# An Effect of Time Management, Supervision, and Work Facilities on Employee Work Effectiveness at PT. Mekar Karya Mas

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## Abstract

*This study aims to determine the time management, supervision, and work facilities on the work effectiveness of employees at PT. Mekar Karya Mas. This study is a quantitative descriptive study with a sample of 35 respondents, while the sampling technique used in this study is census sampling. In this study, the independent variable consists of the influence of time management, supervision, and work facilities, while the dependent variable is work effectiveness. Testing the instrument using validity and reliability tests, while the data analysis method uses multiple linear regression analysis, t-test, f test, and R2 with the help of Statistical Product and Service Solution (SPSS) version 22. The results of the study of the independent time management variable (X1) obtained t-count - 2,790 > t-table 1,696, supervision variable (X2) t-count 1,976 > t-table 1,696, work facilities variable (X3) t-count 3,620 > t-table 1,696. Then the time management variable (X1) has a partial negative effect on work effectiveness (Y), the supervision variable (X2) has a partially positive effect on work effectiveness (Y), and the work facilities variable (X3) has a partial effect on work effectiveness. The results of the f test show that f-count 6.816 > f-table 2.91, while the significance is 0.001 < alpha at a significant level of 0.05, which means that the independent variables (time management, supervision, and work facilities) simultaneously or simultaneously affect the dependent variable (effectiveness) work) positively and significantly.*

## I. Introduction

PT. Mekar Karya Mas is a contracting company engaged in engineering, construction, and factory and industrial planning. PT. Mekar Karya Mas was founded in February 2004 with a strong foundation where this company recruits workers who have experience in engineering and construction in various projects. PT. Mekar Karya Mas has a commitment and orientation to do things with high quality and economical prices in the field of Construction and Manufacturing of Palm Oil Mills. AchiSeving company goals is very important in increasing work effectiveness within a company. Thus, in improving work effectiveness, the company can realize or regulate various matters regarding time management, supervision, and work facilities.

Based on the initial research that researchers observed in the company PT. Mekar Karya Mas has 65 employees, which are divided into two parts, namely permanent employees who work in the office and daily employees who work in the field for a certain period.

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This study focuses on daily employees (workers). The daily work is the trigger in this problem because the problem regarding the effectiveness of the employee's work is still lacking in adapting such as managing the time management of each worker. The problem in time management is that there are still many who are not punctual in managing time management such as being late for work which can affect the process of completing work. In this case, the leadership will give consequences in the form of salary cuts for each daily worker, so that workers always maintain their time management.

The second problem is regarding supervision, where the supervision provided by workers is still very less supervising workers at work. So, the leadership does not directly supervise the workers. So that the work process often gets into trouble and hinders the work of the workers. Other problems regarding facilities.

Facilities at PT. Mekar Karya Mas is still inadequate in their work because the tools used by workers are not complete. Thus, it can affect the completion of work with the lack of available facilities making employees less enthusiastic about their performance. Other conditions and situations regarding facility problems are that workers always take out goods and put them in any place and the lack of space for the finished product area causes the company to incur excessive costs. These problems must be considered again on the company's side so that the effectiveness of employee work can be optimal. From the research problem, this research formulates the problem as follows:

1. Does time management partially have a positive and significant effect on the work effectiveness of employees at PT. Mekar Karya Mas?
2. Does partial supervision have a positive and significant effect on the work effectiveness of employees at PT. Mekar Karya Mas?
3. Does the work facilities partially have a positive and significant effect on the work effectiveness of employees at PT. Mekar Karya Mas?
4. Does time management, supervision, and work facilities simultaneously have a positive and significant effect on the work effectiveness of employees at PT. Mekar Karya Mas?

