Turnover Intention Analysis: the Effect of Job Stress, Job Insecurity, and Burnout as Intervening Variables in Medical Equipment Companies

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ABSTRACT

Turnover Intention is a problem that can be experienced by companies. High turnover intention can cause companies to experience Labor Turnover (LTO) problems, namely the rate of employee turnover. A high LTO level can disrupt company activities because the company requires more time and costs to find replacements for employees who leave, select prospective employees, and provide orientation to new employees. The aim of this research is to find out the direct influence of job stress, job insecurity and burnout on turnover intention and the indirect influence of job stress and job insecurity on turnover intention through burnout as an intervening variable. This research used a saturated sample method, namely 66 respondents who were employees of Medical Equipment Companies. Data processing uses path analysis with SPSS V 25. Based on path analysis, job stress, job insecurity, and burnout have a direct effect on turnover intention and then job stress has no effect on turnover intention through burnout and job insecurity has an indirect effect on turnover intention through burnout.
INTRODUCTION

Turnover intention is a problem often faced by companies. An employee's desire to leave the company can be a serious threat and have an impact on the company. Turnover Intention is the tendency or intention of an employee to stop working from his job voluntarily or move from one workplace to another according to his choice (Mobley, 2011).

Turnover intention High levels can cause companies to experience Labor Turnover (LTO) problems. This LTO level is the level of employee turnover in a company. A high LTO level can disrupt company activities because the company needs more time to find replacements for employees who leave, select prospective employees, and provide orientation to new employees. Turnover that occurs in a company is not a coincidence, but because there is employee dissatisfaction with maintaining their job at the company. Turnover intention has three indicators, namely thinking about leaving, desire to find a new job and intention to leave (Mobley, 2011). This indicator can be used as a measuring tool to determine the condition of employee turnover intention. (Audina & Kusmayadi, 2018), (Permatasari & Laily, 2021).

Job stress is a condition of tension that affects the emotions, train of thought and physical condition of employees (Robbins, 2018). Job stress is also caused by the pressure that employees receive every day at work, where the body works excessively, causing tension.

Job insecurity is a situation where employees feel threatened by their work and are powerless to do anything in this situation (Greenhalgh & Rosenblatt, 2010). When employees experience feelings of insecurity, one of the consequences is the intention to leave the organization or company where they work.

Burnout is a psychological syndrome that includes fatigue, depersonalization and decreased ability to carry out routine tasks, resulting in feelings of anxiety, depression or even sleep disorders (Maslach & Leiter, 2017).

The LTO level at this medical equipment company is still quite high, namely 12.50% compared to the average LTO value for companies, which is below 10% based on company standards set by Medical equipment companies. Based on the results of interviews and discussions conducted with HRD Medical equipment companies on October 6, 2022, data was obtained that many employees had behavior that indicated turnover intention, such as not feeling enthusiastic about working, employees often complaining, and feeling unhappy with their work.

There are quite a lot of previous studies examining the influence of job stress, job insecurity and burnout, but from a psychological perspective, there are still relatively few from a human resource management perspective, plus the role of burnout as a mediating variable is still very limited. Therefore, this research aims to find out the influence of job stress, job insecurity and burnout on turnover intention, and the indirect influence of job stress and job insecurity on turnover intention through burnout as an intervening variable.

METHODS

This research follows the positivism paradigm and deductive approach. Quantitative data were collected through a questionnaire survey conducted among employees of a medical device company. This industry was chosen because the majority of medical equipment company employees are men who work with heavy tools and machines so employees tend to get tired easily because their work requires physical strength.

The sample is part of the population that is the source of data in research (Sugiyono, 2017). If the population is less than 100 then all are taken so that the research is a census research (Arikunto, 2016). The sample determination in this research was carried out using non-probability sampling. The non-probability sampling technique chosen was the saturated sampling technique. Saturated sampling technique is a sample determination technique where all members of the population are used as samples (Sugiyono, 2017). Considering that the population size in this study is less than 100, the number of samples used in this study was all 62 employees of Medical equipment companies.

A structured questionnaire was developed to assess study variables and collect demographic information, including gender, age, education level, marital status, and employee status. Variables are measured using indicators from expert opinions.

