

EXAMINING JOB STRESS AMONG INDONESIAN GEN Z EMPLOYEES USING JD-R MODEL

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ABSTRACT

Job stress is an issue for Indonesian Gen Z to thrive in the workplace. This study aimed to examine job stress using the JD-R model. Job insecurity, workload, and work environment were used as independent variables. The research was conducted using quantitative research. 207 responses from Indonesian Gen Z employees working in startup/digital companies in Jakarta was gathered using questionnaire and statistical analysis was performed using IBM SPSS 26. This research found that all variables have partial and simultaneous impact towards job stress. This seeks for companies to practice transparency and feedback with employees about the job future, workload, and work environment, as well as building a company culture that encourages employee growth.

Keywords: *gen Z, JD-R model, job insecurity, job stress, workload, work environment*

INTRODUCTION

Gen Z is currently the largest generation in the global population, with 2.47 billion people – or 32% out of 7.7 billion people across the Earth (Spitznagel, 2020). This generation comprises of population from 1997 onward (Dimock, 2019). These numbers will keep adding as time goes by. It is predicted that 27% of them will make up the workforce population by 2025 (McCrindle, 2015). While the emergence of COVID-19 has taken a toll on this generation's outlook for jobs, more and more people in this generation have entered the labor market. In Indonesia, for example, the population of 270 million is covered by 71.5 million Gen Z (26.5%) (BPS, 2020). As Gen Z is entering the workforce slowly, it is hoped that companies develop strategies to attract

and retain this generation. However, despite the hopeful situation of growth of people in the workforce, there is a big issue around this current generation that has not yet been well addressed, which is job stress.

According to Deloitte (2022), almost half (46%) of Gen Z around the world are stressed or anxious all or most of the time compared to the older generation, such as Millennials (38%). This rate is also higher than stress rate among Gen Z in 2020 and 2021, where Gen Z stress in 2020 is 37.63% average, 34% in 2020 pulse survey, and 37.53% in 2021. In Indonesia, stress became the top prevalent mental health issues among 1 out of 4 Indonesians (Statista, 2022), and among 45% from 10,103 respondents in Indonesia report that they feel more stressed or anxious in the past 12 months

in 2022 (Rakuten Insight in Statista, 2023). When it comes to generational and job stress, almost 3 out of 10 Indonesian Gen Z across 34 provinces reported that they are feeling anxious and stressed in their workplace. This is the highest compared to Millennials (28.1%) and Gen X (24.1%) (Alvara, 2022), which is consistent with global findings.

A brief interview conducted by the researcher among Indonesian Gen Z employees of different startup/digital companies headquartering in Jakarta revealed that they feel stressed out because they feel burdened by the additional workload left by employees who have been laid off due to massive organizational downsizing. They feel very pressured by the deadline and also additional amount of effort and time required to complete their tasks. They also expressed difficulty to speak up about the excessive workload due to lack of communication with their supervisor. They also stated fear of being the next employees to lose their job, which added more stress to them because of confusion to look for a new job. It does not help that they felt scared to reach out to ask about the future of their job in the company.

The negative impact of high and prolonged job stress towards many organizational aspects imposes importance of research especially among Indonesian Gen Z employees, who are the new entrants of the current workforce. As the research of this generation is still very limited (IDN Research Institute, 2022; Alvara, 2022), and limited evidence of job stress among Indonesian Gen Z to the researcher's knowledge, the researcher would like to explore factors affecting job stress among Indonesian Gen Z employees.

LITERATURE REVIEW AND HYPOTHESIS

Gen Z

Dimock (2019) stated that Gen Z is population born from 1997 onward. This generation is accustomed to connection with people and knowledge through digital platforms – the first generation of digital natives. Digitalization has been

integrated in the daily life of this society, for example social media usage, task automation, emergence of e-commerce and e-transport, cryptocurrency, and upcoming new jobs that were unimaginable in the past. This generation is also known as the most educated generation. Almost 6 out of 10 of 18 to 21 years old population no longer in high school enrolled in college education.