## II. Review of Literature

### 2.1 Employee Work Effectiveness

According to Zulyanti (in Resi Yudhaningsih 2011:41), effectiveness is the ability to choose the right goals or equipment to achieve the goals that have been set in the organization. According to Beni (2016: 69), Effectiveness is the relationship between output and goals or it can also be said to be a measure of how far the level of output, policies, and procedures of the organization. Effectiveness is also related to the degree of success of an operation in the public sector so that an activity is said to be effective if the activity has a major influence on the ability to provide public services which is a predetermined target (Al Ahbabi et al:121)

According to Zulyanti (in Resi Yudhaningsih 2011:41) indicators measuring work effectiveness include:

1. Ability to Adapt
   Human abilities are limited in all respects so with their limitations, humans cannot achieve the fulfillment of their needs without cooperation with other people.
2. Work Performance
   Work performance is work achieved by a person in carrying out the tasks assigned to him based on skills, experience, sincerity, and time.

3. Job Satisfaction.

Job satisfaction is an emotional attitude that is pleasant and loves his job. In another opinion, job satisfaction is the level of pleasure that a person feels for his role or work in a job.

## 2.2 Time Management

Jones and Bartlett cited (Meilistika 2011:29) mean that time management is the ability to prioritize, schedule, and carry out responsibilities. Akram (2010: 19) defines time management as taking advantage of the time you have to do things that are considered important that have been recorded in the work table.

According to Barinua & Deinma (2022:15) said that time management is planning, organizing, mobilizing, and monitoring time productivity. Time is one of the performance resources. Resources must be managed so that a task can be done effectively and efficiently. Another opinion from Barinua & Deinma (2022:15) says that time management is the ability to prioritize, schedule, and carry out individual responsibilities for the satisfaction of the individual.

According to Madura as quoted by Meilistika 2011:27, time management is divided into five indicators, namely:

1. Setting Goals

   Setting goals, namely the ability to set the objectives of the activity. This ability is in the form of activities, for example setting and reviewing long-term and short-term goals.

2. Prioritize correctly

   Tasks have different features of importance or urgency. Therefore, in its implementation, priorities must be determined among various jobs.

3. Make a Schedule.

This ability is in the form of activities related to time management, namely making a list of things to do, allocating the time needed, planning rest periods, using an agenda book, or other means of reminder.

4. Minimizing Distractions.

Almost everyone faces interference in carrying out their activities. Some issues require immediate attention, but others can be put on hold. One should stay focused on the work at hand and avoid unexpected distractions.

5. Delegate tasks.

Giving responsibility to colleagues to carry out a task or obligation that is part of the individual's responsibility. One person authorizes another person to make decisions and take the necessary actions to complete the task.

## 2.3 Work Facilities

Work facilities are factors that cannot be separated from the world of work and are the most important thing for employees to complete their tasks. The availability of facilities in the form of complete work support facilities and infrastructure will encourage employees to increase their productivity. The implication that arises from these conditions is that employee performance will be more optimal and the goals of the organization can be achieved effectively and efficiently.

Facilities are one of the tools used by employees to facilitate the completion of daily work. Facilities at each company will be different in form and type, depending on the type of business and the size of the company. According to Tjiptono (2014: 318) there are six facility indicators, namely:

1. Spatial considerations/planning
2. Room planning
3. Equipment/Furniture
4. Lighting and color
5. Messages delivered graphically
6. Supporting elements

## 2.4 Work Effectiveness

According to Mahmusi (2010: 143) effectiveness is the relationship between output and goals or objectives to be achieved. It is said to be effective if the activity process achieves the goals and final targets of the policy, while according to Fajar, the effectiveness of regional levies is a comparison between the realization and target of receiving regional levies, so that it can be used as a measure of success in collecting levies.

According to Schein in the book Organizational Culture and Corporate Performance Improvement (2010: 129) defines organizational effectiveness as the ability to survive, adapt and grow, regardless of certain functions it has. Etzioni in a book by Syamsir Torang (2012: 102) describes that organizational effectiveness is the organization's ability to achieve goals.

