

# Sensitivity of Overwork, Overtime, Supervisory Support and Incentive to the Employee Turnover Intention

Titah Unggul Wirandono<sup>1</sup>, Mulyana<sup>2</sup>

<sup>\*1</sup>Faculty of Economics, Sultan Agung Islamic University, Jl. Kaligawe Raya KM. 4,  
Semarang, 50112, Central Java, Indonesia

<sup>2</sup> Faculty of Economics, Sultan Agung Islamic University, Jl. Kaligawe Raya KM. 4,  
Semarang, 50112, Central Java, Indonesia

\*Corresponding author(s). E-mail(s): [titah.pln@gmail.com](mailto:titah.pln@gmail.com);

<sup>#</sup>These authors contributed equally to this work

## Abstract

*This paper aims to examine the effect of Overtime (OT), Overwork (OW), Supervisory Support (SS) on Employee Turnover Intention (ETI) with Incentive as a moderating variable. Respondents in this study were employees of the Asset Operator at PLTU Tanjung Jati B Unit 1-2 as many as 155 people. This research is motivated by the high turnover of Operation and Management Trainee (OMT) Asset Operator Unit 1-2 employees compared to Asset Operator Units 3-4 from the first batch in 2010 to the fifth batch in 2018 which once reached 100% turnover in the third batch. The sampling technique used proportional random sampling and data analysis using Partial Least Square (PLS). The results of this research are expected to contribute to the policy makers of the Employee Incentive Scheme (EIS) in Asset Operator Units 1-2.*

**Keywords:** overtime, overwork, supervisory support, incentive, employee turnover intention

## Introduction

ETI has been a research agenda and a growing focus of many academics and industry practitioners for many years (Liu and Lo, 2018; Wan et al., 2018; Gupta and Shaheen, 2017; Karatepe; AVCI, 2017; Akgunduz; Sanlin, 2017 ). Research on ETI has involved many large and small industries, including the steam power plant or PLTU industry.

PLTU Tanjung Jati B, which is located in Jepara, Central Java, has a slightly different business process where there are three main entities, namely Asset Owner (PT. Central Java Power / CJP), Asset Manager (PT PLN (Persero) UIK TJB / PLN TJB) and Asset Operators (PT. TJB Power Services / TJBPS for Units 1-2 and PT. Komipo PJB / KPJB for Units 3-4).

Figure 1 shows the employee turnover data for Operation & Maintenance Trainee (OMT) and On Job Training (OJT) TJBPS and KPJB as Asset Operators at PLTU Tanjung Jati B.

The practical benefits of this study are expected to be able to change top management policies regarding the Employee Incentive Scheme (EIS) which have not been fully implemented by TJBPS as mandated by the O&M Agreement (OMA). The following is the conceptual framework for this research.

