

# The Effect of Business Process Automation On The Effectiveness of Employee Work at PT. Industri Kemasan Semen Gresik

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## ABSTRACT

**Keywords:** This study aims to identify factors that affect the employee work effectiveness; business process automation work effectiveness of employee work at PT. Semen Gresik Packaging Industry (IKSG) and formulate recommendations to improve the effectiveness of the work. This research uses quantitative methods with a descriptive approach. The results of multiple regression analysis show that process automation has a positive influence on the effectiveness of employee work at PT. IKSG. Each one-unit increase in process automation contributes to an increase in work effectiveness by 0.246 units assuming the other variables are fixed. The results of the t test show that the availability of backups significantly affects the effectiveness of employee work. Based on these findings, it can be concluded that process automation factors affect the effectiveness of employee work at PT. IKSG. From the results of this study, it is concluded that there is a significant positive influence of process automation on the effectiveness of employee work at PT. IKSG. Therefore, it is advisable to increase investment and attention to these factors in order to improve the effectiveness of employee work and overall organizational performance.



## Introduction

The efficiency and success of an organization depends largely on the ability and quality of work of its employees. To achieve organizational goals well, it is necessary to have professional and competent human resources who are able to make optimal contributions and improve the performance of the organization, society, and also themselves. Therefore, it is important to identify the factors that affect the effectiveness of employees' work and develop them so that they can perform better, as well as provide greater benefits to the organization as a whole (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013).

The effectiveness of employee work reflects the positive attitude or condition of individuals towards their organizational environment. Therefore, it is important for leaders to take appropriate steps to ensure that employees feel satisfied and motivated in their work. This will have an impact on the level of employee work effectiveness in

accordance with organizational expectations. In achieving work effectiveness, another important factor is the availability of the necessary facilities and infrastructure, as well as the abilities, skills, and loyalty of all parties involved in the organization, both in the government and private sectors. Work is said to be effective when various targets that have been set can be achieved on time with the use of resources that have been allocated for the activity (Daniels, 2013).

Every organization wants to be earnest to carry out tasks and achieve the goals that have been set. Therefore, it is important for organizations to consistently strive for and maintain a high level of work effectiveness of their employees. (Nuzleha et al., 2019). Effectiveness is rooted in the word "effective", which refers to the ability of a job to achieve goals and be completed according to a predetermined plan, with desired results and within the right time limit (Murti, Rahardjo, & Riza, 2013). The completed work must meet the desired goals, which can be measured using indicators: conformity of planning with goals, organization of job responsibilities, task performance, product results achieved, and personal satisfaction (Robbins & Judge, 2017).

Work effectiveness will be better with the application of technology. Digitalization is a term often used in companies that innovate in the field of technology. In the context of companies, digitalization refers to the application of digital technology to change and improve business processes and provide added value to customers. It involves transforming manual or non-digital processes into technology-based ones, such as the use of software, applications, and automation systems. Many companies compete in an effort to digitize various aspects of business within their companies. Digitalization can help companies in collecting, processing, and analyzing data to make better business decisions, as well as utilizing technology for communication purposes both to internal and external companies, accelerating production and distribution processes.

The application of digitalization in a company plays an important role in increasing work effectiveness. By using digital technology, organizations can automate and improve the efficiency of their business processes. The use of software, applications, and automation systems helps reduce reliance on error-prone and time-consuming manual work. In addition, digitization allows organizations to collect and analyze data more accurately and quickly, providing valuable insights for better decision making. In addition to operational efficiency, digitalization also helps improve interaction and communication between employees, both internally and with external parties. The utilization of communication technology enables more effective collaboration and accelerates the exchange of information between teams and departments. In addition, digitalization also affects the improvement of work effectiveness through the acceleration of production and distribution processes. With adequate technology in place, organizations can optimize their supply chains, reduce the time it takes to process orders, manage inventory more efficiently, and increase the speed of product delivery to customers.

