

## **THE INFLUENCE OF TIME MOTION STUDY IMPLEMENTATION ON THE DETERMINATION OF PRODUCTION NET PRICE (A CASE STUDY OF WOODEN FURNITURE MANUFACTURER IN PRODUCTION DEPARTMENT OF PT.CEGE ONE SEMARANG)**

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### **Abstract**

Production net price of manufacturing product determination is affected by many factors. This research analyzes the influence of Time Motion Study implementation on the determination of production net price in production department of PT. CEGE ONE Semarang. SEM (Structural Equation Model) is used in analyzing this research. Technique of collecting data in this research is interview, observation, and documentary study. The primary data used in this research is the output of Time Motion Study implementation, whereas the secondary data used in this research is material cost, labor cost, overhead cost, and production net price of wooden furniture products. The amount of sample is 101 units of wooden furniture product which are tagged with Time Motion Study label. The result analysis which is carried out by AMOS shows Time Motion Study implementation is more influential on Labor Cost. Furthermore, Material Cost is more influential on Production Net Price Determination. Moreover, Time Motion Study implementation effectively and efficiently affects Production Net Price Determination by 49,2%.

**Keywords:** time motion study, material cost, labor cost, overhead cost, production net price.

## Introduction

Business sectors develop into an international standardized business regarding to the development of world economy nowadays. Moreover, the business sectors of industry especially manufacturing industry show a very significant development. Indeed wooden furniture manufacturing is one of developing industries in the world. Wooden furniture manufacturing is a processing activity of wooden raw material into semi-finished goods of furniture and finished goods of furniture. The production process of modern wooden furniture manufacturing is supported by international standardized operational procedures include material, machines, and labor. The demand of wooden furniture manufacturing products is increasing today. Both high quality and competitive prices have been known to be the factors of the demand of furniture manufacturing products. It is clear that Indonesia is one of the largest wooden furniture exporting countries in the world. Indonesian wooden furniture manufacturing has been growing the last few years. On the contrary the demand of Indonesian wooden furniture manufacturing products is decreasing today. PT. CEGE ONE is one of wooden furniture manufacturers in Indonesia. The company is located in Semarang, Central Java. They are focused on the production of wooden raw material into semi-finished goods of furniture. The demands of wooden furniture products in PT. CEGE ONE are fluctuate for the recent years. The fluctuating demands of the company's products are caused by many factors. Some factors affecting the fluctuating demands of the company are the market trend, the economic conditions of importer countries, and the increasing of products' price year by year. In order to determine competitive product prices for the international market, the company has to set proper production cost. The factors of production in PT. CEGE ONE, for example: material cost, labor cost, and operational cost have to be well prepared for those factors affecting the determination of production net

price of the products. The company is implementing a program to their production department. The program is called Time Motion Study, it concerns about observing the production processes. The results of this program is time standard for operation. Some of production factors, for instance material cost, labor cost, and overhead cost directly affecting production net price determination can be identified through Time Motion Study resulting in time standard for operation.

## Theory Frame Work

### Operations and Production Management

Definition of operations and production management based on Kumar and Suresh (2008:14) is as follows: Production/operation management is the process, which combines and transforms various resources used in the production/operations subsystem of the organization into value added products/services into controlled manner as per the policies of the organization. Therefore, it is that part of an organization, which is concerned with the transformation of a range of inputs into the required (products/services) having the requisite quality level. The set of interrelated management activities, which are involved in manufacturing certain products, is called as production management. If the same process is extended with to services management, then the corresponding set of management activities is called as operation management.

### Concept of Operations and Production Management

Operations and production management has two different concepts but related from one to another between operations management and production management. Based on Kumar and Suresh (2008:7), "Production management is a process of planning, organizing, directing, and controlling the activities of the production function." All the same way, E.S. Buffa in Kumar and Suresh (2008:7) has defined production management as, Production management deals with the

decision making related to the production processes so that the resulting goods or services are produced according to specifications, in the amount and by the

schedule demanded and out of minimum cost. Operations management can be described by understanding Figure1.