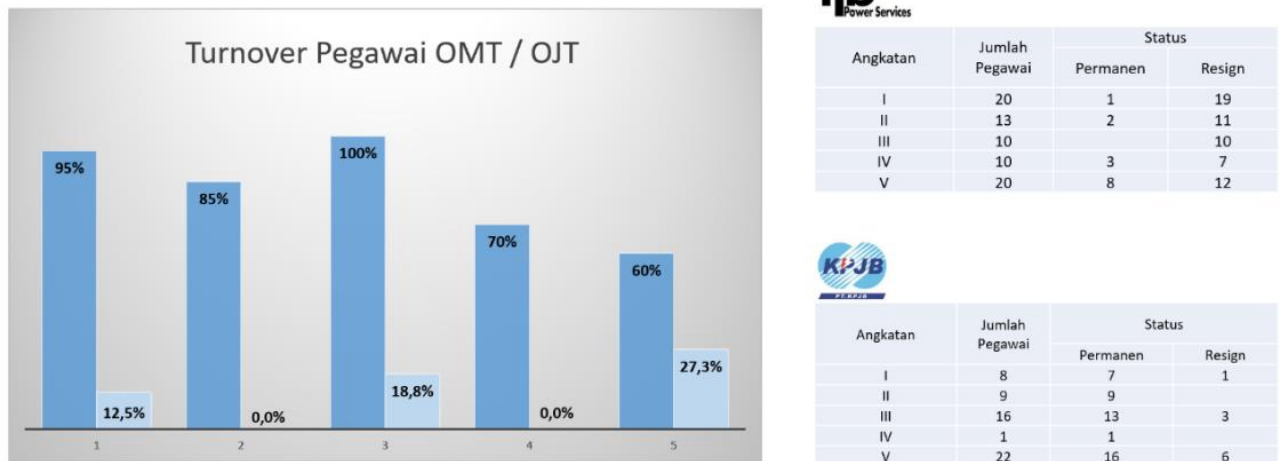


Figure 1. Turnover of OMT / OJT employee

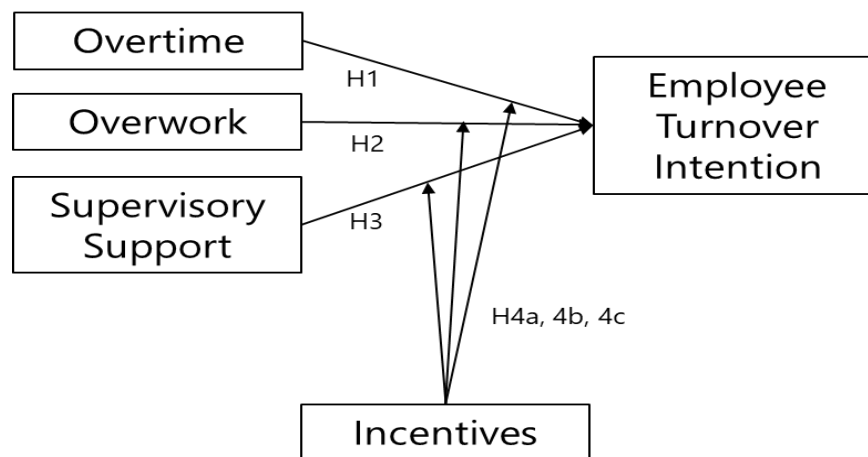


Figure 2. Conceptual Framework

## Literature Review

### *Overtime (OT) and Employee Turnover Intention (ETI)*

When an organization faces high employee turnover, it can reduce the productivity of the organization due to the repetition of the learning curve of a type of work from employees who leave the organization (Wambui, 2012). The longer employees are trapped in this situation, the more likely they are to want to leave the organization (Lee et al., 2016). Regulations regarding Manpower have been specifically regulated in Law (UU) No. 13 of 2003 article 77 to article 85. Where, Article 77 paragraph 1, Law No. 13/2003 requires every entrepreneur to implement working hours provisions. This working hour provision regulates 2 systems, namely 7 working hours in 1 day or 40 working hours in 1 week for 6 working days in 1 week or 8 working hours in 1 day or 40 working hours in 1 week for 5 working days in 1 week. The two working hour systems also limit working hours, namely 40 (forty) hours in 1 (one) week. Beckers et al. (2004) found that employees in Asia tend to work more than 60 hours a week.

Overtime is a common phenomenon among employees who work in the power generation business, especially private power plants. Where during an outage or maintenance schedule, employees work overtime to operate and carry out maintenance of generator engines. Overtime often causes physical and psychological fatigue. Likewise, the lack of attention from management causes employees to feel uncomfortable working and have low commitment to the organization. Therefore if the OT is high it has the potential to increase ETI. the proposed hypothesis is.

H1: An increase in OT leads to increase in ETI

#### ***Overwork (OW) dan Employee Turnover Intention (ETI)***

OW, namely the execution of excess work thereby increasing the risk beyond the standards agreed in the agreement (Mazzetti et al, 2016). Employees who work too hard reduce the quality of work and can experience depression (Ryan et al., 2019). In line with what was conveyed by Mariappanadar and Aust (2017) which stated that from a behavioral and psychological perspective, OW will affect a person's personality, reduce efficiency and effectiveness at work. Mazzetti et al (2016) also said that the willingness of employees to carry out OW is a representation of long-term commitment and dedication which is counterproductive in terms of psychological and individual well-being. This condition indicates a heavy workload, increased work pressure is the basis of work stress which can encourage Asset Operator employees to OW, therefore the hypothesis proposed is,

