

Analysis Of Costing Variables In Decision Making Case Studies In Confectionery Companies (Msmes)

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ABSTRACT

The pandemic covid19 has caused MSME in Indonesia to experience a decrease in profit levels and cannot use capacity to the fullest, so there is capacity that can still be utilized by receiving special orders. Then this study aims to know how MSME apply the cost of goods manufacture by variabel costing method which can increase profits during the pandemi of Covid19 and how the MSME apply cost analysis by variabel costing in short term decision making. This research was conducted in Uniform Original Confection using quantitative data types which were then analyzed using descriptive methods.. Sample data collected through interviews and observation regarding production data and cost incurred during the pandemi of Covid19 and when there of special orders. Sample data was determined using a purposive sampling technic and the samping technic used was a non probability sampling tehnic. The result of this studi this can be see through the total variabel production costs to produce 2.060 unit uniforms is Rp 65.685.160 then the variabel cost each unit is Rp 31.886, so MSME can do application and calculate cost of goods manucfature by variabel costing method consitently because thia method can generate profit for MSME. And the resultf of cost analysis by variabel costing method in short-term decision making, the company can receive the special order because with the special order the net profit obtained has increased by Rp 2.489.900.

Keywords: Msme, Variabel Costing, Decision Making, Special Order

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Introduction

In Indonesia, Micro, Small and Medium Enterprises (MSMEs) are a business sector that contributes very crucially in assisting economic growth in Indonesia because MSMEs have a role in the absorption of labor by opening up wide job opportunities for the population in Indonesia, especially for those with low education so as to alleviate poverty. people from poverty with the absorption of labor (Soetjipto, 2020).

But now the MSME sector is being tested for resilience due to the Covid-19 outbreak, this outbreak has spread throughout the world, including Indonesia. The COVID-19 virus has hit Indonesia since early 2020, which has led to the implementation of large-scale social restrictions (PSBB) in various regions and the closure of all public service sectors so that all activities such as working and studying are carried out from home or work from home as an effort to break the chain of the spread of the COVID-19 virus. . This has resulted in several industrial sectors including MSMEs experiencing a decline in sales and profits as a result of the decline in customer purchasing power. One of the MSMEs affected by the closure of public services is a confectionery company (UMKM), especially those whose production activities produce school uniforms because during the Covid19 pandemic, teaching and learning activities have been carried out online since the Covid-19 pandemic, which is March 2020 until now in June. 2021, causing the company to accumulate clothing inventory due to no inventory being sold. So the company cannot use the maximum capacity as usual in producing clothing because it has to reduce production activities or even temporarily stop production process activities.

The existence of idle capacity as a result of not being able to use capacity optimally by the company has an impact on unused facilities to the maximum and employees become unemployed. The idle capacity can still be utilized by accepting orders outside of the company's normal production, these orders are usually referred to as special orders. The receipt of this special order is intended to increase

the income of MSMEs, therefore an analysis is needed to find out whether the special order can benefit MSMEs or not. The right analysis to do is to apply the variable costing method because this method is useful in making decisions, especially those relating to short-term decisions. Covid19.

The purpose of this study itself is to understand how MSMEs apply variable costing calculations that can increase profits during the covid19 pandemic and to find out how MSMEs apply the variable costing method in analyzing costs to make short-term decisions regarding the acceptance or rejection of special orders.

The hope of the preparation of this research is that it can provide benefits for those who need it, such as providing explanations and information for companies regarding the variable costing method in determining the cost of production and making short-term decisions.

Research Method

The company that will be researched and at the same time the object of this research is a confectionery company (UMKM) located in Semplak Village, namely Aseli Uniform Confection whose activities are producing clothes, especially school uniforms. This study uses quantitative data types, namely the type of data collected related to numbers, such as costs incurred during the production process such as raw material costs, labor costs and factory overhead costs needed in calculating the cost of production and differential cost analysis to determine income and costs. differential of the special order.

To collect the necessary information, it is done by means of interviews and observations to obtain primary information, while to collect secondary information, it is done by literature studies from books, journals, and theses which have a topic similar to the problem being studied.