According to Zulyanti (in Resi Yudhaningsih (2011:41) indicators measuring work effectiveness include:
1. Ability to Adapt.
   Human abilities are limited in all respects, so that with their limitations, humans cannot achieve the fulfillment of their needs without cooperation with other people.
2. Work Performance.
   Work performance is a work achieved by a person in carrying out the tasks assigned to him based on skills, experience, sincerity and time.
3. Job Satisfaction.
   Job satisfaction is an emotional attitude that is pleasant and loves his job. Another opinion, job satisfaction is the level of pleasure that a person feels for his role or work in a job.

## 2.5 Conceptual Framework

The following describes the conceptual framework of this research, there are three variables, namely Time Management (X1), Supervision (X2), Work Facilities (X3), and Work Effectiveness (Y) are the dependent variable.
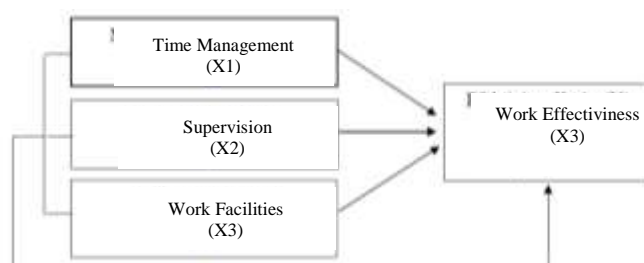


***Figure 1.*** *Conceptual Framework*

The hypothesis in this study is as follows:
1. Time management partially has a positive and significant effect on the work effectiveness of employees at PT. Mekar Karya Mas.
2. Supervision partially has a positive and significant effect on the work effectiveness of employees at PT. Mekar Karya Mas.
3. Work facilities partially have a positive and significant effect on the work effectiveness of employees at PT.Mekar Karya Mas.
4. Time management, supervision and work facilities simultaneously have a positive and significant effect on the work effectiveness of PT. Mekar Karya Mas.

## III. Research Method

The type of research used in this research is quantitative research with a descriptive approach. Quantitative research method is one type of research whose specifications are systematic, well-planned and clearly structured from the beginning to the making of the research design. This research was conducted at PT. Mekar Karya Mas, Jl. Orde Baru No. 15, Km 12,5 Diski Sunggal Sumatera Utara 20351.

The population in this study were all daily employees at PT. Mekar Karya Mas as many as 35 people. Due to the population in this study there are two parts whose number is under 100, the sampling technique in this study uses a census sample. The census sample is shown when the population is small and all of them are sampled. So the sample of this research data is 35 respondents/person. In this study the data can be obtained through interviews, observation and distributing questionnaires to respondents.

Data collection techniques in this study were carried out using several techniques, among others. (1) Observation by direct observation of the object of research. (2) List of questions (Questionnaire), where the respondent chooses one of the answers that have been provided in the list of questions. Validity and reliability tests were conducted to test whether a questionnaire was appropriate to be used as a research instrument using SPSS. This test is carried out to test the quality of the data so that the validity of the data is known and to avoid estimation bias. This classical assumption test uses four tests, namely normality test, multicollinearity test, test heteroscedasticity, and autocorrelation test. Multiple regression analysis was used to determine the effect of time management, supervision and work facilities on the work effectiveness of employees at PT. Mekar Karya Mas. The regression equation according to Sugiyono (2016: 122), namely:

$$Y = a + b1X1 + b2X2 + b3X3 + e$$

Where:
Y = Dependent variable (Work Effectiveness)
X1 = Independent Variable (Time Management)
X2 = Independent Variable (Supervision)
X3 = Independent Variable (Work Facilities)
a = Constant
b1..b3 = Regression Coefficient
e = Standard error 0.05 (5%)

In testing the hypothesis, among others, the F test, the aim is to test whether the independent variable simultaneously affects the dependent variable, with a 95% confidence level ($\alpha = 0.05$). In addition, the t statistical test is used to test the partial effect of the

independent variable on the dependent variable with the assumption that other variables are considered constant, with a 95% confidence level ($\alpha = 0.05$). The coefficient of determination (R2) in this test is used to measure the closeness of the relationship between the models used. The coefficient of loss (adjusted R2) is a number that shows the amount of variance or distribution of the independent variable that describes the dependent variable or a number that shows how much the dependent variable is affected by the independent variable.

