THE APPLICATION OF ACTIVITY BASED COSTING ARE:
ELIMINATION IN THE CALCULATION OF COST OF PRODUCTION
PT SEMEN TONASA (PERSERO), PANGKEP REGENCY

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Abstract
Economic conditions should be viewed as the catalyst for developing the ability to intelligently manage resources so that the people of Indonesia can be out of the condition. Effective management and efficiency is reflected in good planning and good planning requires good information. In order to plan well the utilization of company resources to fold the duplicate spiders, company management requires system information revealed by clearly and precisely the facts relating to the activity. PT Semen Tonasa is a fabrication company doing business in the field of cement industry and produces two types of cement, cement or Portland cement type 1 can (OPC) and Portland cement (PPC) Pazzolan. The benefits that can be gained if the company implemented the system of Activity-Based Costing are: elimination is obtained more accurate information, among others, to improve the quality of decision making. In the ABC product only burdened costs of resources and activities that are used and does not burdened by the cost of the resources and activities. This method causes the cost per unit of a more stable and consistent with the purposes of the imposition of costs to the product result in activity.

Keywords: Activity Based Costing Are: Elimination, Conventional, PT Semen Tonasa

I. Introduction
Economic conditions should be viewed as the catalyst for developing the ability to intelligently manage resources so that the people of Indonesia can exit from the condition, a developed nation in the economy slumped, profits can only be generated through effective management and efficient use of all resources of the company. In addition, efforts to ensure the company is able to generate profits, the company’s personnel should plan well and controlling the main factors determining earnings three adequate i.e. investment, income and expenses.

Effective management and efficiency is reflected in good planning and good planning requires good information. In order to plan well the utilization of company resources to fold the duplicate spiders, company management requires system information revealed by clearly and precisely the facts relating to the activity.

Traditional cost accounting systems are not accurate when there is a diversity of products and diversity volume. Traditional cost accounting systems will result in excess costs (over cost) on a product with a large production volume and shortage costs (under cost) on a product with a small production volume when there is diversification in the same operation. Product under cost actual sales yield losses, there is a fallacy that gives the impression that the sale of the profitable result in depletion of the opinion on the resources used. Products and overprice and over cost would lose its market share.

To overcome this, offered an alternative method of allocation of costs based on the activity that led to the charges. This method is known as Activity-Based (ABC System).

PT Semen Tonasa (Persero), is a fabrication company doing business in the field of cement industry and produces two types of cement, cement or Portland cement type 1 can
(OPC) and Portland cement (PPC) Pazzolan. The benefits that can be gained if the company implemented the system of Activity-Based Costing are: elimination is obtained more accurate information, among others, to improve the quality of decision making. In the ABC product only burdened costs of resources and activities that are used and does not burden the cost of the resources and activities. This method causes the cost per unit of a more stable and consistent with the purposes of the imposition of costs to the product result in activity.

**Understanding costs**

There is a wide range of understanding or definition of charges, each of which is different. Therefore it is not uncommon for differences of perception, as well as who has been confronted and realized how important the sense of costs in carrying out daily tasks. Accountants, economists and technicians, for example, each have and use concepts, which though not against each other but still visible differences.

According to Mathew (2006: 24) the sense of cost (expense) is different from the sense of the basic price (Cost) cost in the broad sense is the amount of money stated from sources (economic) sacrificed and has happened or will happen to get something or to achieve certain goals. While the cost of goods (cost) is the sacrifice of economic resources to acquire assets or economic resources in the sacrifice of the processing of raw materials into products.

**Cost categorization**

Because of the important activity of management is controlling the amount of individual fees and the amount and activity of a company, a grouping Technique is extremely valuable. Costs need to be classified with the intention to help the relationship between the cost data as input in design.

Ray h. Garisson, et.Al, (2001: 33) classifies costs based on the following things:

a. Cost is associated with the concept of) the level of Products include:
   - Fixed costs (Fixed Cost) is any cost that the number did not change at every level of production in the factory. Variable costs (Variable Cost) are any costs tend to increase in total as well as a reduction in the level of production.

b. Cost components in the product.

