# Management Accounting Report

**TO:** Jenny Clarke

**FROM:** Merita Myrtollari

**REF:** The Oakdene Engineering

**DATE:** 5th of March 2003

Introduction

The purpose of this report is to help making decisions and recommendations to Oakdene Engineering limited company to develop new products. Finding out if the company will make profit and not have a bad effect on other products. Management accounting techniques will be taken in to consideration to produce this report. The ways that will be used to help the Oakdene Engineering limited company are by using:

1. Break-even
2. Marginal costing
3. Investment appraisal
4. Budgetary control
5. Standard costing and variance analysis
6. Overhead absorption and job costing

Using these management accounting techniques the company will be able to know advantages and disadvantages of the problems that will be mentioned on the report.

## *1. Break-even*

**Introduction (Break-even)**

The first problem of the company is to find out if the company will make a profit if they developed a new type of electronic dispenser for serving exact quantities of beer and lager. The first accounting technique that will be used is the break-even.

**Method of investigation (Break-even)**

To investigate this problem I am going to use:

1. Table
2. Graph
3. Calculation

**Findings (Break-even)**

The costs shown below are the main costs that I will use to carry my investigation.

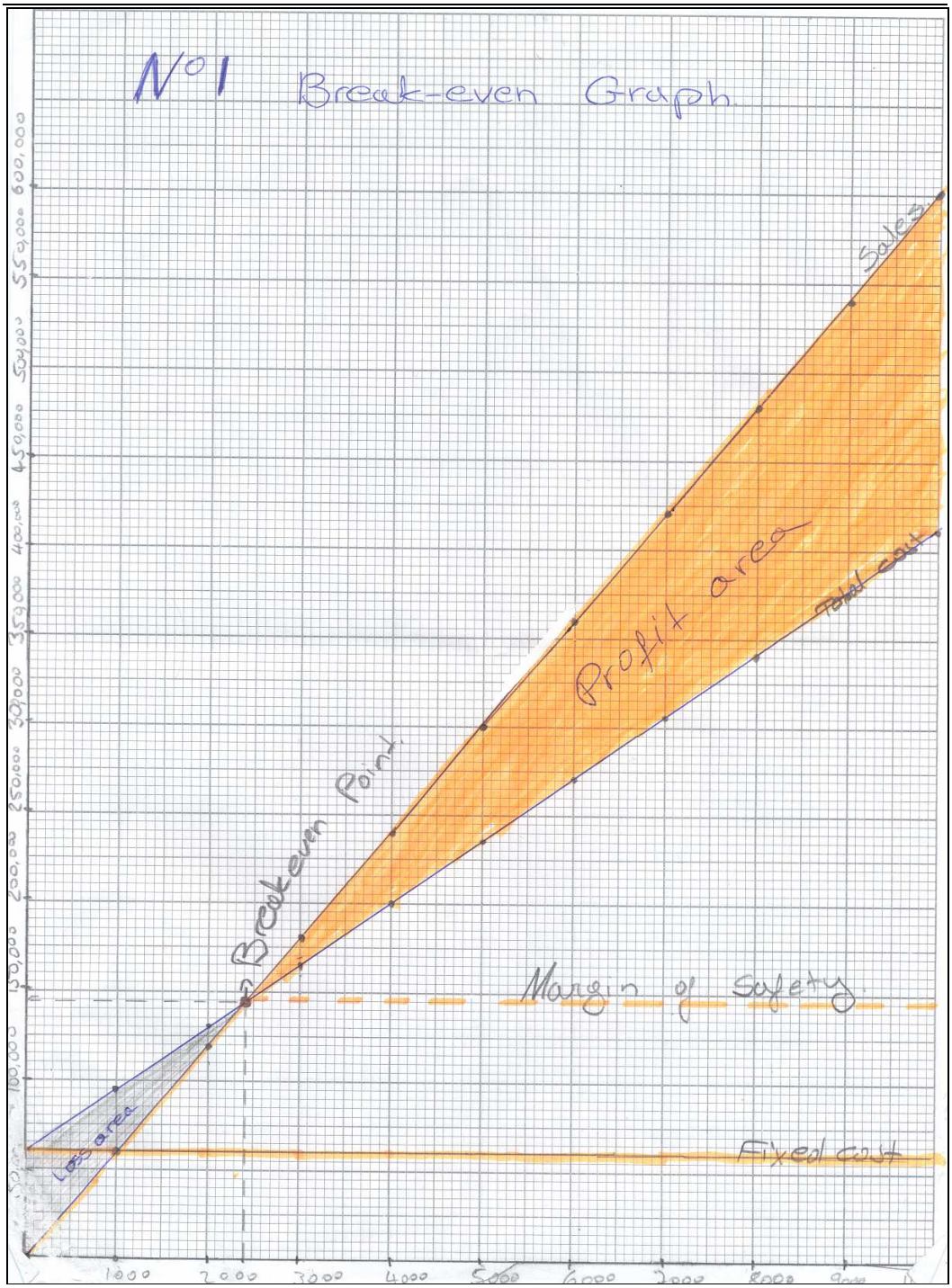
- Material cost - £20 per unit
- Labour cost - £15 per unit
- Selling price - £60 per unit
- Fixed costs - £60,000 per annum
- The maximum number of the units of the product per annum is 10,000.

This is a table that will show the calculated profit or loss.

| Units of product | Variable costs | Fixed costs | Total costs | Sales | Profit/loss |
|---|---|---|---|---|---|
| 1,000 | 35,000 | 60,000 | 95,000 | 60,000 | (35,000) |
| 2,000 | 70,000 | 60,000 | 130,000 | 120,000 | (10,000) |
| **3,000** | **105,000** | **60,000** | **165,000** | **180,000** | **15,000** |
| 4,000 | 140,000 | 60,000 | 200,000 | 240,000 | 40,000 |
| 5,000 | 175,000 | 60,000 | 235,000 | 300,000 | 65,000 |
| 6,000 | 210,000 | 60,000 | 270,000 | 360,000 | 90,000 |
| 7,000 | 245,000 | 60,000 | 305,000 | 420,000 | 115,000 |
| 8,000 | 280,000 | 60,000 | 340,000 | 480,000 | 140,000 |
| 9,000 | 315,000 | 60,000 | 375,000 | 540,000 | 165,000 |
| 10,000 | 350,000 | 60,000 | 410,000 | 600,000 | 190,000 |

The bolded figures on this table show where we start to make a profit but think that point is too risky to be the Margin of the safety. That is the reason I recommend the company to try and sell more than 3,000 products.