# IV. Results and Discussion

## 4.1 PT. Mekar Karya Mas

Development is a change towards improvement (Shah et al, 2020). PT. Mekar Karya Mas is the development of CV. Olah Baja where the address and personnel are the same as CV personnel. The old steelwork was added with new personnel recruited from experienced personnel. CV. Olah Baja is a contractor that focuses on mechanical work, especially in the manufacturing and installation, structure and components of Palm Oil Mills (PMKS). CV. Steel processing has been known in several Palm Oil Mills in Sumatra, Kalimantan, Sulawesi and Irian Jaya. So hopefully in the future PT. Mekar Karya Mas can become a company that is known for its quality with good human resources (HR).

PT. Mekar Karya Mas has a commitment and orientation to work with high quality and economical prices in the Construction and Manufacturing of Palm Oil Mills.

## 4.2 Validity and Reliability Test

Validity test is used to see whether or not each instrument is valid in time management variables (X1), supervision (X2), work facilities (X3) and work effectiveness (Y) on employees at PT. Mekar Karya Mas (MKM). The results of the calculation of the validity for the research variables all statements are feasible to use because they have a correlation value greater than r table of 0.30 so that the instrument used is feasible for further analysis.

**Table 1.** Reliabilitas Data Variabel Reasearch

| Variabel | Cronbach Alpha | Result |
|---|---|---|
| Time Management (X1) | 0.777 | Reliabel |
| Supervision (X2) | 0.793 | Reliabel |
| Work Facilities (X3) | 0.781 | Reliabel |
| work effectiveness (Y) | 0.802 | Reliabel |

Based on the results of the reliability test, it can be concluded that all variables used in this study are reliable, this is because the Cronbach's Alpha coefficient is above 0.7

## 4.3 Normality Test

Normality test using Kolmogorov-Smirnov test. Normality test results with graphs sometimes differ from statistical test results, which can be seen in table 4.2 below:

**Table 2.** Kolmogorov-Smirnov Test

| One-Sample Kolmogorov-Smirnov Test | | Unstandardized Residual |
|---|---|---|
| N | | 35 |
| Normal Parameters[a,b] | Mean | .0000000 |
| | Std. Deviation | 5.17921449 |
| | Absolute | .115 |
| Most Extreme Differences | | |
| | Positive | .104 |
| | Negative | -.115 |
| Test Statistic | | .115 |
| Asymp. Sig. (2-tailed) | | .200[c,d] |

a. Test distribution is Normal.

Based on Table 2 above, the results of the normality test are known to have a significance value of 0.200 > 0.05. So it can be concluded that the residual value is normally distributed.

## 4.4 Multicollinearity Test

To find out whether there is multicollinearity in the variables, it can be seen from the VIF (Variance Inflated Factor) value if the VIF value is > 10 then it can be said that there are symptoms of multicollinearity.

**Table 3.** Multicollinearity Test

| Model | Collinearity Statistics | |
|---|---|---|
| | Tolerance | VIF |
| Time Management | .797 | 1.254 |
| Supervision | .832 | 1.202 |
| Work Facilities | .888 | 1.126 |

a. Dependent Variable: Work Effectiveness

The multicollinearity test can be said to be multicollinear, because the VIF value is < 10. Among other things, time management (X1) is 1,254, supervision (X2) is 1,202, work facilities (X3) is 1,126. so it can be concluded that the data in this study does not occur multicollinearity because the VIF value is less than 10 so it can be stated that the model does not experience symptoms of multicollinearity

## 4.5 Multiple Regression

It can be seen in the table on the multiple linear regression equation model in this study, namely.

