

The Influence Of Job Insecurity On Job Stress In Chemical Employees

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ABSTRACT

The work environment is the place where employees work and can be a force that directly or indirectly affects employee performance. Employees who work in the chemical industry are certainly directly related to chemicals as the core of the work. Each chemical will affect individual health and also the surrounding environment. Poor environmental conditions will cause work stress in employees. One of the triggers of stress at work is a high sense of job insecurity. This study aims to investigate the impact of job insecurity on job stress among chemical employees. The sampling technique employed was non-probability sampling, specifically purposive sampling. The total population in this study amounted to 159 employees. This study uses the Multidimensional Qualitative Job Insecurity Scale (MQJIS) and Job Stress Scale (JSS). Data analysis techniques in this study using simple regression tests with the help of SPSS software version 26.0 for Windows. The results of this study show indicate a very significant positive influence between job insecurity and job stress among chemical employees, with a significance value of 0.000 ($p < 0.01$). Moreover, job insecurity has an influence of 72.3% on job stress, and other factors outside the scope of this study influence the remaining 27.7%.

Keywords : Job Insecurity, Job Stress, Chemical Employees

INTRODUCTION

In an organization, effective human resource management is crucial for a company's success. The purpose of this is to achieve company goals regarding the development, utilization, and retention of employees in high quality and quantity (Paoki, 2018). Active employee participation plays a crucial role in achieving organizational goals. When employees are involved, all components of the organization have the potential to create more optimal planning and achieve better results. Thorough involvement can also accelerate the process of achieving the organization's set goals (Rum et al., 2019). For this to be maximally realized, organizations must create a work environment that supports both physical and non-physical aspects of work. The work environment is where employees conduct their work activities within the company. A comfortable work environment can encourage employee engagement and improve performance, while an unsupportive environment can reduce employee productivity.

Employees who work in the chemical industry are certainly directly related to chemicals as the core of the work. Exposure to hazardous chemicals in the workplace can occur through various routes, including inhalation, dermal contact, or accidental ingestion. Most chemicals in industrial work environments are toxic and can cause adverse health effects. Repeated or long-term exposure to certain chemicals has the risk of causing serious health problems (Rahmadani & Syafri, 2024). Based on research by (Nurani et al., 2017), 60% of workers in environments that disturb comfort, such as those with noise or exposure to chemicals, experience severe stress.

The pressure that arises from specific environmental conditions can be a trigger factor that also plays a role in determining the onset of health problems, mainly if it occurs repeatedly and at high intensity. (Maghfirah, 2023) states that the work environment can have both positive and negative impacts. A workplace with a poor environment can be a source of hazardous stress. Therefore, an unsupportive work environment is something that can trigger the emergence of work stress in employees.

Stress is a condition of tension that causes psychological and physical imbalance, affecting emotions, thinking patterns, and a person's overall well-being (Yulianti et al., 2022). Work stress arises in individuals because they feel uncomfortable; therefore, it can be observed that the causes of stress encompass work factors, non-work factors, and factors related to a person's personality (Maulidiah, 2017). Stress in the short term that is left unaddressed can lead to individuals becoming unmotivated, frustrated, and depressed, causing them to work sub-optimally. Long-term stress renders individuals unable to withstand work stress, ultimately leading to their inability to continue working in the company (Siswati & Ratna, 2018). According to (Hallo & Dewi, 2022), one of the triggers for stress at work that can interfere with a person's psyche and cause employees to feel stressed every time they work is high job insecurity.

Job insecurity refers to an individual's perception of a threat to their job continuity, accompanied by worry or uncertainty due to the perceived threat (Hastuti & Hadi, 2022). Job insecurity is not only influenced by economic factors or organizational policies but can arise due to high-risk work environment conditions. Job insecurity that arises is thought to trigger job stress because it affects the psychological condition of individuals. When there is an increase in job insecurity in the perception of each employee, there is also an increase in the level of job stress in the employee's psychology, and vice versa (Saputri et al., 2020). This can be seen from previous research, such as research from (Firdha Tresnasari Sita & Sri Suwarsi, 2024), that in addition to poor diet and fatigue due to work activities, concerns about job continuity can also affect employees' mental state. When employees feel their position is threatened, they tend to think about negative possibilities that are not necessarily happening. This excessive thinking can trigger stress.

