The Effect of Psychological Work Environment and Work Loads on Turnover Interest, Work Stress as an Intervening Variable

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Abstract—This research aims to examine and analyze the effect of psychological work environment and workload on turnover intentions with job stress as an intervening variable for employees of PT EDI Indonesia. The method used in this research is descriptive method. The objects of this research are 80 employees of PT EDI Indonesia. The approach used in this research is Structural Equation Model (SEM) analysis tool Smart-PLS. The results showed psychological work environment has negative and significant effect on job stress. Workload that has positive and significant effect on job stress. Psychological work environment has negative and significant effect on turnover intention. Workload. Job stress has positive and significant effect on turnover intention. Job Stress has positive and significant effect on turnover intention.

Keywords: psychological work environment, workload, job stress, turnover intention

I. INTRODUCTION

Human resources are always attached to each company as a determinant of existence and play a role in contributing towards achieving company goals effectively and efficiently. Companies need reliable and quality human resources so that companies must be able to manage and pay attention to human resources as well as possible [1]. In other words, the company must be aware of the value of employee investment, which is currently very difficult to gather a good and quality workforce, so it will be better for companies to develop and maintain existing human resource assets and employees do not have the desire to move even leaving the company (turnover intention) because it gets less attention from the company and feels comfortable to keep working and being loyal to the company. Turnover intention is a form of employees to withdraw from the world of work and these employees also have the right to determine the decision to continue working or resign from the company [2]. Putra states that turnover intention is a person's desire to get out of his job related to dissatisfaction which gives rise to the desire to leave his job to find another job [3]. This will be very serious if the desire to move in a high company will cause some negative effects in the form of instability and confusion which can ultimately harm the company and its employees, especially if those who leave are workers who have expertise, ability, skilled and experienced or workers who occupy vital positions in the company, so that it can disrupt the effectiveness of the company's operations [4].

The increasing turnover intention has now become a serious problem for many companies, even some companies are frustrated when they find out that the recruitment process that has succeeded in capturing quality staff turned out to be in vain in the end because the recruited staff had chosen jobs in other companies. In addition, the costs incurred in developing employees in the form of training will also only be in vain because the employees stop working [5]. Pawesti and Wikansari suggests that the occurrence of turnover intention can harm the company both in terms of cost, resources, and employee motivation [6]. The high level of turnover intention can have a negative impact on the company because it creates instability in labor conditions, decreased employee productivity, a non-conductive work atmosphere, and impacts on the loss of time and opportunities to take advantage of opportunities [7].

The high turnover intention seized the attention of the company because it disrupted operations, gave birth to moral problems for employees who lived, and also inflated costs in recruitment, interviews, tests, reference checks, administrative costs for processing new employees, benefits, orientation, and opportunity costs lost due to employees new students must learn new skills. Research Qureshi et al., said that employee turnover intention of a company can be caused by several variables, among others, namely the work environment, workload and work stress [8]. Based on the results of research conducted by Qureshi et al., it was shown that turnover intention was positively related to work stress [8]. Another major factor is workload that is positively related to employee turnover intention. Workload is a group or a number of activities that must be completed by employees within a certain period and is an aspect that must be considered by the company, because the workload affects employees in increasing productivity and feels comfortable in working [9]. The cause of the turnover intention must be considered by the company to make employees who work in the company feel comfortable at work so that the occurrence of turnover...
intention or employee desires to leave / resign can be reduced and company goals can be achieved as expected.

The type of work environment is divided into workplace environment or physical work environment and work environment or psychic environment [10]. Rahmawanti et al., states that in order to achieve goals, companies must create a work environment that is both physically and psychologically [11]. In this study more emphasis on psychological work environment variables, because the psychological work environment is closely related to the relationship between workers and management or coworkers, the level of welfare, especially non-cash benefits, as well as factors related to the place of workers [12].