The sample data in this study is a report on the expenditure of the original Uniform Confection during the months of December 2020 to April 2021, namely when producing uniforms during the COVID-19 pandemic and when there is a special order. The non-probability sampling technique is used in sampling and in the selection using the purposive sampling method.

In this study, there are two variables to be studied, namely the independent variable which has an influence on other variables and the dependent variable is the variable that is influenced by the independent variable. The independent variable in this study is the costing variable, while decision making is the dependent variable.

This study uses a descriptive analysis method with the stages of data analysis carried out in this study as follows: 1) Identify and collect data through observations and interviews regarding the production costs of Uniform Original Confection. 2) Separating semi-variable costs into fixed costs and variable costs by using the least squares regression method. 3) Calculating the cost of production by applying the variable costing method because this method is useful in short-term decision making. 4) Calculate and analyze differential costs in making special order decisions. 5) Draw conclusions by selecting the available alternatives, namely accepting or rejecting the special order.

Results

Research data

Aseli Uniform Confection has been established for 25 years and is a family business whose activities are producing clothes, especially school uniforms. Currently, Konfeksi Aseli Uniform has seven workers consisting of one person in charge of cutting cloth, three tailors, one person trimming the edges of the fabric, one person in charge of making holes in the fabric for buttons and another person for attaching buttons. On average, the workers in this confection have low education, which is limited to elementary or junior high school graduates so that the establishment of this confection can help the local community who have low education but have expertise.

It is known based on the data obtained through interviews that the Uniform Original Confection is able to produce 1000 units per month. However, during the COVID-19 pandemic, the capacity could not be used maximally because Aseli Uniforms only produced less than 500 uniform units per month.

The total production of Aseli Uniform confection during December 2020 to April 2021 is 2,060 units of clothing with the following details:

Table 1
Data on Production Capacity and Realization of Uniform Production

Month	Production capacity	Production Realization	Idle Capacity
December 2020	1.000	360	640
January 2021	1.000	410	590
February 2021	1.000	385	615
March 2021	1.000	420	580
April 2021	1.000	485	515
Total	5.000	2.060	2940

Source: Uniform Original Confection data

Based on the data in Table 1, it is known that the total maximum production capacity of the Aseli uniform is 5,000 units in 5 months, while the realization is only 2,060 units. It can be seen that the idle capacity is greater than the realized production capacity so that the capacity of machinery and labor is still large and can be utilized by accepting or rejecting special orders. exploit idle capacity.

Calculation of Cost of Production Using Variable Costing Method

The variable costing method is a method of determining the cost of production that only takes variable costs into account in the cost of production. The variable method is used in this study because the method is useful for making special orders decisions, namely short-term decisions. Before calculating the cost of production, it must be collected and calculated in advance the production costs related to the products produced. The cost of production itself consists of the cost of raw materials, labor costs and variable factory overhead costs. 1) Raw material cost : The raw materials used in producing the uniforms are fabric, sewing thread, overlock thread and buttons. The following is a breakdown of the total raw materials needed and the total raw material costs incurred from December 2020 to April 2021 to produce 2,060 units.

Table 2
Cost of Raw Materials December 2020 to April 2021

Cost element	Needs unit	Per Requirement 2,060 Units	Material Price	Total
Fabric	1,5 m	3.090 m	Rp 16.000	Rp 49.440.000
Sewing thread	0,1 roll	206 roll	Rp 1.000	Rp 206.000
Overhead Yarn	0,015 roll	31 roll	Rp 16.000	Rp 494.400
Button	5 pcs	10.300 pcs	Rp 50	Rp 515.000
Hard Fabric	0,05 m	103 m	Rp 14.000	Rp 1.442.000
Total Raw Material Cost				Rp 52.097.400

Source: primary data (2021)

Table 2 above shows the calculation of the company's raw material costs so that it can be seen that the total cost of Uniform Confection to buy raw materials in producing uniforms of 2,060 units is Rp. 52,097,400. 2) Direct Labor Cost : Direct labor costs are costs incurred by the company to pay workers who help during the production process. Aseli Uniform Confection has seven workers consisting of five fields with the following details:

