**International Conference on Economy, Management, and Business (IC-EMBus)**
VOL. 1, 2023 p. 783-791
https://journal.trunojoyo.ac.id/icembus

# Analysis *Cost Volume Profit* (CVP) as a Basis for Sale Plan in Achieving Profit Target (Case Study on UD. Jaya Makmur Tambak Pocok Village Tanjung Bumi Subdistrict Bangkalan Regency)

Peni Nevia Fitri Ami[1], Maudina Alia[2], Vicky Febriansyah[3], Mochamad Reza Adiyanto[4]
[1,2,3,4] Management Department, Universitas Trunojoyo Madura

**INFO ARTIKEL**

*Keywords*:

*Cost Volume Profit, Profit Plan, Sales Plan.*

***Abstract***

*This research aims to determine the application of cost volumeprofit analysis to UD. Jaya Makmur. Research Method use descriptive quantitative research methods with data obtained by observation and interviews. Results of this research shows that separating semivariable costs using the least square method into fixed costs and variable costs produces fixed costs of Rp. 47,000,000 and variable costs of Rp. 153,500,000. The BEP calculation, which is a step in the cost volume profit analysis, shows the BEP mix for total product sales of Rp. 75,320,512.82. In planning UD's sales and profits. Jaya Makmur plans to increase profits in the next 3 months by 45.45% of the total profits obtained previously. To achieve the planned increase in profits, UD. Jaya Makmur must increase sales by Rp. 593.363.275 Calculation results of margin of safety for UD. Jaya Makmur is 81.5%, meaning that if the company experiences a decline in sales exceeding 81.5%, the company will experience a loss.*

✉ Peni Nevia Fitri Ami, Maudina Alia, Vicky Febriansyah
(Mochamad Reza Adiyanto)

*Email:*
peninevia@gmail.com [1] ,maudinaalia2@gmail.com [2] ,
vickyfebriansyah55@gmail.com [3] , reza.adiyanto@gmail.com [4]

E-ISSN: 3026-0965

DOI :

## Introduction

Along with the times, accompanied by advances in technology and information in the business world, competition is now increasingly fierce, both from micro businesses down to micro businesses up to large companies. Planning, management and handling strategies need to be carried out by companies to make the right decisions in order to maintain the company's sales operational activities so that they continue to get stable profits.

The aim of a business in maintaining operational activities and an increasingly developing economy is to obtain greater profits in accordance with business growth. With this aim, a business, especially a company, must plan sales to increase profits and use existing resources optimally to achieve company goals. Sales planning is a very important factor in a business because it will influence the smoothness and success of the company in achieving its goals. Achieving the goals that have been formulated is very dependent on management's ability to prepare future plans, both short-term and long-term. Good management is management that can carry out its functions optimally, namely Planning, Organizing, Motivating, Controlling. and Evaluating (evaluation). In order for management to carry out its duties well, management needs a planning tool to achieve the goals of a business to make a profit.

Profit is the main goal in a company, one of the plans made by management is profit planning. Because profit is the difference between income received (from sales) and costs incurred, profit planning is influenced by sales planning and cost planning. Profit planning itself is the development of a company's operational plan to achieve the company's ideals and objectives" (Carter and Usry, 2005:4).

At UD. Jaya Makmur, preparing profit planning must involve management who pays attention and knows the extent of the relationship between the factors that influence the company's profit level. According to Munawir (2007:184) that profit planning has a relationship between costs, volume and selling price. Costs determine the selling price to achieve the desired profit, selling price influences sales volume, sales volume influences production volume and production volume influences costs. One method that can be used by UD. Jaya Makmur to find out the relationship between costs, volume and profit is to use Cost Volume Profit analysis.