In the workplace, Gen Z seeks importance of work in their lives more than the oldest generations. Moreover, 7 of 10 value the importance of working in a formal job. This is reflected by employment rate of 42% of Gen Z aged 17 to 23 years (McKinsey, 2018). The value of doing their work is so important to Gen Z that 40% of them will most likely leave if they find it not fulfilling their life. 35% of them would not hesitate to leave even if they do not have another job ahead of them (Randstad, 2022).

Gen Z in Indonesia

Findings of Dwidienawati and Gandasari (2018) about the characteristics of 89 Gen Z in a private university in Jakarta has found that Gen Z is characterized by being realistic and in need of security and stability. This is because Gen Z was born in economic recession, where parents were thriving to create financial stability. Therefore, this generation is driven mainly by money to do their work. This is supported by the report of Gen Z by IDN Research Institute (2022) where 8 in 10 Gen Z considered salary offered as the factor that drives them to choose a job, compared with career path (64%), suitable to interest (60%), and working hours (58%).

Job Stress

Job stress is defined as a situation triggered by the changes within the interaction of people from usual situation (Beehr and Newman in Luthans, Luthans and Luthans, 2021). Goestch (2015) defined job stress as the emotional state which arrives from the perceived difference between a person's job demand level and their ability to cope with the demand.

Job stress has been shown to affect performance of many tasks, and usually decrease immediately when stress rises to alarming levels (Luthans, Luthans and Luthans, 2021). Stress is a significant impact towards employee performance (Amharriansyah, Madjid, and Putra, 2020; Rahmawati and Liswandi, 2022). Stress has also been shown to bring a significant negative impact towards job satisfaction. This is studied among couriers in China (Xie et al., 2021), employees in a pension fund company (Widayati, Arijanto, Magita, Anggraini, and Putri, 2021) and traditional industry areas in Taiwan (Yang, Chen, Lee, and Liu, 2021). Workplace stress is also associated with the intention to quit. For 29% of Gen Z, they will quit if a job does not fit with their lifestyle and happiness (Randstad, 2022). Not only that, more than 4 in 10 Gen Z and 4 in 10 Millennials reported that many employees left their organization due to burnout (Deloitte, 2022). Finally, work stress is associated with work-life balance. The higher the job stress, the lower the work-life balance will be (Ekaristy and Liswandi, 2022).

Job Stress Model: JD-R Model

Job Demand-Resources (JD-R) Model was originated from studies about burnout and engagement (Demerouti et al. in Bakker et al., 2022). In its most recent development, this theory proposes that through employee burnout and engagement, job characteristics have significant impact towards job performance, and how employees use personal proactive and reactive behaviors to bring an impact towards the job demands and resources (Bakker and Demerouti and Bakker et al. in Bakker et al., 2022). These job characteristics are divided into job demands and job resources. Job demands are defined as physical, psychological, social, or organizational aspects of the job that demands consistent physical, cognitive, and/or emotional effort and thus correlated with certain physiological and/or psychological costs (Demerouti et al. in Bakker et al., 2022). Job demands are divided as hindrance demands and challenge demands (Bakker and

Demerouti, 2016). Hindrance job demands are defined as job demands that involve excessive constraints which prevent an individual from achieving their goals (Cavanaugh, Boswell, and Roehling, 2000) such as role conflict, role overload, and role ambiguity (Bakker and Demerouti, 2016). Challenge job demands, on the other hand, are defined as job demands that exerts effort to achieve but has the possibility of increasing employee's personal growth and achievement (Podsakoff, LePine, and LePine, 2007) such as high workload, time pressure, and responsibility (McCauley, Ruderman, and Ohlott, 1994). Job resources, on the other hand, are physical, psychological, social, or organizational aspects of the job that serves as a motivator, and functional in achieving objectives, which causes regulation of the impacts of job demands, and stimulate learning and personal growth (Bakker and Demerouti in Bakker et al., 2022). Examining factors of job stress among Indonesian Gen Z employees in this research is examined from picking one variable from different job characteristics. Hindrance demand is examined by job insecurity. Challenge demand is examined by workload. Finally, job resources are examined by the work environment.