On the graph Number one I will show the breakeven point and the margin of safety. The calculations below show prove the answer of the graph.




Selling price £60 take away the variable cost £35 equal gross profit per unit £25. Fixed costs £60,000 divided by contribution £25 equal £2400.

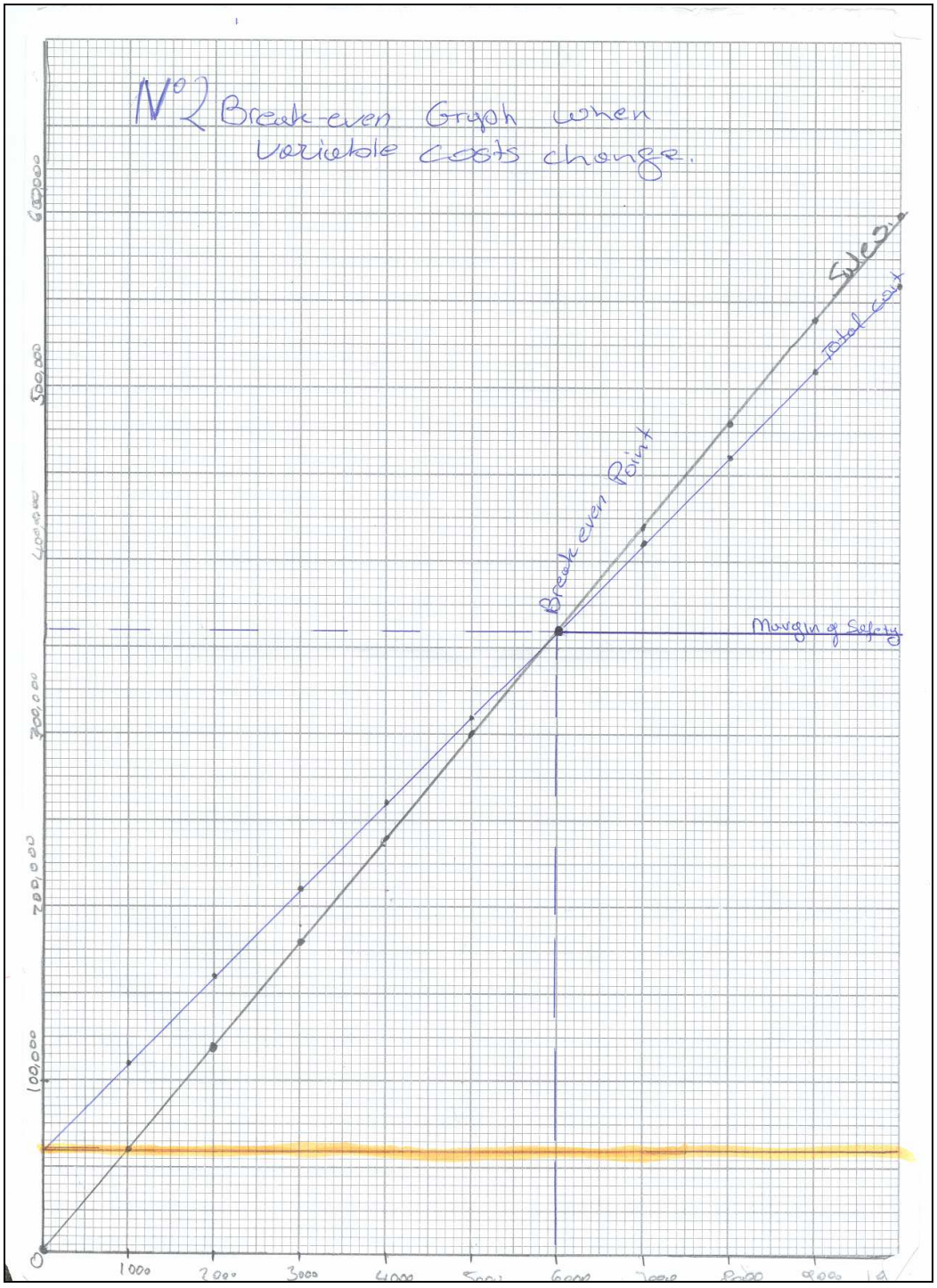
If 2,000 dispensers are sold then the company have a loss of £10,000, but if 6,000 dispensers are sold then the company will have a profit of £90,000.

When the production is at 10,000 dispensers per annum the margin of the safety in units will be 7,600 units or 76%, because 10,000 take away 2,400 equal 7,600.

The maximum profit that can be earned for the year is £190,000 but if the variable costs are increased by £5 per unit for labour and £10 per unit for materials the maximum profit will be £40,000 as shown on the table below.

| **Units of production** | **Variable costs** | **Fixed costs** | **Total costs** | **Sales** | **Profit/loss** |
|---|---|---|---|---|---|
| 1,000 | 50,000 | 60,000 | 110,000 | 60,000 | (50,000) |
| 2,000 | 100,000 | 60,000 | 160,000 | 120,000 | (40,000) |
| 3,000 | 150,000 | 60,000 | 210,000 | 180,000 | (30,000) |
| 4,000 | 200,000 | 60,000 | 260,000 | 240,000 | (20,000) |
| 5,000 | 250,000 | 60,000 | 310,000 | 300,000 | (10,000) |
| 6,000 | 300,000 | 60,000 | 360,000 | 360,000 | 00,000 |
| 7,000 | 350,000 | 60,000 | 410,000 | 420,000 | 10,000 |
| 8,000 | 400,000 | 60,000 | 460,000 | 480,000 | 20,000 |
| 9,000 | 450,000 | 60,000 | 510,000 | 540,000 | 30,000 |
| 10,000 | 500,000 | 60,000 | 560,000 | 600,000 | 40,000 |

The graph Number two will show the breakeven and the margin of safety when the variable cost change.




The maximum profit that the company can make when the variable costs have raised by £15 per product is £40,000 per annum.

**Summary (Break-even)**

This product is going to be successful and make a reasonable profit for the company, but if the variable cost goes up by £15 then this product is going to be too risky for the company. This is because the company has to sell at least 6,000 dispensers to cover fixed and variable costs. The company has to sell at least 7,000 dispensers to make a profit of £10,000 per annum.