In the Cost Volume Profit (CVP) analysis used in making a profit plan, it will produce a break even point value, a contribution margin value and a margin of safety value. All companies, both micro and macro, need a Cost Volume Profit analysis to study the relationship between costs, profits a nd sales volume so that they can obtain information about the minimum sales level that must be achieved in order not to experience losses. In the background problems above, UD. Jaya Makmur, which operates in rice milling, has never used cost volume profit (CVP) analysis to achieve its profit target. For this reason, researchers are interested in raising the title "Cost Volume Profit (CVP) Analysis as a Basis for Sales Planning in Achieving Profit Targets (Case Study at UD. Jaya Makmur Ds. Tambak Pocok Kec. Tanjung Bumi, Bangkalan Regency)".

## LITERATUR REVIEW

### Cost

According to Bustami and Nurlela (2013:7) "Costs are sacrifices of economic resources measured in units of money that have occurred or are likely to occur to achieve certain goals." Another definition states that "Costs are cash and cash equivalents sacrificed to produce or obtain goods and services that are expected to obtain benefits or profits in the future" (Purwanti, 2013:19).

### Sales Plan

Sales plan is a forecast of the unit and monetary value of a company's sales for a future period based on recent sales trends (Brigham and Houston, 2001: 117). The

sales planning that has been planned by the company can be used to determine the profit desired by the company. So, to obtain the desired profit, the company must determine profit planning first.

**Profit Plan**

Profit plan is planning carried out by a company in order to achieve the company's goals, namely making a profit. Profit planning contains the steps that will be taken by the company to achieve the desired profit target. Profit is the main goal of the company because profit is the difference between the income received (from sales) and the costs incurred, so profit planning is influenced by sales planning. Profit planning has a relationship between costs, volume and selling price. Costs determine the selling price to achieve the desired profit level, selling price influences sales volume, while sales volume influences production volume (Munawir, 2007: 184).

**Cost Volume Profit Analysis**

Analysis (cost-volume-profit-CVP) is one of several tools that is very useful for managers in giving orders. This tool helps management understand the interrelationship between costs, volumes and profits in an organization by focusing on the interactions between five elements: product price: volume or level of activity; variable costs per unit; total fixed costs; and the mix of products sold." According to Mulyadi (2001), cost-volume-profit analysis is a technique for calculating the impact of changes in selling prices, sales volume and costs on profits to assist management in short-term profit planning.

**Contribution Margin Analysis**

Contribution margin is the remaining amount of revenue minus variable expenses. So, this is the Amount available to cover fixed expenses and then become profit for the period. Contribution Margin is the difference between sales and variable costs of a product or service. That is the amount of money available to cover fixed costs and generate profits.

According to Samryn (2012:173) Sales contribution = Margin - Variable Costs

$$Contribusi\ Margin\ Ratio = \frac{Contribution\ Margin}{Selling}\ X\ 100\%$$

**Break Even Point Analysis**

Break Even Point Analysis is a method or technique used by company managers to determine whether the company's sales level is not experiencing profits or experiencing losses (Sigit, 2002: 1). BEP or Break Even Point is the point where income is equal to the capital issued, there is no loss or profit. Total profits and losses are at position 0, the break event point, which means that at this point the company does not experience losses or make profits.

$$\text{BEP atau Titik Impas} = \frac{Fixed\ Cost}{\text{Contribution Margin Ratio}}$$

$$\text{BEP (Kg/ Unit)} = \frac{BEP\ (Rp)}{\text{Selling Price}}$$

**Margin of Safety Analysis**

Margin of safety is a tool that can provide information about how much the budgeted sales volume or certain sales results may decrease so that the company

does not suffer losses. The margin of safety figure will provide an indication of the maximum amount of reduction in sales volume that is planned or budgeted and will not result in a loss.