Psychic work environment is all the conditions that occur related to work relationships, both relationships with superiors and relationships with subordinates of fellow colleagues, or relationships with subordinates [10]. Several previous studies have related, explained and provided evidence regarding the relationship of the psychic work environment to turnover intention. Verina found that the work environment partially negatively affects employee turnover intention variables where the psychic work environment is related to the work environment variable [4], the higher the comfort of the work environment felt by employees, the employee turnover intention will decrease. The same thing is explained in Sanjoko and Nugrahemi's study that the psychic work environment has a negative and significant influence on employee turnover intention [13]. A better psychological work environment will give you the desire to get out of a lower work.

Besides the psychic work environment, there are other factors that influence the existence of turnover intention in employees, namely the workload. Workload calculations can be seen from three aspects, namely physical, mental and time use. Physical aspects include workload based on human physical criteria. Mental aspect is the calculation of workload by considering mental aspects (psychological). While the aspect of time use is more concerned with aspects of the use of time for work [14]. According to Irvianti and Verina workload has an effect on turnover intention because if the workload gets higher then the employee's desire to go out (turnover intention) will also increase and vice versa [4].

In addition to workload, there are other factors that influence the existence of turnover intention, namely work stress. Job stress is a symptom or feeling that can arise in a worker and can have an impact on an organization or company, which will have an influence on employee satisfaction and will affect employee performance [15]. When work stress increases, it will cause the desire to leave the employee [16]. Research Qureshi et al., found a positive relationship between work stress and turnover intention [8]. At an increasingly severe stage, stress can make employees become sick or even turnover (turnover intention) by paying attention to labor factors [17]. There are supporting journals that explain the factors that cause turnover intention in a company. Irvianti's research, states that work stress, workload and work environment have a significant effect on turnover intention [4]. Something similar is found in Putra's study explaining that work stress, workload and non-physical work environment significantly influence turnover intention [3]. Based on the description of the problem, the authors are interested in conducting research to determine the influence of psychological work environment and workload on employee exit intention (turnover intention) with work stress as an intervening variable with the title "Effect of Psychic Work Environment and Workload on Turnover Intention with stress work as an intervening variable".

A. Objective

The purpose of the study to determine the effect of psychical work environment and workloads on turnover interest, work stress as an intervening variable.

B. Benefits of Research

The results of this study are expected to contribute to add insight or research studies and as a basis and comparative and reference studies for similar researchers. The results of this study can be as consideration for the agency to determine the policy to be taken in dealing with the effect of psychical work environment and workloads on turnover interest, work stress as an intervening variable at PT EDI Indonesia employees.

II. STUDY OF THEORY AND THEORETICAL FRAMEWORK

A. Human Resource Management

Human resource management is an ongoing procedure that aims to supply an organization or company with the right people to be placed in the right position and position when the organization needs it [18]. Human resource management is the process of acquiring, training, appraising and compensating employees, and of attending to their labor relations, health and safety, and fairness concerns [19]. It means that human resource management is the process of turning around, training, evaluating, and compensating employees and paying attention to relationships between employees.

B. Psychic Work Environment

The psychic work environment is all the conditions that occur relating to work relationships, both with superiors and with fellow colleagues or relations with subordinates [10]. Companies should reflect conditions that support cooperation between superiors, subordinates and those who have the same position in the company [20]. Conditions that should be created are a family atmosphere, good communication, and self-control. A working environment condition can be said to be good if the work environment is healthy, comfortable, safe and pleasant for employees in completing their work.

According to the theory put forward by Dharmawan, the indicators of the non-physical work environment are as follows [21]: (a) The work atmosphere is like family at work, (b) Good treatment such as good and fair treatment between colleagues and superiors, (c) A sense of security such as getting protection from accident threats using agency facilities, (d) Harmonious relationships such as communication between colleagues work and boss.
C. Workload

Workload according to Tarwaka, is a difference between the capacity or ability of workers with the demands of work to be faced [22]. Munandar argues that workload is a condition of work with a description of the work that must be completed at a certain time limit [23]. Whereas according to Soleman each workload received by a person must be appropriate or balanced in physical abilities, as well as the limitations of the person who receives the burden [24].