**Recommendation (Break-even)**

1. According to the breakeven table, graph number one and the calculation the project that the company is developing is going to be successful and is going to make a maximum profit of £190,000 (if it goes according the graph). The break-even and the margin of safety point is at £2400. The only problem that the company will have at this point is that 1,000 dispensers must be sold to cover the fixed cost and 7,000 dispensers to cover the total costs.
2. If the variable cost will rise by £15 the company will not be able to make more than £40,000 profit. At this point the company profit will be at risk as the margin as safety will be hard to reach. The company has to sell 10,000 dispensers to cover the total costs that will leave the company with a profit of £40,000. So at this point I recommend the company to increase the selling price from £60 to £70 per unit because if the company sells 10,000 dispensers the profit will be £140,000. The calculations are: £70 - £50 = £20. £20 * 10,000 unit = £ 200,000. £200,000 - £60,000 = £140,000 net profit.

3. The problem is that we do not have a fact that the company will manage to sell all the dispensers that will be produced.

4. The only reason that might make this product successful is that there are a number of public houses in England that might be interested to buy the product to make sure that they charge for beers and lagers as much as they are worth.

5. I recommend the company to do some research on how many dispensers minimum are needed in England. If there are needed more than six thousand dispensers I recommend the company to go ahead with the project in this case if the variable cost raise the fixed cost will still be covered.

## *2. Marginal Costing*

**Introduction (Marginal costing)**

The Oakdeen Engineering makes a standard food mixer with a selling price of £525 each. The company has been asked to make a special offer of 400 food mixers for Jalvis Hotel Group. The amount of money that the hotel has offered is £78,000 for the 400 food mixers. The question is that should the company accept the offer and what are the advantages and disadvantages of this special order?
The Marginal costing technique will be used to find out the problem.

**Method Of Investigation (Marginal costing)**

For this problem the methods of investigating are:

1. Table
2. Graph
3. Calculations

The costs used to manufacture one food mixer are:

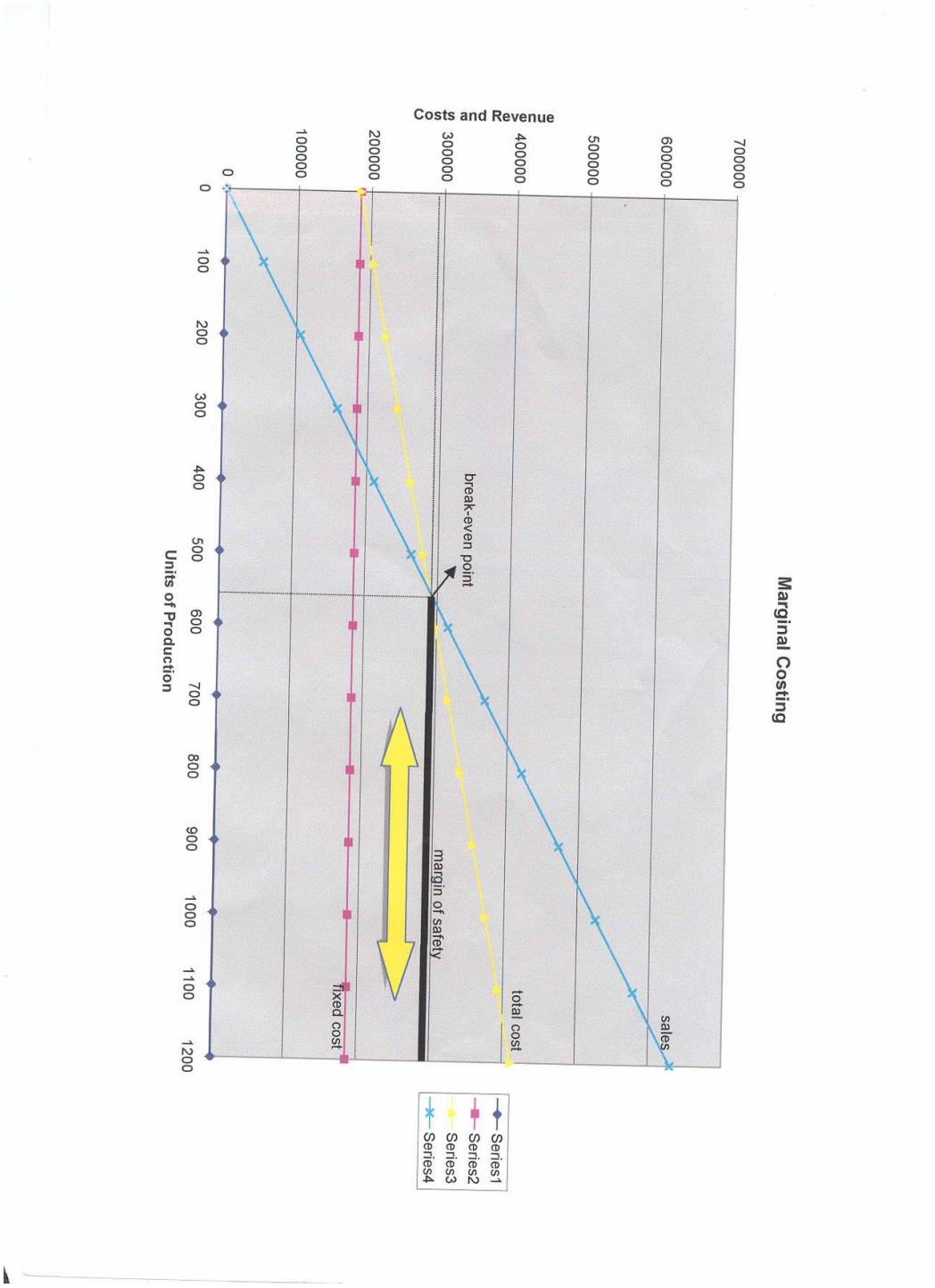
| **Description** | **Fixed** | **Variable** |
|---|---|---|
| Materials and components | | £48 |
| Direct wages | | £84 |
| Other direct costs | | £27 |
| Supervisory wages | £42 | |
| Factory overheads | £65 | £16 |
| Selling and distributing costs | £47 | £14 |
| **TOTAL** | **£154** | **£189** |

**Findings (Marginal costing)**

The Jalvis hotel has offered £78,000 for 400 food mixers. Dividing the 400 food mixers by the amount of the money offered, one food mixer for this offer would cost £195. The marginal cost as previously shown is £189. That will give the company an extra profit of £6 per food mixer, which we multiple the £6 by 400 food mixer and it gives the company a total of £2400 extra profit.