Margin of Safety = Total Sales – Penjualan Titik Impas

$$\text{Margin of Safety Ratio} = \frac{\text{Margin of Safety}}{\text{Total Sales}} X\ 100\%$$

## RESEARCH METHODS

The method used to write this article is a descriptive quantitative approach. Meanwhile, according to Sugiyono (2017:7) "quantitative research is research data in the form of numbers and analysis using statistics". The data obtained by researchers was by conducting observations and interviews at Kopoktan UD. Jaya Makmur which is engaged in rice milling and rice supply in Tambak Pocok Village, Tanjung Bumi District, Bangkalan Regency. The data analysis technique uses the Cost Volume Profit (CVP) analysis method. In determining profit planning, use the Cost Volume Profit (CVP) analysis method. Researchers also wrote appropriate keywords related to Cost Volume Profit Analysis as a Basis for Sales Planning in Achieving Profit Targets.

## RESULT AND DISCUSSION

### Business Description / Company

UD. Jaya Makmur is one of the businesses owned by a farmer group in Tambak Pocok village, Tanjung Bumi sub-district, Bangkalan Regency which operates in the field of rice management, rice milling and selling superior rice, led by Muhammad Abbas Sastro Diputro. UD. Jaya Makmur sells several rice products from its mills, there is Class A rice which is the best with the largest rice size, Class B rice in the middle with medium to small size and Class C rice which is the smallest size which is usually called groats. UD. Jaya Makmur itself has only been established for about 1 year in Tanjung Bumi, Bangkalan Regency.

**Tabel 1.1 Financial Report UD. Jaya Makmur 1 july- 30 september 2023 from Interview Report**

**UD. Jaya Makmur**
Cost of Goods Production Report
**1 July - 30 September 2023**

| | |
|---|---|
| **Beginning Work in Process Inventory:** | **Rp. 15.000.000** |
| Raw Material Inventory | Rp. 20.000.000 |
| Purchase of Raw Materials | Rp. 100.000.000 |
| Return Damaged Raw materials | Rp. 17.000.000 |
| Total Initial Work in Process Inventory | Rp. 103.000.000 |
| **Production Cost Excluding Raw Materials:** | |
| Direct Labor Costs / Monthly Salary | Rp. 30.000.000 |
| Engine Fuel Costs | Rp. 2.500.000 |
| Total Production Costs | Rp. 32.500.000 |
| **Factory Overhead Costs:** | |
| Indirect Labor Costs | Rp. 13.000.000 |

| | |
|---|---|
| Additional Rice Drying Employee Salary | Rp. 4.000.000 |
| Electricity Cost | Rp. 9.500.000 |
| Machine Maintenance Costs | Rp. 3.500.000 |
| Factory Equipment Costs | Rp. 1.000.000 |
| Total Factory Overhead Costs | Rp. 31.000.000 |
| **Number of Goods in Process (Final)** | **Rp. 181.500.000** |
| **Ending Inventory** | **Rp. 6.000.000** |
| **Cost of Goods Sold** | **Rp. 175.500.000** |

**Tabel 2 Profit and Loss Report UD. Jaya Makmur 1 July- 30 September 2023**

**UD. Jaya Makmur**
**Profit and Loss Report**
**1 July - 30 September 2023**

| | |
|---|---|
| **Sale:** | |
| Rice Sales A | 17.600kg @13.000 = Rp. 267.800.000 |
| Rice Sales B | 9.100kg @11.500 = Rp. 104.650.000 |
| Rice Sales C | 2.500kg @10.000 = Rp. 25.000.000 |
| Sales of Fine Bran | 5.100 kg @2.500 = Rp. 12.750.000 |
| Sales of Coarse Rise Husk | 150 karung @5.000 = Rp. 750.000 |
| Total Sales | Rp. 407.950.000 |
| **Expenses:** | |
| Costs of Goods Sold | Rp. 175.500.000 |
| Shipping Expenses | Rp. 1.000.000/5.000 kg = Rp 7.000.000 |
| Total Expenses | Rp. 182.500.000 |
| **Net Profit** | **Rp. 225.450.000** |