Many work units digitize their business processes that were previously done manually, the constraints of manual business processes are problems related to slow delivery times and difficulties in documentation, this makes several conflicts between employees and work units related to undocumented communication. With the application of digitalization, they claim to get many benefits from the application of digitalization when compared to the costs incurred, but until now in the company there has been no good measurement of the impact of the implementation of digitalization on the effectiveness of the company's work, the measurement that has been carried out by each

work unit is only limited to whether the application of digitalization has been done well, However, it has not measured in detail related to the effect of the work as a whole. Process digitization is measured based on process automation. Process automation at PT. The Semen Gresik Packaging Industry can have a positive impact on the effectiveness of employee work. With process automation, tasks that were previously done manually can be done automatically by the system. This can reduce human error, increase speed, efficiency, and accuracy in carrying out tasks. Employees can focus on more complex and value-added tasks, thereby increasing productivity and work effectiveness.

Previous research: Sukaesih (2011) conducted research on the Effect of Control on the Work Effectiveness of Structural Officials at the Banjar City Regional Secretariat. This research was conducted on the basis of the problem that the effectiveness of the work of structural officials at the Banjar City Regional Secretariat was still low. This is allegedly due to the lack of implementation of the principles of comprehensive control at the Banjar City Regional Secretariat.

The approach in this study is about Control of the Work Effectiveness of Structural Officials seen from the context of public policy and public administration. The research method used, explanatory descriptive survey method. This method is used to explain social phenomena which in this case is used to examine the influence of Control (independent variable) symbolized by X on the Work Effectiveness of Structural Officials (dependent variable) symbolized by Y. This study uses quantitative analysis through the use of Path Analysis Method which is intended to determine the magnitude of the influence of Control variables on the Work Effectiveness of Structural Officials on Banjar City Regional Secretariat, either simultaneously or partially.

The results showed that the influence simultaneously showed significant results, where the effect of Control (X) on the Work Effectiveness of Structural Officials (Y) was 0.406 or 40.60%. This shows that Control (X) has a positive influence on increasing the Work Effectiveness of Structural Officers (Y).

Partially, the effect of Control (X) consisting of seven Control principles includes: Objective Principle (X1) has a significant effect on the Work Effectiveness of Structural Officers (Y) by 7.47%, Conformity Principles (X2) has a significant effect on the Work Effectiveness of Structural Officers (Y) by 10%, Principles of Accountability (X3) have an insignificant effect on the Work Effectiveness of Structural Officers (Y) by 1.35%, Level Principles (X4) significantly affect the Work Effectiveness of Structural Officers (Y) by 7.75%, the Principle of Range of Control (X5) has an insignificant effect on the Work Effectiveness of Structural Officers (Y) by -1.3%, the Principle of Specialization (X6) has an insignificant effect on the Work Effectiveness of Structural Officers (Y) by -2.27% and the Definition Principle (X7) has a significant effect on the Work Effectiveness of Structural Officers (Y) by 16.14%, The effect of other variables ( $\square$ ) on the Work Effectiveness of Structural Officers (Y) was 0.594 or 59.40%.

Furthermore, this study can be concluded that Control has a significant effect on the Work Effectiveness of Structural Officials at the Banjar City Regional Secretariat. That as a whole Control has been implemented and carried out in accordance with aspects of the Work Effectiveness of Structural Officers.

Research Objectives:

1. Analyze the influence of factors implementing business process automation on the effectiveness of employee work at PT. IKSG.
2. Formulate and recommend actions to improve the effectiveness of employee work at PT. IKSG.

## Research Methods

### Types of Research

The type of research used in this study is quantitative research with a descriptive approach. According to (Zikmund, Babin, Carr, & Griffin, 2013) quantitative research is business research that discusses research objectives through empirical assessment involving numerical measurement and analysis. Quantitative research is a type of research used in testing existing theories through relationships between variables, where the variables are measured with research instruments and the data analyzed consists of numbers that specifically use statistics. In this study, the independent variable is process automation while the dependent variable is work effectiveness.