The table below will show the calculations for the monthly production and it will show the profit and loss. The table shows that the company will make a profit if they sell 600 food mixers for one month.

The graph attached to the assessment will show the breakeven point which is at 550 food mixers.


Marginal Costing
Costs and Revenue
700000
600000
500000
400000
300000
200000
100000
0
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
Units of Production
break-even point
margin of safety
fixed cost
total cost
sales
Series1
Series2
Series3
Series4

| Units | Variable cost | Fixed cost | Total cost | Sales | Profit/ loss |
|---|---|---|---|---|---|
| | | | | | |
| 0 | 0 | 184800 | 184800 | 0 | -184800 |
| 100 | 18900 | 184800 | 203700 | 52500 | -151200 |
| 200 | 37800 | 184800 | 222600 | 105000 | -117600 |
| 300 | 56700 | 184800 | 241500 | 157500 | -84000 |
| 400 | 75600 | 184800 | 260400 | 210000 | -50400 |
| 500 | 94500 | 184800 | 279300 | 262500 | -16800 |
| **600** | **113400** | **184800** | **298200** | **315000** | **16800** |
| 700 | 132300 | 184800 | 317100 | 367500 | 50400 |
| 800 | 151200 | 184800 | 336000 | 420000 | 84000 |
| 900 | 170100 | 184800 | 354900 | 472500 | 117600 |
| 1000 | 189000 | 184800 | 373800 | 525000 | 151200 |
| 1100 | 207900 | 184800 | 392700 | 577500 | 184800 |
| 1200 | 226800 | 184800 | 411600 | 630000 | 218400 |

**Summary (Marginal costing)**

This offer means extra profit to the company. It is a very good offer, and it is hard to make the right decision as it might affect the company in different ways.

**Recommendation (Marginal costing)**

1. This offer is a bit risky because other hotels and organisation might come and ask to buy the products at the same price as the above offer. And if you do not agree with them then they might go somewhere else.

2. The Jalvis hotel might ask for discount and the next time that they will need an order because you did it once you will do it again.

3. If the company is going to go ahead with this offer I recommend that the food mixers have a thinner layer than the normal ones and in that way the hotel can not complain because the company can explain that is the quality for how mach they are paying for.

4. Another thing that might work is that the company should allow discount to all the customers that are willing to buy 400 food mixers or more.

5. If we reduce prices that will only cover the costs of the business to attract new customers it will be difficult to persuade customers to pay more later on.

6. People might not want to buy the product at reduced price as they might think that it is something wrong with it e.g. the quality, not long lasting life etc.
7. Other companies might take advantages and sell the same product for less when you decide to go back to the original selling price.

8. If the company will consider point 3 and 4 of the recommendation I recommend the company to go ahead with this order. If the company does not think that is a good idea then the company should refuse the order as that will put the company in a risk.

## *2.1. Part two of Marginal costing*

**Introduction (Part two of Marginal costing)**

After seeing advertising on a trade association journal, that an overseas manufacturer can supply similar food mixers for £250 each, the Managing Director of Oakdene Engineering argues that it will be cheaper if the company closed the production department and have the overseas supplier to supply the food mixers. To him it might be a very good idea but he has not looked at the advantages and disadvantages of that serious decision that he wants to make.

**Method of investigation (Part two of Marginal costing)**

To convince the managing director we need to use:

1. Table

2. Calculation

**Findings (Part two of Marginal costing)**

To help and advice the Managing director to make the right decision the table below will show if buying or manufacturing is will be more profitable.

| | **Making £** | **Buying £** |
|---|---|---|
| Sales 1200 x £525 | 630,000 | 630,000 |
| Less making variable costs 1200 x £189 | (226,800) | |
| Less buying variable costs 1200 x £264 | | (316,800) |
| **Gross profit** | **403,200** | **313,200** |
| Less fixed costs<br>S/d £47<br>Factory overheads and storage £65 x 1200 | (184,800) | (134,400) this is the minimum amount that fixed cost and it can be more but we do not have all information needed to find out the right amount. |
| **Net profit** | **218,400** | **178,800** |
| Special order | If you make the food mixers you can allow special orders that will put the net profit up. | If the company is buying the food mixers then they do not have the chance of doing special orders. |

The table above shows that at the end of the month the company will have more net profit if it makes the food mixers itself rather than buying them.

**Conclusion (Part two of Marginal costing)**

As an accounting assistant I strongly disagree with the decision that the managing director what to make and the reason for this is that he has no in depth information about the manufacturer. If the managing director decides to go ahead with his idea then the company is going to be in a serious trouble.

**Recommendation (Part two of Marginal costing)**

To make the decision I recommend the managing director to consider the points that will be shown below.

1. If the company wants to develop the product then it will not have the choice if the products are bought but it can easily be done if the company is making the product itself.

2. The food mixer that the overseas manufacturer manufactures might not be a very good quality.

3. The company must make sure that the supplier is reliable and can be trusted because after you get the first order he might say that he can not produce as many food mixers as you want.

4. The company director must be aware that it costs a lot of money to import the products and that you have to pay tax so you can import.

5. The deliveries might delay when you really need some products to sell, and that can drive your customers away.

6. The currency might inflate and the variable costs of the business will go up.

7. Customers sometime lose confidence when the products change.

8. You have to consider and make sure that no slave and child labour is involved on making the food mixers.

9. Once the company is relying at the supplier the prices could go up and that will affect the company profit.

10. By closing the production line the company will affect badly the local community.

11. Because the employees of the production are going to be redundant the unemployment rate locally will be high.

12. Less people working less money will be spend so the company will have a bad affect and to other businesses as well.

13. The government help it will be necessary for unemployed people, and they might move away to find jobs.

14. The number of crimes in the local area will rise and people will not feel safe.

15. Staff moral will change because they will think than when is their turn to be redundant.

16. If the company closes the production line and will not be profitable by buying the food mixers will be very difficult to reopen the production line again this is because:

- People will not go to work there again as the company reputation, after making all these people redundant, will be very bad.
- They will not trust the company.
- Other businesses might offer better pay to them.

17. If the company still decides to go ahead with their decision I recommend the company to offer voluntary early retirement to employees in different sections of the company.

18. Train the remaining staff from the production to work at the other sections that old members of staff accepted early retirement.

