and global servicing. As a result, individuals working in the information technology industry often struggle to adapt to the ever-changing demands they face, leading to increased stress levels. Stress is a common issue that people encounter throughout their lives.

The main objectives of this research are to examine the characteristics of the selected respondents and to determine the level of stress experienced by software industry workers. This descriptive research was conducted in the city of Chennai, utilizing a convenient sample of 200 respondents from various software organizations. The IT industry was deliberately chosen due to its successful integration of Human Resource Management practices, which have helped attract and retain skilled personnel. To collect primary data, the respondents were provided with Google Forms, which they used to provide their responses.

Keyword: Software industry, anxiety management, mental health, economic factors and workload.

INTRODUCTION

The globalization of the Indian economy and the government's supportive policies has contributed to a notable upswing in the software industry in India. Software specialists work in an industry where there is always a demand to provide exceptional services quickly and efficiently while also staying within budgetary constraints. Workers in the software sector are more subject to developing a wide range of health problems due to the constant mental and physical exhaustion of their professions.

In large part because of commercialization and outsourcing, the software sector in India is expanding at the most rapid pace. India's substantial demand over the past few decades has directly contributed to the country's status as one of the world's software industries that is growing the fastest. When a worker is assigned to unachievable goals to strive for and find themselves unable to properly manage a certain situation, they will become stressed. Any employment that provides a living salary has targets.

Software developers face a variety of psychological problems as a result of professional fears such as intense anger, unreasonable demands from upper management, being focused on achievement, lacking job safety, and the inability to accept failure. According to clinical psychologists, persons in the software industry frequently exhibit emotions of unworthiness, lack of self-worth, and discontent, and they frequently experience high levels of anxiety, sadness, and isolation as a result of the atmosphere in which they work. Issues related to relationships, marriage, and sexuality are manifestations of this. Treating the organizational structure of a corporation is just as important as treating the psychological issues that software professionals face on an individual basis.

Working professionals can benefit from a variety of strategies to manage stress and live balanced lives, including cognitive therapy, assertiveness training, and relaxation training. Numerous mental health and physical health issues can be brought on by extended work hours, pressure and stress at work, night shifts, and sleep deprivation. An uncomfortable condition of internal conflict, anxiety is frequently accompanied by tense actions like pacing back and forth, physical complaints, and obsessive thinking. It is the subjectively unpleasant sensation of impending death or fear over something unlikely to occur.

Anxiety is a common emotional state characterized by fear, worry, and uneasiness. It is often a generalized and unfocused reaction to a situation that may not objectively be threatening. It is important to note that anxiety differs from fear, which is a response to a genuinely intimidating or dangerous situation. Symptoms such as muscle tension, fatigue, restlessness, and difficulty concentrating are often associated with anxiety. Although occasional anxiety is normal, it is not considered a typical response to everyday concerns.

REVIEW OF LITERATURE

Jia, W., & You, S. (2024) in their paper titled "Power Games and Wage Negotiations in China's New Energy Vehicle Industry" this study investigated the process by which programmers negotiate their salaries with employers at a new energy vehicle company in Shanghai. Employers employ tactics such as criticizing the programmers' backgrounds to diminish their confidence and create a competitive atmosphere, in an attempt to limit salaries. To counter this, programmers enhance their bargaining power by showcasing their competence, engaging in job hopping, and conducting thorough research on the company's conditions. It is important to note that programmers' interests differ from those of state-owned enterprise workers and migrant workers. While individual negotiations may result in short-term wage increases for specific programmers, they do not foster labor solidarity and instead

contribute to inequality. In summary, the research reveals that programmers employ individual strategies to negotiate higher wages, while employers aim to control salary levels. This underscores the issues of justice and solidarity within the workforce of China's new energy industry.

Saravanan, S., Jothi, E., Aswini, M. S., Mary, M. I. H., & Lithanya, M. S. S (2023) in their research work, the paper titled “ TECHNO-STRESS AMONG IT EMPLOYEES: AN EMPIRICAL STUDY” has examined techno stress among employees in Tamil Nadu software firms due to the introduction of new complex technologies. Surveys and statistical analysis were used to assess perceptions, symptoms, and intensity of techno stress. The results showed a prevalent techno stress leading to anguish, highlighting the need for stress management strategies in software firms.