**Table 4.** Multiple Regression
**Coefficientsa**

| Model | Unstandardized Coefficients | | Standardized Coefficients | |
|---|---|---|---|---|
| | B | Std. Error | Beta | Sig. |
| 1 (Constant) | 10.403 | 4.634 | | .032 |
| Time Management | -.273 | .098 | -.436 | .009 |
| Supervision | .246 | .124 | .302 | .057 |
| Work Facilities | .360 | .099 | .536 | .001 |

a. Dependent Variable: Work Effectiveness

$$Y = 10.403 + -0{,}273X1 + 0{,}246X2 + 0{,}360X3 + e$$

The meaning of the regression equation above is:
a. If everything on the independent variables is considered zero, then the value of Work Effectiveness (Y) is 10,403
b. If there is an increase in Time Management 1, then Work Effectiveness (Y) will increase by -0.273
c. If there is an increase in Supervision 1, then Work Effectiveness (Y) will increase by 0.246
d. If there is an increase in Work Facility 1, then Work Effectiveness (Y) will increase by 0.360

## 4.6 Coefficient of Determination Test (R2)

The coefficient of determination test aims to examine the effect of the independent variable (time management, supervision and work facilities) on the dependent variable (work effectiveness). If the determination ($R^2$) is greater or closer to one, it can be said that the independent variable has a greater influence on the dependent variable

**Table 5.** Detrerminasi ($R^2$)
**Model Determination Coefficient Summaryb**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .630a | .397 | .339 | 5.424 |

a. Predictors: (Constant), Work Facilities, Supervision, Time Management
b. Dependent Variable: Work Effectiveness

The table above can be seen that the number of Adjusted R Square 0.339 work effectiveness can be obtained and explained by time management, supervision and work facilities. While the rest (100% - 33.9% = 66.1%) is explained by other variables outside the variables studied in this study.

**4.8 Hypothesis Test**
**a. Partial Test Results (t Test)**

**Table 6.** t Test

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 10.403 | 4.634 | | 2.245 | .032 |
| Time Management | -.273 | .098 | -.436 | -2.790 | .009 |
| Supervision | .246 | .124 | .302 | 1.976 | .057 |
| Work Facilities | .360 | .099 | .536 | 3.620 | .001 |

Based on Table 6 above, it can be explained as follows:

1. Time Management on Work Effectiveness.
   The time management variable (X1) has a significance value of 0.009, this means that H0 is rejected because the significance value is <0.05 and H1 is accepted, besides that it has a t statistic of -2790 > 1.696 (t table), so it can be said that the time management variable significantly affects the time management variable. work effectiveness (Y).
2. Supervision of Work Effectiveness
   The supervision variable (X2) has a significance value of 0.057, this means that H0 is accepted because the significance value is > 0.05 and H1 is rejected, besides having a t statistic of 1.976 > 1.969 (t table), so it can be said that the supervision variable significantly affects the work effectiveness variable ( Y)
3. Work Facilities on Work Effectiveness
   The working facility variable (X3) has a significance value of 0.001 this means that H0 is rejected because the significance value is < 0.05 and H1 is accepted, besides that it has a t statistic of 3.620 > 1.696 (t table), so it can be said that the work facilities variable significantly affects the effectiveness variable (Y).

**b. F Test (Simultan Test)**
In table 7 (f-test results) can be seen in table:

**Table 7.** F-Test
**ANOVA^a**

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| 1 Regression | 601.575 | 3 | 200.525 | 6.816 | .001[b] |
| Residual | 912.025 | 31 | 29.420 | | |
| Total | 1513.600 | 34 | | | |

a. Dependent Variable: Work Effectiveness

The following is a discussion of the results of the F test as follows:

The F-test is used to determine the effect of the independent variables (time management, supervision, and work facilities) simultaneously on the dependent variable (work effectiveness), namely by comparing Fcount to Ftable with decision making criteria if Fcount > Ftable then H0 is rejected and H1 is accepted. . In Table 4.9 above, the value of Fcount = 6.816 > Ftable = 2.91. Thus, simultaneously the variables of time management, supervision and work facilities have a significant effect on work effectiveness.