Figure1 GeneralModelOf OperationsManagement



Source: Kumar and Suresh. Production and Operation Management (With Skill Development, Caselets and Cases). 2008

Figure 1 explains about general model of operations management. In managing operations, operation managers are concerned with planning, organizing, and controlling the activities which affect human behavior through models.

Objective of Operations and Production Management Kumar and Suresh (2008:7,11) have defined the objective of operations and production management separately between operations management and production management. The objective of production management is to produce goods or services of right quality and quantity at the right time and right manufacturing cost. While the objective of operations management can be categorized into customer service and resource utilization. Customer service related to the satisfaction of customer wants. On the other hand, resource utilization related to the utilization of resource for the customer wants effectively. Scope of Operations and Production Management There are following activities which are listed under operations and production management based on Kumar and Suresh (2008:13), they are:

1. Location of facilities
2. Plant layouts and material handling
3. Product design

4. Process design
5. Production and planning control
6. Quality control
7. Materials management
8. Maintenance management

The primary concern of operation and production management is producing qualified goods or services with proper production cost to obtain high profit to the organization.

#### Cost Classification Technique

Mulyadi (2009:13) has classified cost in various ways. Generally, cost classification is determined by the achieved objectives of the classification. Cost can be classified by:

1. Object of expenditures
2. The main function to the company  
There are three main functions in manufacturing companies, that are: production function, marketing function, and administration and general function. Therefore, in the manufacturing companies, cost can be classified into three groups, such as:
  - a. Production cost
  - b. Marketing cost
  - c. Administration and general cost

### 3. Relationship between cost and something financed

In relation with something financed, cost is classified as follows:

- a. Direct cost
- b. Indirect cost

### 4. Cost behavior in relation to activity volume changes

In relation to activity volume changes, cost is classified into:

- a. Variable cost
- b. Semi variable cost
- c. Semi fixed cost
- d. Fixed cost

### 5. Duration of advantages

In accordance with the duration of advantages, cost can be classified into two types, they are:

- a. Capital expenditures
- b. Revenue expenditure

### Production Cost

Production cost is incurred cost to process raw materials into finished goods or services which ready to sale, for instance: machine and equipment depreciation cost, material cost, auxiliary material cost, labor cost (Mulyadi, 2009). Based on the object of expenditures, production cost is classified as follows:

- a. Material cost
- b. Direct labor cost
- c. Overhead cost

### Method of Production Cost Determination

According to Mulyadi (2009:17) method of production cost determination is a method of cost elements calculation within production cost. There are two approaches of production cost determination method, namely:

1. Full costing
2. Variable costing

### Production Net Price

Dewi and Kristanto (2013:13) have defined the definition of production net price as cost

of purchased goods which are going to be processed till the end of the production process, whether before or during the accounting period occur. Production net price is sum of all the sacrifice of economic resources used to transform raw material into product. Hence, production net price can be used to set up a proper sale net price to the costumers according to incurred production expenses (Secondary data, 2017). Concept of Production Net Price Cost including in production net price is inventory cost. Inventory cost is all the costs of product regarded as assets in company's balance while occurring then become sale net price when the product is sold. Production net price includes every production cost which incurred by processing the sold products.

Production cost including production net price are categorized into three categories, namely:

#### 1. Material Cost

Material cost is cost of raw materials acquirement which in the end becomes part of cost objects (goods in the process become finished goods) and can be traced to cost objects in an economical ways (Dewi and Kristanto, 2013).

#### 2. Direct Labor Cost

Direct labor cost refers to cost paid to the direct labors who directly participated in the production process. Direct labor cost includes the compensations of manufacturing labors which can be traced to cost objects in an economical ways (Dewi and Kristanto, 2013).