Based on the explanation and previous research described, it is evident that the purpose of this study is to investigate the impact of job insecurity on job stress among chemical employees. Therefore, the hypothesis that can be developed in this study is whether job insecurity has an effect on job stress among chemical employees. The hypothesis can be described as follows:

Ha: There is an effect of job insecurity on job stress in chemical employees.

Ho: There is no effect of job insecurity on job stress in chemical employees.

METHODS

In the process of collecting data, this research was conducted online using a Zoho questionnaire, which can be accessed directly by respondents who meet the required criteria. The total number of respondents collected in this study was 159 employees working in the chemical field. This research employs quantitative methods, utilizing simple regression techniques. Sampling is conducted using non-probability sampling techniques, specifically purposive sampling, with the criteria of employees working in the chemical field who have been employed for at least one year.

This job insecurity research was measured using the Multidimensional Qualitative Job Insecurity Scale (MQJIS), developed by Brondino et al. (2020), which consists of dimensions related to social relationships, employment conditions, working conditions, and work content. Examples of items in this scale are "I feel hesitant if I work with any coworkers" and "I feel uncertain that there are promotion opportunities for me." The answer options range from 1 to 6, from "strongly disagree" to "agree strongly." This scale has a total of 8 favorable items.

Job stress research is measured using the Job Stress Scale (JSS) developed by Parker and Decotis in 1983 (Leonardi & Astuti, 2023), which consists of dimensions including time stress and anxiety. Examples of items in this scale are "I feel anxious or nervous because of my job" and "I spend more time at work." The answer options range from 1 to 6, from "strongly disagree" to "agree strongly." This scale has a total of 13 favorable items.

To achieve the research objectives, researchers analyzed the data using data analysis techniques, including simple regression tests, with the assistance of software, specifically SPSS version 26.0 for Windows..

RESULTS AND DISCUSSION

Demographics Profile

Table 1. Demographics Profile

	Category	Amount
Gender	Male	74
	Female	85
Age	19-26	61
	27-33	52
	34-40	29
	41-47	12
	49-55	5
	1-3 Years Old	47
Length of Work	3-5 Years Old	56
	>5 Years Old	56

The profile of respondents used in the study was dominated by women, comprising 53.4% (85 people), while men made up 46.6% (74 people). Individuals aged 19-26 years with a total

of 38.3% (61 people), age 27-33 with a total of 32.7% (52 people), age 34-40 with a total of 18.2 (29 people), age 41-47 with a total of 7.5% (12 people) and age 49-55 with a total of 3.1% (5 people). Individuals who worked 1-3 years totaled 29.6% (47 people), and more than 3 years totaled 70.4% (112 people).

Table 2. Gender Demographics

Gender	Amount	Job Insecurity		Job Stress	
		ME	Description	ME	Description
Male	74	33,92	High	53,82	High
Female	85	31,20	High	48,16	Medium

Based on table 2 above, the highest empirical value of job insecurity is in the male gender with a value of 33.92. Meanwhile, the highest empirical value of job stress is in the male gender with a value of 53.82.

Table 3. Age Demographics

Age	Amount	Job Insecure		Job Stress	
		ME	Description	ME	Description
19-26	61	33,10	High	48,89	Medium
27-33	52	35,94	High	58,37	High
34-40	29	32,52	High	51,90	High
41-47	12	21,00	Medium	36,00	Medium
49-55	5	15,80	Low	24,60	Low

Based on table 3 above, the highest empirical value of job insecurity is at the age of 27-33 with a value of 35.94. Meanwhile, the highest empirical value of job stress is at the age of 27-33 with a value of 58.37.

Reliability

Reliability is the consistency of a method and research results so that the reliability test actually tests the accuracy of the measurement scales of the research instrument. The range of alpha coefficient values ranges from 0 (no reliability) to 1 (perfect reliability). The question has a reliability coefficient of more than equal to 0.70 which is acceptable (Budiastuti & Bandur, 2018). The reliability results on the job insecurity and job stress scales obtained the following results:

Table 4. Scale Reliability Results

Scale	Cronbach's Alpha	N of Items
Job Insecurity	.899	8
Job Stress	.961	13

Table 4 shows the results of testing the reliability of the job insecurity scale has a Cronbach's alpha value of 0.899 and the job stress scale has a Cronbach's alpha value of 0.961 which means it has a high reliability value.