According to Tarwaka the following are dimensions of load size work that is connected with performance, namely [22]:

1) Time load
   - Too much overtime
   - There is almost no free time

D. Mental effort load

   - Very little mental effort is needed with full awareness or very little concentration needed.
   - Enough mental effort is needed with awareness or enough concentration is needed.
   - Very necessary mental effort and high concentration of activities that are very complex so that full attention is needed.

E. Job Stress

Definition of work stress according to Nawawi stress as a stressed state, both physically and psychologically [25]. This depressed situation generally has the conditions and characteristics that the demands of the environment exceed the ability of the individual to respond. Environment does not only mean the physical environment, but also the social environment. There are several dimensions and indicators of work stress, namely:

1) Demands of duty: A factor that is associated with one's work such as work conditions, and work procedures for physical location.
2) Role demands: Associated with the pressure given to someone as a function of the particular role played in an organization.
3) Organizational structure: If the form and structure of the organization is unclear and occurs over a considerable period of time, then this can be a source of stress. The position of individuals in an organizational structure can also illustrate how stress levels are experienced.
4) The attitude of the leadership: The leadership attitude towards employees can be a source of stress for their employees, if a boss does not pay good attention to his employees he will feel depressed and feel heedless.

F. Turnover Intention

Turnover intention consists of two words namely Turnover and Intention. Turnover is an act of voluntary or involuntary withdrawal from an organization [19]. Whereas Intention comes from English which means intention or desire, so that when combined Turnover Intention is the desire of an employee to leave the company voluntarily. The high occurrence of turnover intention indicates that employees do not feel at home working in a company.

The dimensions and indicators of turnover intention are as follows [26]:

1) External factors
   a) Environmental aspects: This aspect of the availability of other job choices can be a factor for the possibility of leaving.
   b) Individual aspects: In this aspect, younger age, gender and shorter work period are more likely to leave.

2) Internal Factors
   a) Organizational culture: Satisfaction with working conditions and satisfaction with working relatives is a factor that can lead to turnover.
   b) Leadership style: Leadership style, satisfaction with leaders and other variables such as centralization are factors that determine turnover.
   c) Compensation: Payroll and satisfaction with payments are factors that can determine turnover.
   d) Job satisfaction: Satisfaction with work, overall and satisfaction with work weight is a factor that can determine turnover.
   e) Career: Satisfaction with promotion is one of the factors that can determine turnover.

III. RESEARCH FRAMEWORK AND HYPOTHESIS

Based on the previous description, the following is illustrated the conceptual framework (chart) of influence between research variables.

![Research Framework](chart)

**Fig. 1. Research framework.**

Research hypothesis

- Psychic Work Environment has a negative and significant effect on work stress.
- Workload has a positive and significant influence on work stress.
• Workload has a positive and significant effect on employee turnover intention.
• Psychic Work Environment has a negative and significant effect on employee turnover intention.
• Job Stress has a positive and significant effect on employee turnover intention.

IV. RESEARCH METHODOLOGY

A. Research Design

In this research, research design is used as a type of causal research. The causal research design is useful for analyzing the relationships between one variable and another. In this study researchers are interested in examining the independent variables namely Psychic Work Environment, Workload on Turnover Intention Employees as the dependent variable with Job Stress as an intervening variable at PT Electronic Data Interchange Indonesia.

B. Data Collection Instruments

The instrument used for data collection was a questionnaire submitted to employees. The questionnaire was distributed to 80 employees of PT EDI Indonesia, Jakarta.

C. Population

The population in this study were employees of PT EDI Indonesia, amounting to 398 employees consisting of 190 permanent employees, 190 employees with contract systems, and 18 employees outsourcing.

D. Sample

The sample used after the calculation uses the Slovin formula with an e value of 0.10 with the results of 80 respondents namely 80 permanent employees at PT Electronic Data Interchange Indonesia.

E. Data Analysis

Data analysis and interpretation for research aimed at answering research questions in order to uncover certain social phenomena. To analyze the data used The Structural Equation Modeling (SEM) from PLS 3.0 statistical software in the model and review of hypotheses, structural equation models.