#### 3. Overhead Cost

Overhead cost is cost related to cost object but can not be traced to cost object in an economical ways (Dewi and Kristanto, 2013). Examples of overhead cost are as follows:

- a. Indirect Labor Cost
- b. Auxiliary Raw Materials Cost
- c. Machine Repairation and Maintenance Cost
- d. Factory Building Maintenance Cost
- e. Machine Depreciation Cost

### Production Net Price Calculation

Production net price is determined by summing up the material cost, direct labor cost, and overhead cost. Those costs

constitute a significant part of the total production cost. The formula of Production Net Price Calculation is as follows:

$$\text{Production Net Price} = \text{Material Cost} + \text{Direct Labor Cost} + \text{Overhead Cost}$$

### Time Motion Study

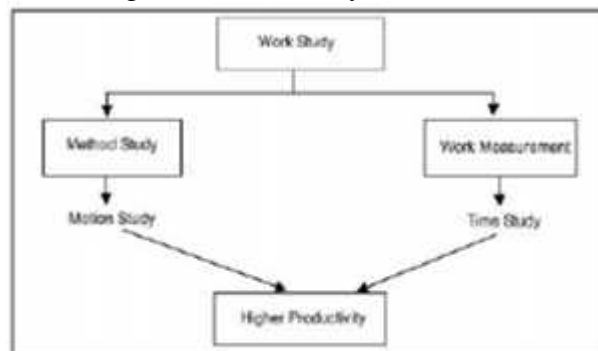
According to British Standard Institute in Kumar and Suresh (2008:193) Time Study has been defined as “The application of techniques designed to establish the time for a qualified worker to carry out a specified job at a defined level of performance.” Chary (2005:15.6) stated that Time Study is a method accomplished to set the standard time for the work. The decision result of Time Study is standard time for operation, it is the period in which a person in accordance with a job or task and fully trained to use specific method, will perform this task if the worker in the normal or expert. Based

on Kumar and Suresh (2008:190) Motion Study is a part of method study where analysis of the motion of an operator or worker will be studied by following the prescribed methods. The principle of Motion Study explored in this research is design of tools and equipment.

### Concept of Time Motion Study

The purpose of Work-study is to identify the most effective means of achieving necessary functions. Work-study aims at improving the existing and proposed ways of doing work and establishing standard time for work performance.

Figure 2 Work-Study frame work



Source: Kumar and Suresh. Production and Operation Management (With Skill Development, Caselets and Cases). 2008

Figure 2 shows that Work-study is encompassed by two techniques, they are:

#### 1. Method Study

Method study is the systematic recording and critical examination of existing and proposed ways of doing work, as a means of developing and applying easier and more effective methods and reducing

cost. Method Study can be done by using Motion Study.

#### 2. Work Measurement

Work measurement is the application or technique designed to establish the time for a qualified worker to carry out a specified job at a defined level of performance. Work Measurement can be done by using Time Study.

There is a close link between method study and work measurement. Method Study is concerned about the work content reduction and establishing the best way of doing the job, whereas Work Measurement is concerned about investigation and reduction of any ineffective time associated with the job and establishing time standards for an operation carried out as per the standard method. Method Study and Work Measurement are part of Work-study. Part of Method Study is Motion Study, while Work Measurement is also called by the name of Time Study.

#### The Advantage of Time Motion Study

Kumar and Suresh (2008:179) have defined the advantages of Time Motion Study such as:

1. Helping to achieve the smooth production flow with minimum interruptions.
2. Helping to reduce the cost of the product by eliminating waste and unnecessary operations.
3. Relating better worker-management relations.
4. Meeting the delivery commitment.
5. Reduction in rejections and scrap and high
3. User utilization of resources of the organization.
6. Helping to achieve better working conditions.
7. Relating better workplace layout.
8. Improving upon the existing process or methods and helps in standardization and simplification.

9. Helping to establish the standard time for an operation or job which has got application in manpower planning, production planning.

#### Objective of Time Motion

Study Kumar and Suresh (2008:180,192) stated that there are objectives which are achieved with Time Motion Study implementation that are:

1. To present and analyze true facts concerning the situation.
2. To examine those facts critically.
3. To develop the best answer possible under given circumstance based on critical examination of facts.
4. To compare alternative methods.
5. To assess the correct initial manning (man power requirement planning).
6. To plane and control.
7. To determine realistic costing.
8. To determine financial incentive schemes.
9. To determine delivery date of goods.
10. To determine cost reduction and cost control.
11. To identify sub standard workers.
12. To train new employees.

