

# Direct material essay sample



**ASSIGN  
BUSTER**

1. Direct material costs are the costs of those materials which can be identified in the product and can be conveniently measured and directly charged to the product. Thus, these materials directly enter the product and form a part of the finished product. For example, in the production of furniture, direct materials would include wood, glue, and paint. Metals in the manufacture of fans, boilers, automobiles, airplanes; silk, ribbon and leather band used in making a hat; cloth in tailoring garments; clay in the manufacturing of bricks, leather in the manufacture of shoes;

wheat used in milling flour.

Direct labor costs are made up of labor costs that can be easily and conveniently traced to individual units of product. Direct Labor costs are any costs that are directly linked to the manufacturing of a product. Basically, anything you can see used in the product to make the product. The work directly involved in making the product. For example, labor costs are the wages of assembly workers on an assembly line and the wages of a machine tool operator in a machine shop.

The costs of the labor will affect the price of the product. If it cost more to make a table, for example, you have to sell it for a higher price to earn a greater contribution margin. This way, the business makes a profit and pays for the labor and materials to manufacture the product.

The product belongs to the business; therefore it is the business' inventory. Only when it is sold, does it become cash in the bank, and in turn the inventory numbers lower

direct labor as a part of cost of manufacturing, increases cost of goods as well as cost of inventory by the amount incurred as direct labor.

Manufacturing overhead is also known as factory overhead, factory burden, and manufacturing support costs. It refers to indirect factory-related costs that are incurred when a product is manufactured. Along with costs such as direct material and direct labor, the cost of manufacturing overhead must be assigned to each unit produced so that inventory and cost of goods sold are valued and reported according to generally accepted accounting principles (GAAP). Manufacturing overhead includes such things as the electricity used to operate the factory equipment, depreciation on the factory equipment and building, factory supplies and factory personnel. How these costs are assigned to products has an impact on the measurement of an individual product's profitability.

It is difficult to assign manufacturing overhead to a specific job because manufacturing overhead is an indirect cost and it is impossible to trace the costs to a specific product, it consists of various different items ranging from grease used in machines to the annual salary of a production manager, and because of fixed costs in manufacturing overhead, total manufacturing overhead costs tend to remain relatively constant from one period to the next. Because of these issues, allocation is used to assign overhead costs to products.

A company can be profitable when it reduces its cost of goods sold and inventory by lowering products costs (material, labor and overhead).

1. Variable costs are a cost of labor, material or overhead that changes according to the change in the volume of production units. Combined with fixed costs, variable costs make up the total cost of production. While the total variable cost changes with increased production, the total fixed costs stay the same. Variable costs are corporate expenses that vary in direct proportion to the quantity of output. Unlike fixed costs, which remain constant regardless of output, variable costs are a direct function of production volume, rising whenever production expands and falling whenever it contracts. Examples of common variable costs include raw materials, packaging, and labor directly involved in a company's manufacturing process. Variable costs will correlate with the number of products manufactured. Another good example of variable costs is direct materials.

Fixed costs are business expenses that are not dependent on the activities of the business. They tend to be time-related, such as salaries or rents being paid per month. This is in contrast to variable costs, which are volume-related and are paid per quantity.

In management accounting, fixed costs are defined as expenses that do not change in proportion to the activity of a business, within the relevant period. For example, a retailer must pay rent and utility bills irrespective of sales. Along with variable costs, fixed costs make up one of the two components of total cost. In the most simple production function, total cost is equal to fixed costs plus variable costs.

Cost-volume-profit relationships are used to find out how changes in costs and volume affect a company's operating income and net income. In using this <https://assignbuster.com/direct-material-essay-sample/>

analysis, there are several assumptions made, including; sales price per unit is constant, variable costs per unit are constant, total fixed costs are constant, everything produced is sold. Costs are only affected because activity changes. If a company sells more than one product, they are sold in the same mix. This is an important tool in business decisions because it helps managers understand how profits are affected by these factors. The decisions include what products and services to offer, what prices to charge, what marketing strategy to use and what cost structure to apply.

At first glance, break-even analysis is a tool to calculate at which sales volume the variable and fixed costs of producing your product will be recovered. Another way to look at it is that the break-even point is the point at which your product stops costing you money to produce and sell, and starts to generate a profit for your company. Break even analysis depends on the following variables: the fixed production costs for a product, the variable production costs for a product, the product's unit price and the product's expected unit sales or projected sales.

You can also use break even analysis to solve managerial problems by setting price levels, targeting optimal variable and fixed cost combinations, determining the financial attractiveness of different strategic options for your company.

1. Activity Based Costing is a method for estimating costs for specific activities within the organization. For example, a contractor may be interested in determining how much it costs one work crew to install shingles on a house compared to a different work crew. Or, the

contractor may be interested in determining how much it costs to install shingles on a certain house design, compared to a different house design.