V. RESULTS AND DISCUSSION

A. Validity and Reliability Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Outer Loading</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Work Environment</td>
<td>LKP1</td>
<td>0.575</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LKP3</td>
<td>0.848</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LKP6</td>
<td>0.595</td>
<td>Valid</td>
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<tr>
<td></td>
<td>LKP8</td>
<td>0.836</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LKP9</td>
<td>0.641</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LKP10</td>
<td>0.561</td>
<td>Valid</td>
</tr>
<tr>
<td>Workload</td>
<td>BK1</td>
<td>0.820</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>BK2</td>
<td>0.881</td>
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</tr>
<tr>
<td></td>
<td>BK3</td>
<td>0.881</td>
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<tr>
<td></td>
<td>BK4</td>
<td>0.549</td>
<td>Valid</td>
</tr>
<tr>
<td>Job Stress</td>
<td>SK1</td>
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</tr>
<tr>
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<td></td>
<td>TI8</td>
<td>0.830</td>
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</tr>
</tbody>
</table>

Table 1 shows that all indicators meet convergent validity because they have a loading factor value above 0.5 and thus all indicators for measuring research constructs are valid. If all indicators have a loading factor above 0.5, the proposed measurement model has the potential to be tested further.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Work Environment</td>
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<tr>
<td>Workload</td>
<td>0.869</td>
<td>Reliable</td>
</tr>
<tr>
<td>Job Stress</td>
<td>0.907</td>
<td>Reliable</td>
</tr>
<tr>
<td>Turnover Intention</td>
<td>0.902</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Table 2 shows that the composite reliability test results show satisfactory values, namely all latent variables are reliable because all values of latent variables have composite reliability values > 0.70. So it can be concluded that the questionnaire used as a research tool has been reliable and consistent.

B. Hypothesis Testing

After testing the suitability of the model, it can be tested against the hypothesis. The hypothesis testing of the study was conducted using the Structural Equation Modeling (SEM) method with PLS 3.0 software. The basic hypothesis making is done by comparing the magnitude of the t-table with t-count at alpha 0.05 (5%) = 1.96. If t-table is less than alpha 1.96 then the hypothesis is not accepted or rejected, and vice versa if t-table > 1.96 then the hypothesis is accepted or there is a significant influence between the two variables.
C. Effect of a Psychological Work Environment on Work Stress

Based on the hypothesis test in this study the results obtained T-statistic value of 2.035, the original sample value of -0.117, and the value of P Values of 0.000. The T-statistic value is greater than the T-table value 1.96, the original sample value shows a negative value, and the P Values value shows less than 0.05, this result shows that the psychological work environment has a negative and significant effect on work stress. According to research conducted by Rizki et al., psychic work environment is shown by the relationship with colleagues, fluency in the delivery of tasks and cooperation that are in good condition so that it influences work stress [27]. Working environment variables have a negative influence, which means the better the work environment can reduce employee work stress. The results of this study are reinforced by research conducted by Rizki et al., who found that psychological work environment has a negative effect on employee work stress [27].

D. Effect of Workload on Work Stress

Based on the hypothesis test in this study, the T-statistic value was 11.133, the original sample value was 0.720, and the P value of 0.000. The T-statistic value is greater than the T-table value 1.96, the original sample value shows a positive value, and the P Values value shows less than 0.05, this result shows that the workload has a positive and significant effect on work stress. Sunyoto said that workload that is too much can cause tension in a person, causing stress [28]. This is caused by the level of expertise that is demanded too high, too high speed work, too much work volume, and so on. The results of this study were reinforced by Kusuma and Soesatyo who stated that workload had a positive effect on work stress [29]. This shows that if the workload on the employee decreases, the work stress of the employee will also decrease and the opposite can occur.

E. The Influence of the Psychological Work Environment on Turnover Intention

Based on the hypothesis test in this study the results obtained T-statistic value of 2.662, original sample value of -0.004, and P Values value of 0.041. The T-statistic value is greater than the T-table value 1.96, the original sample value shows a positive value, and the P Values value shows less than 0.05, this result shows that the psychological work environment has a negative and significant effect on turnover intention. The work environment is one of the factors that concern the company to reduce employee turnover intention in addition to compensation and employee career development [7]. A pleasant work environment for employees through binding harmonious relationships with superiors and subordinates, as well as supported by adequate facilities and infrastructure in the workplace will have a positive impact on employees, so that it will provide comfort to employees to keep working at the company. The results of this study are reinforced by research Sanjoko which states that the psychic work environment negatively affects employee turnover intention [13].