### Data Types and Sources

In this study, researchers use primary data sources, namely researchers will conduct a question and answer session (Survey) to respondents for questioning. According to (Cooper & Schindler, 2014) Primary sources are original research works or raw data without interpretations or statements representing official opinions or positions. Included among the primary sources are memos; letter; full interview or speech (in audio, video or written transcript format); law; regulation; court decisions or standards; and most government data, including census, economic, and labor data. Primary sources are always the most authoritative because the information has not been filtered or interpreted by a second party. Other internal sources of primary data are inventory records, personnel records, purchase request forms, statistical process control charts, and similar data.

To obtain primary data in this study, researchers distributed questionnaires directly to employees working at PT. Semen Gresik packaging industry. The purposive random sampling technique method was used in this study, which is a simple sampling technique but with conditions from parts of the employee population in the PT project. Semen Gresik packaging industry is randomly selected. The data processing technique of questionnaire results uses Likert scale, which is used to measure respondents' attitudes, opinions, and perceptions about social events or symptoms, with alternative answers valued from 1 to 5.

### Population and Research Sample

Population refers to the complete set of elements that are expected to be studied and from which conclusions can be drawn, where elements in the population are individual participants or objects chosen to be investigated (Cooper & Schindler, 2014). In this study, the population is all employees who work at PT. As many as 108 people work in the Semen Gresik packaging industry using ERP. To calculate the number of samples to be taken, the Slovin formula is used as follows:

Slovin formula:

$$n = \frac{N}{1 + N(e)^2}$$

Information:

n= Number of Samples

N= Total Population

e = Margin of Error.

The total population is 108, so using the above formulation, it was found that the number of samples was 52 people. The sampling technique used in this study is probability sampling, which is by using a simple random sampling method where every

element in the population has the same opportunity to be selected as a sample (Malhotra, Nunan, & Birks, 2020)

### **Data Collection Methods**

In this study, primary data collection methods were used. The purpose of using primary data is to directly evaluate the relationship between the independent variable and the dependent variable by collecting data directly from PT employees. Gresik Cement Packaging Industry. Primary data were obtained through the distribution of questionnaires to employee respondents. The respondents were given time to read and fill out the questionnaire themselves, which was then returned to the researcher upon completion. In addition, online surveys are also used as an alternative method by sending survey links via email or other communication media such as WhatsApp. This online survey is conducted through an electronic survey application that makes it easier for respondents to fill out questionnaires.

### **Data Analysis Techniques**

#### **Validity Test**

Validity tests are used to determine the extent to which questionnaires can correctly measure what they are supposed to measure. The validity of a questionnaire indicates the extent to which the statements or questions in the questionnaire can accurately reveal the construct or variable to be measured. In other words, the validity of the questionnaire indicates whether the questionnaire is indeed measuring what it should measure and whether the statements contained in the questionnaire are indeed relevant to the construct to be measured.

- a. If the calculation  $> r_{table}$ , the conclusion of the questionnaire item is valid.
- b. If the calculation  $< r_{table}$ , the conclusion is that the questionnaire item is invalid.

#### **Reliability Test**

Reliability tests are used to measure the extent to which questionnaires or indicators used in research are consistent and reliable in measuring a variable. Reliability refers to the degree of stability and consistency of measurement results over time or between different respondents. One commonly used method for measuring reliability is Cronbach's alpha statistical test ( $\alpha$ ). Cronbach's alpha value ranges from 0 to 1, and the higher the score, the higher the reliability of the questionnaire or indicator. According to (Sekaran & Bougie, 2017) the closer to the 1.0 reliability coefficient, the better an instrument is. If the reliability coefficient is less than 0.60 it is considered poor, in the range of 0.70 it is considered sufficient, and if it is greater than 0.80 then it is considered good.

