BREAK EVEN POINTANALYSISOFBUDGETINGSYSTEM UD. BAROKAH TANI IN KABUPATEN BREBES

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A. Preliminary

1 . Background

Gain the performance of all employees within a company that is expressed in the form of financial figures is the positive difference between income minus expenses (expenses). Profit is the basic measure of performance for the ability to operate wealth management company. Profit should be well planned in order to achieve effective management. Before the earnings made prior planning made forecasting sales with price forecasting, and the classification held semi-variable costs.Calcification purpose semi-variable costs is to define the behavior of costs into fixed costs and variable costs, profit selanjutnta to facilitate planning.

Because the profit plan is one very important factor to be able to directly affect the smoothness and success of the company in achieving its goals, as well as general corporate purpose is to achieve a maximum profit.

Amount of income earned is an indicator of success for companies looking for profit orientation. In order to obtain profit as desired, companies need to develop a good profit planning. It is determined by the ability of the company to predict business conditions in the future that is full of uncertainty, and the possibility to observe the factors that may affect the company's profit.

There are three factors that can affect the cost of corporate profits , selling prices and volume (sales and production). Costs arising from the acquisition or processing of a product or service will affect the selling price of the product concerned. Selling price of the product or service will affect the volume of sales of products or services in question, while the volume of sales affect the volume of the production of products or services. Subsequently, in turn, the volume of production will affect the size of the production costs. This the factors that affect earnings above, intertwined with each other.

In the preparation of profit planning, management needs to know where the number of linkage factors mentioned above, and the impact on corporate profits. Analysis of the relationship between cost, volume and profit is one tool for management for profit planning.

One form of relationship analysis cost, volume and profit is the break even point analysis. Break even point is the term used to describe a condition of business, when the company makes a profit, but do not suffer loss. In other words, the break even point occurs when the amount of corporate income as large as the total cost of the company. Based on the results of the break even point the company

can determine the minimum number of sales (in units of products or units of money) so that the company does not suffer loss.

2. Problem Formulation

Based on the background of the problems outlined above, the main problems in this study are as follows :

a. Is the total sales value at UD.Barokah Taniin Kabupaten Brebes is located at the level of the break even point.
b. What is the percentage decrease in the value of the company's total sales can be tolerated so no loss (margin of safety) and are under contribution margin.
c. How does the change in total sales value to changes in corporate profits.

3. Research Objectives

a. To determine whether the total sales value at UD. Barokah Taniin Kabupaten Brebes is located at the level of the break even point.
b. To determine whether the percentage decline in the value of total sales of the company can be tolerated so as not to experience losses (margin of safety) and are under contribution ratio.
c. To determine whether the change in the value of total sales has a positive effect on changes in corporate profits .

B. Assessing Library

1. Definition of Break Even Point

Break even point analysis is an analytical tool used to determine the relationship between several variables in the company activities, such as production or widely implemented levels of production, costs incurred and revenue received by the company from its activities. The company's revenue is the revenue for the company's activities, while the operating costs are expenditures (Umar Husain, 1999: 205)

With the break-even point analysis managers can gain an overview of the relationship costs, the value of total sales and profits, so it can be made to achieve company projections. In planning gain, break even point analysis is based on the behavior of costs, in conjunction with the sales revenue. Break even point provides information on the total value of sales berapakan start earning completely cover the total cost. In other words, the state of the gain or loss equal to zero. (Erwan, 1974 : 17)

But analysis of break even point is not merely to know the state of the company just break even, but the break even point analysis is able to provide information to the leading companies on various levels of sales volume and its relationship with the possibility of obtaining a profit by selling the relevant level. (S. Munawir, 1981: 185)

Break even point analysis can assist management in making decisions regarding among other things :

a. Minimum number of sales that must be maintained in order to not lose sales.
b. The number of sales that must be achieved to obtain certain advantages.
c. How much reduction in sales that the company does not suffer losses.
d. To find out how to effect change in the value of sales, costs and sales volume of the benefits to be derived.

Understanding above the break even point is always applied to the kinds of goods or the assumption that the company produces and sells only one kind of item or in total. If the company memperoduksi or sell

more than one kind, the break even point analysis can be applied to all goods produced and sold by the company. For this purpose, the composition (ratio) between the items should remain the same in both the production and composition of sales (product mix and sales mix). Break even point in its entirety or just the total not mean each product must be in a state of break even point. There may be one kind of product losses while other products make a profit or likelihood of each product does not earn a profit or suffer loss (of each item in the break-even). When changing the composition of the total evennya break will change as well (S. Munawir, 1981: 190)

2. Usefulness Break Even Point

Chart break even point is very useful for the management of the company and to explain to the financial analysis from outside the company, as the chart explains the interrelationships and interplay between the cost and magnitude of sales as the factors that determine income.

Usefulness of break even point analysis, among others, are as follows :

a. Can show whether the result of a decrease in sales price by X % and how much additional sales that must be achieved to offset the price decline.
b. For profit planning and monitoring for progressive management.
c. Assess the increase in sales volume, which is often misunderstood that will bring increased sales volume due to increased earnings.
d. As a tool to examine the actions that have been proposed or alternate decision that on matters concerning management.

