The Impact of Organizational Climate on Technostress and Job Satisfaction of Millennial Employee: Evidence from Indonesia

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Abstract
The investigation regarding the impact of organizational climate and Technostress on the millennial employee as the most prominent cohort is still rarely found in the context of developing countries, especially in Indonesia. Thus, this research aimed to test the effect of organizational climate on job satisfaction and Technostress and further examine the impact of Technostress on the job satisfaction of millennial employees in Indonesia. A web-based survey of 100 millennial workers from diverse companies in Indonesia was conducted. The data was analyzed using Partial Least Squares - Structural Equation Modeling (PLS-SEM). The results imply that a good Organizational Climate improves millennial employees’ Job Satisfaction and reduces their Technostress; meanwhile, no significant effect was found on the relationship between Technostress and Job Satisfaction. The implication and conclusion are discussed further.

Keywords: Organizational Climate, Technostress, Job Satisfaction, Millennial, Employee

1. INTRODUCTION
1.1 Background

Human resource management investigations have long generated issues regarding organizational climate. Organizational climate, according to Shahin, Naftchali, and Pool (2014), is a set of quantifiable characteristics that influence employees' motivation and behavior and are directly or indirectly known by individuals who act in such situations. According to research (Oz et al., 2010; Hamze Alipour, 2011), organizational climate can influence how individuals behave within the organization. Job satisfaction is one of the employee-level outcomes that has gotten the most attention in organizational climate research (James et al., 2008).

Furthermore, organizational climate receives relatively little attention in the stress literature, particularly stress caused by technology. The advancement of information and communication technology (ICTs) and mobile devices such as laptops, tablet computers, and smartphones has resulted in substantial changes in business and organizational activities (Sewell...
and Taskin, 2015). According to Fonner and Roloff (2012) and Weinert et al. (2014), changing work patterns through ICTs causes employees to feel a new sort of job stress in a work environment where communication and interaction are completely dependent on ICT. This is referred to as technostress (Ayyagari et al., 2011; Lei and Ngai, 2014). It is also a barrier to employee job satisfaction (Srivastava et al., 2015).

Hemingway and Smith (1999) proposed that organizational environment is a precursor to stress. A positive opinion of the work environment results in lesser stress, whereas an unfavorable psychological atmosphere experienced by employees results in increased stress (Nasurdi, Ramayah, and Beng, 2006). Thus, a positive organizational climate may lower employee technostress.

Previous research has looked at organizational climate as an indirect predictor of work attitudes and behaviors (e.g., Hemingway & Smith, 1999). The direct effects of these variables were the focus of this investigation. There has been little study on the causal relationship between good organizational climate and work satisfaction in developing countries (Permarupan et al., 2013). As a result, this study uses an Asian sample, specifically Indonesians, which differs from previous job stress studies, which mainly focused on Western respondents. Although much effort has been paid to examining the antecedents of job stress, it is less clear how these antecedents affect job stress in an international setting or among different nationalities (Agarwal, 1993).

Millennials, those born between 1981 and 2000, are currently the most prominent employee generation in terms of age (Mondres, 2019; Hess, 2019). According to the National Labor Force Survey of Indonesia in 2021, millennials comprise 37.37 percent of the national workforce, becoming the largest cohort in the Indonesian workforce landscape. Their digital connections and technological savvy define the millennial generation, but on the other hand, excessive use of ICTs still creates a potential stressor for them. To keep this generation, the organization should cater to their preferences and needs (Fraim, 2015). To that end, understanding millennials' motivations, objectives, and driving forces in the workplace and designing policies and practices to recruit and retain this talent pool becomes critical (Madan and Madan, 2018). Furthermore, the challenge for a company is to establish a work atmosphere that meets the expectations of millennials. (Gimbell, 2015).

As a result, this research will help us better understand the causes of technostress and job satisfaction across countries and nationalities. To summarize, the current study sought to add to
the existing literatures on work satisfaction and technostress by investigating the impact of organization climates on both constructs.