Job Insecurity

OECD (2017) defined job insecurity as the employee anticipation or fear of unemployment from their job within a foreseeable period in the future, for example in 6 to 12 months. This research will be looking at cognitive job insecurity ("I think I will be unemployed") and affective job insecurity ("I am terrified of unemployment") (Borg, 1992 in Vander Elst, De Witte, and De Cuyper, 2013).

Workload

Workload in the aspect of human resource research is often associated with the relationship between demands put on an employee and the capability to cope with it (Smith et al, 2006 in Alsurraykh, Wilson, Tennent, and Sharples, 2019), also referred to as mental workload (MWL).

Work Environment

Sunyoto (2015) defined work environment as the elements surrounding employees and that can influence their performance. Sedarmayanti (2017) categorized work environment into physical working environment and non-physical working environment.

Relationship between Job Insecurity and Job Stress

Research among working women at colleges in Davangere showed that job insecurity is the second top cause of stress (Sunitha and Cirappa, 2022). Job insecurity as a factor of stress is also supported within employees in the fast-food industry of Pakistan (Naru and Rehman, 2020).

H1: Job insecurity has significant impact towards job stress in Indonesian Gen Z employees

Relationship between Workload and Job Stress

Workload is reported as one of the factors of workplace-related stress among 3 from 10 Gen Z globally (Deloitte, 2022). Among Ghanaian outpatient department (OPD) nurses, workload has positive effect towards job stress. This is because nurses are dealing with overwhelming number of patients and the necessity to response to health emergency (Kokoroko and Sanda, 2019). Workload also impacted positively towards workplace stress among non-healthcare institutions, such as banking company employees (Cahyaningtyas and Santosa, 2021). This indicates that the more workload an employee is given to, the more job stress will accumulate.

H2: Workload has significant impact towards job stress in Indonesian Gen Z employees

Relationship between Work Environment and Job Stress

Work environment is another factor that has significant effect towards job stress. For 140 Millennials working in Central Java and Jogjakarta, a better physical work environment allowed for lower job stress level, such as good

workspace, good lighting, and noise-free workplace. The same applied to non-physical work environment, where the better the relations with coworkers and supervisors, the lower the job stress. This is also supported among banking company employees (Cahyaningtyas and Santosa, 2021) and telecom employees in Saudi Arabia (Doghan, 2020).

H3: Work environment has significant impact towards job stress in Indonesian Gen Z employees

H4: Job insecurity, workload, and work environment has simultaneous significant impact towards job stress in Indonesian Gen Z employees

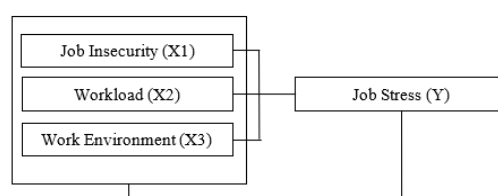


Figure 1. Theoretical Framework

METHODS

This research was conducted using quantitative method. The target population is Indonesian born in 1997-2004 and aged 18 to 26 years old who are residing in Jakarta and working in a startup/digital company. This population is determined from the issue of massive employee layoff of fintech, e-commerce, and agritech companies in Indonesia that has been going on from Q3 2022 and predicted to prolong in 2023 (Yudhistira in VOI, 2023).

Sampling Plan

Purposive sampling is used to gather responses. According to Neuman (2017), purposive sampling is referred to as a sampling with a specific purpose with judgment towards the selected case. Sample was taken from Indonesian born in 1997-2004 and aged 18 to 26 years old who are residing in Jakarta and working in a startup/digital company.

Sample Size

As the amount of exact population is unknown, Hair et al. (2018) ration is used. A sample size by 5:1, 15:1, or 20:1

ration of observations to different variables is proposed. Therefore, this study uses the equation:

$$\text{Sample size (N)} = \text{Number(s) of questions} \times 5$$

$$N = 31 \times 5$$

$$N = 155$$

Based on the equation above, the minimum amount of sampling size needed for the research is $31 \times 5 = 155$ respondents.