The cost of the product can be classified according to the components in the process manufacture. Classification of loyal factory costs categorized as (1) raw materials (Raw Material), (2) direct labor (direct labor), (3) the Overhead factory (factory Overhead). A third classification of this category for the costs of the plant helps managers to record and control the operations of the Department.

1. Cost of raw materials (Raw Material Cost) All raw materials are physically identifiable as part of finished goods that can be traced on the finished goods in a way that is simple and economical.
2. Direct labor costs (Direct Labor Cost). Direct labor is labor that can be traced to physically on finished goods with an economical way.
3. Manufacturer’s Factory Overhead costs overhead Cost). Overhead costs are all costs other than raw materials or wage costs of tickets associated with the process of products.

**Conventional Cost Accounting**
Conventional cost systems not only systematically distorting the cost of the product, they provide signs that encourage actions that show a low volume products, special (Specialty) and "Expedited" product fee does not exceed the standard. High volume products can be pushed physically separated, marketing and production, forcing him to trust the system costs, provide feedback to influence of actions. Many types of products in production is part of a due response to the marketing of products were reported. Conventional cost systems fail for the actual cost of capitualars (True Cost) from diversities. Special low-volume product costs of production equals the product of its volume and high standards. Marketing to respond to this information with a specific number of product volume low against the marketing mix. Much of this variation is not necessary to meet the needs of customers, and only result in increased complexity. (Muladi 2003: 22).

**Conventional Cost Accounting System Weaknesses**

Supriyono (2004: 114) describes the conventional cost accounting system used during this less in accordance with the conditions and demands of the environment. Because in its application there are many weaknesses. As for the weaknesses of the conventional cost accounting system essentially emphasize the exodus of production and costs. This is because the traditional management accounting:

a. Basing on an economic model that emphasizes on maximums utilization of resources directed at the minimize company production costs increase the volume way per unit and per unit cost of production by means of an increase in the volume and to improve the total cost of production.

b. In decision making, traditional system only stresses on financial considerations, but not much considering operational activities.

c. Traditional System also only emphasizes decision making on environmental resources constraints are static (given), not basing the assumption that changes in the dynamic environment (move).

d. Conventional cost accounting System provides a value that does not actually received by customer or on the added value in the work. Conventional cost accounting system records the income, but the reflecting simply what is paid by the customer for the product. Revenue does not give an indication if a product satisfying customer requirements, or if the customers expect to have anything better available.

e. Conventional cost accounting systems also noted the costs, but the cost of recording only gives information about the object costs, as well as about the work that led to the onset of the cost.

f. Conventional cost accounting System does not show information about the job, would add to the value or result in added value to the customer, nor do conventional cost information discusses global competition and how to continuously improve value to customers.

g. On the conventional cost accounting system, for low-volume and complex products, the cost is to be determined below which should and for high-volume products that are simple, the fee will be determined higher than it should be.

**Activity-Based Costing System (Abc System)**

The ABC system is utilized to improve the speed of calculation style products within manufacturing companies that produce many kinds of products. The issues facing companies that produce many products are on the imposition of a factory overhead costs to the various types of products produced by the company. Cost conventional accounting
systems using only the volume-related drivers to charge overhead costs to products, so the cost of the product resulting from the imposition of this way of being inaccurate. (Mulyadi, 2003: 51).

Its development, the ABC system is no longer limited to use only in order to produce an accurate product cost information, but extends as system information to motivate the personnel in improvement of the process used by the company to produce services for a customer. In addition, the ABC system utilized to address the cost-accounting system specially designed for conventional manufacturing company. All types of companies can now take advantage of the ABC system as accounting fees for purposes of cost reduction as well as for the calculation of the cost of the product/service that is accurate. (Mulyadi, 2003: 51).

1. The sense of Activity-Based Costing are: Elimination System Mulyadi (2003: 49) explains that “Activity-Based Costing are: elimination is the cost information system oriented on providing complete information on activities to allow for the processing of corporate personnel activity. “Activity Based Costing are: Elimination System is a system that maintains and processes data from operational and financial resources of the company based on activities, cost objects, Cost drivers, and measure the performance of the activity. Activity-Based Costing are: Elimination System also imposes costs and cost objects (Activity Blocher, et.Al, 2002: 121)

2. Basic assumptions Activity Based Costing are: Elimination System ABC system designed with the basic belief that only cost can be reduced significantly through the management of the causes of the incidence of the cost of the activity. Management of the activities shown to exert and directs all the activities of the organization providing the products/services for the benefit of the gratification of needs of customer.