## *3. Investment Appraisal*

**Introduction (Investment Appraisal)**

The Oakdene Engineering has 250 employees. They are having a difficulty and now need to re-develop some of the activities. There are three projects within the company, which they are called Alpha, Beta and Delta.

The company has decided to invest money on only one of the projects. Before investing the money the company wants to know which of the projects is going to be more successful.

The Alpha project has already been examined, now we have to examine both Beta and Delta project and compare the three of them and decide on which project should the money be invested.

**Method of investigation (Investment Appraisal)**

To do this examination in behalf of the company the following will be used:

- Tables
- Formulas
- Calculation including percentages

**Findings (Investment Appraisal)**

For this examination to end up successful we will need to use the three ways of investment appraisal that are:

- Pay back period
- Accounting rate return
- Net present value

**Pay back period**

**BETA**

The expected life for the Beta project is five years. The cost of Beta project is £700,000, to find out how many years to pay that money back we have to add up the inflow of the project until it adds up to £700,000.

In the first year the Beta project has an inflow of £210,000.
In the second year the inflow for Beta project is £280,000, which adds up to £490,000.
This means that we have to have another £210,000 to complete the pay back amount.
From the third year which has an inflow of £245,000 we need to take £210,000 to make the total of £700,000.

The calculations below will help to find out exactly how long it takes to pay the money back.

£210,000 (the money taken from year three) / £245 (inflow of year three) * 100 = 86%

86% / 12 months = 10.3 months.
For Beta project to pay the money back it takes two years ten point three months.

**DELTA**

Delta project is expected to live for at least four years. The initial cost of this project is £630,000. The same process as above has to be carried out to find the pay back period for the Delta project.

On the first years the Delta project has an inflow of £210,000, to make the to £630,000 we will need another £420,000. On the second year the project has an inflow of £230,000, which adds up to £440,000 so, we need to take some more money from the third year of the project. We have taken £190,000 from the third year to make the total of £630,000.

The calculation below will show how long it takes Delta project to pay the money back.

We know that it took a full two years and some months of the third year.
£190,000 (money taken from the third year) / £330,000 (the total inflow of the third year) * 100 = 57.5%
57.5% / 12 months = 6.9

The pay back period for the Delta project is two years and six point nine months.

**Accounting rate return**

To find out the accounting rate return we will add up the inflow for the both beta and Delta project and we will divide it by the number of the years that they are expected to live and then we will divide the total by the initial cost which then we will multiply by one hundred divided by one.

**Beta**

| **Cash inflow time** | **£** |
|---|---|
| Year one | £ 210, 000 |
| Year two | £ 280, 000 |
| Year three | £ 245, 000 |
| Year four | £ 228, 000 |
| Year five | £ 192, 000 |
| **Total** | **£ 1155, 000** |

The calculation below will help to find the account rate return.

£1155, 000 (total inflow of Beta) / 5 (the time of how long it took for the inflow) = £ 231,000 / £ 700,000 (the initial cost)
= 0.33 * 100 = 33 / 1 = 33%

**Delta**

| **Cash inflow time** | **£** |
|---|---|
| Year one | £ 210, 000 |
| Year two | £ 230, 000 |
| Year three | £ 330, 000 |
| Year four | £ 330, 000 |

| | |
|---|---|
| **Total** | **£ 1100, 000** |

The calculation below will prove the account rate return for the Delta project.
£1100, 000 (the total inflow) / 4 (time of how long it took for the total inflow) = £275, 000 / £630, 000 (the initial cost) = 0.43 * 100 / 1 = 43.6%.

**Net present value**

**Beta**

| Time | Cash flow | Multiply | Discount Factors | Equal | Discounted Cash Flow |
|---|---|---|---|---|---|
| Year 0 | 0 | X | 0 | = | £700,000 |
| Year 1 | £210,000 | X | 0.877 | = | £184,170 |
| Year 2 | £280,000 | X | 0.769 | = | £215,320 |
| Year 3 | £245,000 | X | 0.675 | = | £165,375 |
| Year 4 | £228,000 | X | 0.592 | = | £134,976 |
| Year 5 | £192,000 | X | 0.519 | = | £99,648 |
| Total | | | | | £799,489 |
| **Net present value** | | | | | **£99,489** |

The net present value for the Beta project is going to be £99,489

**Delta**

| Time | Cash flow | Multiply | Discount factors | Equal | Discount cash flow |
|---|---|---|---|---|---|
| Year 0 | 0 | X | 0 | = | £630,000 |
| Year 1 | £210,000 | X | 0.877 | = | £184,170 |
| Year 2 | £230,000 | X | 0.769 | = | £176,870 |
| Year 3 | £330,000 | X | 0.675 | = | £222,750 |
| Year 4 | £330,000 | X | 0.592 | = | £195,360 |
| Total | | | | | £779,150 |
| **Net present value** | | | | | **£149,150** |

The net present value for the Delta project is going to be £149,150

**Conclusion (Investment Appraisal)**

By using three calculating methods for the two projects Beta and Delta, and by using the results of the Alpha project I have come to the conclusion where I can sow the best results.

The results for the three projects are:

| Project name | Alpha | Beta | Delta |
|---|---|---|---|
| Pay back time | 3 years 5 months | 2 years 10.3 months | 2 years 6.9 months |
| Net present value | £25,985 | £99,489 | £149,150 |
| Accounting rate return | 25% | 33% | 43.6% |

As shown on the table above the best results are coming from the Delta project. The Delta project is expected to live for only four years, it has the lowest initial cost and is going to bring to the company more profit than Alpha or Beta is going to bring for five or six years.

**Recommendation (Investment Appraisal)**

Bering in mind the results from the conclusion we will expect that the Delta project will have more advantages that the two other projects.

The advantage of the Alpha project is:

- It is expected to live longer that the other two projects.

The disadvantages of the Alpha project are:

- It has the lowest amount for the net present value.
- It takes longer to pay the money back.
- It has the lowest percentage on the accounting rate return.

The advantage of the Beta project is:

- If you keep the project going, not a lot of the employees will be made redundant

The disadvantages of the Beta project are about the same as the Alpha project.

The advantages of the Delta project are:

- It has the quickest payback time
- It has the highest percentage on the account rate return
- It has the highest net present value

The disadvantage of the delta project is:

- It will not last long

By comparing the figures and calculations I recommend the company to go ahead with the Delta project.