Tase, F., & Kustiawan, U. (2023) in this research work named “The Impact of Job Insecurity on Intrinsic Motivation, Anxiety, Depression, and Job Performance of Information Technology Company Employees in Indonesia” this paper investigated the impact of job insecurity on the motivation, anxiety, depression, and job performance of 130 IT company operators. The data was analyzed through surveys and SEM analysis. The main findings indicated that intrinsic motivation had a positive influence on job performance, while job insecurity did not have a negative effect on motivation or performance. However, job insecurity was found to have a positive association with levels of anxiety and depression. It was observed that depression had a negative impact on intrinsic motivation, whereas anxiety did not. The research concluded that job insecurity resulted in poor mental health, but did not diminish the motivation or performance of Indonesian IT company operators. It is recommended to reduce ambiguity in goals and policies.

Wong, N., Jackson, V., Van Der Hoek, A., Ahmed, I., Schueller, S. M., & Reddy, M. (2023, April) this article named “Mental Wellbeing at Work: Perspectives of Software Engineers” has examined and conducted interviews with 14 software engineers to gain insights into their experiences with mental wellbeing in the workplace. It is noteworthy that software engineers often experience higher rates of burnout and suicide compared to other information workers. The research delved into the engineers' personal experiences, management approaches, encountered difficulties, and recommendations for enhancing mental wellbeing. It is crucial to consider mental wellbeing at all levels - individual, team, and organizational - within the workplace. Furthermore, integrating mental wellbeing into the technologies that employees use on a daily basis is of utmost importance. In conclusion, this study sheds light on the growing concern regarding the mental wellbeing of software engineers, the diverse strategies required to address this issue, and the significance of incorporating wellbeing into work technologies.

Karamchandani, K., & Dubule, V. K. (2020) in their study titled “Job anxiety and occupational stress among employees of IT sector: Impact on their attitude towards management” the study examined the relationship between job anxiety, occupational stress and attitude towards management among 200 IT employees in Hyderabad. Occupational stress was found to significantly and negatively predict attitude towards management. However, job

anxiety did not have a significant relationship with attitude towards management. Female IT employees showed a stronger negative relationship between job anxiety/stress and their attitude towards management compared to males. The study suggests that IT companies should implement specific interventions, focusing on gender-related issues, to decrease job anxiety and occupational stress among their employees.

Mannapperuma, D., & Kirupananada, A. (2020) in their research work titled “ADAM-Anxiety Detection and Management: a Solution to Manage Anxiety at Workplaces and Improve Productivity” this study conducted aimed to develop an application known as ADAM to assist IT professionals in Sri Lanka in effectively managing anxiety. Anxiety is a prevalent issue that significantly impacts employee productivity, yet mental health remains stigmatized in Sri Lanka. ADAM aims to create awareness among employees regarding the severity of anxiety and encourages them to seek professional assistance. To identify anxiety triggers in the workplace, the researchers utilized the Hamilton Anxiety Rating Scale. Furthermore, a rule-based machine learning model was employed to recommend appropriate anxiety management activities based on factors such as gender, age, and severity. Ultimately, the research sought to contribute to the well-being and productivity of IT professionals in Sri Lanka by creating an application to detect and address workplace anxiety, thus aligning with sustainable development goals.

PROBLEM OF THE STUDY

- **Increased Opportunity/Lingering Bias:** You mention how increased access to education and a reduction in overt gender bias are positive developments. However, you wisely recognize that traditional expectations persist. This presents challenges in the workplace and family, leading to added stress.
- **Profession-Specific Job Stress:** Highlighting specific occupational stress is wise. Various professions have unique demands that need consideration.
- **Worker and Organizational Health:** You stress the impact on both the individual employee's wellbeing and how this can negatively influence the broader health of the organization they work for. This helps frame the importance of the study.
- **Physical and Mental Impact:** Job stress is not simply fatigue, but a more insidious condition with physical and mental health consequences.

OBJECTIVE OF THE STUDY

- To evaluate the level of anxiety experienced by employees in the software industry.
- To evaluate the quality of work life among employees in the software industry.
- To identify the factors that contributes to anxiety and comprehends their impact on software employees.
- To suggest strategies for effectively managing anxiety and improving work performance within the software industry.