#### Time Motion Study Implementation Steps

According to Kumar and Suresh (2008:181) steps in implementing Time Motion Study are shown in Figure 3

Figure3 Step in implementing time Motion study



Source: Kumar and Suresh. Production and Operation Management (With Skill Development, Caselets and Cases). 2008

### Relationship Between Time Motion Study and Production Net Price

Time Motion Study is part of Method Study and Work Measurement belonging to Work-study. Work-study is a method to prescribe the most effective ways to enhance productivity by reducing ineffective time associated with the job, improving the existing and proposed ways of doing work, and establishing standard time for work performance. Kumar and Suresh (2008:179) have defined the advantages of Time Motion Study, one of the advantages of Time Motion Study is helping to reduce the cost of the product by eliminating waste and unnecessary operations. Therefore, by implementing Time Motion Study, cost of the product can be reduced. It is used to determine production net price and sale net price. The elements of cost of the product used to determine production net price are material cost, labor cost, and overhead cost. Material cost, labor cost, and overhead cost are directly and indirectly influenced by Time Motion Study

implementation. Waste and unnecessary operations on production process will be eliminated by implementing Time Motion Study. Thus, production process will be done properly at the right time, right material, and right method. Thereby, high to low production net price is affected by the implementation of Time Motion Study.

### Research method

#### Data Characteristic

Data can be classified into quantitative and qualitative data according to their characteristic. The types of data used in this research are:

#### a. Quantitative Data

The quantitative data of this research is the output of Time Motion Study implementation, material cost, labor cost, overhead cost, and production net price.

#### b. Qualitative Data

In this research, the qualitative data is company profile, the history of the

company, and organization structure of the company.

Data Source

According to the source, data can be classified as primary and secondary data. The used data in this research were taken from primary and secondary data.

a. Primary Data

In this research, the researcher directly conducts the implementation of Time Motion Study in production department of PT. CEGE ONE and observes other relevant data published by the company that is: the output of Time Motion Study implementation.

b. Secondary Data

Secondary data are data published or used by other organization. The references used in the research are explored from specific sources such as company's published data, they are: data of the details of the product, data of the demand of the product, and data of production costs (i.e. material cost, labor cost, and overhead cost); books; electronic books; articles; website; and journals.

Technique of Collecting Data

Data collecting technique of this research is as follows:

a. Interview

To find out the influence of Time Motion Study implementation in production department to the determination of production net price and all information about support data, the interview is conducted to some employees in PT. CEGE ONE such as company supervisor of internship program, head of departments and sub-departments, and group leaders.

b. Observation

In conducting this research, direct observation in PT. CEGE ONE is applied by watching the production process.

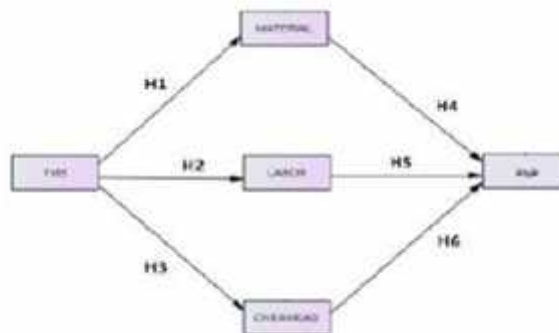
c. Documentary Study

Documentation study is aimed to collect the data directly from the research object, relevant literature, regulation, report, pictures and relevant data. Data can be obtained by recognizing the output of Time Motion Study implementation in the production process.

Theoretical Framework

Based on the picture Figure 4, Time Motion Study Implementation is the exogenous variable that affect Material Cost, Labor Cost, Overhead Cost, and Production Net Price Determination (Endogenous Variable).

Figure 4 Theoretical Framework



Source: Adjusted as necessary.



Research Variable and Operational Definition of Variable

Exogenous Variable

The exogenous variable of this research is Time Motion Study implementation. It is a program which is conducted by PT. CEGE ONE into their production department is called Time Motion Study for time measurement. Stopwatch Time Study is used to determine time standard for operation in the production process. The variable is measured by hours.