According to Mulyadi (2003: 11) explains there are two basic assumptions of Activity-Based Costing are: Elimination System are:

1. Cost is caused. Costs there are costs cause. Thus, a deep understanding of the activity that causes the incidence of fees will be put in the position of company personnel can affect costs. Activity-Based costing are: elimination system departs from the basic concept that resources provides the ability to perform the activity, not the causes the incidence of costs should be allocated.

2. He is the cause of cost can be managed. The cause of the cost (i.e. activity) can be managed. Through the management of activities that become the cause of cost, company personnel can affect costs. The management of activities require different information about the activity.

Two assumptions informing ABC system depicted in Figure 1 below:

![Diagram](image-url)
1. Kapan Activity-Based Costing Dapat Diterapkan

Source Mulyadi, 2003.

Application Of Activity Based Costing Are: Elimination Mechanism System

According To Blocher. Al (2002: 129) three main stages in the design of the ABC system are:

1) Identify resources and activities

The first step in designing a system of ABC is to identify cost resources and perform activity analysis. Resource costs are costs incurred to perform various activities. Activity analysis is the identification and description of work (activities) in the organization. Activity analysis including data collection of documents and records, and research/survey using a questionnaire, observation, and interviews continuously against the keys. The ABC project team also collects data on activity by observation and make a list of activities/work done.

2) Charge resources to activities

The activity raises the cost of resources. Driver resources (resources driver) used to charge resources to the event. Important criteria for selecting cost drivers are causal relations. Resources typically include, meter utility unit, the amount of labor for activities related to payroll, number of set-up to set-up machine activity, and the amount of the transfer of materials for the event handling of the material, and hours of machine to machine running activity and (6) the floor area for activity of hygiene.

3) Charge the cost object activity

If the cost of the activity is already known, then need to measure cost per-unit activity. This is done by measuring the cost balance per unit for the output produced by those activities. Comparison for some time with other organizations can be used to define efficiency (Productivity) for these activities.

According to Hongren, et al (1996: 139) implementation system of the ABC (Activity-Based Costing are: elimination) were conducted with six steps as follows:

1. Identify the activity by selecting it as an object.
2. Identify the direct costs (Direct Cost) from activities such as direct materials cost and direct labor cost.
3. Identify the groups indirect costs (Indirect Cost) associated with activities such as factory overhead costs.
4. Select the basic allocation of costs (Cost Drivers) for use in allocating each Indirect Cost Pool in activity, both budgeted and actual.
5. Calculate the average per unit of each allocation base costs (Cost Drivers) used for the allocation of indirect costs (Indirect Cost Pool) in the activity.

Determine the cost in the cost object by adding the direct costs (Direct Cost) and all indirect costs (Indirect Cost).

The Application of Activity-Based Costing Are: Elimination System

In producing Portland cement type I and PPC. PT Semen Tonasa PT. (Persero) classify costs incurred as follows:

a. the cost of materials, The cost of the material contained on the PT Semen Tonasa (Persero), which consists of limestone which portions of 80%. Clay and silica sand 18%, 12% other ingredients namely Gybsum and 3%.

b. labor costs
There are two types of labor costs that can be classified in:
1) Direct labor cost that is the wages of all workers who can identify economically and engaged directly in the production process.
2) Indirect labor costs the wages of all workers in addition to the direct labor and indirect in the production process.

c. Factory overhead costs
Factory overhead costs are all costs that are not the direct material costs and direct labour costs relating to the production process.

a. Identify and select them as objects of Activity Costs
Activities related to production carried out by PT Semen Tonasa (Persero) is as follows: raw materials Mill, coal Mill, Coal Combustion, Storage of raw materials, Cooling the burning (slag), slag Storage in silos, concrete Grinding, control operations, quality control, set-up

b. Identifying the direct costs (Direct Cost)
Direct costs in PT Semen Tonasa (Persero) is:
1) Raw material cost is estimated
2) Direct labor cost
3) The cost of fuel and electricity
4) Cost of lubricating oil
5) Explosive Charge

c. Identify indirect costs (Overhead) associated with the activity
As for the relationship between overhead costs and activities can be seen in table 1 below:

Table 1 The Relationship Between Overhead Costs By Activity
PT Semen Tonasa (Persero) In 2010

| The Cost of | Activity                  |
|-------------|---------------------------|
| Cost of material processing | Raw material Mill   |
|              | Grinding of coal          |
|              | Burning of raw meal       |
|              | Cement Mill               |
| Engine maintenance costs | Engine maintenance costs |
| Material Coast helper | Raw material mill |
|              | Burning of raw meal       |
|              | Cement Mill               |
|              | Quality control           |
| Indirect labor costs | Raw material mill |
|              | Grinding of coal          |
|              | Coal storage              |
|              | Burning of raw meal       |
|              | Cooling of the combustion |
|              | Slag storage in silo      |
|              | Cement Mill               |
|              | Operating control         |
|              | Quality control           |
|              | Set-up                    |
| Depreciation costs machines | Raw material mill |
|                          | Grinding of coal         |
a. Determine the base allocation of costs (Cost Drivers).

Cost Drivers are the factors causing any cost activities. Cost Drivers that can be measured are used to charge activities and their other activities. Product or service. Identification and analysis of the 'Cost' of the Driver are the basis in determining the fee accurately and cost control for the object.

As for the cost drivers of each activity in the PT Semen Tonasa (Persero) can be seen in Table 2:

Table 2:
List of Activities and Cost Drivers for each activity
PT Semen Tonasa (Persero) in 2010

| Activity                  | Cost Driver                  |
|---------------------------|------------------------------|
| Raw material mill         | Engine hours                 |
| Grinding of coal          | Engine hours                 |
| Coal storage              | Building area                |
| Burning of raw meal       | Engine hours                 |
| Cooling of the combustion | Engine hours                 |
| Slag storage in silo      | Building area                |
| Cement Mill               | Engine hours                 |
| Operating control         | The number of control        |
| Quality control           | The number of control        |
| Set-up                    | The number of set-ups        |

Source: PT Semen Tonasa (Persero)
Activity-Based Costing are: elimination charge to products based on the amount of activity required. As for the formula to calculate the price of the perunit indirect costs (indirect cost) is as follows:

\[ \text{Tarif Indirect-Cost aktual} = \frac{\text{Total Indirect-Cost Pool}}{\text{Cost Driver}} \]

As for the results of the calculation of the indirect cost of the actual rates can be seen in table 3 below:

Table: Indirect Cost Rate Calculation

| PT Semen Tonasa (Persero) In 2010 | Trigger Costs | The Number of Units | Does ABOP |
|-------------------------------|----------------|---------------------|-----------|
| Activity                      | The Total Cost of | Basic Setting |          |
|                               |                | Engine Hours Engine |          |
|                               |                | Building Area Engine |          |
|                               |                | Engine hours Engine |          |
|                               |                | Building Area Engine |          |
|                               |                | Engine Hours The Number of |          |
|                               |                | The Number Of Control The Number of |          |
|                               |                | The Number Of Control The number of set-ups |          |
| Raw Material Mill             | 30.047.91      | 11.18              | 2.68      |
| Grinding Of Coal              | 28.219.43      | 4                  | 6.688     |
| Coal Storage                  | 30.556.51      | 10.92              | 2.58      |
| Tracking Of Raw Meal          | 94.458.66      | 0                  | 4.197     |
| Combustion Slag Storage In Silo | 16.468.96   | 5.160              | 5.92      |
| Cement Mill Operating         | 1.390.883      | 11.54              | 1.804     |
| Quality Control               | 2.318.959      | 2.58               | 4.197     |
| Set-up                        | 1.685.535      | 5.92               | 5.92      |
| Total                         | 212.548.1      | 10.89              | 191.082   |
|                               | 72.766         | 354                | 364       |
|                               |                | 212.082            | 10.7      |
|                               |                | 0.5921             | 10.2      |

Source: PT Semen Tonasa (Persero) data processed

b. activity cost the imposition of

After the price of the indirect cost is known, both actual and budgeted so next is the charge activity to the product. On PT Semen Tonasa (persero) there are two different types of cement: Portland cement type I cement and PPC.