H2: An increase in OW leads to increase in ETI

#### ***Supervisory Support (SS) dan Employee Turnover Intention (ETI)***

Supervisors help employees under them in carrying out their duties can make work more effective (Shanock and Eisenberger, 2006). In line with what was conveyed by Bell and Menguc (2002) that the supervisor's and staff's efforts bring benefits to the company which causes increased productivity. Research by Rhoades and Eisenberger (2002) suggests that the practice of High Performance Human Resource (HPHR) leads us to a perception that is identical to superior support or SS. Likewise with Kuvaas et al. (2014) presented empirical evidence that significantly influences HR practices in SS. When supervisors perceive Human Resource Management (HRM) practices in the organization as a support that allows them to feel and believe that the organization really appreciates and recognizes their contribution, therefore the hypothesis put forward is,

H3: Decrease in SS leads to an increase in ETI

#### ***Incentive as moderation***

Incentives are real remuneration and will be received by employees (Merriman, 2014). Otto and Dalbert (2012) found that the presence of non-financial incentives illustrates the willingness of individuals to accept changes in the work they carry out.

Incentives serve as motivation for employees to dedicate more hours and more energy into their work with the aim of increasing their income. Incentives drive performance. At the same time, organizations use incentives as a means of compensating for an insufficient workforce by maximizing the number of employees available. So that brings us to the complementary hypothesis, therefore the proposed hypothesis is,

H4a: Incentive mampu memoderasi pengaruh OT terhadap ETI

H4b: Incentive mampu memoderasi pengaruh OW terhadap ETI

H4c: Incentive mampu memoderasi pengaruh SS terhadap ETI

## Methodology

This research is an explanatory research. Masri Singarimbun (1992) said that research that is explanatory or explanatory is research that highlights the influence between determining variables and tests the proposed hypothesis, where the description contains descriptions but focuses on variable relationships.

Using proportional random sampling with a sample size according to the Slovin formula notation where TJBPS employees total 274 people with a margin of error of 5% or 0.05, the number of samples (n) is 162 people. data collection method by distributing questionnaires using google forms directly to respondents.

To achieve our research objectives we use the partial least squares (PLS) approach. PLS is almost similar to multiple regression analysis to test possible relationships in measurement models (Hair et al, 2017). In this research model, OW, OT and SS are reflective constructs and are calculated using correlation weights. PLS provides a better choice in estimating the prediction power of a model (Shmueli et al, 2019).

## Result and Discussion

### Respondents' Demography

Female respondents were 6.93% of the total respondents while male respondents were 93.07%. For the age group, respondents were under 31 years (33.58%) between 31-40 years (21.90%) between 41-50 years (32.85%) and above 50 years (11.68%). For high school/equivalent education level (36.13%) Diploma 3 (21.90%) Diploma 4 / Strata 1 (39.78%) Undergraduate 2 (2.19%). Married (77.74%) not married (22.26%).