This research uses path analysis because there are intervening variables to determine direct and indirect effects. Path analysis is an extension of multiple regression analysis used in research to
determine direct and indirect effects through intervening variables based on theory (Ghozali, 2019). In this research there is an intervening variable, namely burnout. Therefore, this research uses the Sobel test. The Sobel test is used to determine the effect of the intervening variable, namely Y.

\[ \text{H1: Job stress has a direct effect on turnover intention} \]

\[ \text{H2: Job insecurity has a significant positive effect on turnover intention} \]

\[ \text{H3: Burnout has a significant positive effect on turnover intention} \]

\[ \text{H4: Job stress has an indirect effect on turnover intention through burnout} \]

\[ \text{H5: Job insecurity has an indirect effect on turnover intention through burnout} \]

RESULTS AND DISCUSSION

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Man</td>
<td>46</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>Woman</td>
<td>16</td>
<td>26%</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 25 Years</td>
<td>16</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>25 – 40 Years</td>
<td>26</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>&gt; 40 Years</td>
<td>20</td>
<td>34%</td>
</tr>
<tr>
<td>Education</td>
<td>Junior High School</td>
<td>11</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Senior High School</td>
<td>46</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>D3</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>S1</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>Marital status</td>
<td>Not married yet</td>
<td>29</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>33</td>
<td>54%</td>
</tr>
<tr>
<td>Employee status</td>
<td>Daily</td>
<td>44</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>Contract</td>
<td>18</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Primary Data Processed, 2023

Based on table 1, it shows that the largest proportion of respondents according to gender is male at 76%, namely 50 people and female respondents at 26% or 16 people, so it can be said that the largest number of respondents are men at 73%. This is because medical equipment companies produce hospital equipment, the majority of which are made from iron and stainless steel, so employees
are needed who are able to work with machines and heavy equipment. Male employees are also considered to be more able to work without involving their feelings and their emotions tend to be more stable.

Table 1 also shows that the largest age group of employees is respondents aged 20-40 years, namely 28 people or 43%, and the smallest respondents aged <20 years are 16 people or 24%. So it can be concluded that the average age of employees working in medical equipment companies is 20-40 years old, 43% which is the productive working age. Employees of productive age can still work well in any company, therefore the turnover intention level of productive age employees tends to be high.

The largest group of respondents with a final education was respondents with a final education of high school, namely 46 people or 70%, and the smallest were respondents with a final education of D3, namely 2 people or 3%. The employee's latest education determines the employee's position and field of work. HRD managers and financial managers must have a bachelor's degree, while employees in the production sector can have junior and senior high school education because production jobs tend to be more physical in nature.

The largest group of respondents' marital status is married respondents, namely 35 people or 56%, and respondents whose status is unmarried are 31 people or 44%. This shows that the majority of employees at medical equipment companies already have family responsibilities. So they tend to feel more pressure than unmarried employees. Married employees feel that they are the backbone of the family who must provide for their family, therefore married employees are more susceptible to experiencing psychological disturbances at work such as job stress, job insecurity and burnout.

The largest respondent status group is casual daily status, namely 44 people or 67%, then contract status is 18 people or 27%, and permanent status is 4 people or 6%. This is due to the company's policy of only employing employees with contract and casual status while permanent employees are owners of medical equipment companies. Therefore, most employees experience concerns about the continuity of their current and future jobs.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>8582.383</td>
<td>3245.814</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Job Stress</td>
<td>.088</td>
<td>.069</td>
<td>.126</td>
</tr>
<tr>
<td></td>
<td>Job Insecurity</td>
<td>.600</td>
<td>.089</td>
<td>.663</td>
</tr>
</tbody>
</table>

Based on Table 2, it can be seen that the significance value of the job stress variable = 0.207 is greater than 0.05, meaning that job stress has no significant direct effect on burnout, while the job insecurity variable = 0.000 is smaller than 0.05, meaning that job insecurity has a significant positive direct effect, against burnout.

\[
\begin{align*}
PY_{e} &= \sqrt{(1 - R^{2})} \\
PY_{e} &= \sqrt{(1 - 0.524)}
\end{align*}
\]

The substructure equation model 1 is as follows:

\[
Y = P_{x1}X_{1} + P_{x2}X_{2} + P_{Ye} = 0.126X_{1} + 0.663X_{2} + 0.476
\]

The regression coefficient is a number that shows the magnitude of the influence of each independent variable on the dependent variable. The interpretation of the results of the multiple linear regression test is as follows:
1. The job stress regression coefficient (X1) is positive, but has a significance value above 0.05, meaning that the job stress variable has no direct effect on burnout. This shows that every increase in job stress is not followed by an increase in burnout (Y) assuming the job insecurity variable (X2) remains constant. This is different from research conducted by (Parashakti & Ekhsan, 2022) which states that the increasing work stress has an effect on increasing burnout.

2. The job insecurity regression coefficient (X2) is positive, meaning that the job insecurity variable has a direct effect on burnout. This shows that every increase in job insecurity is expected to be followed by an increase in burnout (Y) assuming the job stress variable (X1) is constant. This is in accordance with research conducted by (Rohyani & Purnama, 2021) which states that increasing job insecurity has an effect on increasing burnout.

Based on Table 4, it can be seen that the R Square or R2 value is 0.524, this shows that the contribution of the influence of job stress and job insecurity variables to burnout is 52.4%, while the remaining 47.6% is the contribution of other variables not studied, such as workload (Anggraini & Idulfilastri, 2023).