As for the imposition of indirect cost rates on Portland cement type I can be seen in table 4 below:
Table 4
The Imposition Of Tariffs Indirect-Cost For Each Activity
Portland Cement Type I
PT Semen Tonasa (Persero) In 2010

| Aktivitas                              | Rata Aktivitas | Rata - Indirect-Cost | Cost Driver Type I | Pembebanan Biaya Type I |
|---------------------------------------|----------------|----------------------|--------------------|-------------------------|
| Raw Material Mill                     | 2.686     | 3                    | 10.15              | 27.277.498              |
| Grinding Of Coal                      | 688        | .013                 | 9.913              | 25.617.603              |
| Coal Storage                          | 2.584     | .428                 | 4.648              | 27.739.200              |
| Burning of raw meal                   | 197        | .038                 | 10.48              | 85.749.574              |
| Cooling Of The Combustion             | 5.921     | .182                 | 9.656              | 14.950.526              |
| Slag storage in Silo                  | 804        | .375                 | 6.608              | 1.262.643.              |
| Cement Mill                           | 8.182     | .038                 | 9.891              | 2.105.151.              |
| Operating Control                     | 490        | .013                 | 321                | 3.440.632.              |
| Quality Control Set-up                | 1.563     | .182                 | 321                | 3.278.272.              |
| 2                                     | 191.08    | .375                 | 330                | 494                     |
| 7                                     | 212.82    |                      |                    | 1.530.128.              |
| .434                                  | 10.706    |                      |                    | 931                     |
| .208                                  | 10.201    |                      |                    |                         |
| .591                                  | 4.630     |                      |                    |                         |
| Total                                 | 46.880    | .435                 | 1.237              |                         |

Semen PT Semen Tonasa (Persero) data processed
While The results in the imposition of Indirect-cost at the PPC cement found in PT Semen Tonasa (persero) or can be seen in table 5:

Table 5
The Imposition Of Tariffs Indirect-Cost For Each
PPC Cement Activity
PT Semen Tonasa (Persero) In 2010

| Activity                | Flat - Indirect-Cost | Cost Driver PPC | The Imposition Of Costs PPC |
|-------------------------|----------------------|-----------------|-----------------------------|
| Penggilingan Bahan Mentah| 2.686.68             | 1.031           | 2.770.417.842               |
|                         | 8                    | 1.007           | 2.601.831.941               |
a. Calculate the production costs by adding the direct costs and indirect costs. After the imposition of average Indirect-Cost for each cement, then the last step is to calculate the costs prosuksi with the formula:

 Total Production Cost = Direct Cost + Indirect Costs

As for the results of calculation of production costs with system Activity-Based Costing are: elimination can be seen in table 6:

### Table 6: Calculation Of Cost Of Production Based On Activity-Based Costing Are: Elimination

| Activity | Direct Costs | Indirect Costs | Total Production Cost |
|----------|--------------|----------------|-----------------------|
| Penggilingan Batu Bara | 2,584.19 | 476 | 2,817,310.248 |
| Penyimpanan Batu Bara | 5,921.80 | 971 | 8,709,088.719 |
| Pembakaran raw meal | 8,182.49 | 1,005 | 213,808.077 |
| Pendinginan Hasil Pembakaran | 1,563.11 | 33 | 349,445.173 |
| Penyimpanan terak dalam Silo | 191,082 | 34 | 1,55,406.353 |
| Penggilingan Semen | 10,706.4 | 10,201.2 | 20,907.6 |
| Pengendalian | 34 | 4,630.59 | 46,880.4 |
| Pengendalian Mutu | 212,827 | 46,880.4 | 19,596,941,529 |
| Set-up | 0 | 35 | 128,239,415 |
| | | | 349,445,173 |