Variable Operationalization

Table 1. Operational Variables

Variable	Indicators	Scale
Job insecurity is as the employee anticipation or fear of unemployment from their job within a foreseeable period in the future, for example in 6 to 12 months (OECD, 2017).	1. Cognitive job insecurity 2. Affective job insecurity	1-5
Workload is often associated with the relationship between demands put on an employee and the capability to cope with it (Smith et al, 2006 in Alsuraykh et al., 2019).	1. Mental demand 2. Physical demand 3. Temporal demand 4. Performance 5. Effort 6. Frustration	1-5
Work environment is the elements surrounding employees and that can influence their performance (Sunyoto, 2015).	1. Working facilities 2. Noise 3. Lighting 4. Air circulation 5. Temperature 6. Support from supervisor/boss 7. Support from coworker	1-5
Job stress is the emotional state which arrives from the perceived difference between a person's job demand level and their ability to cope with the demand (Goestch, 2015).	1. Time stress 2. Anxiety	1-5

Analysis Method

The method of data collection in this research is survey method. Primary data was collected using a Google Form questionnaire. Respondents were required to rate their agreement over a statement. Therefore, Likert scale is used (Sekaran and Bougie, 2016). Job insecurity (X1) is measured using the Job Insecurity Scale (de Witte, 2000 in Elst et al., 2014) based on the study by Naru and Rehman (2020). Workload (X2) is measured using the NASA-TLX Scale developed by Hart and Steveland (1998) based on the study by Kokoroko and Sanda (2019) with five (5) statements. Work environment (X3) is adopted from NIOSH Generic Job Stress Questionnaire (NIOSH, 2017) based on the study by Jessica et al. (2023) and NIOSH Quality of Worklife Scale (NIOSH, 2010) for non-physical work environment items with eight (8) statements. Job stress (Y) is measured using the Job Stress Scale (Parker and DeCotiis, 1983) based on the study of Kokoroko and Sanda (2019) with thirteen (13) statements. The questionnaire was written in English and Bahasa Indonesia and spread through researcher's networking as well as social media. After collecting the data, data was analyzed based on validity test, reliability test, classical assumption test, multiple regression analysis, and hypothesis testing.

RESULT AND DISCUSSION

Result

Validity and Reliability Test of Job Insecurity (X1), Workload (X2), Work Environment (X3), and Job Stress (Y)

Validity test shows that from 31 statements, 30 statements fulfill r count $> r$ table (0.361 for $\text{sig} = 0.01$ and 0.463 for $\text{sig} = 0.05$). This indicates there are 30 valid items and 1 invalid item that is dropped. Reliability test shows that all scales exceed Cronbach's alpha value of 0.600. Therefore, the scales used for the research is reliable to measure all variables.

Descriptive Statistics

Table 2 shows the result of descriptive statistics of each variable.

Table 2. Descriptive Statistics

Variable	Mean	SD	Conclusion
X1	2.51	0.84	Disagree
X2	3.31	0.59	Neutral/Don't Know
X3	4.10	0.55	Agree
Y	2.67	0.94	Neutral/Don't Know

The overall mean is 3.15, which indicates that most response align towards Neutral response, with value closest towards overall mean is Workload (X2) at 3.31. Table 4.5 also indicates that the standard deviation of all variables is within the range of 0.55 to 0.95. This means that the data is not really dispersed much.

Normality Test

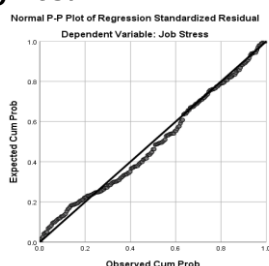


Figure 2. Normality Test Result

Based on Figure 2, the pattern of the data residuals is following closely towards the straight line. This indicates that the data is normally distributed.