Based on Table 4, it can be seen that the significance value of the three variables, namely job stress = 0.017, job insecurity = 0.010, and burnout = 0.007 is smaller than 0.05. These results conclude that the second model, namely the job stress, job insecurity and burnout variables, has a significant effect on turnover intention.

The substructure equation model is as follows:

\[ Z = Pxz1X1 + Pxz2X2 + PzyY + PZE \]

\[ Z = 0.235X1 + 0.333X2 + 0.345Y + 0.421 \]

![Table 3. Substructure Equation Determination Coefficient Test 1](image)

![Table 4. Multiple Linear Regression Coefficients Substructure Equation 2](image)
The regression coefficient is a number that shows the magnitude of the influence of each independent variable on the dependent variable. The interpretation of the results of the multiple linear regression test is as follows:
1. The job stress regression coefficient (X1) has a positive sign, meaning that the job stress variable has a direct effect on turnover intention. This shows that every increase in job stress is expected to be followed by an increase in turnover intention (Z) assuming that the job insecurity (X2) and burnout (Y) variables remain constant. This is in accordance with research conducted by (Hallo & Dewi, 2022) which states that increasing job stress has an effect on increasing turnover intention.
2. The job insecurity regression coefficient (X2) has a positive sign, meaning that the job insecurity variable has a direct effect on turnover intention. This shows that every increase in job insecurity is expected to be followed by an increase in turnover intention (Z) assuming that the job stress (X1) and burnout (Y) variables remain constant. This is in accordance with research conducted by (Yuliani et al., 2021) which states that increasing job insecurity has an effect on increasing turnover intention.

The burnout regression coefficient (Y) is positive, meaning the burnout variable has a direct effect on turnover intention. This shows that every increase in burnout is expected to be followed by an increase in turnover intention (Z) assuming that the job stress (X1) and job insecurity (X2) variables remain constant. This is in accordance with research conducted by (Paramita & Hendratmoko, 2021) which states that the increasing burnout has an effect on increasing turnover intention.

**Table 5. Test the Coefficient of Determination X1 and X2 Against Z**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.723</td>
<td>.522</td>
<td>.506</td>
<td>3914.35442</td>
<td>2.115</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Job Insecurity, Job Stress
b. Dependent Variable: Turnover Intention

Source: Primary Data Processed, 2023

Based on Table 5 above, it can be seen that the relationship between job stress and job insecurity shows a determination figure or R Square (R2) of 0.522. This shows that the percentage contribution of the influence of job stress and job insecurity on turnover intention is 52.20%, while the remaining 47.80% is influenced by other variables not included in this research such as organizational culture, compensation and organizational commitment (Faradila & Suryaman, 2021).

**Table 6. Substructure Equation Determination Coefficient Test 2**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.761</td>
<td>.579</td>
<td>.557</td>
<td>3707.07655</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Burnout, Job Stress, Job Insecurity
b. Dependent Variable: Turnover Intention

Source: Primary Data Processed, 2023
Based on Table 6, it can be seen that the R-square or R² value is 0.579, this shows that the contribution of the variables job stress, job insecurity and burnout to turnover intention is 57.90% while the remaining 42.10% is the contribution of other variables that are not researched, including organizational culture, compensation, and organizational commitment (Faradila & Suryaman, 2021). This means that there is an increase in influence after the burnout variable becomes an intervening variable in this research.

Path analysis is an extension of the multiple regression analysis model. Path analysis is used if there are variables that mediate the influence of the independent variable on the dependent variable. In path analysis, the path coefficient used refers to the standardized Beta coefficient value in the coefficients table calculated using SPSS which can be seen in table 4.23 and table 4.25.

The buffer path analysis equation model is depicted in the following path diagram:

```
Path diagram above has the following structural equation:
Sub Structure : Y = 0.126X₁ + 0.663X₂ + 0.476
Sub Structure : Z = 0.235X₁ + 0.333X₂ + 0.345Y + 0.421

Direct Influence
In this study, there is the magnitude of the direct influence of variable X on variable Y, the magnitude of the direct influence of variable X on Z and the magnitude of the direct influence of variable Y on Z. The calculations are as follows:
1. The magnitude of the influence of the job stress variable on turnover intention
   X₁ → Z = Pzx₁ = 0.235 or 23.50%
2. The magnitude of the influence of the job insecurity variable on turnover intention
   X₂ → Z = Pzx₂ = 0.333 or 33.30%
3. The magnitude of the influence of the burnout variable on turnover intention
   Y → Z = Pzy = 0.345 or 34.50%

Indirect Influence
The magnitude of the influence of job stress and job insecurity variables on turnover intention through burnout can be calculated as follows:
1. The influence of job stress on turnover intention through burnout
   X₁ → Y → Z
   = Pyx₁ x Pzy
   = 0.126 x 0.345
   = 0.043 or 4.30%

   Obtained results of calculating the indirect effect (Indirect Effect) of 4.30%. This means that there is an indirect influence of job stress on turnover intention through burnout. The indirect influence of job stress on turnover intention will be smaller through burnout than the direct influence of job stress on turnover intention 4.30% < 23.50%. It can be concluded that the real influence is direct influence.
2. The influence of job insecurities on turnover intention through burnout
```
X2→Y→Z
= Pyx2 x Pzy
= 0.663 x 0.345
= 0.228 or 22.80%