The reasons for that are:

- It has the lowest initial cost
- It will bring more money to the company than the two others
- It will pay quickly than others

- It will last one to two years than the other two projects, which means that the company will not need to employee a lot of people.

## *4. Budgetary control*

**Introduction (Budgetary control)**

Oakdene Engineering produces testing units for measuring the output of X-ray machines and lasers.

Each year all the departments within the company produce budgets for their departments to help the financial director to produce the master budget.

After producing the budgets we have to advice Oakdene Engineering of what action should they take over the proposed increased in selling price.

**Method (Budgetary control)**

The methods used are:

- Calculations
- Reports
- Formulae

**Finding (Budgetary control)**

The sales budget below will show the total sales at the current price and the total sales at the increased price.

**MONTHLY SALES BUDGET**

| | | | | |
|---|---|---|---|---|
| | **Current price** | **£1,200** | **Increased price** | **£1,320** |

| **Month** | **Unit** | **£** | **Unit** | **£** |
|---|---|---|---|---|
| January | 90 | £108,000 | 80 | £105,600 |
| February | 110 | £132,000 | 90 | £118,800 |
| March | 120 | £144,000 | 100 | £132,000 |
| April | 120 | £144,000 | 100 | £132,000 |
| May | 100 | £120,000 | 80 | £105,600 |
| June | 100 | £120,000 | 80 | £105,600 |
| July | 90 | £108,000 | 90 | £118,800 |
| August | 80 | £96,000 | 80 | £105,600 |
| September | 90 | £108,000 | 90 | £118,800 |
| October | 120 | £144,000 | 120 | £158,400 |
| November | 150 | £180,000 | 150 | £198,000 |
| December | 130 | £156,000 | 130 | £171,600 |
| **Total** | **1300** | **£1,560,000** | **1190** | **£1,570,800** |

As shown on the sales budget, the difference of total sales between increased and the current price is £10,800.

On the production cost budget will be shown the calculations on calculating the total amount of money needed for labour, raw materials, subcontract cost and the variable overheads.

| **PRODUCTION COST BUDGET** | | | | |
|---|---|---|---|---|
| | | | | |
| **EACH UNIT** | **Hours** | **Cost** | **Total** | |
| Labour | 40 | £ 7.00 | £ 280.00 | |
| Raw materials | | | £ 120.00 | |
| Sub Contract | | | £ 50.00 | |
| Variable Overheads | | | £ 50.00 | |
| **Unit total** | | | £ 500.00 | |
| | | | | |
| | **Sales volume at current price** | | **Sales volume at increased price** | |
| **Month** | **Unit** | **£** | **Unit** | **£** |
| January | 90 | £ 45,000.00 | 80 | £ 40,000.00 |
| February | 110 | £ 55,000.00 | 90 | £ 45,000.00 |
| March | 120 | £ 60,000.00 | 100 | £ 50,000.00 |
| April | 120 | £ 60,000.00 | 100 | £ 50,000.00 |
| May | 100 | £ 50,000.00 | 80 | £ 40,000.00 |
| June | 100 | £ 50,000.00 | 80 | £ 40,000.00 |
| July | 90 | £ 45,000.00 | 90 | £ 45,000.00 |
| August | 80 | £ 40,000.00 | 80 | £ 40,000.00 |
| September | 90 | £ 45,000.00 | 90 | £ 45,000.00 |
| October | 120 | £ 60,000.00 | 120 | £ 60,000.00 |
| November | 150 | £ 75,000.00 | 150 | £ 75,000.00 |
| December | 130 | £ 65,000.00 | 130 | £ 65,000.00 |
| **Total** | **1300** | **£ 650,000.00** | **1190** | **£ 595,000.00** |

Based on the units given above we found out the sales volume at the current and higher price. The production budget shows that that the cost to make the units is higher for the units at the current price than the increased price.

Below I am going to show the Cash Flow Forecast at the current price, which will be followed by the Cash Flow Forecast at the increased price.

The Cash Flow Forecast shows at the current price shows that the closing balance at the end of the year is £50,000 but the Cash Flow Forecast at the higher price shows a closing balance of £75,800

