# Resit assignment case study example 

Business, Company

## ASSIGN BUSTER

- You are required to evaluate, the two options for the production of product Z.


## Comment and advise Tony accordingly in the production of product Z.(25 marks)

Answer:
Assuming 40, 000 production levels, the cost associated with both the options are as below:

It can be easily seen that the cost of producing 40, 000 units is less in case of labor intensive option than the machinery option. For low production levels, it is recommended that labor intensive option is a better option. However, as the production level goes up, machinery option covers up for the extra machine rental expense and at some level produces units at a lower cost than the labor intensive option. The table below shows how the cost increases with production level:

We can clearly see that the cost is low for labor intensive option at lower production level, which stays that way till 43, 000 productions per month. Exactly at the production level of 43,478 , the cost of both the options is same. Above that production level, machinery intensive option provides a better per unit operating cost.

For the current production level, it is recommended that the company uses the labor intensive option, but if it thinks that in the recent future the production level will go up significantly then machinery intensive option will be better.

- Prepare the three monthly forecast based on labor intensive option under absorption costing method.(20 marks)


## Answer:

As per the absorption costing method, all costs are taken into account to determine the cost per unit. It includes raw material cost, direct labor cost and also fixed cost (MITSIoan 2003). The income statement for three months, based on the absorption costing method, is as below:

## So the per unit cost for the month of operating margin for each month areas is below:

The above table shows the cost per unit sold. It also varies per unit because fixed cost is also added in the calculation which remains constant with the changing production or sales level.

In case of variable costing, as the overhead cost is not considered, the cost per unit is the only variable portion of the cost, which will be raw material and labor cost in our case.

## If we used variable costing then the cost per unit will be:

This is significantly lower than the cost shown from the absorption costing as it does not include the overhead cost (Sabar 2013).

- According to the proposal of research and development manager, Z can be used in the production of product $P$ and $Q$. The expected monthly input of $Z$ is 40,000 units for the production of product P and Q . The fixed production overheads for the production of product P and Q are given as below:

RM

## Rental of factory 25, 000

Staffing costs 48, 000
Rental of equipment 40, 000

Electric charges 12, 000
125, 000
The additional information in the production departments and support departments are stated as below:

The volume of meals provided is based on the number of employees in the factory and the frequency of ICT Department services is based on the number of equipment in the respective departments.

## You are required to reallocate the support departments' costs based on reciprocal method.

The unit selling price of product $P$ and $Q$ are RM110/unit and RM 300/unit respectively.

You are required to evaluate the proposal in producing product $P$ and $Q$ and compute the unit profit of product P and product Q . Show all workings.(25 marks)

Answer:

- As $Z$ is the only raw material for the production of $P$ and $Q$, the cost per unit of production of $Z$ will be the raw material cost for the production of $P$ and $Q$.

The variable cost of production of $Z$ as we have seen above is $=22.00$ / unit The fixed cost for producing 40, 000 units is 185,500 , and hence the per unit fixed cost for 40,000 units level of production is $=4.6375 /$ unit So per unit cost of $Z=26$. 6375. This cost will be used as raw material cost for the production of P and Q .

- The fixed cost for the production of $P$ and $Q$ is divided in the ratio of 5: 6 on
the basis of the production level. (There may have been other assumption possibilities).


## Based on the assumptions, the calculation is as below:

We can see that the profit per unit for product $P$ is 35.06 and that of product $Q$ is 115. 16. Both are having a good profit margin of over $30 \%$.

- Discuss the advantages and disadvantages in labor intensive method.(10 marks)

Answer:
Labor intensive method is very good when the production level is low. We have seen in question (a) that as the production level goes up, labor intensive method becomes less cost-competitive in comparison to machinery based method.

The main advantage of labor intensive method is its flexibility. If tomorrow the production goes up then the company can hire few more staff members to increase the production level. Also, if the production level goes down, then the company can lay off few employees to reduce the cost and production level. In this method, there is no overhead cost which the company needs to carry from the labor and machinery side.

One of the main disadvantages of this method is that as the production level goes beyond a particular threshold, the cost per unit goes up. After the normal production level, the company may need to pay overtime costs to the labor to produce the final product which may shoot the cost upward.

Furthermore, it is not always easy to lay off employees as and when the production level goes down.

- Discuss the advantages and disadvantages in machinery intensive method.
(10 marks)


## Answer:

The main advantage of machinery intensive method is that it is very much cost effective if the production level is above a threshold. In our case, if the production level of $Z$ remains more than 44,000 , then it is more cost effective than labor intensive method. Also, a slight variation in production is not a problem in case of machinery intensive method as you do not need to hire and fire a lot of employees.

The main disadvantage of machinery intensive method is the huge overhead cost. This overhead cost is distributed among finished products when the production level is high. However, for low production levels, a company needs to pay the same overhead cost, irrespective of the output from the machine.

- Based on the results in (c) above, comment and advice.(10 marks) Answer:

There are two choices in front of the company. Firstly, it can only produce and sell $Z$ in the market or else it can produce $Z$ and then utilize it to produce $P$ and $Q$ and then sell $P$ and $Q$ in the market. In the first scenario, the overall forecasting and production process is much less complex from the managing and costing perspective. On the other hand, the production of $P$ and $Q$ from the input material $Z$ is far complex option from the production, planning and accounting perspective. However, Tony can actually make much more money by investing a little more in the fixed costs and working capital.

It is also advisable to produce both P and Q because this production strategy
fits well with the production of input material. The production of only Q will require more input material $Z$ which may be a problem, the production of only P will require much less Z and a lot of inventory of Z will be lying waste in the plant.

## Works Cited

MIT Sloan. 2003. Management Accounting and Control. Viewed on 8th February 2014.

Sabar, Rabeel. 2013. Absorption and Marginal Costing. Viewed on 8th February 2014.

CSUS. 2013. Absorption Costing vs. Variable Costing. Viewed on 8th February 2014.