Endogenous Variable

The endogenous variable that is used in this research is Material Cost, Labor Cost, Overhead Cost, and Production Net Price Determination. Here is the explanation of the endogenous variables:

- a) Material Cost  
All expenditures of material procurement and material usage in PT. CEGE ONE. This variable is measured by currency (Indonesian Rupiah).
- b) LaborCost  
All expenditures of labor usage in processing raw material into semi finished goods of furniture in PT. CEGE ONE. This variable is measured by currency (Indonesian Rupiah).

- c) Overhead Cost  
Other expenses incurred by production activity in PT. CEGE ONE. This variable is measured by currency (Indonesian Rupiah).
- d) Production Net Price Determination  
Production net price determination in PT.CEGEONE can be calculated by summing up material cost, labor cost, and overhead cost. Some of those costs can be determined through the analyzing of Time Motion Study implementation result. This variable is measured by currency (Indonesian Rupiah).

**Result and Discussion**

Structural Model Validity Assessment

The Amount of Sample

The minimum amount of sample in this model is achieved since the sample of this research is 101.

Normality Test

Normality test can be done by observing Skewness and Kurtosis value of the test result. If the Z-value is more than critical value (Z-value > c.r.), it means that data distribution is not normal.

Table 1 Normality test result

Variable	min	max	skew	c.r.	kurtosis	c.r.
TMS	-.799	3.690	-.669	-2.743	.794	1.628
OVERHEAD	8.202	18.820	.789	3.238	4.501	9.234
LABOR	8.184	13.904	-.687	-2.820	.885	1.815
MATERIAL	10.349	14.963	-.441	-1.808	-.664	-1.362
HPP	10.611	16.092	-.575	-2.357	-.045	-.092
Multivariate					22.836	13.715

Source: AMOS test result, 2017.

Regarding to the result of normality test, the value of Zskewness and Zkurtosis can be prescribed as shown in Table 2.

Table2 ZvalueOfTheTest

Variable	Z <sub>hitung</sub>	Z <sub>tabel</sub>
TMS	-2.744	1.536
OVERHEAD	3.234	9.233
LABOR	-2.820	1.815
MATERIAL	-1.809	-1.362
PNP	-2.359	-0.092

Source:Adjustedasnecessary.

According to the result of Z-value, it is clear that the test is not indicated the amount of Z-value of each variable is more than the critical

value. Therefore, data distribution meansnormal.

Multicollinearity and Singularity

Table3 Sample Covariances

	TMS	OVERHEAD	LABOR	MATERIAL	HPP
TMS	.728				
OVERHEAD	.116	2.049			
LABOR	.600	.124	1.034		
MATERIAL	.237	.339	.218	1.225	
HPP	.420	.617	.506	.764	1.378

Condition number = 11.720 Eigenvalues 3.025 1.650 1.032 .449 .258  
 Determinant of covariance matrix sample = .597

Source: AMOS test result, 2017.

The result shows the value of covariance matrix sample determinant is 0.597, it can be implied that the value of covariance matrix sample determinant is not low or close to 0.000. Thus, there is no presence of multicollinearity or singularity.

SEM (Structural Equation Model) analysis requires several fit indexes to measure the validity of proposed model, that are: X2-Chi Square, Probability, RMSEA, GFI, AGFI, CMIN/DF, TLI, and CFI. The analysis result of the model is shown in Table 4.

Goodness of Fit Criteria

Those results imply that goodness of fit test produces a good acceptance.