1.2 Literature Review

a. Organizational Climate

Organizational climate is an impressions of the events, practices, and types of behaviors that are rewarded, supported, and expected (Schneider, 2000). In line with this viewpoint, Steinke et al. (2015) suggested that organizational climates reflect employees' impressions of the policies, practices, and procedures that are expected, supported, and rewarded in terms of human resources. Organizational climate is a relevant term that has significant consequences in human resource management and organizational behavior (Glisson and James, 2002). Furthermore, organizational climate is one of the most important predictors of individual and group attitudes and actions in institutions (Garcia-Garcia et al., 2011).

b. Technostress

Technostress has been defined as the stress that users suffer as a result of their use of information systems (IS) (Ayyagari et al., 2011). Technostress in an organizational context may be understood as the maladjustment or adaptation problem of an individual while working with constantly changing technology or a technology that he/she is unable to cope with or get used. It also includes individual’s struggle with changing physical, social and cognitive requirements related to their use (Tiwari, 2021). Technostress is induced by a variety of issues that originate from ICTs, which are a resource/tool in practically all working situations (Edwards, 2008; Ayyagari et al., 2011). The employment of information technologies for organizational tasks contributes to the occurrence of technostress in the organizational context. It can be attributed to aspects of current information technology such as constant availability, high reliability, and frequent change. With the fast application of information systems across functional areas, it is emerging as an essential field for academic research in a variety of situations (Pullins, Tarafdar, and Pham, 2020).

c. Job Satisfaction

Robbins and Judge (2015) revealed that job satisfaction means positive feelings about work, which are obtained from evaluating its characteristics. Someone with a high level of job satisfaction has positive feelings about his job, while someone with a low level of job satisfaction has negative feelings. Employee work satisfaction is a desired state in most firms and is highly valued by employees. It is a key predictor of organizational performance (Toker, 2011). Lok and
Crawford (2004) underline that organizational satisfaction and job satisfaction have an impact on both organizational performance and effectiveness. Organizational climate (Rad and Yarmohammadian, 2006; Schyns et al., 2009); empowerment (Lok and Crawford, 2004); autonomy, recognition, communication, working conditions degree of professionalism, interpersonal relationships, working for a reputable agency, supervisory support, positive affectivity, job security, workplace flexibility, working within a team environment are all factors that influence job satisfaction.

\textit{d. Organizational Climate and Job Satisfaction}

Several researchers contended that employees working in more favorable climates are more likely to be content with their careers. In his research, Tsai (2014) found that the workplace climate had a substantial positive link with job satisfaction. Creating a suitable work environment or organizational climate and improving employee personality are two initiatives to promote employee job satisfaction. To develop a good organizational climate in this situation, a leader must successfully manage the organization. Ghavifekr and Pillai (2016) discovered a link between organizational climates in schools and teacher job satisfaction. According to Bin Ahmad, Jasimuddin, and Kee (2018), there is a significant and positive association between an organization’s climate and job satisfaction. As a result, we’ve developed the following hypothesis:

\textit{Hypothesis 1: Better Organization Climate will positively affect job satisfaction}

\textit{e. Organization Climate and Technostress}

According to Mahapatra and Pillai (2018), one of the causes of stress is technology. Technostress has been coined in recent literature to describe the stresses generated by technology (Ayyagari, 2011; Mahapatra and Pillai, 2018). According to Nasurdin, Ramayah, and Chee Beng (2006), a positive perception of the work environment leads to lower stress, whereas an unfavorable psychological atmosphere experienced by employees leads to higher stress. A positive work environment has a high amount of autonomy, good peer cohesion, supervisory support, and moderate levels of job pressure. In contrast, an unfavorable climate will be associated with a lack of autonomy, weak peer cohesion, insufficient supervisory support, and high work pressure. Furthermore, a company that is perceived as having a flexible structure, allowing for decision-making freedom, emphasizing rewards, encouraging challenge in terms of goals and risk-taking, and fostering warmth, support, open communication, and a sense of identity is less likely to cause role conflict and role ambiguity among its sales personnel. A more
positive organizational atmosphere, in turn, leads to less stress (Wong and Wong, 2002). As a result, it is proposed that:

Hypothesis 2: Better Organizational Climate will negatively affect Technostress.

f. Technostress and Job Satisfaction

Based on Rutherford et al. (2009), how a company serves the demands of its employees determines job satisfaction. Cooper et al. (2001) discover that the stress level experienced at work is closely related to IT users’ job satisfaction in a business. Job satisfaction of ICT users are tightly tied to cognitive and mental variables perceived while using ICTs, and mental stress in the workplace has a major impact on personal job satisfaction (Suh and Lee, 2017; Cooper et al., 2001). According to Pullins et al. (2020), sources of technostress are negatively associated with work satisfaction in the literature on technostress. Previous research has found that higher stress levels are connected with lower job satisfaction (Guenzi et al., 2019; Pullins et al., 2020), allowing the following hypothesis to be developed:

Hypothesis 3: Technostress has a negative and significant effect on employees’ job satisfaction.