#### **Classical Assumption Test**

In multiple linear regression analysis, classical assumption testing is important to obtain optimal estimates of the  $\alpha$  and  $\beta$  coefficients. This test aims to ensure that the basic assumptions of the linear regression model are well met.

#### **Test Coefficient of Determination ( $R^2$ )**

To determine the contribution of variable X to changes in the value of variable Y, we can use the coefficient of determination, as explained by Kuncoro (2003: 84). The determining coefficient is a measure that indicates the extent to which the variation or fluctuation in the value of variable Y can be explained by the variation in the value of variable X in the regression model. In this case, the determining coefficient can provide information about the percentage variation of the value of Y that can be described by the variable X.

Where:

$$R^2 = \left[ \frac{SSR}{SST} \right] \times 100 \%$$

$R^2$  = Coefficient of determination

SSR = Sum of Square Regression

SST = Sum of Square Total (Proportion of total sum squared)

### Simultaneous Test (Test F)

In this study, a hypothesis test using the F test (f-test) was used to test the significance of the coefficient simultaneously with a significance level of 5% (Supranto, 2004). The F test is used to test whether there is a significant effect together from the independent variable on the dependent variable in the regression model. In this context, we want to know whether the overall regression coefficient is significant or not.

Where:

$$F_0 = \frac{R^2/k}{(1 - R^2) / (n - k - 1)}$$

Where:

$R^2$  = Multiple Coefficient of Determination

K = Number of independent variables

n = Number of observations

To determine the acceptance or rejection of the hypothesis with the following conditions:

1.  $|F_{\text{calculate}}| < |F_{\text{tabel}}|$ , means  $H_0$  is accepted (no effect).
2.  $|F_{\text{calculate}}| \geq |F_{\text{tabel}}|$ , means  $H_0$  is rejected (influential).

## Results and Discussion

### Descriptive Analysis

This study describes the Effect of Process Automation, User Acceptance, System Availability, and Back Up Availability on the effectiveness of employee work at PT. Gresik Cement Packaging Industry. In this study using 65 employees as a research sample. The characteristics of respondents who were sampled in this study were then grouped according to gender, age, and recent education. To clarify the characteristics of the respondent in question, a table will be presented regarding respondent data as described below:

**Table 1 Characteristics of Respondents By Gender**

JENIS KELAMIN		
Keterangan	Jumlah	Persen
Laki - Laki	31	74%
Perempuan	11	26%
Total	42	100%

Table 1 illustrates the grouping of respondents by sex in this study. Of the total 42 respondents, 31 people (74%) were men, while 11 people (26%) were women. The comparison of the number of male and female respondents in this study gives an idea of the distribution of sex in the respondent population. Although PT. The cement packaging industry is dominant with male respondents, but based on research conducted by (Robbins & Judge, 2013), there are no consistent differences between men and women in problem-

solving ability, analytical skills, drive, competitiveness, motivation, sociability, or learning ability.

**Table 2 Characteristics of respondents by age**

USIA		
Keterangan	Jumlah	Persen
21 - 30	12	29%
31 - 40	5	12%
41 - 60	25	60%
Total	42	100%

Table 2 shows the grouping of respondents by age group in this study. Of the total 42 respondents, 12 people (29%) belonged to the age group of 21-30 years, 5 people (12%) belonged to the age group of 31-40 years, and 25 people (60%) belonged to the age group of 41-60 years.

According to (Robbins & Judge, 2017), protracted boredom and lack of intellectual stimulation can contribute to decreased performance. Therefore, there is a belief that individual performance can decline as a person ages. Age can also affect the level of speed, physical dexterity, and strength that tends to decrease with age. In the context of this study, the age group characteristics of respondents are important factors to be considered in the analysis of the effect of process automation, user acceptance, system availability, and backup availability on the effectiveness of employee work at PT. Gresik Cement Packaging Industry.