3. Assumptions In Break Even Point Analysis

In analyzing the break even point including calculating or determining the break-even point in both the mathematical formula and the chart (chart) depending on the underlying concepts or assumptions used in the calculation. Assumption is a fundamental concept or rationale should be applied even though the assumption may not correspond to reality. Thus more and more assumptions are used (which generally does not fit the reality) will be many flaws contained in the analysis.

In general, the concept or the basic assumptions used in the analysis of the break-even point is as follows : (GunawanAdiSaputro, 1999 : 34)

a. That costs at various levels of activity can be accurately estimated amount. Thus the change in the production rate can be translated into changes in the level of costs.
b. The estimated costs where the variables can be separated and which are fixed costs. Analysis of break even point can be calculated only when some of the costs are fixed expenses.
c. Sales rate equal to the rate of production , meaning that what is produced is considered sold out. Thus the level of finished goods inventory has not changed or the company did not provide a stock of finished goods.
d. Selling price of its products by the various levels of sales has not changed. This means the market is so perfect or that the company's market share is so small that is not capable of changing market prices that occurred.
e. Enterprise efficiency at the level of activity also did not change so

the variable cost per unit of the same product for different production volumes.

f. No changes in the leadership of the various policies that directly affect the overall steady load. Thus the overall fixed costs do not change.

g. Company is considered as if it only sells one kind of end product. Where the products are made in the activities of more than one kind, the sales mix is maintained remains the same.

4. Classification of Costs and How Separation Costs

a. Classification of costs

Costs can be classified as follows : (Mulyadi, 1993 : 8)

1) Classification of expenditure charged on the basis of the object.

The simplest classification of costs is based on the classification of objects of expenditure, which is a short description of production objects are classified into three types of costs, the cost of raw material, labor and factory overhead costs.

a) Cost of basic

The basic ingredients are the elements that are used as the basis for the manufacture of finished goods, for basic materials are separated into two categories, namely :

(1) Base material directly, is materials that become an integral part of the finished product.

(2) The basis of indirect materials, which are the basic materials used to make the product, but the amount is very small and is not an integral part of the finished product.

b) Wage labor

Labor costs represent costs incurred to carry out the basic ingredients to become finished goods, for wages of labor are separated into two categories, namely :

(1) Wages of direct labor

Is wages incurred for direct labor deal-making (process) of the base material to be finished material.

(2) Indirect labor wages

Is wages incurred for labor donated his services for the manufacture of basic materials into finished materials but do not directly handle the product.

c) Overhead factory

Group that includes these fees are all costs that are used to make finished goods other than raw material and direct labor costs direct.

2) Classification on the basis of cost functions - basic functions within the company

Principal functions contained in the company's manufacturing is the production function, general and administrative, and marketing functions. Therefore costs in manufacturing can be classified as production costs, general and administrative costs, and marketing costs.

a) Cost of production

Represents costs incurred in the processing of raw materials into finished

products are production costs consist of :

(1) Cost of raw material
(2) Direct labor costs
(3) Manufacturing overhead costs

b) General and administrative costs

Represent costs incurred due to activities that can not be identified to the production and marketing activities. These costs are included, among others :

(1) Administrative processing fee in the company
(2) Cost accounting
(3) Depreciation of office equipment, and so on.

c) Marketing costs

That costs incurred in connection with the attempt to get a pitching production.

b. How to Cost Segregation

To determine what portion of fixed costs and variable costs, is done by analyzing he behavior of costs in the past, namely analyzing data on the relationship between the behavior of costs with the volume of activity in the past.

On this approach there is a method to estimate the cost function with the historical approach (Mulyadi, 1995: 63)

1) High and low point method

To estimate the cost function, the method is a cost comparison conducted at the highest level of activity and the lowest in the past.

2) Stand-by cost method

These methods try to calculate some of the costs to be incurred, if the company closed temporarily, so production is equal to zero. These costs are called the cost and expense stand-by this is the part that remains. The difference between the costs incurred during the production run costs are variable stand-by cost.

3) Least square method

These methods assume that the relationship between cost and volume of activity shaped straight-line relationship.

In this case I would only use the cost method awake (stand-by cost method).

C. Research Methods

The research method used is a case study at UD. Barokah Taniin Kabupaten Brebes, while the formula used to test the hypothesis Break Even Point, Margin Of Safety, Contribution Margin Ratio, Degree Of Operation Ratio.

D. Data Analysis and Discussion

1. Calculation of Break Even Point.

Break-even analysis is an analysis technique to study the relationship between fixed costs, variable costs, profit and volume activity. In planning gain, profit break-even analysis is a planning approach that is based on the relationship between cost (cost and sales revenue.

If a company has only variable costs only, then no problems will arise in the company break even. Break even new problems arise when an enterprise has a variable cost side also has a fixed cost. The amount of variable cost in totality will vary according to changes in production volume, while the amount of fixed costs in totality has not changed despite the change in the volume of production.

The cost is included in the general class of variable costs are raw materials, direct labor costs (direct labor), sales commissions, while fixed costs are included in the

general category are fixed assets depreciation, rent, interest on debt, salaries, payroll management, payroll staff research, and office expenses.