Obtained the results of calculating the indirect effect (Indirect Effect) of 22.80%. This means that there is an indirect influence of job insecurity on turnover intention through burnout. The indirect influence of job insecurity on turnover intention will be smaller through burnout than the direct influence of job insecurity on turnover intention. The indirect influence of job insecurity on turnover intention will be smaller through burnout than the direct influence of job insecurity on turnover intention 22.80% < 33.30%. It can be concluded that the real influence is direct influence.

Total Influence
The magnitude of the total influence of job stress and job insecurity variables on turnover intention can be determined by adding up the total direct influence and indirect influence, namely:

1. The effect of total job stress on turnover intention through burnout
Total Effect
= Direct influence + indirect influence
= Pzx1 + (Pyx1 x Pzy)
= 0.235 + (0.126 x 0.345)
= 0.235 + 0.043
= 0.278 or 27.80%

2. The effect of total job insecurity on turnover intention through burnout
Total Effect
= Direct influence + indirect influence
= Pzx1 + (Pyx1 x Pzy)
= 0.333 + (0.663 x 0.345)
= 0.333 + 0.228
= 0.561 or 56.10%

T Test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>tcount</th>
<th>ttable</th>
<th>sig</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pzx1= 0</td>
<td>2.468</td>
<td>1.295</td>
<td>0.017</td>
<td>Significant</td>
</tr>
<tr>
<td>Pzx2= 0</td>
<td>2.675</td>
<td>1.295</td>
<td>0.010</td>
<td>Significant</td>
</tr>
<tr>
<td>Pzy= 0</td>
<td>2.790</td>
<td>1.295</td>
<td>0.007</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: Primary Data Processed, 2023

Sobel Test
1. The influence of job stress on turnover intention through burnout
\[ Z = \frac{ab}{\sqrt{(b^2 SEa^2)+(a^2 SEb^2)}} \]
\[ Z = \frac{0.00062794}{0.0293} \]
\[ Z = 1.16 \]

The following are the results of the Sobel Test Calculator for the Significance of Mediation program to prove the correctness of these calculations:
The results of calculating the statistical value of the Sobel test above obtained a Zcount value of 1.16. The value of Zcount < Ztable (1.16 < 1.96), then these results prove that there is no indirect influence of job stress on turnover intention through burnout.

2. The influence of job insecurity on turnover intention through burnout

\[
Z = \frac{ab}{\sqrt{(b^2 \cdot SE_a^2) + (a^2 \cdot SE_b^2)}}
\]

\[
Z = \frac{0.600 \times 0.333}{\sqrt{(0.333^2 \times 0.089^2) + (0.600^2 \times 0.119^2)}}
\]

\[
Z = \frac{0.600 \times 0.333}{\sqrt{0.110889 \times 0.007921 + (0.36 \times 0.023681)}}
\]

The following are the results of the Sobel Test Calculator for the Significance of Mediation program to prove the correctness of these calculations:

The results of calculating the statistical value of the Sobel test above obtained a Zcount value of 2.58. The value of Zcount > Ztable (2.58 > 1.96), then these results prove that there is an indirect influence of job insecurity on turnover intention through burnout.
CONCLUSION

Based on the results of research regarding the influence of job stress, job insecurity and burnout on turnover intentions in medical equipment companies, several conclusions were obtained as follows, job stress has a direct influence on employee turnover intentions at medical equipment companies: Job stress has a direct influence on employees' turnover intentions. medical equipment companies: has a direct effect on the turnover intensity of medical equipment company employees, job insecurity has a direct effect on the turnover intensity of medical equipment company employees, burnout has a direct effect on the desire to leave employees of medical equipment companies, work stress has no effect on Turnover Intention through Burnout as an intervening variable in Medical Equipment Companies. The limitation of this research is that it only uses a relatively small sample, namely 62 respondents, so the results cannot yet be used as a strong basis and reference. It is hoped that future research can use a larger sample and add other variables that can influence turnover intention such as work environment, job satisfaction, leadership, organizational culture and work discipline in the hope of obtaining more perfect results.

REFERENCES