Hypothesis Test

Table 5. Hypothesis Test Results

Scalr	R	R ²	Adjusted R ²	Sig.
<i>Job Insecurity</i>	.851	.725	.723	.000
Job Stress				

Based on the results of the hypothesis test table, a significance value of 0.000 ($p < 0.01$) is obtained, indicating that job insecurity has a highly significant effect on job stress among chemical employees. This is in line with the research of (Y et al., 2023), the results showed that job insecurity and workload simultaneously had a significant effect on job stress in employees.

The job insecurity variable has an effect of 72.3% on job stress, and the remaining 27.7% is influenced by other factors not examined in this study. (Carima, 2022) states that work stress can be influenced by workload and work environment.

The results of this study also indicate that job insecurity and job stress have a positive correlation, as evidenced by the Pearson Correlation with a value of .851**, which suggests that the higher the job insecurity experienced by employees, the higher their perceived job stress. This is supported by research from (Fridayanti et al., 2021) that there is a positive direction of influence between job insecurity and job stress. The higher the job insecurity, the greater the increase in job stress will be. Conversely, the lower the job insecurity, the lower the job stress.

Based on the descriptive results of the two variables, it is obtained that the empirical mean of job stress is in the high category. This is in line with (Frichilia & Claudia, 2016). From the results of observations, it is evident that work stress experienced by employees can interfere with the course of work and prevent optimal performance. Meanwhile, the empirical mean of job insecurity is in the high category. This is in line with (Puspitawati et al., 2023). Employees who experience job insecurity can negatively impact their morale, making it difficult for them to carry out tasks effectively and resulting in decreased work productivity.

In the calculation of job insecurity categorization based on gender, the male gender has the highest empirical value compared to women. At the age of 27-33, it has the highest empirical value in the high category. This is in line with (Riana et al., 2020) that men have a higher level of job insecurity than women. In age, the higher the age of a person, the higher the level of job insecurity.

In the calculation of work stress categorization based on gender, the male gender has the highest empirical value compared to women. (Aulia & Rita, 2021) stress is more susceptible to men than women. At the highest empirical value of work stress, the age range is 27-33, with a value of 58.37. (Irawati et al., 2023) The age group most prone to stress is young adulthood (21-40 years). This occurs when individuals experience pressure at work that can trigger job stress.

(Saputri, et al., 2020) Stated that the amount of job insecurity experienced by employees will be directly proportional to the amount of work stress experienced. Job insecurity within a company can have a direct impact on the psychological state of its employees and trigger

stress. Feelings of job insecurity can trigger anxiety, self-confidence, pessimism, stress, and even depression.

Based on the results of the calculations carried out in this study, the hypothesis is accepted that job insecurity has an effect on job stress among chemical employees. This study still has several shortcomings, including the fact that researchers cannot control the completion of questionnaires by employees, as the data distribution is conducted online. Then, it is incomplete in obtaining employee data, so no research is added.

CONCLUSION

The results of this study indicate that job insecurity has a significant effect on job stress in chemical employees, with an R-squared value of 72.5%; other factors influence the remaining 27.5%. Moreover, it shows a positive relationship between job insecurity and job stress. The higher the job insecurity felt by employees, the higher the job stress will be felt.

SUGGESTION

Based on the results of this study, where the discussion and conclusions have been described above, the suggestions given by the researcher include:

1. For employees (Chemical employees)
Employees must have a high level of self-awareness regarding work safety, consistently adhering to safety procedures and prioritizing both physical and mental well-being. Employees need to manage stress independently through effective coping strategies, such as relaxation, mindfulness, or seeking social support from coworkers, in order to mitigate job insecurity.
2. For Companies
Companies should prioritize employee work safety and regularly inspect PPE to enhance a sense of security. Creating a supportive work environment, such as offering mental well-being programs, is also important in reducing stress levels associated with job insecurity.
3. For future researchers
Future researchers are expected to incorporate additional variables that can trigger job stress in order to gain a new perspective. A longitudinal approach is also important to observe the dynamics of changes in job stress. Additionally, using mixed methods by combining quantitative and qualitative data will provide a more comprehensive understanding.

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