Because of the variable elements on the one hand and on the other elements remain, it may happen that the company ne certain production volume losses, as sales revenue and variable costs only cover a part of the fixed cost. This means that a portion of the sales revenue available to cover fixed costs is not enough.

Sales revenue net of variable costs is part of income sales available to cover fixed costs is called the contribution margin or contribution to fixed costs. If the contribution margin is greater than the fixed cost, means that sales revenue is greater than total costs, the company's benefit. Due to that it is important for the leadership of a company to determine the volume of activity or production volume sales exactly how much income can cover the cost of the sale in order to avoid total loss. Sales volume right where his income as large as the total cost, so the firm does not gain or lose any so-called break-even point.

To be able to determine the break-even level , must first know the elements , namely costs already broken down into fixed costs and variable costs as well as sales results obtained during a certain period. Break-even analysis sets certain requirements . To be able to calculate it must use restrictions and assumptions required or at least close to certain conditions, as mentioned earlier. The calculation is performed by comparing the costs with sales value can be seen in Table 2.

From Table 2 it can be seen that the fixed costs so that changes in the value of the sales break-even level is also changed. Increasing the amount of fixed costs will lead to higher sales at the break-even level, otherwise a reduced number of fixed costs will lower the value of sales at the break-even level.

Here is the sale of Bawang Goreng achieved by UD.Barokah Taniin Kabupaten Brebes in 2008 - 2012 :

Table 1 : Results of Bawang Goreng sale UD.Barokah Taniin Kabupaten Brebesin 2008-2012.

Year	Bawang GorengPrices/Kg (Rp)	Bawang Goreng Production (Kg)	Sales Results (Rp)
2008	11.250,00	104.619,4	1.581.966.000
2009	15.000,00	120.781	1.811.715.000
2010	25.000,00	91.087,4	2.277.185.000
2011	30.000,00	79.699	2.390.970.000
2012	32.000,00	78.373	2.507.936.000

Sources : UD.BarokahTaniinKabupatenBrebes

Table2 : Break even point at UD Barokah TaniinKabupatenBrebesin 2008 – 2012.

Year	Sales (Rp)	Cost		BEP (Rp)
		FC (Rp)	VC (Rp)	
2008	1.581.966.000	1.234.471.000	257.995.000	1.469.608.333
2009	1.811.715.000	1.474.715.000	244.000.000	1.714.784.844
2010	2.277.185.000	1.880.835.000	298.100.000	2.161.879.310
2011	2.390.970.000	1.973.310.000	315.150.000	2.268.172.414
2012	2.507.936.000	2.033.372.000	363.698.000	2.392.202.353

Sources: Dataareprocessedhypothesis

So that thecomparisonbetween thevalue ofthe company's totalsalesbyvalue ofsalesatthe break-evenlevelisasfollows:

Table3: Comparison ofthe value ofthe company's totalsalesbyvalue ofsalesatthe break-evenlevelin2008-2012.

Year	TotalSales Value Company (Rp)	Total Sales Value on BreakEven (Rp)
2008	1.581.966.000	1.469.608.333
2009	1.811.715.000	1.714.784.844
2010	2.277.185.000	2.161.879.310
2011	2.390.960.000	2.273.398.618
2012	2.507.950.000	2.378.212.865
Sum	10.569.772.000	9.997.883.970
Mean	2.113.954.400	1.999.576.794

Sources: Dataareprocessedhypothesis

From the calculated break-even point on the whole value of sales achieved by UD.Barokah Taniin Kabupaten Brebes is higher than the value of sales at the break-even point levBarokah Taniel each year. Similarly, the average value of sales obtained by UD.Barokah Taniin Kabupaten Brebes is higher than the average sales value at the level of the break even point. The first hypothesis which states that the value of the company's total sales are above the sales value at the break even point is accepted.

If the sales proceeds at the rate of break even point associated with the planned sale, it will obtain information on how much the value of the sale may be dropped so that the company did not lose, which is known as the Margin Of Safety or security boundary, which if reduced sales beyond the safety limit, then UD.Barokah Taniin Kabupaten Brebes.

Margin Of Safety analysis comparing the planned sales minus sales at the break-even point with the planned sale.

2. Calculation of Margin Of Safety

Calculation of Margin Of Safety can be seen in Table 4.

Table 4: Margin of Safety atUD.Barokah Taniin Kabupaten Brebes in 2008-2012.