SCOPE OF THE STUDY

The purpose of this study is to analyze employee stress levels in the software industry in Chennai. Specifically, the study will focus on job-related stress.

METHODOLOGY

The present study aims to examine the objectives and assess the stress levels of employees. It is an exploratory research endeavor focused on developing the concept of stress management. This study adopts a descriptive approach and relies on survey methods. The data collected for this study includes both primary and secondary data. The primary data was generated through a survey of 200 participants using a questionnaire consisting of multiple-choice questions. The secondary data was obtained from various sources such as web portals, published records, journals, magazines, newspapers, and encyclopedias. In descriptive research, the researcher provides a description of the current state of affairs. The variables are not under the control of the researcher, and the study is undertaken to describe the characteristics of the variables of interest in a given situation.

DATA COLLECTION

Once the research problem and design have been defined and planned, the process of data collection commences. In this study, both primary and secondary data collection methods have been employed. The primary data collection method has proven instrumental in obtaining results. Secondary data is utilized to gather information for the literature review and company details. In this method, a questionnaire is distributed to the relevant individuals, requesting their response to the questions before returning it.

ANALYSIS AND INTERPRETATION

Age group of the respondents

Table 1.1: Age group

Age group	No. of responds	Percentage analysis
21-30	8	4
31-40	40	20
41-50	66	33
Above 50	86	43
Total	200	100

Source: Primary Data

As per the source Majority of the respondents were over 50 years old (43%), second largest group was 41-50 years (33%), followed by 31-40 years (20%) and only 4% were between 21-30 years. The sample was predominantly

middle aged and older employees, with 86% being over 40 years old and the highest percentage (43%) over 50 years old. The youngest age group of 21-30 had just 4% respondents.

Gender category of the respondents

Table 1.2: Gender category

Gender	No. of responds	Percentage analysis
Male	116	58
Female	84	42
Total	200	100

Source: Primary Data

As per the source out of the total 200 participants, 58% (116) were Male and 42% (84) were Female. This indicates a higher percentage of Male respondents in the sample.

Education and qualification

Table 1.3: Education and qualification

Educational Qualification	No. of responds	Percentage analysis
Under graduate	26	13
Post graduate	98	49
Professional courses	44	22
Other	32	16
Total	200	100

Source: Primary Data

As per the source, among the sample of 200 participants, highest percentage (49%) held Post graduate degrees, 22% had Professional course degrees, 16% had Other qualifications, and 13% were Under graduates.

Work experience in the field

Table1.4: Work experience in the field:

Work Experience	No. of responds	Percentage analysis
1-3 yrs	78	39
3-6 yrs	56	28
6-10 yrs	34	17
More than 10 years	32	16
Total	200	100

Source: Primary Data

As per source among the 200 participants, the highest percentage (39%) had 1-3 years of work experience. 28% had 3-6 years, 17% had 6-10 years and 16% had over 10 years' experience in their roles.

Health issues faced by software workers

Table 1.5: Health issues faced by software workers

Variables	No. of responds	Percentage analysis
Headache	48	24
High blood pressure	74	37
Digestive problem	58	29
Hypertension	14	7
Sleepiness	6	3
Total	200	100

Source: Primary Data

As per the collected data, the most commonly reported health issue was High blood pressure (37% respondents), followed by Digestive problems (29%), Headache (24%), Hypertension (7%) and Sleepiness (3%).

Correlation Analysis:

The study analyzed the relationship between employee stress levels (x-variable) and type of health problems faced (y-variable) using the Karl Pearson coefficient of correlation.

Where: x-variable = Stress levels of employees (measured on some scale), y-variable = Type of health problem (categorized into different health issues like headache, hypertension etc.)

The Karl Pearson correlation coefficient technique was used to quantify the strength and direction of association between these two variables - employee stress levels and resultant health problems. The key advantage of using this technique is that it would allow the research to examine if higher stress levels are associated with specific kinds of health problems or not. Thereby informing focused stress intervention programs to improve employee health and wellbeing.