## V. Conclusion

The following are the conclusions of this research:

1. There is a negative and significant effect between time management on the work effectiveness of employees at PT. Mekar Karya Mas. This is based on the results of hypothesis testing obtained where the value of tcount is greater than the value of ttable (-2.790 > 1.696) and a significant value of 0.009 which is smaller than 0.05, thus the hypothesis is accepted. The results showed that time management at PT. MKM is a problem factor for the effectiveness of employees' work, so that employees at PT. MKM must be able to manage his personality well so as not to interfere with his work in the company.

2. There is a positive influence between supervision on the work effectiveness of employees at PT. Mekar Karya Mas. This is based on the results of hypothesis testing obtained where the value of tcount is greater than the value of ttable (1.976 > 1.696) and a significant value of 0.057 which is greater than 0.05, thus the hypothesis is accepted. The results show that if the supervision is not optimal, the company needs to improve employee supervision so that the results of employee work effectiveness can be more optimal.

3. There is a positive and significant influence between work facilities on the work effectiveness of employees at PT. Mekar Karya Mas. This is based on the results of hypothesis testing where the value of tcount is greater than the value of ttable (3,620 > 1,696) and a significant value of 0.001 which is smaller than 0.05, thus the hypothesis is accepted. The results of the study show that if the availability of complete work support facilities and infrastructure, employees will be encouraged to improve their work effectiveness.

4. Time management, supervision and work facilities simultaneously have a significant effect on the work effectiveness of employees at PT. Mekar Karya Mas. With an Fcount of 6.816 while Ftable of 2.91. Based on these conclusions, it can be concluded that in an effort to increase the effectiveness of employees' work, it is necessary to evaluate the factors that support the effectiveness, namely by implementing effective management towards improving time management, supervision and also work facilities. If the third variable decreases, it can have an impact on decreasing employee work effectiveness.

# References

Al Ahbabi, S. A., Singh, S. K., Balasubramanian, S., & Gaur, S. S. (2018). Employee perception of impact of knowledge management processes on public sector performance. Journal of knowledge management.

Alfabeta Bandung.

Barinua, V., & Deinma, E. 2022. Time Management and Employee Engagement. BW Academic Journal, 15-15.

Dewi, Irra. 2011. Manajemen Kesektariatan. Jakarta: Prestasi Pustaka Raya.

Mahmusi, 2010. Manajemen Kinerja Sektor Publik, UPP STIM YKPN, Yogyakarta.

Meilistika, Hajar Wahyu. 2011. Hubungan Manajemen Waktu dengan Prokastinasi Akademik Pada Mahasiswa Yang Bekerja (Studi pada mahasiswa Semester Akhir Jurusan Psikologi Unnes). SkripsI

Resi, Yudhaningsih. (2011). Peningkatan Efektivitas Kerja Melalui Komitmen, Perubahan Dan Budaya Organisasi. Jurnal Pengembangan Humaniora, 11(1), 40-50

Schein, Edgar H. 2010. Organizational Culture and Leadership. Fourth Edition. Jossey-Bass. A Wiley Imprint, Market Street. San Fransisco CA.

Shah, M. M., et al. (2020). The Development Impact of PT. Medco E & P Malaka on Economic Aspects in East Aceh Regency. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Volume 3, No 1, Page: 276-286.

Sugiyono. (2016). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung: PT Alfabet.

Syamsir Torang. 2012. Metode Riset Struktur dan Perilaku Organisasi.

Tjiptono, Fandy. 2014, Pemasaran Jasa – Prinsip, dan Penelitian, Andi Offset, Yogyakarta.

Yudhaningsih, Resi. 2011. Peningkatan Efektivitas Kerja Melalui Komitmen,. Perubahan dan Budaya Organisasi", Jurnal Pengembangan Humaniora,. Vol.11 No.1