Year	TotalSales Value Company (Rp)	Total Sales Value on BreakEven (Rp)	MOS (%)
2008	1.581.966.000	1.469.608.333	7,10
2009	1.811.715.000	1.714.784.844	5,35
2010	2.277.185.000	2.161.879.310	5,06
2011	2.390.970.000	2.273.398.618	4,92
2012	2.507.936.000	2.378.212.865	5,17
Sum	10.569.772.000	9.997.883.970	27,60
Mean	2.113.954.400	1.999.576.794	5,52

Sources: Dataareprocessedhypothesis

From table 4 can be explained that:

a. For 2008, the level of sales should not go down more than 7.10% of the sale in order that the company does not lose.If declared by the sale:
   = MOS x Sales Total
   = 7,10% x Rp 1.581.966.000,00
   = Rp 112.319.586,00
   Whichmeansthat thesafelevel of salesisnot be lessthanRp. 112.319.586,00
b. For 2009, the level of sales should not go down more than 5,35% of the sale in order that the company does not lose.If declared by the sale:
   = MOS x Total penjualan
   = 5,35% x Rp 1.811.715.000,00
   = Rp 96.926.752,50
   Whichmeansthat thesafelevel of salesisnot be lessthanRp. 96.926.752,50
c. For 2010, the level of sales should not go down more than 5,06% of the sale in order that the company does not lose.If declared by the sale:
   = MOS x Total penjualan
   = 5,06% x Rp 2.277.185.000,00
   = Rp 115.225.561,00
   Whichmeansthat thesafelevel of salesisnot be lessthanRp. 115.225.561,00
d. For 2011, the level of sales should not go down more than 4,92% of the sale in order that the company does not lose.If declared by the sale:
   = MOS x Total penjualan
   = 4,92% x Rp 2.390.970.000,00
   = Rp 117.635.724,00
   Whichmeansthat thesafelevel of salesisnot be lessthanRp. 117.635.724,00
e. For 2012, the level of sales should not go down more than 5,17% of the sale in order that the company does not lose.If declared by the sale:
   = MOS x Total penjualan
   = 5,17% x Rp 2.507.936.000,00
   = Rp129.660.291,20
   Whichmeansthat thesafelevel of salesisnot be lessthanRp. 129.660.291,20

Of table 4 shows that the risk of a security boundary fluctuates widely. MOS highest overall in 2008 is 7.10 per cent, this means that in 2008 the business has the safest and least likely to suffer losses due to declining sales of the planned sales, while in 2011 its safe and less likely to experience substantial losses. In 2010 UD.Barokah Tani in Kabupaten Brebes nearly suffered a loss, however, can be helped by the high price of bawang goreng in times of crisis public trust in government and the domestic political climate heats up onion imports will come from the Philippines, so that the total sales value UD.Barokah Taniin Kabupaten Brebesincreases in the value of sales to break even. However, the average of the years 2008 - 2012 yield 5.52% MOS, which means they are within safety limits, this enabling the company suffered a loss is very small.

Determination of sales is the company's revenue plan within a period of one year or more. Determination of sales is essential for management to make a budget, budget and financial investment earnings. Changes in sales volume will affect a very significant investment in working capital and fixed assets.

2. **Contribution Margin Ratio Calculation**

To answer the second hypothesis, it must be known in addition to Margin Of Safety Ratio (MOSR) should also be known Contribution Margin Ratio (CMR).

Table 5: Margin of Safety Ratio (MOSR) and Contribution Margin Ratio (CMR) at UD.Barokah Taniin Kabupaten Brebes in 2008-2012

Year	MOSR (%)	CMR (%)
2008	7,10	83,69
2009	5,35	86,53
2010	5,06	86,91
2011	4,92	86,82
2012	5,17	85,50
Sum	27,60	492,25
Mean	5,52	85,85

Sources: Dataareprocessedhypothesis

From Table5it can be seen that the average MOS firms smaller than the average firm CMR. MOSiean average of 5.52%, while the average CMR is by 85.85%. This thesecond hypo thesis which states that the Margin Of Safety is under the Contribution Margin Ratiois received.

3. **DegreeOfLeverageCalculationOperation**

Therefore, break-even analysis that studied the balance between revenue minus variablecosts (contribution to fixed cost) on the one handwith aflat feewiththe other party, then seirng said that the break-even analysis is atool for studying operating leverage. Operating leverage is concerned with the use of company assets oroperations are accompanied by fixed costs. It is said that the operating leverage that produce safavorableor positive leverage that revenuenet ofvariable costs is greater than its fixed costs.

It is said that the company's operations, along with thefixed costs (operating leverage) result in adverse or negative leverage of fixed cost given that the contribution is smaller than its fixed costs. It is said that the company's operations, along with fixed costs that the state break evenif the contribution to fixed cost given exactly the same as the fixed costs.

The results of calculations Degree Of Operation Leverage was obtained asthe results shown in Table6. on the table, it can be seen that the Degree Of Operation Leverage fluctuate each year. This is due to changes invariable costs, fixed costs and sales results achieved by the company.

Table6 : *Degree Of Operation Leverage*at UD.Barokah TaniinKabupatenBrebesin 2008 – 2012

Year	Sales Total (S)	Variable Cost (VC)	Fixed Cost (FC)	S – VC	S – VC – FC	DOL
	1	2	3	1 – 2	1 – 2 – 3	$\frac{1-2}{1-2-3}$
2008	1.581.966.000	257.995.000	1.234.471.000	1.323.971.000	89.500.000	14,79
2009	1.811.715.000	244.000.000	1.474.715.000	1.567.715.000	93.000.000	16,86
2010	2.277.185.000	298.100.000	1.880.835.000	1.979.085.000	98.250.000	20,14

2011	2.390.970.000	315.150.000	1.973.310.000	2.075.820.000	102.510.000	20,25
2012	2.507.936.000	363.698.000	2.033.372.000	2.144.238.000	110.866.000	19,34
Mean						18,28

Sources: Dataareprocessedhypothesis

Lowest DOL on Barokah TaniinKabupatenBrebes at 14.79, the highest was 20.25 DOL (positive). This means that the company provide a favorable leverage, in the sense able to cover its fixed costs. Hence the third hypothesis which states that the company has been operating on a profitable leverage or changes in the value of sales has a positive effect on earnings change is accepted.