**Tabel 3 Recapitulation of All Costs into Fixed Costs an Variable Costs at UD. Jaya Makmur 1 July - 30 September 2023**

| **Information** | **Fixed Cost (Rp)** | **Variable Costs (Rp)** |
|---|---|---|
| **Beginning Work in Process Inventory:** | | Rp. 20.000.000 |
| Raw Material Inventory (Intial): | | Rp. 100.000.000 |
| Purchase of Raw Materials | | Rp. 17.000.000 |
| Return Damaged Raw Materials | | |
| **Production Costs Excluding Raw Materials:** | Rp. 30.000.000 | |
| Direct Labor Costs / Monthly Salary | | Rp. 2.500.000 |
| Machine Fuel Costs | | |
| **Factory Overhead Costs:** | | |
| Indirect Labor Costs | Rp. 13.000.000 | |

| | | |
|---|---|---|
| Additional Rice Drying Employee | | Rp. 4.000.000 |
| Salary | Rp. 3.000.000 | Rp. 6.500.000 |
| Electricity Cost | | Rp. 3.500.000 |
| Machine Maintenance Costs | Rp. 1.000.000 | |
| Factory Equipment Costs | | |

Based on table 1.3, it can be seen that fixed costs are Rp. 47,000,000 and variable costs of Rp. 153,500,000. After recapitulating all costs into fixed costs and variable costs, the next stage is calculating the contribution margin.

**Perhitungan *Margin Kontribusi* UD. Jaya Makmur 1 July - 30 September 2023**

Margin kontribusi = Sale - Variable Costs
= Rp. 407.950.000 - Rp. 153.500.000
= Rp. 254.450.000

$$Contribusi\ Margin\ Ratio = \frac{Contribution\ Margin}{sale} X\ 100\%$$

$$Contribusi\ Margin\ Ratio = \frac{\text{Rp. } 254.450.000}{\text{Rp. } 407.950.000} X\ 100\%$$
$$= 0{,}624\ \text{X}\ 100\%$$
$$= 62{,}4\%$$

From the contribution margin ratio calculations carried out, it can be seen that the product produced is able to contribute 62.4% profit to the company. And using the least squares method, the assumption was found that sales will increase by 45.45% over the next 3 months. So the calculation:

| Information | Currently | Expected | Change |
|---|---|---|---|
| **Sale** | Rp. 407.950.000 | Rp. 593.363.275 | Rp. 185.413.275 |
| **Variable Cost** | Rp. 153.500.000 - | Rp. 223.265.750 - | Rp. 69.765.750 - |
| **Margin Contribution** | **Rp. 254.450.000** | **Rp. 370.097.525** | **Rp. 115.647.525** |
| **Fixed Cost** | Rp. 47.000.000 | Rp. 47.000.000 - | |
| **Factory Overhead Costs** | Rp. 31.000.000 - | | |
| **Operating Profit** | **Rp. 176.450.000** | **Rp. 323.097.525** | |
| **Ratio Margin Contribution** | **62,4%** | | |

**Calculation *Break Event Point* UD. Jaya Makmur 1 July - 30 September 2023**

$$\text{BEP atau Titik Impas} = \frac{fixed\ Cost}{\text{Contribution Margin Ratio}}$$