F. The Effect of Workload on Turnover Intention

Based on the hypothesis test in this study the results obtained T-statistic value of 2.047, original sample value of 0.269, and P value of 0.041. The T-statistic value is more than 1.96 T-table value, the original sample value shows a positive value, and the P Values value shows less than 0.05, this result shows that workload has a positive and significant effect on turnover intention. According to Rivai one of the characteristics of work that can influence the desire to change work or turnover intention is the workload [30]. Workload can be in the form of physical workload and psychological workload. Physical workload can be in the form of heavy work such as lifting, caring for pushing. Whereas psychological workload can be in the form of the extent of expertise and work performance owned by individuals with other individuals. The results of this hypothesis are reinforced by research conducted by Irivanti and Verina who found that workload has a strong positive influence on employee turnover intention [4].

G. The Effect of Work Stress on Turnover Intention

Based on the hypothesis test in this study, the T-statistic value was 4.064, the original sample value was 0.484, and the P value of 0.000. The T-statistic value is greater than the T-table value 1.96, the original sample value shows a positive value, and the P Values value is less than 0.05, these results indicate that work stress has a positive and significant effect on turnover intention. The impact caused by work stress can result in the emergence of a desire to move or leave the company. The direct relationship between work stress and turnover intention shows that work stress is a strong reason behind the desire of employees at the current workplace. Thus the higher job stress experienced by employees, the higher the desire of employees to leave the company. The results of this hypothesis are reinforced by research Liu who found that work stress has a positive effect on employee turnover intention [31].

VI. CONCLUSIONS AND SUGGESTIONS

A. Conclusions

- Psychic work environment has a significant negative effect on the work stress of employees of PT Electronic Data Interchange Indonesia. This means that if the

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<table>
<thead>
<tr>
<th>TABLE III. HYPOTHESIS TESTING RESULTS</th>
</tr>
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<tbody>
<tr>
<td>Psychological Work Environment → Job Stress</td>
</tr>
<tr>
<td>Workload → Job Stress</td>
</tr>
<tr>
<td>Psychological Work Environment → Turnover Intention</td>
</tr>
<tr>
<td>Workload → Turnover Intention</td>
</tr>
<tr>
<td>Job Stress → Turnover Intention</td>
</tr>
</tbody>
</table>
psychic work environment is comfortable, then work stress fatigue will decrease.

- Workload has a significant positive effect on the work stress of employees of PT Electronic Data Interchange Indonesia. This means that if the workload of employees is excessive, fatigue in work stress will increase.
- Psychic work environment has a significant negative effect on employee turnover intention at PT Electronic Data Interchange Indonesia. This means that the psychological work environment is uncomfortable, then turnover intention will increase.
- Workload has a significant positive effect on the turnover intention of PT Electronic Data Interchange Indonesia employees. This means that if the workload of employees is high, then turnover intention will increase.
- Job stress has a significant positive effect on the turnover intention of employees of PT Electronic Data Interchange Indonesia. This means that if employee work stress is high, turnover intention will increase.

B. Suggestions

1) Suggestions for companies and employees of PT Electronic Data Interchange Indonesia:
- Companies should schedule togetherness events at certain times for all employees, so that employees when working in teams have known each other and facilitated work.
- Employees must still concentrate on their work even though the work done does not all require high concentration.
- The company must periodically check the tools used by employees in work, in order to avoid delays in work due to equipment that is not functioning or for security.
- The company must provide compensation and bonuses according to employee performance appraisal to provide encouragement to employees and avoid the desire of employees to leave the company.

2) Suggestions for further researchers: Suggestions for future researchers, who will conduct research in the same field and use this research as a reference, then it needs to be reviewed.

REFERENCES