### Calculation of Cost Of Production At The Pt Semen Tonasa (Persero)

| Year | Direct Costs | Raw material cost | Direct labor costs | Cost of fuel and electricity | Cost of lubricating oil | The cost of explosives | Total direct costs | Factory Overhead |
|------|--------------|------------------|-------------------|-----------------------------|------------------------|-----------------------|-------------------|-----------------|
| 2000 | 25,548,846.867 | 31,051,184.947 | 225,635,949.469 | 6,358,239.131 | 3,045,386.043 | 291,639,606.457 | 192,951,231.237 | 195,700 |
| 2001 | 25,948,847.35 | 31,530,689.416 | 132,916,539.481 | 645,769,606 | 309,302,262 | 139,620,149.500 | 19,596,941,529 | 57,405 |
| 2002 | 25,849,037.695 | 159,191,091,028 | 159,217,091,028 | 159,217,091,028 | 2,476,192 | 2,773,575 |

Source PT Semen Tonasa (Persero) Data processed
Calculation of cost of production at the PT Semen Tonasa (Persero) using conventional cost accounting method, where the allocation of overhead costs the manufacturer based on the number of direct labor hours. The elements that make up the production cost consists of direct costs and indirect costs.

1. Direct Costs

The actual direct costs found in PT Semen Tonasa (Persero) IE: direct raw material Costs, direct labor costs, the cost of fuel and electricity, the cost of lubricating oil, explosives Charges

| Tabel 7  | List Direct Costs | PT Semen Tonasa (Persero) In 2010 |
|-----------|-------------------|-----------------------------------|
| o.        | Cost Element      | The Number of                     |
|           |                   | Rp.                               |
| Raw Material Cost | 1.530.559.877    |                                   |
| Supertin and clay  | 7.623.767.345    |                                   |
| Silica sand and sand iron | 10.761.233.701 |                                   |
| Gypsum      |                   | Rp.                               |
| Total       | 18.989.368.380   |                                   |
| Direct Labor Costs | 10.685.970    |                                   |
| Salary      | 2.956.981.549    |                                   |
| Honor       | 855.990.345      |                                   |
| Wages       | 3.099.535.225    |                                   |
| Overtime    | 16.520.447.573   |                                   |
| Incentive   | 135.062.718.188  |                                   |
| Other benefits | 34.204.874.363 |                                   |
| Total       | 34.802.796.249   |                                   |
| Cost of fuel and electricity | 542.559.464 |                                   |
| Solar       | 3.470.841.738    |                                   |
| Premium     | 34.802.796.249   |                                   |
| Other fuels | 542.559.464      |                                   |
| Electric    | 3.470.841.738    |                                   |
| Total       | 34.802.796.249   |                                   |
| Lubricating oil | 542.559.464 |                                   |
| Oil greases | 3.470.841.738    |                                   |
| Total Biavira Explosives | 34.204.874.363 |                                   |
| Ammonium nitral | 135.062.718.188 |                                   |
| Dynamite    | 34.802.796.249   |                                   |
| Detonator   | 542.559.464      |                                   |
| Other explosives | 3.470.841.738 |                                   |
1. indirect costs or Overhead costs
Indirect costs (overhead) can be seen in table 8 below:

Table 8
List Of Factory Overhead
PT Semen Tonasa (Persero)In 2010

| Cost Element                      | Amount (Usd)   |
|-----------------------------------|----------------|
| Raw Material Mill                 | 30.047.915.855 |
| Grinding Of Coal                  | 28.219.435.369 |
| Coal Storage                      | 30.556.510.286 |
| Burning Of Raw Meal               | 94.458.662.901 |
| Cooling Of The Combustion         | 16.468.964.934 |
| Slag Storage In Silo              | 1.390.883.022  |
| Cement Mill                       | 2.318.959.618  |
| Operating Control                 | 3.790.077.801  |
| Quality Control                   | 3.611.227.687  |
| Set-up                            | 1.685.535.284  |
| **Total**                         | **212.548.172.766** |

Source PT Semen Tonasa (Persero)
Source: PT Semen Tonasa (Persero)

PT. Semen Tonasa (Persero) using work hours directly as the basis in calculating the allocation rate of the factory overhead costs. The basis of the subsequent imposition would be used in determining how the factory overhead costs that are charged to a product. As for the number of hours worked directly for the year 2010 as much as 30.192 hours. Factory overhead rate calculation is done the company is as follows:

\[
\text{Overhead Rate} = \frac{\text{Total Overhead Costs}}{\text{The Number Of Direct Labor Hours}}
\]

\[
\text{Change Rate Overhead} = \frac{\text{Rp. 212.548.172.766}}{30.192}
\]