Table 3

Direct Labor Costs December 2020 to April 2021

Field	Production Volume	Wage/Unit	Total
Fabric Cutter	2.060	Rp 1.000	Rp 2.060.000
Seamstress	2.060	Rp 3.000	Rp 6.180.000
Buttonhole	2.060	Rp 500	Rp 1.030.000
chat	2.060	Rp 500	Rp 1.030.000
Button Installer	2.060	Rp 500	Rp 1.030.000
Total Direct Labor Cost			Rp 11.330.000

Source: primary data (2021)

From table 4 regarding the calculation of direct labor costs, it can be seen that the total cost of Uniform Confection to pay workers in producing uniforms of 2,060 units is Rp. 11,330,000.3) Factory Overhead Cost : Included in factory overhead costs are costs that are not included in the cost of raw materials and direct labor costs. In this study, there are two factory overhead costs, namely the cost of electricity and the cost of auxiliary materials. The following is a breakdown of the factory overhead costs incurred by Uniform Original Contractors:

Table 4

Factory Overhead Cost December 2020 to April 2021

Cost element	Requirement 2,060 Units	Material Price	Total
Electricity cost	-	-	Rp 437.000
Auxiliary Material Cost			
- Uniform Bet	2.060	Rp 750	Rp 1.545.000
- Plastic	2.060	Rp 160	Rp 329.600
Total Factory Overhead Cost			Rp 2.311.600

Source: primary data (2021)

It can be seen based on the table above that the total factory overhead costs for the company to pay for electricity are Rp. 437,000 and to buy auxiliary materials such as uniforms and plastics are Rp. 1,874,600 so that the total factory overhead costs are Rp. 2,311,600.

After a detailed calculation of the production costs for the Uniform Original Confection for the period December 2020 to April 2021, it is possible to calculate the total cost of production costs in producing 2,060 uniform units, namely:

Table 5

Production Cost Recapitulation December 2020 to April 2021

Information	Amount	Fee Type
Raw material cost	Rp 52.097.400	Variable
Direct labor costs	Rp 11.330.000	Variable
Factory Overhead Cost		
- Electricity cost	Rp 437.000	Semivariable
- Cost of auxiliary materials	Rp1.874.600	Variable
Total Production Cost	Rp 65.739.000	

Source: Primary Data (2021)

Table 5 above displays the recapitulation of the production costs of Uniform Original Confection from December 2020 to April 2020 so that it can be seen that the total production cost expenditure is Rp. 65,739,000 which consists of variable costs and semi-variable costs. The semi-variable costs in this convention are electricity costs with details of expenses each month as follows:

Table 6

Semivariable Costs

Month	Electricity cost
December 2020	78.000
January 2021	86.000
February 2021	84.000
March 2021	87.000
April 2021	102.000
Total Biaya	437.000

Source: primary data (2021)

With the existence of semi-variable costs, it is necessary to separate the semi-variable costs because in this method only variable costs are needed. So that this semi-variable cost separation is carried out to know for sure about the fixed costs and variable costs made by the company. This study utilizes the least squares method in performing semi-variable cost separation because this method is considered more accurate than other methods. The following is a calculation of the separation of electricity costs as semi-variable costs.

Table 7

Separation of Electricity Costs Using the Least Square Method

Month	(x)	(y)	XY	X²
December 2020	360	78.000	28.080.000	129.600
January 2021	410	86.000	35.260.000	168.100
February 2021	385	84.000	32.340.000	148.225
March 2021	420	87.000	36.540.000	176.400
April 2021	485	102.000	49.470.000	235.225
Total	2.060	437.000	181.690.000	857.550

Source: primary data (2021)

$$\begin{aligned}
 & b \frac{n\sum XY - (\sum X)(\sum Y)}{n\sum X^2 - (\sum X)^2} \\
 = & \frac{5(181.690.000) - (2.060)(437.000)}{5(857.550) - (2.060)^2} \\
 = & \frac{186,40 \text{ rounded up } 186}{} \\
 \\
 & a \frac{\sum Y - b(\sum X)}{N} \\
 = & \frac{437.000 - 186(2.060)}{5} \\
 = & 10.768
 \end{aligned}$$

Based on the calculation of the semi-variable cost separation above, it can be seen that the total fixed cost in electricity costs for five months is Rp. 53,840 which means that in one month it is Rp. 10,768 while the variable electricity cost for one unit is Rp. 186 so that the total variable electricity costs to produce 2,060 uniform units, which is IDR 383,160.