E. Involucre

From the analysis of the data obtained the following conclusions :

1. The company's total sales value is greater than the value of sales at the level of the break even point. It can be shown from the comparison table between the total value of sales by value of sales at the break even point. The average sales total is Rp 2,113,954,400.00 while the average level of sales at the break even point is Rp 1,999,576,794.00. So the first hypothesis which states that the value of the company's total sales were above the level of sales at the break even point.
2. Margin Of Safety Ratio corporate average smaller than the Contribution Margin Ratio corporate average margin of safety ie the average is at 5.52 % while the Contribution Margin Ratio is average by 85.85 % . So the second hypothesis which states that the Margin of Safety Ratio under the Contribution Margin Ratio is received.
3. Degree of Operation Leverage (DOL) for the lowest company high of 14.79 and 20.25 (positive). Means the third hypothesis which states that the value of sales of a positive effect on operating income is received.

Of the three above analysis it can be concluded that the UD.Barokah TaniinKabupatenBrebes can maintain sustainability of the company in the midst of free competition that hit the business world, especially the Bawang Goreng.

G. Implication

1. In the work plan and budget necessary to complete the company's profit analysis break even point , because by using the break even point analysis can be known relationship between the magnitude of the cost, selling price, the value of sales and profits to be planned for the future.
2. Companies need to maintain and even increase the value of sales by expanding the marketing area, both within the city and outside the city. This meant that the difference between the value of total sales by value of sales at the level of the break even point is larger, because the difference in value greater sales of the company can avoid impairment losses in case of sale of the company to the extent of security (Margin Of Safety). It also meant that the company can maintain the selling price has been achieved.