To better understand Activity Based Costing it is sometimes helpful to think in terms of subdividing a project into individual, quantifiable activities or stages. The activity needs to be definable where productivity can be measured in units. For example, the number of hours worked compared to units produced, square footage completed, or volume created. As the project is divided into its activities, a cost estimate is typically prepared for each activity. These cost estimates will typically contain labor, materials, equipment, and subcontracting costs, including overhead, for each activity. Each activity cost estimate is added to the others to produce an overall cost estimate for the entire project.

The results generated by Activity Based Costing methods are frequently used to produce reasonable standards on which future estimates can be calculated. For example, for years construction firms and industry trade groups have collected cost data on a variety of construction projects. The amount of hours associated with those costs was also collected. As an example, this data included the cost of the paint, labor, equipment, and overhead to paint a room, the amount of surface area painted, and the manpower required to paint the room. This practice has allowed contractors to calculate a cost per area and manpower per area. These costs are based on an activity, such as painting, and are known as Activity Based Costing.

Activity Based Costing methods are also used to evaluate specific activities within an organization to determine whether those activities are being done

efficiently, whether those activities are necessary, whether other groups within your organization are performing those activities better than others, whether certain materials or tools help your organization complete those activities more efficiently.

Activity Based Costing is different from traditional cost accounting. In this method nonmanufacturing and manufacturing costs can be assigned to products, but only on a cause-and-effect basis. Some manufacturing costs can be excluded from production costs. Also, many overhead cost pools are used and are allocated to products and other cost objects using its own unique measure of activity. Organizations use their own costing system to prepare external financial reports and use the activity based costing system for internal decisions and for managing activities.

1. Capital budgeting is a required managerial tool. One duty of a financial manager is to choose investments with satisfactory cash flows and rates of return. Therefore, a financial manager must be able to decide whether an investment is worth undertaking and be able to choose intelligently between two or more alternatives. To do this, a sound procedure to evaluate, compare, and select projects is needed. This procedure is called capital budgeting. Faced with limited sources of capital, management should carefully decide whether a particular project is economically acceptable. In the case of more than one project, management must identify the projects that will contribute most to profits and, consequently, to the value of the firm. This, in essence, is the basis of capital budgeting. Capital budgeting is investment decision-making as to whether a project is worth

undertaking. Capital budgeting is basically concerned with the justification of capital expenditures.

Capital budgeting is used to explain how managers plan important investments in projects that have long-term effect with regards to purchase of equipment or start of new products. Some companies have various promising projects than can really funded. Therefore, managers have to carefully pick those projects that will give the greatest future return. When managers make good capital budgeting decisions, the company will have financial health in the long-run.

Capital budgeting decisions are carried out in several ways. One is the cost reduction decisions. Should new equipment be purchase in order to reduce costs? Another decision is the expansion decisions. Should a new plant, warehouse or another facility be bought to increase capacity and sales? Equipment selection decision is a typical feature of capital budgeting. Which of the machines present should be obtained? Another feature is lease or buy decisions. Should new equipment be leased or purchased? Lastly, equipment replacement decision is part of capital budgeting. Should old equipment be changed now or later?

Capital budgeting decisions can be put in two categories, screening decisions and preference decisions. Screening decisions relate to whether a proposed project meets some preset standard of acceptance. For example, a firm may have a policy of accepting projects only if they promise a return of 20% on the investment. The required rate of return is the minimum rate of return a project must yield to be acceptable. Preference decisions relate to selecting from among several competing courses of action. For instance, a firm may

<https://assignbuster.com/direct-material-essay-sample/>



be considering several different machines to replace an existing machine on the assembly line. The choice of which machine to purchase is a preference decisions.

Capital budgeting involves investments. Therefore, in approaching capital budgeting decisions, it is important to recognize the time value of money when evaluating investment proposals. A dollar today is worth more than a dollar a year from now. The same concept applies in choosing between investment projects. Those projects that promise earlier returns are preferable to those that promise later returns. Capital budgeting methods that recognize the time value of money involve discounting cash flows.

#### Problem 9-25 Completing a Master Budget

##### 1. Schedule of expected cash collections:

	April	May	June	Quarter
Cash sales.....	\$36, 000	\$43, 200	\$54, 000	\$133, 200
Credit sales.....	<u>20, 000</u>	<u>24, 000</u>	<u>28, 800</u>	<u>72, 800</u>
Total collections.....	<u>\$56, 000</u>	<u>\$67, 200</u>	<u>\$82, 800</u>	<u>\$206, 000</u>

Cash sales are 60% of the sales in the month

40% of the preceding month's sales.

2. Merchandise purchases budget:

	April	May	June	Quarter
Budgeted cost of goods sold.....	\$45,000	\$ 54,000	\$67,500	\$166,500
Add desired ending inventory.....	<u>43,200</u>	<u>54,000</u>	<u>28,800</u>	<u>28,800</u>
.....				
Total needs.....	88,200	108,000	96,300	195,300
Less beginning inventory.....	<u>36,000</u>	<u>43,200</u>	<u>54,000</u>	<u>36,000</u>
Required purchases.....	<u>\$52,200</u>	<u>\$ 64,800</u>	<u>\$42,300</u>	<u>\$159,300</u>

For April sales: \$60,000 sales × 75% cost ratio = \$45,000.