Opinion factors:

Table 1.6: Opinion factors:

Opinion Factors	Very High	High	Moderate	Low	Very Low	Total
Level of stress (x)	64	76	32	16	8	200
Type of health problem (y)	48	74	58	14	6	200

Source: Primary Data

As per the source correlation analysis for the given data:

Table 1.7: Correlation analysis:

	Level of stress (x)	Type of health problem (y)
Level of stress (x)	1	
Type of health problem (y)	0.848324868	1

The Karl Pearson correlation coefficient obtained is 0.85, indicating a strong positive correlation between stress levels and type of health problems among the employees. The correlation coefficient between the level of stress (x) and the type of health problem (y) is approximately 0.848. This indicates a strong positive correlation between these two variables. As the level of stress increases, the likelihood or severity of experiencing a certain type of health problem also tends to increase.

Chi-square

To establish whether there is a significant difference between the psychological work environment and employee stress, the following hypotheses are proposed:

H0: There is no significant difference between the psychological work environment and employee stress.

H1: There is a significant difference between the psychological work environment and employee stress.

The organization should endeavor to establish a conducive work environment that fosters employee well-being and mitigates stress. Work assignments should be thoughtfully deliberated, taking into consideration employees' attitudes and skills. Management should proactively solicit and evaluate suggestions from the workforce. The issue of increased stress within the organization, particularly among female employees, should be addressed. It is crucial to recognize the detrimental impact of stress on the mental and emotional health of female workers, as well as their overall performance. Various stress management techniques, such as yoga and meditation, can be valuable in alleviating stress. These techniques can be easily learned and incorporated into daily routines with just a few minutes of dedicated practice. Meditation, a traditional process originating from India, effectively calms the mind by regulating breathing and improving blood flow. Both yoga and meditation have been proven to have positive effects on psychological well-being. Meditation is considered a psycho-spiritual practice that contributes to overall wellness.

Table 1.8: Factors and Percentage

Factors	No. of responds	Percentage
Strongly agree	80	40
Agree	72	36
Neutral	20	10
Disagree	16	8
Strongly disagree	12	6
Total	200	100

Source: Primary Data

Table 1.8: Observed Frequency vs Expected Frequency

Observed Frequency	Expected Frequency	(O-E) ²	(O-E) ² /E
80	40	1600	40
72	40	1024	25.6
20	40	400	10
16	40	576	14.4
12	40	784	19.6
Total			109.6

As per the source, chi-square test the calculated chi-square value of 109.6

The degree of freedom is 4 (df)

The significance level is 5%

For 4 df and a 5% significance level, the tabulated/critical value is 9.488. So the tabulated/critical chi-square value with 4 degrees of freedom and a 5% significance level is 9.488. We compare this value to the calculated chi-square value of 109.6. Since the calculated chi-square is greater than the tabulated value, we would reject the null hypothesis and conclude that there is a statistically significant relationship/difference in the data.

FINDINGS

- Companies should strive to create a positive work environment that minimizes employee stress. It is important to assign tasks to employees based on their abilities and interests.
- Management should actively seek and incorporate staff input and perspectives.
- While stress affects everyone, studies indicate that it disproportionately impacts female employees. Therefore, it is necessary to implement tailored assistance systems. Excessive anxiety can have a negative impact on mental health and workplace productivity.
- Implementing structured stress relief activities, such as daily yoga sessions, can help improve focus. Yoga is an accessible activity that has the ability to calm one's system.

- Meditation has its roots in ancient Indian traditions and is known for its psychological benefits. By regulating breathing and blood circulation, meditation can help reduce anxiety. As more workplaces adopt mindfulness techniques, leadership should also incorporate meditation as a tool to promote employee well-being.

CONCLUSION

A recent study was conducted among employees at software companies in Chennai. The objectives of the study were to assess staff stress levels and define personnel personality attributes. Comprehensive questionnaires were used to collect insightful data. While a few individuals experienced high anxiety, moderate worry was prevalent in the broader corporate culture. Although pressure affects behavior, strategic assistance can empower both employees and leadership to effectively alleviate embedded strain.

In conclusion, employees face identifiable factors that contribute to increased apprehension. Fortunately, counseling and personalized interventions can successfully mitigate unnecessary tension. Prioritizing emotional intelligence and optimizing procedural workflows can promise reduced anxiety. This proactive approach leads to a healthier path forward and fosters more harmonious workplaces. Companies that prioritize the well-being of everyone in their ecosystem demonstrate evolutionary principles that deserve recognition.

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