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Cost and Revenue

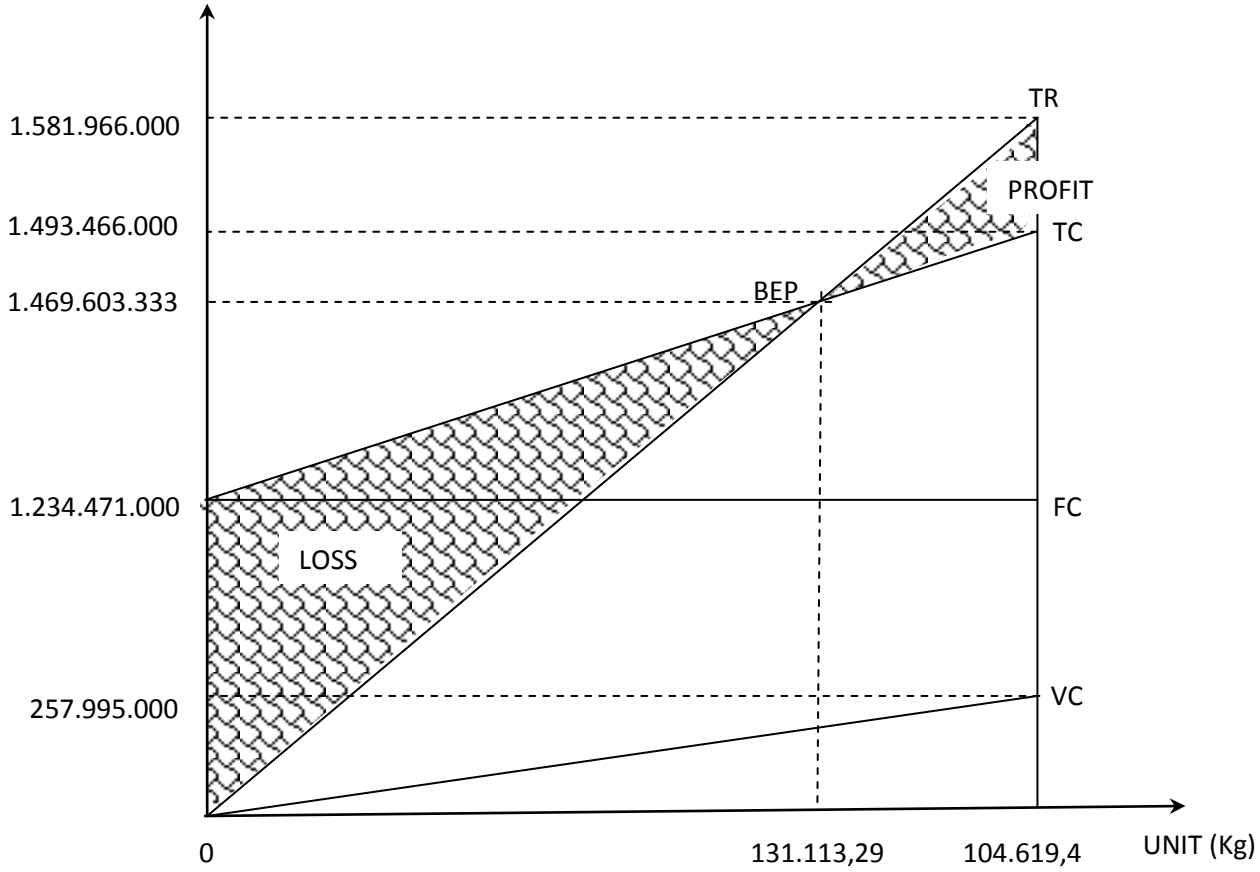
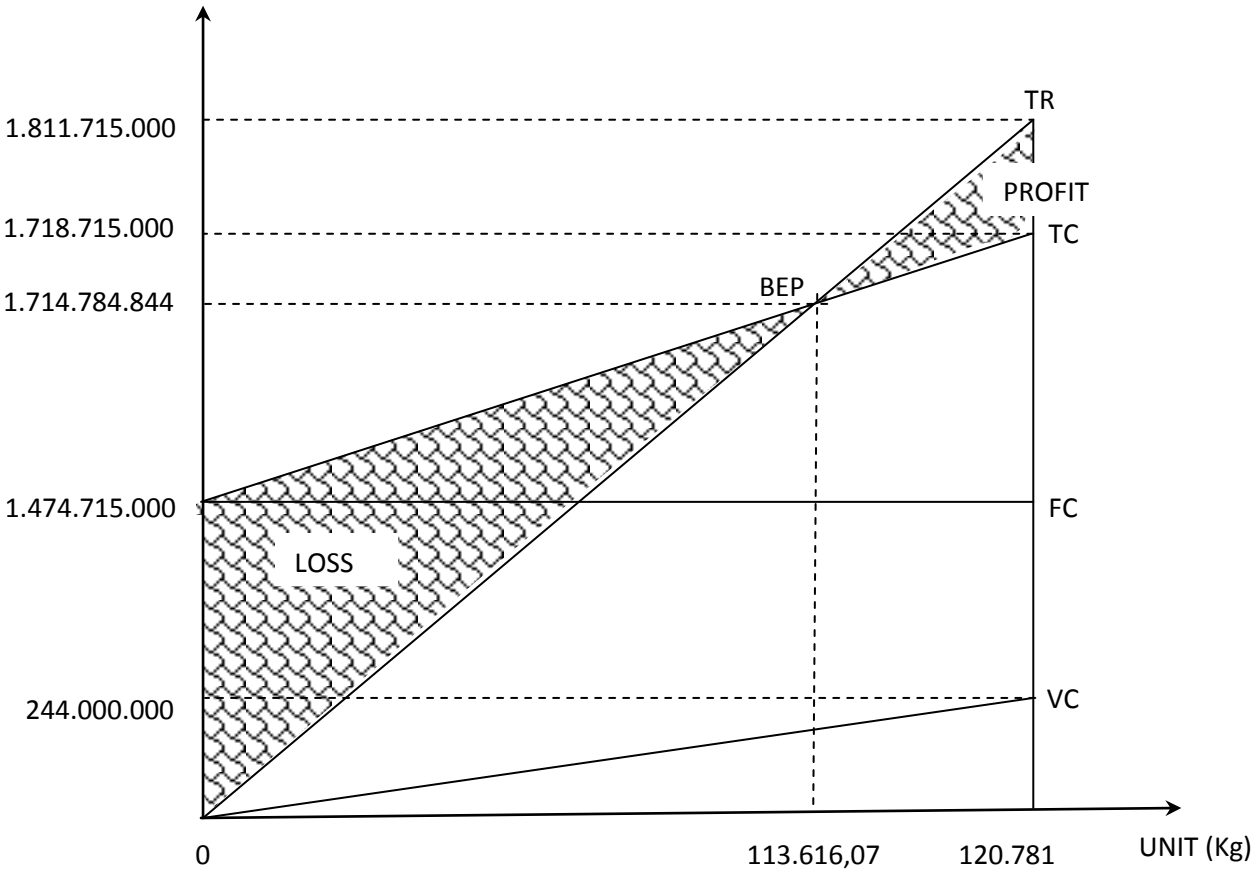