Overhead rate = Rp. 7.039.884

Once the tariff is known then the next Overhead Rate overhead to each products cost sehingga overheadnya be:

- Semen Portland Tipe = 27.550 x Rp. 7.039.884 = Rp. 193.948.799.672
- Semen PPC = 2.642 x Rp. 7.039.884 = Rp. 18.599.373.094

As for the calculation of the cost of conventional production for two product at PT. Semen Tonasa (Persero) can be seen in table 9 below:

| In 2010 | Semen Portland Tipe 1 | Semen PPC |
|---------|-----------------------|-----------|
| Direct Cost | Rp. 291.639.606.457 | Rp. 318.620.14 |
| Raw material cost | Rp. 25.548.846.867 | Rp. 2.594.848.735 |
| Direct labor costs | Rp. 25.548.846.867 | Rp. 2.594.848.735 |
| Cost of fuel and electricity | Rp. 31.051.184.947 | Rp. 3.153.689.416 |
| Cost of lubricating oil | Rp. 6.358.239.131 | Rp. 645.769.606 |
| The cost of explosives | Rp. 6.358.239.131 | Rp. 645.769.606 |
| Total direct costs | Rp. 225.635.949.469 | Rp. 132.916.539.481 |
| Indirect costs | Rp. 309.302.262 | Rp. 309.302.262 |
| Factory overhead costs | Rp. 139.620.14 | Rp. 139.620.14 |
| The Total cost of (tonnes) | Rp. 18.599.373.094 | Rp. 193.948.799.672 |
| The number of production | Rp. 485.588.406.129 | Rp. 485.588.406.129 |
| Production price/ton | Rp. 9.500 | Rp. 9.500 |
Comparison of Calculation of Cost of Production

From the results of the calculation of the cost of production for the cement type Portland cement type I and PPC produced PT Semen Tonasa (Persero), it can be seen that there is a difference between the results of the calculation with the system Activity-based Costing are: elimination and the conventional accounting system. This is because the system of Activity-based Costing are: elimination using multiple trigger costs (Cost Drivers) in the imposition of indirect costs whereas in conventional accounting system based only on hours of labor.

As for the results of a comparison between the system of Activity-based and conventional accounting system as well as the magnitude of the deviation can be seen in table 10.

Table 10
Perbandinga Calculation Of Cost Of Production System Of Activity-Based Costing Are: Elimination And Conventional Systems PT Semen Tonasa (Persero) in 2010

| Products          | Biaya Produksi | Sistem Accounting | Price Production | Sistem Activity Based-Costing Actual | Price Production | V Variance |
|-------------------|----------------|-------------------|------------------|-------------------------------------|------------------|------------|
| S Semen Portland Type I | Rp.485.588 | Rp.406.130         | Rp.2 .476.192    | Rp.484.590                          | Rp.2 .481.290    | R p.5.098  |
| S Semen PPC       | Rp.158.219   | Rp.522.593         | Rp.2 .773.575    | Rp.49.217.091.028                   | Rp.2 .756.198    | R p.17.377 |

Source: PT Semen Tonasa (Persero) Data processed

II. Conclusion

During this conventional accounting systems applied by PT Semen Tonasa (Persero) led to a distortion of the production costs. This is because the basis of allocating overhead costs manufacturers only use direct labor hours, and factory overhead costs are made up of a lot of cost drivers and not just direct labor. Results of calculation of production costs, shows the difference between the calculation of cost of production by using a system of Activity-based Costing are: elimination and conventional accounting systems. Calculation of cost of goods Production approach to cost accounting, to Portland cement type I retrieved a number of Rp. 485.588.406.130, or the cost of goods production of cement per tonne was Rp. 2.476.192, PPC Cement obtained numbers For Rp. 158.219.522.593,-or tau cement
production rates per tonne was Rp. 2.773.575,- the calculation of cost of goods Production approach to Activity Based Costing are: elimination, to Portland cement type I retrieved a number of Rp. 484.590.837.695, or the cost of goods production of cement per tonne was Rp. 2.481.290. PPC Cement obtained numbers For Rp. 49.217.091.028,- or tau cement production rates per tonne was Rp. 2.756.198.

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