\$54,000 × 80% = \$43,200

July sales \$48,000 × 75% cost ratio × 80% = \$28,800.

Schedule of Expected Cash Disbursements—Merchandise Purchases

	April	May	June	Quarter
--	-------	-----	------	---------

March	\$21,			
purchases.....	750			\$ 21, 750
April				
purchases.....	26, 100	\$26,		52, 200
....		100		
May				
purchases.....		32, 400	\$32,	64, 800
....			400	
June				
purchases.....			<u>21, 150</u>	<u>21, 150</u>
....				
Total				
disbursements.....	<u>\$47,</u>	<u>\$58,</u>	<u>\$53,</u>	<u>\$159,</u>
.	<u>850</u>	<u>500</u>	<u>550</u>	<u>900</u>

3. Schedule of Expected Cash Disbursements—Selling and Administrative Expenses

April      May      June      Quarter

Commissions.....	\$ 7,	\$ 8,	\$10,	
...	200	640	800	\$26, 640
Rent.....				
.	2, 500	2, 500	2, 500	7, 500
Other				
expenses.....	<u>3, 600</u>	<u>4, 320</u>	<u>5, 400</u>	<u>13, 320</u>
Total	<u>\$13,</u>	<u>\$15,</u>	<u>\$18,</u>	
disbursements.....	<u>300</u>	<u>460</u>	<u>700</u>	<u>\$47, 460</u>

Commissions are 12% of sales

Other expenses 6% of sales.

#### 4. Cash budget:

	April	May	June	Quarter
Cash balance,				
beginning.....	\$ 8, 000	\$ 4, 350	\$ 4, 590	\$ 8, 000
....				
Add cash				
collections.....	<u>56, 000</u>	<u>67, 200</u>	<u>82, 800</u>	<u>206, 000</u>
Total cash				
available.....	<u>64, 000</u>	<u>71, 550</u>	<u>87, 390</u>	<u>214, 000</u>

Less cash disbursements:

For inventory.....	47, 850	58, 500	53, 550	159, 900
For expenses.....	13, 300	15, 460	18, 700	47, 460
For equipment.....	<u>1, 500</u>	=	=	<u>1, 500</u>
Total cash disbursements.....	<u>62, 650</u>	<u>73, 960</u>	<u>72, 250</u>	<u>208, 860</u>
Excess (deficiency) of cash....	<u>1, 350</u>	<u>(2, 410 )</u>	<u>15, 140</u>	<u>5, 140</u>

Financing:

Etc.

5.

SHILOW COMPANY

Income Statement

For the Quarter Ended June 30

Sales (\$60, 000 + \$72, 000 + \$90, 000)	\$222, 000
Cost of goods sold (\$222, 000×75%)	<u>166, 500</u>
Gross margin	55, 500
Selling and administrative expenses	<u>50, 160</u>
Net operating income	5, 340
Interest expense (\$90+\$140)	<u>230</u>
Net income	<u>\$ 5, 110</u>

## SHILOW COMPANY

## Balance Sheet

June 30

## Assets

## Current assets:

Cash	\$ 4,
.....	910
.....	
Accounts receivable (\$90, 000 × 40%)	36, 000
.....	
Inventory.....	<u>28, 800</u>
.....	
Total current assets.....	69, 710
.....	
Building and equipment, net	<u>118,</u>
(\$120, 000 + \$1, 500 – \$2, 700)	<u>800</u>
.....	
Total assets.....	<u>\$188,</u>
.....	<u>510</u>

## Liabilities and Stockholder's Equity

## Current liabilities:

Accounts payable (\$42, 300 × 50%)	\$ 21,
------------------------------------	--------

.....	150	
Stockholders' equity:		
Capital stock	\$150,	
.....	000	
.....		
Retained earnings (\$12, 250+\$5, 110).....	<u>17, 360</u>	<u>167, 360</u>
Total liabilities and stockholder's equity.....		<u>\$188, 510</u>

Problem 11-20 Comprehensive Variance Analysis

1. What is the standard cost of a single backpack?

$$\$16, 800 + \$10, 500 + \$4, 200 = \$31, 500$$

2. What was the actual cost per backpack produced during March?

$$\$15, 000 + \$4, 275 + \$3, 600 = \$22, 875$$

3. How many yards of material are required at standard per backpack?

$$\$16, 800 / \$6 = 2, 800 \text{ yards}$$

4. What was the direct materials price variance for March?

$$3000 \times \$5. 85 (\$6 - \$0. 15) \qquad 3000 \times \$6. 00 \qquad 28, 000 \times \$6. 00$$