**Hypothesis Testing**

In a study, the measuring instruments used must meet the criteria of validity and reliability. Before conducting an analysis of the data that has been obtained, it is important to conduct an instrument test. Instrument testing involves testing the validity, reliability, and classical assumption tests to evaluate the accuracy and consistency of research. Testing research instruments is an important step to ensure that the measuring instruments used can precisely and consistently measure the variables to be studied.

**Validity Test**

This research questionnaire consists of 2 variables, namely Process Automation (X) and Employee Work Effectiveness (Y). There are a total of 14 statement items in this questionnaire. In this questionnaire, all statements are measured using an ordinal scale and arranged in the form of a Likert scale. Using the Likert scale, respondents will be asked to indicate their level of agreement or disagreement with each statement by selecting one of the available options, such as "Strongly Agree", "Agree", "Disagree", "Disagree", or "Strongly Disagree".

The importance of testing research instruments before carrying out research is to ensure that the instrument meets the necessary requirements in terms of validity and reliability. According to (Sugiyono, 2019) "a research instrument can be said to be valid if the research instrument can be used to measure what should be measured". The high and low validity of the instrument indicates the extent to which the collected data does not deviate from the description of the variable in question (Arikunto, 2020). The testing tool used is Pearson's Product Moment correlation formula. Determination of correlation value (r)

To determine the correlation value, the following formula is used:

$$r_{xy} = \frac{N \sum_{h=1}^n X_{ih} Y_{ih} - \sum_{h=1}^n X_{ih} \sum_{h=1}^n Y_{ih}}{\sqrt{\left[ N \sum_{h=1}^n (X_{ih})^2 - \left( \sum_{h=1}^n X_{ih} \right)^2 \right] \left[ n \sum_{h=1}^n (Y_{ih})^2 - \left( \sum_{h=1}^n Y_{ih} \right)^2 \right]}}$$

1. Decision Rules

The calculated value is then compared with the rtable value with a certain  $\alpha$  level and free degree of  $n-2$ . The rules of the decision are as follows:

- a) If  $r_{calculate} > r_{table}$  then the measuring instrument used is valid.
- b) If  $r_{calculate} < r_{table}$  then the measuring instrument used is invalid.

To test the validity of each item, you can correlate the item's score with the total score. The item score is considered an X variable and the total score is considered a Y variable. By doing this, you can obtain a validity index for each item and find out which items do not meet the validity requirements. An item is said to be valid if the correlation value (r) between the item's score and the total score shows a significant coefficient. To determine significance, a rtable value is used, taking  $\alpha$  (significance level) of 0.05 and n (number of samples) of 42. The rtable value obtained is 0.304. If the calculated value (calculated correlation value) for an item is greater than the rtable value, then the correlation is considered significant and the item is declared valid. However, if the calculated value is smaller than the rtable value, then the correlation is considered insignificant and the item does not meet the validity requirements. By using SPSS version 27, the following results are obtained:

**Table 3 Process Automation Variable Validity Test Results (X)**

Items	R count	R table	Decision
1	0,669	0,304	Valid
2	0,708	0,304	Valid
3	0,635	0,304	Valid
4	0,835	0,304	Valid
5	0,672	0,304	Valid
6	0,753	0,304	Valid
7	0,752	0,304	Valid

The table above shows the validity test results for the process automation variable (X) consisting of 7 statement items, indicating that all statement items are valid (Iskandar, 2017).

**Table 4 Test Results of Validity of Work Effectiveness Variables (Y)**

Items	R count	R table	Decision
1	0,672	0,304	Valid
2	0,826	0,304	Valid
3	0,821	0,304	Valid
4	0,803	0,304	Valid
5	0,788	0,304	Valid
6	0,802	0,304	Valid
7	0,685	0,304	Valid

Source: SPSS data processing results



The table above shows the results of validity testing for the Work Effectiveness variable (Y) consisting of 7 statement items showing that all statement items are valid.