$$= \frac{\text{Rp.47.000.000}}{62{,}4\%}$$
$$= \text{Rp. } 75.320.512{,}82$$

$$\text{BEP (Kg) type rice A} = \frac{BEP\ (Rp)}{\text{Sale Price}}$$

$$= \frac{\text{Rp.75.320.512,82}}{\text{Rp.13.000}}$$

= 5.793,89

= 5.794 Kg

$$\text{BEP (Kg) type rice B} = \frac{BEP\ (Rp)}{\text{Sale Price}}$$

$$= \frac{\text{Rp.75.320.512,82}}{\text{Rp.11.500}}$$

= 6.549,6

= 6.550 Kg

$$\text{BEP (Kg) type rice C} = \frac{BEP\ (Rp)}{\text{Sale Price}}$$

$$= \frac{\text{Rp. 75.320.512,82}}{\text{Rp. 10.000}}$$

= 7.532,05

= 7.532 Kg

$$\text{BEP (Kg) Fine Bran} = \frac{BEP\ (Rp)}{\text{Sale Price}}$$

$$= \frac{\text{Rp.75.320.512,82}}{\text{Rp.2,500}}$$

= 30.182,2

= 30.182 Kg

$$\text{BEP (Kg) Coarse Rice Bran} = \frac{BEP\ (Rp)}{\text{Sale Price}}$$

$$= \frac{\text{Rp.75.320.512,82}}{\text{Rp. 5.000}}$$

= 15.064,102

= 15.064 Kg

From the calculation above, it can be seen that if UD. Jaya Makmur wants its capital back, then UD. Jaya Makmur must sell the products it produces for IDR 75,320,512.82. Or sell products produced at a minimum of 5,794 kg of type A rice, 6,550 kg of type B rice, 7,532 kg of type C rice, 30,132 kg of fine bran and 30,182 kg of coarse rice husks.

**Calculation *Margin of Safety* UD. Jaya Makmur 1 July - 30 September 2023**

Margin of Safety = Total Sale – Break Even Sales

= Rp. 407.950.000 - Rp. 75.320.512,82

= Rp. 332.629.487,18

$$\text{Margin of Safety Ratio} = \frac{\text{Margin of Safety}}{\text{Total Sale}} X\ 100\%$$

$$\text{Margin of Safety Ratio} = \frac{\text{Rp. } 332.629.487{,}18}{\text{Rp. } 407.950.000} X\ 100\%$$

$$= 0{,}815 \text{ X } 100\%$$
$$= 81{,}5\%$$

From the calculation results above, it can be seen that the decline that UD.Jaya Makmur must avoid is 81.5% of the previous total sales. If UD. Jaya Makmur experienced a decline of more than 81.5%, so it was said to have suffered a large loss. And if the decline is still below or less than 81.5% it is still said to be safe and has not experienced any losses.

## CONCLUSION

UD. Jaya Makmur only operates business in its company without recording financial expenses or cash coming in from production results so that UD. Jaya Makmur also has not carried out sales planning and profit planning. Where the condition of UD.Jaya Makmur in the October-December 2023 period is predicted to experience better conditions than in the July - September 2023 period. Estimated sales will increase by 45.45% or Rp. 185,413,275 for the next 3 months. In calculating the contribution margin, a figure of IDR is obtained. 125,458,000 with a contribution margin ratio of 62.4%, which shows that businesses in the Rice Milling sector are able to cover fixed business costs.

The BEP or break-even point for the period July - September 2023 is IDR. 75,320,512.82 It can be interpreted that the UD Rice Milling Business. Jaya Makmur will generate maximum profit if sales are above Rp. 75,320,512.82. Margin of Safety for UD Rice Milling Business. Jaya Makmur is 81.5%. If Ibu's Chips business experiences a decline in sales of 81.5% then UD's Rice Milling business. Jaya Makmur will experience losses. However, because the margin of safety obtained is quite large, the possibility that the business will experience losses is small.

## Suggestion

UD Rice Milling Business. Jaya Makmur should be able to sell products at a high percentage. So this makes it possible for the UD Rice Milling Business. Jaya Makmur will continue to run well and be able to expand its business because the possibility of the business experiencing losses is very small. And it would be better if the UD Rice Milling Business. Jaya Makmur should identify aspects of its activities, one of which is identifying cost components. UD Rice Milling Business. Jaya Makmur can consider using cost volume profit analysis more in its sales and profit planning activities, to enable management to work more effectively and efficiently. Through this analysis, the company will get a more complete and detailed picture of sales and profit planning for the next period.

## REFERENCE


Ari Purwanti dan Darsono Prawironegoro. 2013. Akuntansi Manajemen, Edisi ketiga revisi. Jakarta: Mitra Wacana Media.