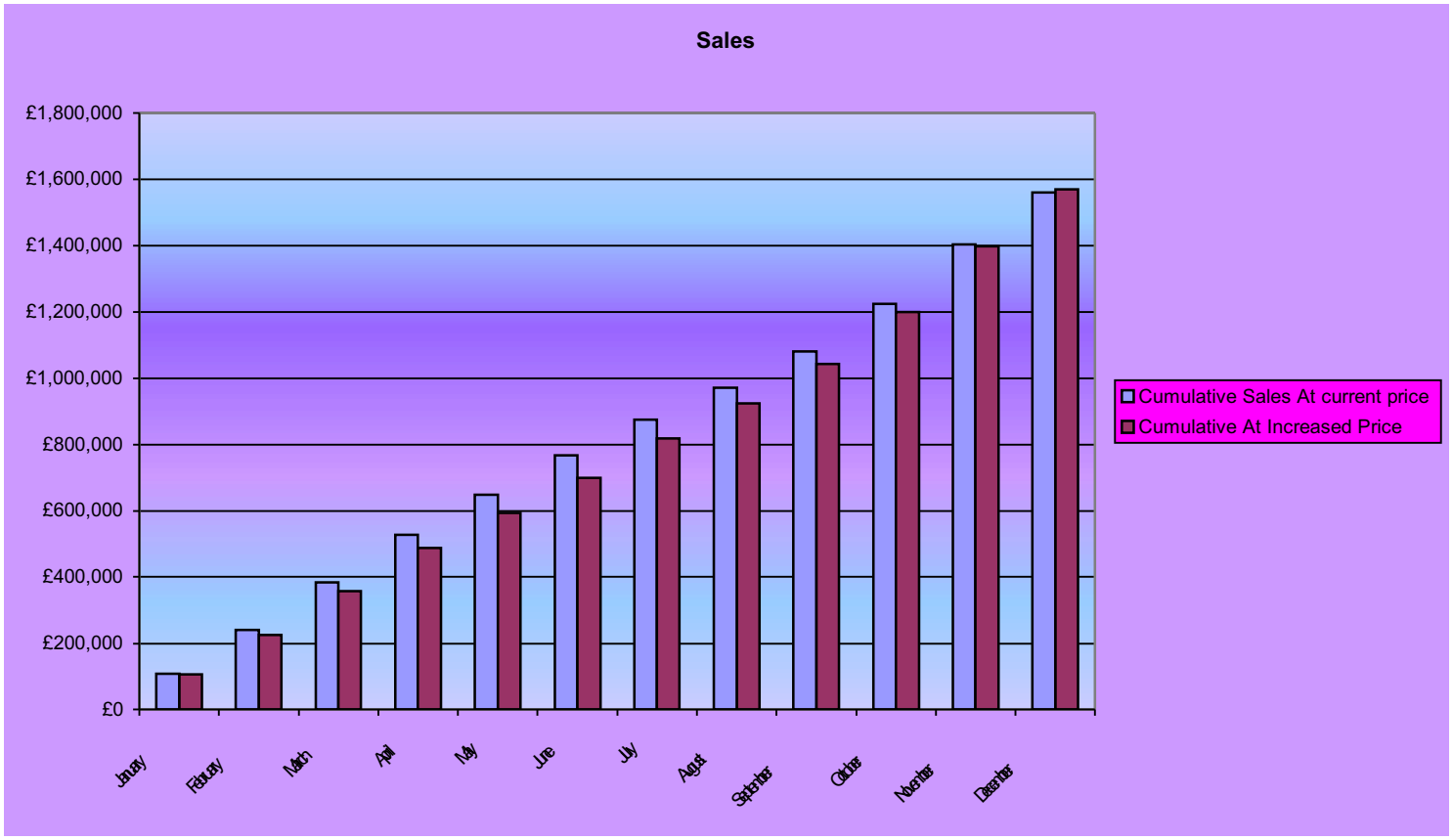
| CASHFLOW FORECAST | AT THE CURRENT PRICE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAME: | | | | | | | | | | | | | |
| PERIOD: | | | | | | | | | | | | | |
| RECEIPTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Cash from debtors/ sales | 108000 | 132000 | 144000 | 144000 | 120000 | 120000 | 108000 | 96000 | 108000 | 144000 | 180000 | 156000 | 1560000 |
| TOTAL RECEIPTS | 108000 | 132000 | 144000 | 144000 | 120000 | 120000 | 108000 | 96000 | 108000 | 144000 | 180000 | 156000 | 1560000 |
| | | | | | | | | | | | | | |
| PAYMENTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| Production | 45000 | 55000 | 60000 | 60000 | 50000 | 50000 | 45000 | 40000 | 45000 | 60000 | 75000 | 65000 | 650000 |
| Sales and Marketing | 16666 | 16666 | 16666 | 16666 | 16666 | 16666 | 16666 | 16666 | 16666 | 16666 | 16666 | 16674 | 200000 |
| Rates | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 60000 |
| Finance | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 90000 |
| Office payroll | 18337 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 220000 |
| General office overheads | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 90000 |
| Office equipment | 10000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10000 |
| Contingency fund | 7500 | | | 7500 | | | 7500 | | | 7500 | | | 30000 |
| Factory overheads | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 180000 |
| TOTAL PAYMENTS | 132503 | 124999 | 129999 | 137499 | 119999 | 119999 | 122499 | 109999 | 114999 | 137499 | 144999 | 135007 | 1530000 |
| | | | | | | | | | | | | | |
| NET CASHFLOW | -24503 | 7001 | 14001 | 6501 | 1 | 1 | -14499 | -13999 | -6999 | 6501 | 35001 | 20993 | 30000 |
| OPENIBG BALANCE | 20000 | -4503 | 2498 | 16499 | 23000 | 23001 | 23002 | 8503 | -5496 | -12495 | -5994 | 29007 | 20000 |
| | | | | | | | | | | | | | |
| CLOSING BALANCE | -4503 | 2498 | 16499 | 23000 | 23001 | 23002 | 8503 | -5496 | -12495 | -5994 | 29007 | 50000 | 50000 |

| | | | | CASH FLOW FORECAST AT HIGHER PRICE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAME: | | | | | | | | | | | | | |
| PERIOD: | | | | | | | | | | | | | |
| RECEIPTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Cash from debtors/ sales | 105600 | 118800 | 132000 | 132000 | 105600 | 105600 | 118800 | 105600 | 118800 | 158400 | 198000 | 171600 | 1570800 |
| TOTAL RECEIPTS | 105600 | 118800 | 132000 | 132000 | 105600 | 105600 | 118800 | 105600 | 118800 | 158400 | 198000 | 171600 | 1570800 |
| | | | | | | | | | | | | | |
| PAYMENTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| Production | 40000 | 45000 | 50000 | 50000 | 40000 | 40000 | 45000 | 40000 | 45000 | 60000 | 75000 | 65000 | 595000 |
| Sales and Marketing | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | 240000 |
| Rates | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 60000 |
| Finance | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 90000 |
| Office payroll | 18337 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 220000 |
| General office overheads | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 90000 |
| Office equipment | 10000 | | | | | | | | | | | | 10000 |
| Contingency fund | 7500 | | | 7500 | | | 7500 | | | 7500 | | | 30000 |
| Factory overheads | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 15000 | 180000 |
| TOTAL PAYMENTS | 130837 | 118333 | 123333 | 130833 | 113333 | 113333 | 125833 | 113333 | 118333 | 140833 | 148333 | 138333 | 1515000 |
| | | | | | | | | | | | | | |
| NET CASHFLOW | -25237 | 467 | 8667 | 1167 | -7733 | -7733 | -7033 | -7733 | 467 | 17567 | 49667 | 33267 | 55800 |
| OPENIBG BALANCE | 20000 | -5237 | -4770 | 3897 | 5064 | -2669 | -10402 | -17435 | -25168 | -24701 | -7134 | 42533 | 20000 |
| | | | | | | | | | | | | | |
| CLOSING BALANCE | -5237 | -4770 | 3897 | 5064 | -2669 | -10402 | -17435 | -25168 | -24701 | -7134 | 42533 | 75800 | 75800 |