![Conceptual Model of Research](image)

**Figure 1** – Conceptual Model of Research

2. METHOD

2.1 Research Design

This research is an exploratory and quantitative research. An exploratory research approach is used to examine variables. A quantitative approach that is intended to test models that explain relationships between variables derived from the literature. The research data is cross sectional using a survey approach. The analysis tool used is a model using Structural Equation Modeling – PLS with the SmartPLS application.
2.2 Population and Sample

The population of this study are all millennial employees in Indonesia. The sample for this study was taken from millennial employees who work in a company including public or private companies. Determining the number of samples of this study using purposive sampling with the number of samples taken as many as 100 samples in accordance with the needs of data analysis.

2.3 Data Collection

The data needed in this study is primary data with data collection methods using a questionnaire (questionnaire). The distribution of this questionnaire is self-administered questionnaire, which means that the questionnaire is given directly to the respondent to be answered. The statements presented in the questionnaire are closed statements. Closed statements are made with an interval scale to obtain data which, when processed, shows the influence or relationship between variables.

2.4 Research Variabel dan Variabel Measurement

Instrument development in this study refers to studies that have been conducted previously and available literature. All items are measured with a 5-point Likert scale starting from a scale of 1 = strongly disagree to a scale of 5 = strongly agree. Job satisfaction in this study was measured using indicators adapted from Yang and Hwang (2014) with six items. The measurement of the organizational climate variable uses indicators adapted from Meeusen et al. (2011) with twelve items. The technostress variables used indicators adapted from Ayyagari et al. (2011) with three items each.

2.5 Data Analysis Method

This study used the Structural Equation Modeling (SEM) data analysis method with SmartPLS 3.0 software as a data processing tool. According to Hair et al. (2014) SEM is an analysis of structural equations based on variance which can simultaneously evaluate measurement models as well as evaluate structural models.

a. Measurement Model

There are three kinds of tests conducted to evaluate the measurement model (Hair et al., 2014). The types of testing are:

- **Individual Item Reliability Test**

  This test is conducted to see the reliability of each indicator. Indicators that have a factor loading value of < 0.60 will be removed from the model.
• **Internal Consistency Test**
  This test is conducted to test the reliability of a set of indicators in measuring the variables being measured. The value seen is the value of composite reliability and Cronbach's alpha where the recommended value is > 0.70

• **Discriminant Validity Test**
  This test is conducted to see how big the difference between variables. The value seen in this test is the average variance extracted (AVE) value obtained as a result of estimation where the value must be > 0.50. The next requirement that must also be met is the square root value of the AVE for each variable, which must be greater than the correlation value with the other variables.

b. **Structural Model**
  This test is used to test causality (testing hypotheses with predictive models). Structural model evaluation is carried out by looking at the value of $R^2$ and the significance of the path coefficient. The higher the $R^2$ value indicates that the higher the percentage of variances of the endogenous variables that are influenced by the exogenous variables.

In addition to looking at the R-square value, the PLS model is also evaluated by looking at the Standardized root mean square residual (SRMR) of the model. The SRMR is defined as the difference between the observed correlation and the model implied correlation matrix. Thus, it allows assessing the average magnitude of the discrepancies between observed and expected correlations as an absolute measure of (model) fit criterion. A value less than 0.10 or of 0.08 (Hu and Bentler, 1999) are considered a good fit. Henseler et al. (2014) introduce the SRMR as a goodness of fit measure for PLS-SEM that can be used to avoid model misspecification.

PLS does not assume the normality of the data distribution so PLS uses a nonparametric test to determine the significance level of the path coefficient, where the t value (t-value) generated by running the Bootstrapping algorithm on SmartPLS is used to determine whether or not the proposed hypothesis is accepted. At a significance level of 0.05 the hypothesis will be supported if the t-value exceeds the critical value of 1.96.

### 3. RESULTS AND DISCUSSION

A total of 100 questionnaires were distributed to respondents from the study; 16 responses was eliminated due to missing data with a response rate of 84 percent. The respondents were
informed that their data would be kept classified and only for research purposes. The demographic variables are shown in Table 1.

The analysis test in this study used structural equation modelling (SEM) conducted with SmartPLS 3. SEM is composed of the measurement model and the structural model (Hair et al., 2014).