**Reliability Test**

Reliability tests are measured using Cronbach's Alpha ( $\alpha$ ) statistics, used to measure the internal reliability or consistency of a questionnaire or research instrument. To be considered reliable, Cronbach's Alpha value must be greater than 0.60. Cronbach's Alpha calculations can be performed using statistical software such as SPSS version 27.

**Table 5 Process Automation Variable Reliability Test Results (X)**

Cronbach's Alpha	N of Items	Decision
0,778	8	Reliable

*Source: SPSS data processing results*

The table above shows the results of validity testing for the process automation variable (X) and is declared reliable because it has an Alpha ( $\alpha$ ) of more than 0.60.

**Table 6 Work Effectiveness Variable Reliability Test Results (Y1)**

Cronbach's Alpha	N of Items	Decision
0,788	8	Reliable

*Source: SPSS data processing results*

**Normality Test**

A normality test is performed to evaluate whether the statistical residual distribution of the regression analysis has a normal tendency or not. In this study, the normality test was carried out using the Kolmogorov-Smirnov Test method. In the normality test, data is considered to have a normal distribution if the significance value of p (Asymp. Sig.) is greater than 0.05. The Normality Test is calculated with SPSS version 27 and the results can be seen in the following table:

**Table 7 Kolmogorov- Smirnov Test Results**

One-Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			42
Normal Parameters <sup>a,b</sup>	Mean		.0000000
	Std. Deviation		1.83164777
Most Extreme Differences	Absolute		.127
	Positive		.127
	Negative		-.062
Test Statistic			.127
Asymp. Sig. (2-tailed) <sup>c</sup>			.085
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.		.085
	99% Confidence Interval	Lower Bound	.078
		Upper Bound	.092

a. Test distribution is Normal.  
 b. Calculated from data.  
 c. Lilliefors Significance Correction.  
 d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Based on the table above, the significance value of p (Asymp. Sig.) is 0.085. Since the significance value of p (Asymp. Sig.) is greater than 0.05, it can be concluded that the residual from the regression estimate has a normal distribution. Therefore, it can be concluded that the residuals are normally distributed and the regression analysis satisfies the normality assumption.

In addition to using the Kolmogorov-Smirnov Test method, in this analysis, the normality test was also carried out using the SPSS program which produced a Normal P-P Plot graph. This graph shows the spread of dots representing residual data. When the spread of points on the graph is close to or adjacent to a diagonal straight line, it indicates that the residual data is normally distributed. However, if the spread of these points moves away from the diagonal line, this indicates that the residual data is not normally distributed.

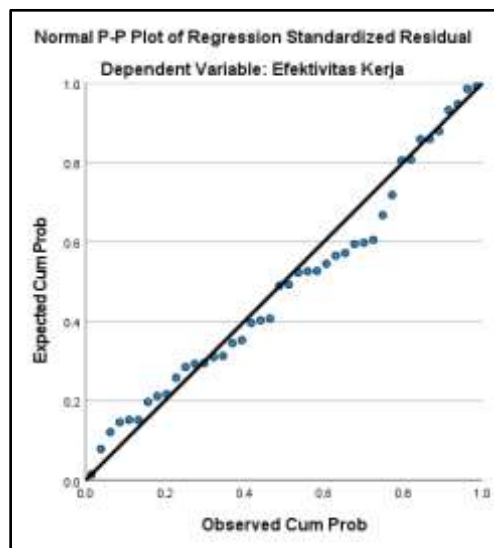


Figure 3 Result P Plot of Normality Test

Based on the Normal P-P Plot image above, it can be seen that the distribution of points is relatively close to a straight or diagonal line. This indicates that the residual data is normally distributed. These results are consistent with the classical assumptions of linear regression analysis which suggest that residuals should be normally distributed. Thus, based on the Normal P-P Plot image, it can be concluded that the residual data in this regression analysis satisfies the normality assumption. This gives researchers the confidence to continue linear regression analysis and interpret the results appropriately.