Chart Break Even atUD. Barokah Tani
Year 2008

Cost and Revenue



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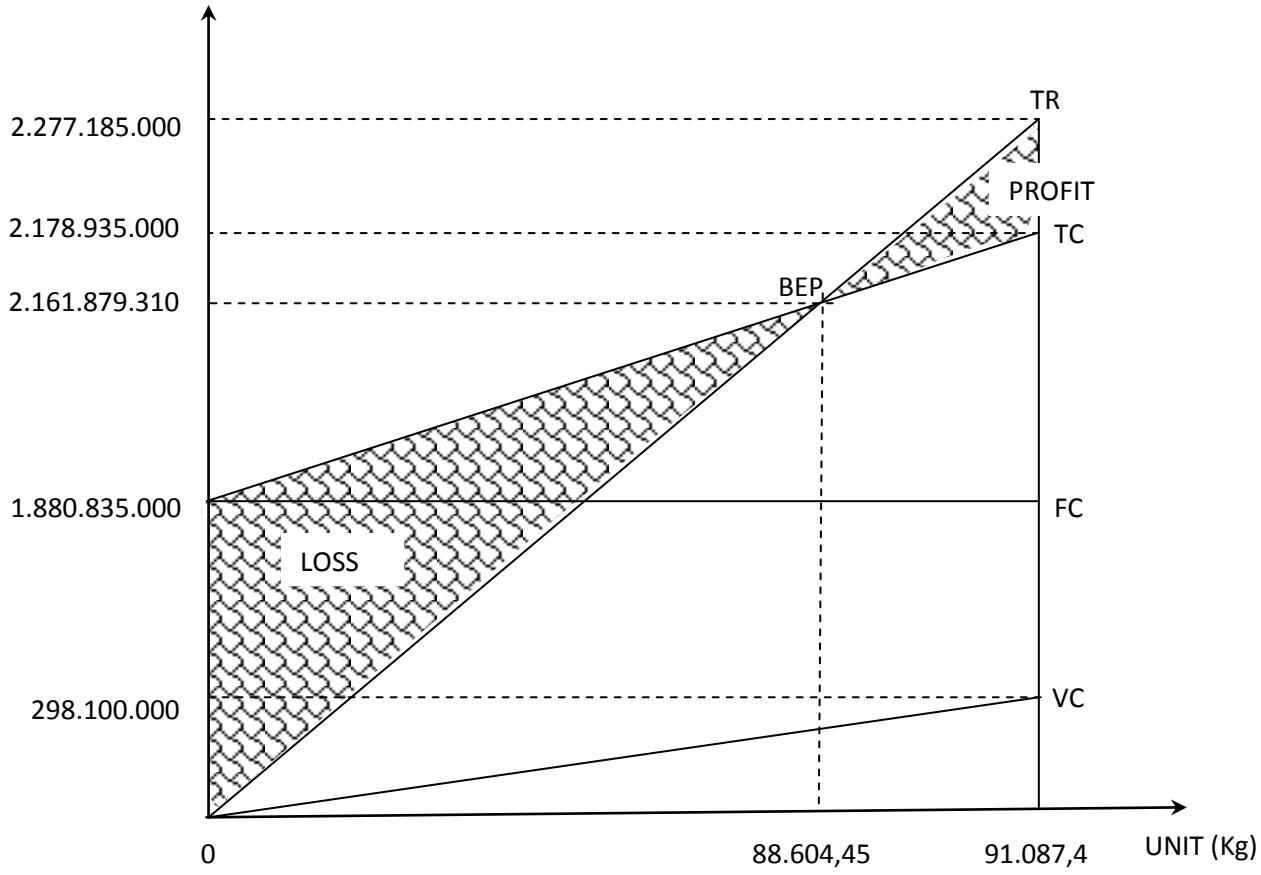
Year 2009

Cost and Revenue



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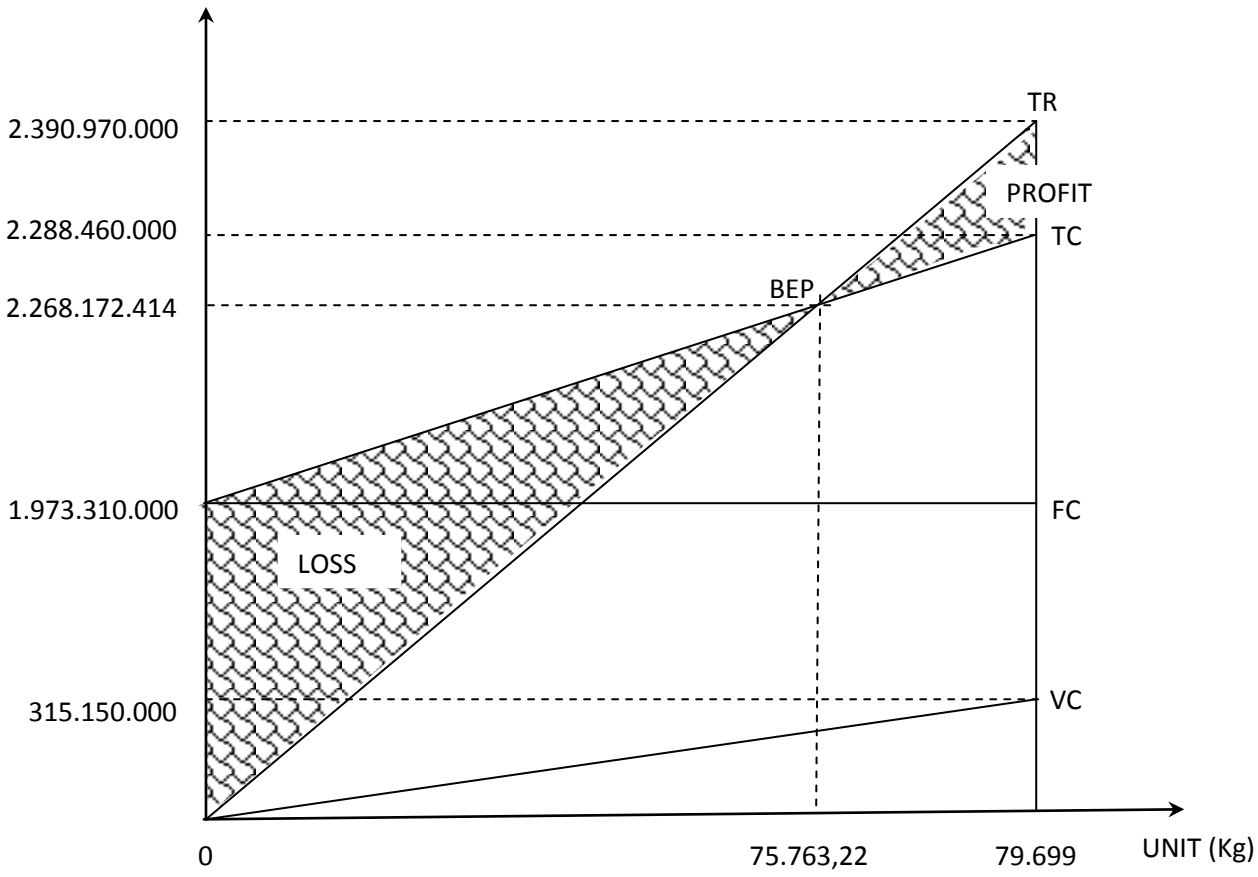
Year 2010