### Assessment Model Measurement

Berikut hasil simulasis menggunakan Aplikasi SmartPLS 4.0

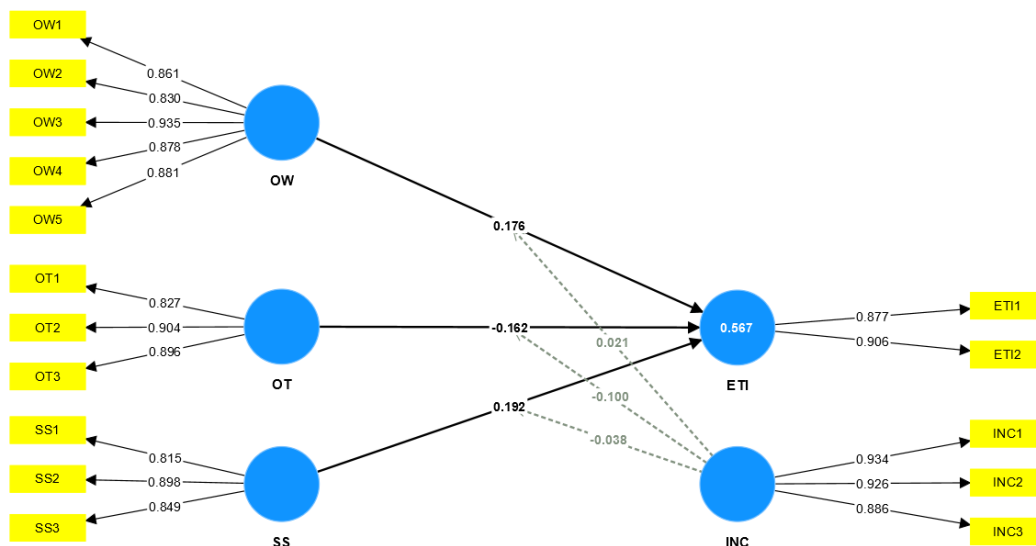


Figure 3. Estimation Result from SmartPLS 4

The value of Average Variance Extracted (AVE) for all constructs is more than 0.5 which is sufficient (Fornell and Lacker, 1981) as shown in the following table,

Tabel 1. Reliability and Validity Construct Values

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
OW	0,925	0,929	0,944	0,770
OT	0,848	0,852	0,908	0,768
SS	0,815	0,826	0,890	0,730
INC	0,903	0,904	0,940	0,839
ETI	0,743	0,752	0,886	0,795

Sedangkan untuk *outer loading* sudah lebih dari 0,7 sebagaimana table berikut,

Tabel 2. Outer Loading

	Overwork	Overtime	Supervisory Support	Incentive	Employee Turnover Intention	INC x OT	INC x OW	INC x SS
OW1	0,861							
OW2	0,830							
OW3	0,935							
OW4	0,878							
OW5	0,881							
OT1		0,827						
OT2		0,904						
OT3		0,896						
SS1			0,815					
SS2			0,898					
SS3			0,849					
INC1				0,934				
INC2				0,926				
INC3				0,886				
ETI1					0,877			
ETI2					0,906			
INC x OT						1,000		
INC x OW							1,000	
INC x SS								1,000

In addition, the value of the Heterotrait-Monotrait ratio (HTMT) of all constructs is less than 0.85 which indicates discriminant validity is achieved as shown in the following table,

Tabel 3. Nilai Rasio *Heterotrait-Monotrait* (HTMT)

	ETI	INC	OT	OW	SS	INC x SS	INC x OT	INC x OW
ETI								
INC	0,783							
OT	0,498	0,286						
OW	0,642	0,448	0,344					
SS	0,703	0,490	0,409	0,760				
INC x SS	0,061	0,104	0,038	0,341	0,304			
INC x OT	0,173	0,133	0,038	0,048	0,010	0,423		
INC x OW	0,076	0,089	0,052	0,358	0,411	0,717	0,411	

### Structural Assessment Model

The results of the path relationship assessment using the bootstrapping procedure according to table 4 show that H1, H2 and H3 support the following table,

Tabel 4. *Path Coefficients*

	ETI
ETI	
INC	0,441
OT	-0,162
OW	0,176
SS	0,192
INC x SS	-0,038
INC x OT	-0,100
INC x OW	0,021

Meanwhile, the Fit Model has reached an NFI of 0.753, which means that the research model is 75.3% fit for real field conditions. As listed in the following table,

Tabel 5. *Model Fit*

	Saturated model	Estimated model
SRMR	0,070	0,070
d_ULS	0,676	0,675
d_G	0,529	0,528
Chi-square	329,539	328,636
NFI	0,753	0,754

### Conclusion

This study confirms that OW, OT and SS have a significant relationship with ETI. Where with Incentives in the Steam Power Plant business it can affect employee intentions for turnover. Therefore the management of PT TJB Power Services should pay attention to work-life balance, employee recognition program, career strengthening, job satisfaction and most importantly balanced incentives. Which in turn can reduce the employee turnover intention rate at TJBPS..