### Table 1
Demographic characteristics of the respondents

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Frequency</th>
<th>% of total n</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>48</td>
<td>57.14</td>
</tr>
<tr>
<td>Female</td>
<td>36</td>
<td>42.86</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 25</td>
<td>16</td>
<td>19.05</td>
</tr>
<tr>
<td>25-30</td>
<td>44</td>
<td>52.38</td>
</tr>
<tr>
<td>31-40</td>
<td>24</td>
<td>28.57</td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td>14</td>
<td>16.67</td>
</tr>
<tr>
<td>Diploma</td>
<td>37</td>
<td>44.05</td>
</tr>
<tr>
<td>Bachelor</td>
<td>28</td>
<td>33.33</td>
</tr>
<tr>
<td>Master</td>
<td>5</td>
<td>5.95</td>
</tr>
<tr>
<td><strong>Experience in Years</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5</td>
<td>39</td>
<td>46.43</td>
</tr>
<tr>
<td>5-10</td>
<td>31</td>
<td>36.90</td>
</tr>
<tr>
<td>&gt; 10</td>
<td>14</td>
<td>16.66</td>
</tr>
</tbody>
</table>

Note: n = 84

### 3.1 Descriptive statistics

The descriptive statistics and correlation matrix of the variables are presented in Table 2. The results indicate that correlations of the variables are significant and in the projected directions.

### Table 2.
Descriptive Statistics

<table>
<thead>
<tr>
<th>No.</th>
<th>Constructs</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organizational Climate</td>
<td>3.887</td>
<td>0.471</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Technostress</td>
<td>2.388</td>
<td>0.882</td>
<td>-0.345**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Job Satisfaction</td>
<td>3.984</td>
<td>0.511</td>
<td>0.616**</td>
<td>-0.189</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes: n=84

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level
3.2 Measurement Model

a. Reliability and Validity Test

The validity test showed which indicators were good for measuring each variable, high factor loading value indicates the indicator does explain the measured variables. Indicators with loading factor value < 0.60 will be removed from the model. Indicators of this study are Organizational Climate (OC), technostress (TS), and job satisfaction (JS). From the analysis, the factor loadings for OC4, OC10, OC11, JS1, JS2, JS3, were less than 0.60; therefore the indicators excluded, and the model was re-estimated. The results of the re-estimated outer loading are shown in Table 3.

<table>
<thead>
<tr>
<th></th>
<th>Job Satisfaction</th>
<th>Organizational Climate</th>
<th>Technostress</th>
</tr>
</thead>
<tbody>
<tr>
<td>JS4</td>
<td>0.913</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JS5</td>
<td>0.958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JS6</td>
<td>0.855</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC1</td>
<td></td>
<td>0.779</td>
<td></td>
</tr>
<tr>
<td>OC12</td>
<td></td>
<td>0.618</td>
<td></td>
</tr>
<tr>
<td>OC2</td>
<td></td>
<td>0.668</td>
<td></td>
</tr>
<tr>
<td>OC3</td>
<td></td>
<td>0.790</td>
<td></td>
</tr>
<tr>
<td>OC5</td>
<td></td>
<td>0.797</td>
<td></td>
</tr>
<tr>
<td>OC6</td>
<td></td>
<td>0.817</td>
<td></td>
</tr>
<tr>
<td>OC7</td>
<td></td>
<td>0.835</td>
<td></td>
</tr>
<tr>
<td>OC8</td>
<td></td>
<td>0.791</td>
<td></td>
</tr>
<tr>
<td>OC9</td>
<td></td>
<td>0.657</td>
<td></td>
</tr>
<tr>
<td>TS1</td>
<td></td>
<td></td>
<td>0.827</td>
</tr>
<tr>
<td>TS2</td>
<td></td>
<td></td>
<td>0.890</td>
</tr>
<tr>
<td>TS3</td>
<td></td>
<td></td>
<td>0.924</td>
</tr>
</tbody>
</table>

Further, the average variance extracted (AVE) was used to test validity of the data. The value of AVE 0.5 is considered to meet the validity. Table 4 shows that the AVE value of all variables after re-estimation met the requirements, where all variables had an AVE value above 0.50. The reliability of the instrument was measured by composite reliability value and Cronbach’s alpha for each indicator. A reliable construct has composite reliability with Cronbach's alpha values above 0.7 (Hair et al., 2014). Table 4 presents the result of reliability test of re-estimated model and demonstrated that all variables met composite reliability, with
Cronbach's alpha values above 0.70. Therefore, the indicators were considered to have good reliability.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>0.895</td>
<td>0.899</td>
<td>0.827</td>
</tr>
<tr>
<td>Organizational Climate</td>
<td>0.904</td>
<td>0.914</td>
<td>0.568</td>
</tr>
<tr>
<td>Technostress</td>
<td>0.858</td>
<td>0.896</td>
<td>0.777</td>
</tr>
</tbody>
</table>

3.3 Structural model

A structural model test was used to conduct a hypothesis test that will be evaluated through the path coefficient value or t-value for each path to test the significance between constructs. The model fit, and quality indices for the theoretical model are within the acceptable levels where the R2 of the model is 0.45 and 0.14 seen in Figure 2. In addition, the SRMR score appeared to be 0.078, which is less than 0.10 and thus meets the criteria. All the above indices suggest a good fit of the proposed model with the data.