Table4 Goodness of fit test Result

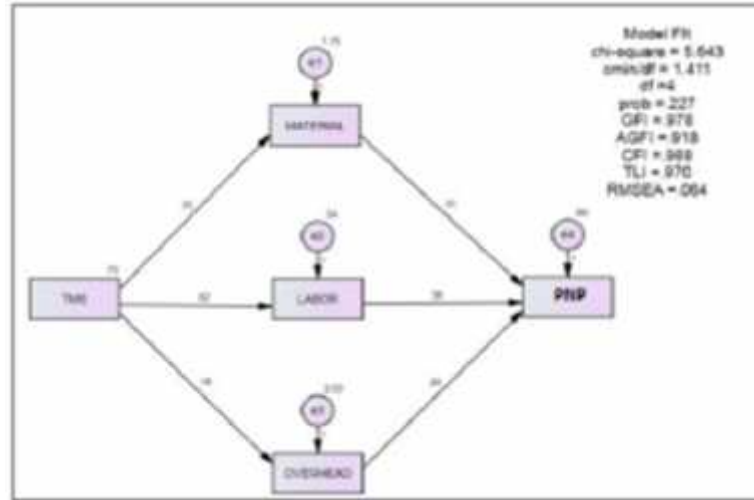
Goodness of Fit Index	Cut off Value	Model Result	Description
X <sup>2</sup> -Chi Square	Expected to the lowest	3.643	Expected to the lowest
Probability	≥ 0.05	0.227	Good
RMSEA	≤ 0.08	0.064	Good
GFI	≥ 0.90	0.978	Good
AGFI	≥ 0.90	0.918	Good
CMIN/DF	≤ 2.00	1.411	Good
TLI	≥ 0.95	0.970	Good
CFI	≥ 0.95	0.988	Good

Source:Adjustedasnecessary.

SEM (Structural Equation Model) Analysis  
 SEM (Structural Equation Model) analysis is used to find out structural relationship among observed variables. The structural relationship among variables can be identified by seeing the output of analysis using IBM SPSS

AMOS 16, that is path diagram which is evaluated by goodness of fit test. According to the goodness of fit test result, the SEM (Structural Equation Model) analysis suits the data.

Figure5 The output of analysis



Source: AMOS test result, 2017.

Regarding to the path diagram Figure 5, structural equation of the model can be prescribed as n follows:

$$\begin{aligned} \text{Material Cost} &= 0.33 \text{ Time Motion Study Implementation} + 1.15 \\ \text{Labor Cost} &= 0.82 \text{ Time Motion Study Implementation} + 0.54 \\ \text{Overhead Cost} &= 0.16 \text{ Time Motion Study Implementation} + 2.03 \end{aligned}$$

$$\begin{aligned} \text{Production Net Price Determination} &= 0.51 \\ &+ 0.36 \text{ Labor Cost} + 0.20 \\ &+ \text{Overhead Cost} + 0.69 \end{aligned}$$

Hypothesis Test

Hypothesis test can be done by analyzing the regression weight of exogenous variable towards endogenous variables. The regression weight of variables are shown in Table 5.

Table5 Regression weight of Variables

		Estimate	S.E.	C.R.	P	Label
MATERIAL	← TMS	.325	.126	2.588	.010	par_1
LABOR	← TMS	.824	.086	9.569	***	par_2
OVERHEAD	← TMS	.159	.167	.953	.341	par_3
PNP	← MATERIAL	.505	.076	6.634	***	par_4
PNP	← LABOR	.359	.083	4.328	***	par_5
PNP	← OVERHEAD	.196	.058	3.369	***	par_6

Source: AMOS test result, 2017.

The result of hypothesis test is explained as follows:

- 1) H1: Time Motion Study Implementation affects Material Cost

The result shows the value of P (Probability) is  $0.010 < 0.05$  ( $P < 0.05$ ), thus H1 is accepted which means Time Motion Study Implementation positively affects Material Cost.

- 2) H2: Time Motion Study Implementation affects Labor Cost

The result shows the value of P (Probability) is  $0.000 < 0.05$  ( $P < 0.05$ ), hence H2 is accepted which means Time Motion Study Implementation positively affects Labor Cost.

- 3) H3: Time Motion Study Implementation affects Overhead Cost

The result shows the value of P (Probability) is  $0.341 > 0.05$  ( $P > 0.05$ ), thus H3 is rejected which means Time Motion Study Implementation does not affect Overhead Cost.

- 4) H4: Material Cost affects Production Net Price Determination

The result shows the value of P (Probability) is  $0.000 < 0.05$  ( $P < 0.05$ ), hence H4 is accepted which means

Material Cost positively affects Production Net Price Determination.