After knowing the exact amount of variable costs and fixed costs whose results are obtained from the calculation of the semi-variable cost separation, it can be made a breakdown of costs after the semi-variable cost separation which will be shown in the table below:

Table 8
Breakdown of Costs after Separation of Semivariable Costs

Information	Fixed cost	Variable Cost	Total
Raw material cost		Rp 52.097.400	Rp 52.097.400
tkl fee		Rp 11.330.000	Rp 11.330.000
Factory Overhead Cost			
- Electricity cost	Rp 53.840	Rp 383.160	Rp 437.000
- Cost of auxiliary materials		Rp1.874.600	Rp1.874.600
Total cost	Rp 53.840	Rp 65.685.160	Rp 65.739.000

Source: primary data (2021)

From table 9 above which shows the details of costs after separating semi-variable costs, it can be seen that the total fixed costs of the Uniform Original Confection to produce 2,060 uniform units amounted to Rp. 53,840 while the total expenditure of variable costs was Rp. 65,685,160 with a total expenditure of Rp. total production of Rp. 65,739,000.

After calculating and knowing the production costs at the Uniform Original Confection and also separating the existing semi-variable costs, it is possible to calculate the cost of production by

applying the variable costing method, where the method only takes into account variable production costs into the cost of goods manufactured. which includes raw material costs, direct labor costs and variable factory overhead costs. The following table presents the calculation of the cost of production using the variable costing method:

Table 9
Cost of Production Using Variable Costing Method

Information	Total
Raw Material Cost	Rp 52.097.400
TKL fee	Rp 11.330.000
Variable Overhead Cost	
- Electricity cost	Rp 383.160
- Auxiliary Fee	<u>Rp 1.874.600 +</u>
Total Variable Overhead Cost	<u>Rp2.257.760 +</u>
Cost of goods sold	Rp 65.685.160
Production volume	2.060
Cost of Production/Unit	Rp 31.886

Source: primary data (2021)

From table 11 above which presents the income statement by applying the variable costing method in its composition, it can be seen that by producing 2,060 uniform units which are then sold at a per unit price of Rp. The resulting revenue is Rp 6,414,480 and a net profit of Rp 6,361,000.

In analyzing costs according to the variable costing method, it is done by compiling an income statement based on the variable costing method which is one way for companies to make short-term decisions regarding the acceptance or rejection of special orders. Meanwhile, to take short-term decisions regarding the acceptance or rejection of special orders using differential analysis before and after the special orders as a decision-making tool. Special orders usually have a difference with the product that is usually produced by the company. According to Hoyriyah (2021) this special order usually gets special treatment such as the addition of accessories, different colors used or others according to consumer demand.

The benchmark of this study in analyzing the acceptance or rejection of special orders is the increase in profits for the company by accepting the special orders. In March 2021, Aseli Uniforms received orders outside of the company's normal production, which is 350 units of clothing with a per-selling price of Rp. 50,000, so the total sales are Rp. 17,500,000.

Based on the calculation of the cost of production using the variable costing method, the variable cost per unit of normal production is Rp. 31,886 (see Table 10). There is a difference in the use of raw materials in special orders, namely the materials used to produce special orders are thicker than the ordinary materials used to produce uniforms so that the costs incurred are even greater. The price of materials used to produce uniforms per meter is Rp. 16,000 while the price of materials for special orders per meter is Rp. 27,000 so that the difference in material costs reaches Rp. 11,000, so the variable cost per unit for special orders is Rp. 42,886.