Figure 2 - Structural Model Results
Table 5 shows that the critical ratio (C.R.) value of Organizational Climate on Job Satisfaction is 8.67 ($\beta$=0.714, t-value>1.96, $p$≤0.05). This result indicates that Organizational Climate has a significantly positive effect on job satisfaction and provide support for Hypothesis 1. Further, the C.R. value of Organizational Climate on Technostress is 3.70 ($\beta$=-0.375, t-value>1.96, $p$≤0.05). This finding indicates that Organizational Climate has a negative and significant effect on Technostress. Thus, Hypothesis 2 was also supported. Moreover, the C.R. value of Technostress on Job Satisfaction is 1.35 ($\beta$=0.158, t-value<1.96, $p$≥0.05). This result demonstrates that Technostress does not have a significant effect on Job Satisfaction and rejects Hypothesis 3.

### Table 5

| Path Coefficients | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ($|O/STDEV|$) | P Values |
|-------------------|---------------------|-----------------|---------------------------|---------------------------|----------|
| Organizational Climate -> Job Satisfaction | 0.714 | 0.731 | 0.082 | 8.670 | 0.000 |
| Organizational Climate -> Technostress | -0.375 | -0.391 | 0.101 | 3.705 | 0.000 |
| Technostress -> Job Satisfaction | 0.158 | 0.166 | 0.117 | 1.351 | 0.177 |

### 3.4 Discussion

The finding in this study showed that organizational climate has a positive and significant influence on job satisfaction. It can be interpreted that the environment, policies, and good organizational procedures can create millennial employee job satisfaction. This is in line with the results of research by Chaur-Luh (2014) in his research in Taiwan, which revealed that organizational climate had a significant positive correlation with job satisfaction. The same thing was stated by Ghavifekr and Pillai (2016) who discovered a link between organizational climates in schools and teacher job satisfaction. Further, Bin Ahmad, Jasimuddin, and Kee (2018) also stated that organizational climate can positively and significantly influence job satisfaction.

Further, the relationship between organizational climate and technostress was negative and significant. It means that a better organizational climate through a proper environment, policies, and procedures for millennial employees will reduce the stress, including the strain that occurs by technology like technostress. This finding is similar to the conclusion of Wong and Wong (2002), where a more positive organizational atmosphere leads to less stress. This also aligns with Nasuradin, Ramayah, and Chee Beng (2006), who found that a positive perception of
the work environment leads to lower pressure. Meanwhile, the finding that shows the insignificant relationship between Millennial employee technostress and job satisfaction may be due to the role of ICTs has become usual demand in working activities. So, the employee does not consider it as the source of satisfaction.

4. CONCLUSION AND IMPLICATION

The purpose of this study was to examine the effect of organizational environment on millennial employees' job satisfaction and technostress, as well as the effect of technostress on job satisfaction. The findings from evaluating the hypotheses in this study show that an organization's atmosphere has a favorable impact on job satisfaction while having a negative impact on millennial employees' technostress. The link between technostress and job satisfaction, on the other hand, has no significant influence. In general, organizational climate, which indicates the lifestyle of an organization's workers, can have a significant impact on organizational behavior of millennial employees such as job satisfaction and technostress. Creating a favorable organizational climate can thus assist organizations in attracting and retaining more millennial talent as well as achieving targeted organizational goals.

This study’s findings provide new insight regarding the application of the organizational climate for millennial employees. Companies should consider the examined variables to retain millennial talent. First, companies should continuously monitor millennial workers’ satisfaction and set a more proper organizational climate that makes them feel comfortable with the company and satisfied with their job. Second, to reduce the effects of technostress on millennial employees, companies need to enhance a positive work climate. For example, implementing new technology, primarily ICTs, must be implemented carefully. The company should also maintain the personal space of millennial employees by setting clear regulations and policies. Ultimately, such various policies may help the company create a conducive working situation for millennial workers.

There are a few drawbacks to this study. For starters, it relied on particular circumstances, which limits its generalizability to other settings and countries. Future research in different situations and countries may shed more light on the phenomenon. Second, the study focuses on a single generation. Other research in other generations or cross-generation studies are required. Finally, future research may examine the use of contextual elements as moderating and mediating variables.
REFERENCES