- 5) H5: Labor Cost affects Production Net Price Determination

The result shows the value of P (Probability) is  $0.000 < 0.05$  ( $P < 0.05$ ), thus H5 is accepted which means Labor Cost positively affects Production Net Price Determination.

- 6) H6: Overhead Cost affects Production Net Price Determination

The result shows the value of P (Probability) is  $0.000 < 0.05$  ( $P < 0.05$ ), hence H6 is accepted which means Overhead Cost positively affects Production Net Price Determination.

The Magnitude of Simultaneous Influence Test

The influence between independent variable (exogenous variable) and dependent variables (endogenous variables) can be prescribed by observing squared multiple correlation results Table 6.

Table 6 Squared Multiple Correlation Result

	Estimate
MATERIAL ← TMS	.251
LABOR ← TMS	.691
OVERHEAD ← TMS	.095
PNP ← MATERIAL	.489
PNP ← LABOR	.320
PNP ← OVERHEAD	.245

Source: AMOS test result, 2017.

The Table 6, implies that the influence magnitude of Time Motion Study Implementation towards Material Cost is 25.1%, Time Motion Study Implementation towards Labor Cost is 69.1%, Time Motion Study Implementation towards Overhead Cost is 9.5%, Material Cost towards Production

Net Price Determination is 48.9%, Labor Cost towards Production Net Price Determination is 32%, and Overhead Cost towards Production Net Price Determination is 24.5%. Whereas, direct and indirect effects between variables is explained on Table 7 and Table 8.

Table7 Direct Effects

	TMS	OVERHEAD	LABOR	MATERIAL
OVERHEAD	.159	.000	.000	.000
LABOR	.824	.000	.000	.000
MATERIAL	.325	.000	.000	.000
PNP	.000	.196	.359	.505

Source: AMOS test result,2017.

Table 7 shows direct effects among variables which implies that Time Motion Study Implementation 32.5% affects on Material Cost, Time Motion Study Implementation 82.4% affects on Labor Cost, Time Motion Study Implementation 15.9% affects on

Overhead Cost, Material Cost 50.5% affects on Production Net Price Determination, Labor Cost 35.9% affects on Production Net Price Determination, and Overhead Cost 19.6% affects on Production Net Price Determination.

Table8 Indirect Effects

	TMS	OVERHEAD	LABOR	MATERIAL
OVERHEAD	.000	.000	.000	.000
LABOR	.000	.000	.000	.000
MATERIAL	.000	.000	.000	.000
PNP	.492	.000	.000	.000

Source: AMOS test result,2017.

The Table 8, shows indirect effects between variables which means that Time Motion Study Implementation 49.2% affects on Production Net Price Determination.

### Conclusion

The result and discussion of this research is clearly achieved the research objective and contribute to the following conclusion:

1. Wooden furniture products which are tagged with Time Motion Study label is observed by Time Motion Study program. Stopwatch is used in the direct observation to record how long every process in the production processes takes time. The recorded time is documented in a form of Time Motion Study provided by the company. Collected Time Motion Study form from each sub-department

will be processed every five days of production. The company processes the resulting data using Microsoft Excel. By summing up the data (recorded time) from each sub-department, the result decision of Time Motion Study Implementation will be determined as the standard time for operation per each wooden furniture product which has converted in hours.

2. By conducting SEM (Structural Equation Model) analysis that shows Time Motion Study Implementation indirectly affects Production Net Price Determination by 49.2%. Furthermore, Time Motion Study Implementation is more influential on Labor Cost. Moreover, Material Cost is more influential on Production Net Price Determination than the others. The result shows a high percentage value of the effect of Time Motion Study

Implementation towards Production Net Price Determination, in conclusion Time Motion Study Implementation is effectively and efficiently affected Production Net Price Determination.

#### Future research

Hopefully, the future research could held with more variables according to the real case in PT. CEGE ONE Semarang and increase the amount of sample. Then, another variable could adjusted with basic of observation and company's agreement.

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