To make a decision, it is necessary to calculate the income of special orders first through differential cost analysis to find out the differences in differential income and differential costs from normal production and special orders which are shown in the table below:

Table 11
Differential Analysis Before and After Special Orders

Information	Before	After	Different
Differential Income	Rp 72.100.000	Rp 72.100.000	
Special Order		Rp 17.500.000	
Amount			
Differential Income	Rp 72.100.000	Rp 89.600.000	Rp 17.500.000
Variable Cost (no special order)	Rp 65.685.160	Rp 65.685.160	
Variable cost (by special order)		Rp 15.010.100	
Total Variable Cost	Rp 65.685.160	Rp 80.695.260	Rp 15.010.100
Contribution profit	Rp 6.414.840	Rp 8.904.740	Rp 2.489.900
Fixed cost	Rp53.840	Rp53.840	
Net profit	Rp 6.361.000	Rp 8.850.900	Rp 2.489.900

Source: primary data (2021)

From the results of the differential cost analysis in table 12, it can be seen that with the special order, the income obtained by Aseli uniforms increased by Rp. 17,500,000, because before the special order the income was only Rp. 72.100.000, while after the special order it became Rp. 89,600,000. The increase in income that occurred also had an impact on the profit earned, namely before the special order, the contribution profit obtained was only Rp. 6,414,840 and after the special order was Rp. 8,904,740, while the net profit received before the special order was Rp. 6,361. 000 and after a special order, the net profit earned becomes Rp. 8,850,900, with the increase in income, the profit also increases, which is Rp. 2,489,900. So, special orders that occur at the Aeli Uniform confection can be accepted because it can increase MSME income, which is marked by an increase in profits.

Conclusion

Konfeksi Aseli Uniform is a family business whose business activities are producing clothes, especially school uniforms. In carrying out its production activities, the company needs to calculate the cost of production so that it can decide the selling price of the product and can monitor production costs so that it can get maximum profit. In this study, the calculation of the cost of production is carried out by applying the variable costing method because this method is useful for making short-term decisions, especially in accepting or rejecting special orders.

It can be seen based on the results of data processing that has been carried out that the total production cost of Uniform Convection to produce 2,060 uniform units from December 2020 to April 2021 is Rp. 65,739,000 which includes a total of variable costs of Rp. 65,685,160 and the total cost fixed at Rp 53,840. so that the variable cost per unit of uniform can be calculated, which is Rp. 31,886.

In analyzing costs based on the variable costing method to make short-term decisions, it can be done through profit and loss calculations which is one of the company's efforts in making decisions to accept or reject special orders. Based on the results of the profit and loss calculation that has been carried out, when Konfeksi Aseli Uniform produces 2,060 uniform units with a selling price of Rp. 35,000 per unit, the income earned is Rp. 72.100.000 and the net profit received is Rp. 6,361,000 which is the result of reduced income by existing costs.

Meanwhile, in analyzing short-term decisions regarding the acceptance or rejection of special orders, it can be done by utilizing relevant costs, namely by analyzing differential costs to calculate income and costs before and after special orders. The results of the analysis of differential costs on special orders totaling 350 units of orders with a selling price of Rp. 50,000 per unit apparently can increase the company's profit by Rp. 2,489,900 because initially the net profit obtained by confection before the special order was only Rp. 6,361,000. but after a special order it becomes Rp. 8,850,900. So based on the results obtained indicate that the special order can be accepted because there has been an increase in profits.

Conclusion

Based on the results of research and the results of the analysis that has been carried out in MSMEs regarding the analysis of costing variables in decision making, conclusions can be drawn as follows: 1) In calculating the cost of production, the variable costing method has been applied and its implementation is carried out consistently with a normal production capacity of 2,060 units. In the current COVID-19 situation, MSMEs do not produce many uniforms because there are still many unsold supplies due to the decline in public purchasing power and schools are not enforced on a regular basis. 2) In the current COVID-19 situation, MSMEs have made the decision to accept orders that are outside the normal production of MSMEs by conducting a cost analysis which is calculated based on the variable costing method and the results are that the order is acceptable because it is able to benefit MSMEs. This can be seen from the profit that was achieved before receiving the special order, which was Rp. 6,414,840 but after receiving the special order the profit was Rp. 8,904,740 then there is an increase of Rp 2,489,900.

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