Heteroscedasticity Test

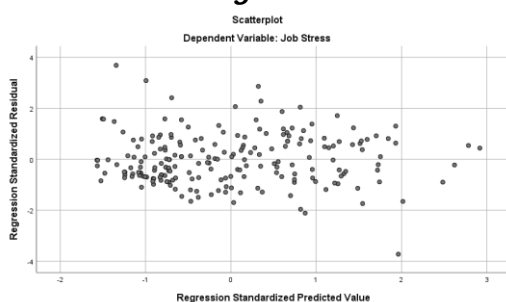


Figure 3. Heteroscedasticity Test Result

Based on Figure 3, the distribution of data residuals does not have a certain pattern or distributed randomly, indicating that the data is free from heteroscedasticity.

Multicollinearity Test

Table 3. Multicollinearity Test Result

Variable	Tolerance	VIF
X1	.811	1.233
X2	.944	1.059
X3	-.829	1.206

Table 3 shows that all independent variables have tolerance of more than 0.1 and VIF less than 10.0, which indicate that the data has no multicollinearity.

Multiple Regression Analysis

Table 4. Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.629	6.613		2.212	.028
	X1	1.174	.213	.341	5.519	.000
	X2	1.148	.183	.360	6.288	.000
	X3	-.522	.157	-.204	-3.329	.001

a. Dependent Variable = Job Stress

Based on Table 4, the equation of multiple linear regression analysis of job insecurity (X1), workload (X2), and work environment (X3) towards job stress (Y) is $Y = 14.629 + 1.174X1 + 1.148X2 - 0.522X3$. In summary, the constant value is 14.629. This indicates that without the change of job insecurity (X1), workload (X2) and work environment (X3) and with constant (a) = 0, the value of job stress of Indonesian Gen Z employees will be 14.629. The value of job insecurity is 1.174. This indicates that for every 1% increase of job insecurity, the value of job stress of Indonesian Gen Z employees will increase by 1.174. This indicates that higher job insecurity will increase job stress. The value of workload is 1.148. This indicates that for every 1% increase of workload, the value of job stress of Indonesian Gen Z employees will increase by 1.148. This indicates that higher workload will increase job stress. The value of work environment is -0.522. This indicates that for every 1% increase of work environment, the value of job stress of Indonesian Gen Z employees will decrease by 0.174. This indicates that higher quality of working environment will decrease job stress.

T-Test

T-Test measures the partial significance between independent variables towards dependent variable. Table 3 shows that job insecurity (X1) has $t = 5.519$ and $\text{Sig.} = 0.000$, which is greater than T-Table of 1.9722 and $\alpha = 0.05$. Therefore, H_{01} is rejected and H_{a1} is accepted. It is concluded that there is a significant impact of job insecurity towards job stress in Indonesian Gen Z employees.

Workload (X2) has $t = 6.288$ and $\text{Sig.} = 0.000$, which is greater than T-Table of 1.9722 and $\alpha = 0.05$. Therefore, H_{02} is rejected and H_{a2} is accepted. It is concluded that there is a significant impact of job insecurity towards job stress in Indonesian Gen Z employees.

Work environment (X3) has $t = -3.329$ and $\text{Sig.} = 0.001$, which is smaller than T-Table of -1.9722 and $\alpha = 0.05$. Therefore, H_{03} is rejected and H_{a3} is accepted. It is concluded that there is a significant impact of work environment towards job stress in Indonesian Gen Z employees.

F-Test

Table 5. F-Test Result

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9688.759	3	3229.586	39.887	.000 ^b
	Residual	16436.545	203	80.968		
	Total	26125.304	206			
a. Dependent Variable: Job Stress						
b. Predictors: (Constant), Work Environment, Workload, Job Insecurity						

Based on Table 5, $F = 39.887 > 2.64908$ and $\text{Sig.} = 0.000 < 0.05$. Therefore, H_{04} is rejected and H_{a4} is accepted. It is concluded that there is a simultaneous significant impact of all independent variables (job insecurity, workload and work environment) towards dependent variable (job stress) in Indonesian Gen Z employees.