Cost and Revenue



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Year 2011

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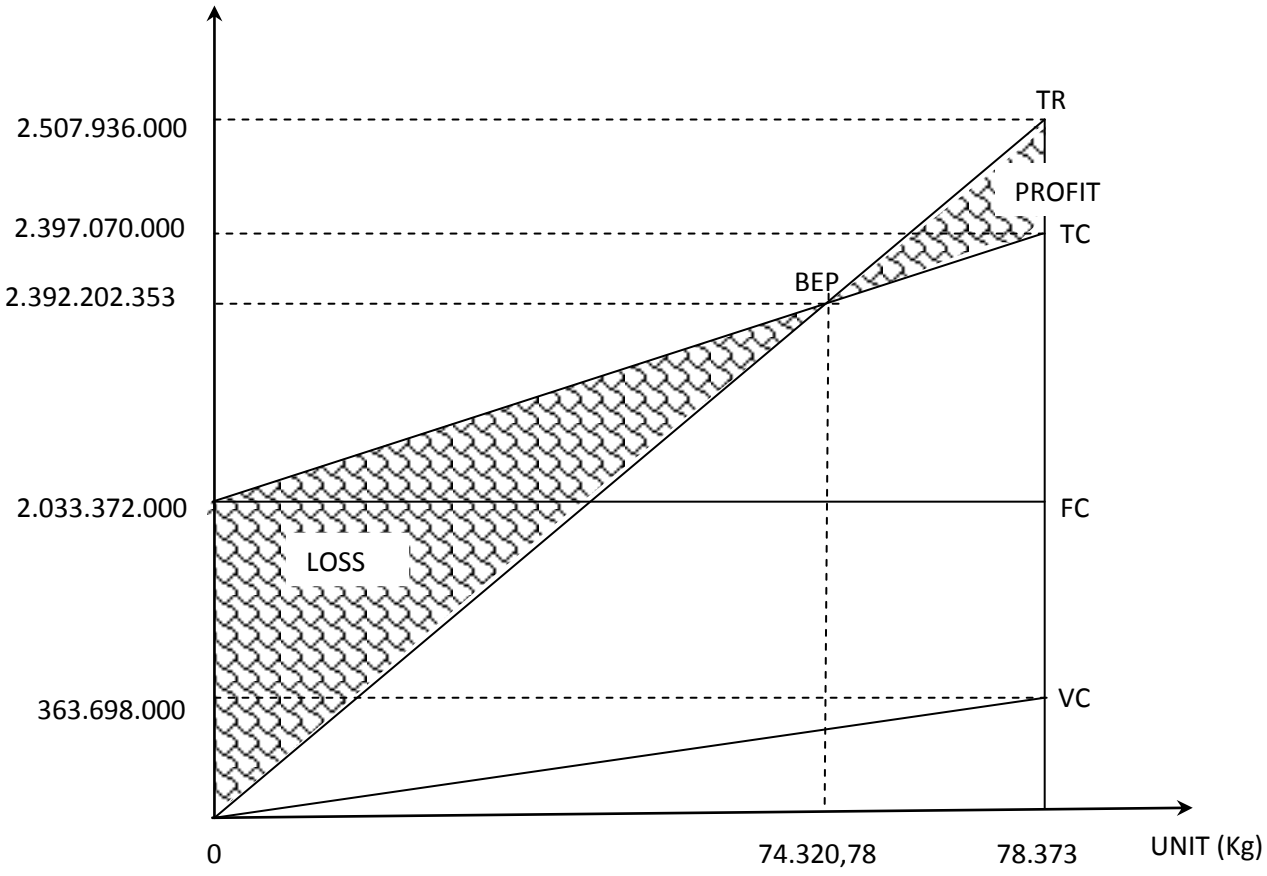

Chart Break Even at UD. Barokah Tani
Year 2012