Atkinson, Anthony A. dan Robert S. Kaplan. 2009. Akuntansi Manajemen. Jakarta: Indeks.

Brigham, F dan Houston, J. 2001. Dasar-Dasar Manajemen Keuangan. Edisi 8, Buku 2. Jakarta: Salemba Empat.

Budiyanti, Harti. Narsa, Made & Irma . (2015) “Akuntansi Manajemen” Edisi Kedua. Penerbit Universitas Terbuka : Tangerang Selatan – Banten.

Bustami, B. & Nurlela, 2013. Akuntansi Biaya Edisi 4. Dalam: Jakarta: Mitra Wacana Media, p. 49.
Carter, William K; and Milton F. Usry., 2005. Akuntansi Biaya., edisi ke 13, Buku 2, Jakarta: Penerbit Salemba Empat.
Kartika, E., & Sunarka, P. S. (2019). Analisis Cost-Volume-Profit untuk Perencanaan Laba pada UD. Budi Luhur Demak. Jurnal Ilmiah Aset, 21(1), 9-17.
Martono dan Harjito, Agus. 2004. Manajemen Keuangan. Edisi Pertama.
Yogjakarta: Ekonisia Kampus Fakultas Ekonomi UII Yogjakarta.
Martusa, R., & Wijaya, V. (2011). Peranan analisis cost-volume-profit dalam upaya merencanakan laba perusahaan. Akurat Jurnal Ilmiah Akuntansi, 4.
Mulyadi. 2001. Sistem Akuntansi Edisi Tiga. Jakarta : Salemba Empat.
Munawir, S. 2007. Analisa Laporan Keuangan. Edisi Keempat. Liberty. Yogyakarta.
Pratiwi, Windy, Elfreda Aplonia Lau, dan Murfat Effendy. (2016) . Analisis Cost-Volume-Profit (CVP) Untuk Perencanaan Laba Pada PT Saka Agung Abadi di Samarinda. Retrieved from https://media.neliti.com/media/publications/60805-ID-none.pdf
Puspita, Nanda C & Moch. Dzulkirom AR. (2017) "Analisis *Cost Volume Profit* sebagai dasar perencanaan penjualan dan perencanaan laba (PT. Mitra Anugrah Gemilang, Ngoro-Mojokerto)" Vol. 49 No.1 Agustus
Rosianna, Cantika. Winanda, Yola & Rezki, Windi K. (2021) "Analisis Cost Volume Profit terhadap Perencanaan Laba UMKM KERIPIK IBU" Vol. 1 (2) 2021 : 291 - 297
Samryn, L.M., 2012, Akuntansi Manajemen Informasi Biaya untuk Mengendalikan Aktivitas Operasi dan Investasi. Edisi Pertama. Jakarta: Kencana Prenada Media Group.
Sigit, Soehardi. 2002. Analisis Break Even Ancangan Linear Ringkas dan Pasti.ed.3. Yogyakarta : BPFE.
Silalahi, Donnie. (2019, April 12). Analisis CVP dan 5 Komponen Perhitungan Peningkatan Laba UMKM. Retrieved from https://alumak.id/blog/5-faktor-peningkatan-laba-umkm-padaanalisis-cvp/
Sugiyono. (2017). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung : Alfabeta, CV. https://massugiyantojambi.wordpress.com/2011/04/15/teori-motivasi/
Syamsuddin, Lukman. 2011. Manajemen Keuangan Perusahaan: Konsep Aplikasi dalam Perencanaan, Pengawasan, dan Pengambilan Keputusan. Jakarta: PT. RajaGrafindo Persada
Veronika, Vivi. E.S (2019) . "Analisis *Cost Volume Profit* (CVP) dalam perencanaan Laba pada PT Kampung Coklat Blitar"
Wijayanti, S. M., & Saifi, M. (2013). Analisis Break Even Poin sebagai salah satu alat perencanaan penjualan dan laba. Jurnal Administrasi Bisnis, 1(1).