Coefficient of Determination (R²)

Table 6. Coefficient of Determination Result

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.609 ^a	.371	.362	8.99823

Based on Table 6, the value of R is 0.609. This indicates 60.9% correlation of job insecurity, workload and work environment towards job stress among Indonesian Gen Z employees. This means that the correlation is strong. The value of adjusted R Square is 0.362. This indicates that job stress among Indonesian Gen Z employees can be explained by job insecurity, workload and work environment by 36.2%, while the rest (63.8%) can be explained by other variables.

Discussion

Job Insecurity towards Job Stress

The result of this study supports the study of Naru and Rehman (2020) and Sunitha and Cirappa (2022) that prove significance of job insecurity towards job stress. This study also supports the study by Bakker et al. (2022) that stated job insecurity as a hindrance job demand in the workplace. When an employee feels or anticipates unemployment in the near future, it increases the amount of job stress towards Indonesian Gen Z employees who work in digital/startup companies in Jakarta. The less they think or feel that they will be unemployed, the less they will feel job stress.

Workload towards Job Stress

The result of this study shows difference of the findings by Aldino and Franksiska (2021) that found no relationship between workload and job stress among millennials. This study supports the study by Bakker et al. (2022) that stated workload as a challenge job demand in the workplace, and the study by Deloitte (2022) that shows workload as a factor of job stress among Gen Z employees in a global context. Examining workload as a factor of job stress among Indonesian Gen Z employees who work in digital/startup companies in Jakarta is especially relevant, where organizational downsizing is happening on a national scale (HSE, n.d.). Organizational downsizing translates to fewer human resources who are available to handle job demands. If employees feel their workload is too much, their job stress will be greater. Therefore, it is important that

companies develop their employee performance system as well as contingency plans to minimize excessive workload for employees as much as possible.

Work Environment towards Job Stress

The result of this study shows difference with the study of Cahyaningtyas and Santosa (2021) that reflects no relationship between work environment and job stress. This study also supports the study by Bakker et al. (2022) that stated job environment as a job resource that has a role in decreasing job stress among employees. The more conducive the work environment, the less the job stress. This means providing a physical working environment that ensures free noise, adequate lighting, good air circulation, temperature level that is not too hot or too cold, and working facilities that would support the Indonesian Gen Z employees who work in digital/startup companies in Jakarta in doing their job. Providing a working environment that encourages good relationship between immediate supervisor and coworkers will also help them in reducing job stress.

Job Insecurity, Workload, Work Environment towards Job Stress

This research has shown that job insecurity, workload, and work environment have simultaneous significant impact towards job stress. This supports the theory of job demands-resources by Demerouti et al. in Bakker et al. (2022) in which job demands and job resources can bring significant impact towards job stress especially among Indonesian Gen Z employees who work in digital/startup companies in Jakarta. Job insecurity, workload and work environment explain job stress by 36.2%, while the rest (63.8%) can be explained by other variables. This indicates that the impact of the simultaneous effect of job insecurity, workload and work environment towards job stress is low. However, the correlation of job stress with job insecurity, workload and work environment is positively strong (60.9%).

CONCLUSION

Conclusion

This research shows that job insecurity, workload, and work environment affect the job stress of Indonesian Gen Z employees. As Gen Z employees are especially more prone to job stress compared to the older generation, it is necessary for companies and governments to pay attention to job demands and resources that could increase or decrease the stress.

Recommendation

This research has limitations that can be improved by future studies. The data is limited to Indonesian Gen Z employees. Therefore, the results of this research may not be accurate when applied to other populations. Future studies can consider examining job stress among employees based on different working conditions (WFO/WFA/Hybrid), regions outside Jakarta or Indonesia, or based on industry. It is recommended to conduct the research in larger sample size to provide more accuracy in the study. If the exact population is unknown, it is recommended to use the standard of 10:1 and 15:1 instead of 5:1 to determine minimum sampling size. Finally, future studies can use other job demands such as role demands and job resources variables such as autonomy, training and development, and job opportunities to examine job stress. Future studies can also examine personal resources variables such as self-efficacy and personality.

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