#### **Multicollinearity Test**

Multicollinearity occurs when there is a strong correlation between one or more independent variables that can be expressed as a linear combination of other independent variables. The multicollinearity test is used to identify whether there is a significant correlation between the independent variables used in the regression model. To detect multicollinearity in linear regression models, tolerance values and Variance Inflation Factor (VIF) for each independent variable can be used. From the calculation results using SPSS version 27, the following results were found:

**Table 8 Multicollinearity Test Results**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.480	2.343		1.058	.297		
	Otomatisasi Proses	.246	.107	.231	2.295	.027	.599	1.669

a. Dependent Variable: Efektivitas Kerja

Based on the table above, it is found that the VIF value in the Process Automation Variable has a VIF value of 1.669 and a tolerance value of 0.599

**Heteroscedasticity Test**

The Glejser test, also known as the residual regression test against the independent variable, is used to detect the presence of heteroscedasticity in regression models. This test procedure involves progressing the independent variable against the residual absolute value of the previously estimated regression model.

**Table 9 Heteroscedasticity Test Results**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.448	1.470		.984	.331
	Otomatisasi Proses	-.063	.067	-.196	-.938	.354

a. Dependent Variable: Abs\_Res

Based on the table, a significance value of more than 0.05 was found. By qualifying the classical assumption of linear regression, it can be said that the linear regression model presented has been free from heteroscedasticity. Thus, the model satisfies one of the important criteria in linear regression analysis.

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**Table 10 Multiple Regression Analysis Results**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.480	2.343		1.058	.297
	Otomatisasi Proses	.246	.107	.231	2.295	.027

a. Dependent Variable: Efektivitas Kerja

Based on the results of multiple regression, it was found that Process Automation has a positive effect on Work Effectiveness, every increase of 1 unit of Process Automation, then Work Effectiveness will increase by 0.246 units assuming other things are constant. Based on the results of the T test, it was found that Process Automation significantly affected the dependent variable of Work Effectiveness decisions.

Business process automation refers to the use of technology and software to automate tasks or processes that were previously done manually. The use of automation in business processes can provide a number of significant benefits and can increase work effectiveness. In the Semen Gresik Packaging Industry, almost the majority of the work

process is carried out automatically using the program. The program also integrates the entire process from initial input, process, to processing data, ERP also helps in terms of reporting by producing outputs that can be accounted for. This of course can help employees in their work, with the easier the employee process can save time and resources used. The process of sending information can also be directly integrated between units, so there is no need to print out data and send it to other work units.

This research proves that process automation with ERP has a significant effect on work effectiveness. These results are in accordance with the results of previous research conducted by (Ginting, 2016). (Ginting, 2016) examined "The Effect of Computerized Systems on the Work Effectiveness of Employees at the Medan City Population and Civil Registration Office" and found that there was a positive influence between the computerized systems on the effectiveness of employee work at the Medan City Population and Civil Registration Office. As the results of the study, research conducted by researchers also strengthens that process automation with ERP affects work effectiveness. According to (Sedarmayanti, 2018) that automation is a method of implementing procedures and work procedures automatically by utilizing machines or systems, with the aim of increasing the effectiveness and efficiency of office functions. Through automation, existing materials and resources can be utilized optimally. With automation, work processes in the office become easier and more efficient because they are carried out with the help of clear machines or systems.

Based on the results of the coefficient ( $R^2$ ) it was found that ( $R^2$ ) adjusted showed a number of 0.75 which means that Work Effectiveness is influenced by Process Automation by 75% while the rest is influenced by external factors. And also based on Test F it was also found that the effect was significant.

## **Conclusion**

Referring to the results and discussion in chapter 4, it is concluded that based on research that has been conducted to determine the Effect of Process Automation on the effectiveness of employee work at PT. Semen Gresik Packaging Industry, that H1 is accepted which means that there is an influence of process automation factors on the effectiveness of employee work at PT. IKSG"

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