**MONTHLY SALES BUDGET**

| | Current Price | £1,200 | Increased Price | £1,320 | Cumulative Sales | Cumulative sales |
|---|---|---|---|---|---|---|
| **Month** | **Unit** | **£** | **Unit** | **£** | **Current Price** | **Increased Price** |
| January | 90 | £108,000 | 80 | £105,600 | £108,000 | £105,600 |
| February | 110 | £132,000 | 90 | £118,800 | £240,000 | £224,400 |
| March | 120 | £144,000 | 100 | £132,000 | £384,000 | £356,400 |
| April | 120 | £144,000 | 100 | £132,000 | £528,000 | £488,400 |
| May | 100 | £120,000 | 80 | £105,600 | £648,000 | £594,000 |
| June | 100 | £120,000 | 80 | £105,600 | £768,000 | £699,600 |
| July | 90 | £108,000 | 90 | £118,800 | £876,000 | £818,400 |
| August | 80 | £96,000 | 80 | £105,600 | £972,000 | £924,000 |
| September | 90 | £108,000 | 90 | £118,800 | £1,080,000 | £1,042,800 |
| October | 120 | £144,000 | 120 | £158,400 | £1,224,000 | £1,201,200 |
| November | 150 | £180,000 | 150 | £198,000 | £1,404,000 | £1,399,200 |
| December | 130 | £156,000 | 130 | £171,600 | £1,560,000 | £1,570,800 |
| **Total** | **1300** | **£1,560,000** | **1190** | **£1,570,800** | **£9,792,000** | **£9,424,800** |

The table above shows the monthly sales budgets at the current and higher price. It also shows the cumulative sales at current and higher price on which the graph below is based.




The graph shows that until November sales were better at the current price and on December the sales were better at the increased price.

The Master budget that will be on the following page will the net profit for both increased and current price.

| | Current Price | Higher Price | Actual Price |
|---|---|---|---|
| | | | |
| Sales | 1560000 | 1570800 | 1704000 |
| Production Cost | 650000 | 595000 | 729000 |
| | | | |
| **Gross Profit** | **910000** | **975800** | **975000** |
| | | | |
| **Less Expenses** | | | |
| Factory overheads | 180000 | 180000 | 174000 |
| Business Rates | 60000 | 60000 | 55000 |
| Sales And Marketing | 200000 | 240000 | 220000 |
| Finance Cost | 90000 | 90000 | 80000 |
| Staff Payrole | 220000 | 220000 | 205000 |
| General Overheads | 90000 | 90000 | 105000 |
| Contingency Fund | 30000 | 30000 | 10000 |
| **Total Expenses** | **870000** | **910000** | **849000** |
| | | | |
| **Net Profit** | **40000** | **65800** | **126000** |

The Master budget shows the net profit for the year 2003 at current, higher and actual price.

**Conclusion (Budgetary control)**

After working out the budgets above we have come to the following conclusion:

- The monthly sales budget on the page twelve shows that at the first six months sales at the current price were bringing more money to the company than sales at the higher price.

- The second six-month of the year the sales at the current price were making more money for the company. At the end of the trading year the sales at the higher price managed to make £10,800 more than the sales at the current price.

- The production cost budget the total number of items produced within the year at current and higher price and the costs to make them

- For the current price the company had to produce 1,300 units in a year and for the sales at the higher price the company had to produce 1,190 units in a year which means that more money were spend to produce the products for sale at the current price.

- The Cash Flow forecast at the current price shows that the total amount of money flowing in to the account is £1560000. The total inflow for the Cash

Flow forecast at the higher price is £1570800. This means that there is more money coming from the sales at the higher price.

- The total payment for the cash flow forecast at the current is £1530000, but at the higher price the total payment is £1515000. Which still means that there that the cash flow at the current price has more money flowing out of the account than the cash flow at the higher price.

- The cash flow forecast shows the net cash flow at the higher price to be £25800 higher than the cash flow at the current price.

- The closing balance at the end of the year at the current price is £50000, but the closing balance at the higher price is £75800. This shows that at the end of the year the closing balance is higher at the higher price than at the current price.

- The master budget shows that the gross profit at the current price is £910000, at the higher price is £975800 and at the actual price is £97500. This shows that at the higher price the gross profit is higher than the other too prices.

- The net profit show that the actual price is going to bring more profit to the company, the current price is going to give less profit to the company than the higher price.

**Recommendation (Budgetary control)**

According to the above conclusions the best thing Oakdene Engineering can do is go ahead with the higher price as that is going to bring to the company more money than the current price.

Some of the things that prove it are:

- The first six months are not going to have more sales as would be with the current price.

- The last six months of the year, sales at the higher price are going to bring more money to the company than the sales at current price.

- The cost to produce units at the higher price is lower than the cost of the current price.

But the problem is would people want to buy the products of the same quality as before for more money?

The company has to set out questionnaires to find it out.

## *4.1 Budgetary control part B*

### Introduction (Budgetary control part B)

On the second part of the budgetary control I am going to compare and discuss the differences of the master budget shown on the first part of the budgetary control with the actual information of the cash flow forecast at the actual price.

### Method (Budgetary control part B)

To make this task easer to understand I am going to use:

- Master budget at actual price
- Cash flow forecast at actual price
- Sales budget at actual price

### Findings (Budgetary control part B)

### Master budget

| | Current Price | Higher Price | Actual Price |
|---|---|---|---|
| Sales | 1560000 | 1570800 | 1704000 |
| Production Cost | 650000 | 595000 | 729000 |
| **Gross Profit** | **910000** | **975800** | **975000** |
| **Less Expenses** | | | |
| Factory overheads | 180000 | 180000 | 174000 |
| Business Rates | 60000 | 60000 | 55000 |
| Sales And Marketing | 200000 | 240000 | 220000 |
| Finance Cost | 90000 | 90000 | 80000 |
| Staff Payroll | 220000 | 220000 | 205000 |
| General Overheads | 90000 | 90000 | 105000 |
| Contingency Fund | 30000 | 30000 | 10000 |
| **Total Expenses** | **870000** | **910000** | **849000** |
| **Net Profit** | **40000** | **65800** | **126000** |

**MONTHLY SALES BUDGET**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Current price** | **£1,200** | **Increased price** | **£1,320** | **Actual price** | | **£1,262** |

| **Month** | **Unit** | **£** | **Unit** | **£** | **Units** | **£** |
|---|---|---|---|---|---|---|
| January | 90 | £108,000 | 80 | £105,600 | 100 | £126,200 |
| February | 110 | £132,000 | 90 | £118,800 | 110 | £138,820 |
| March | 120 | £144,000 | 100 | £132,000 | 120 | £151,440 |
| April | 120 | £144,000 | 100 | £132,000 | 120 | £151,440 |
| May | 100 | £120,000 | 80 | £105,600 | 100 | £126,200 |
| June | 100 | £120,000 | 80 | £105,600 | 100 | £126,200 |
| July | 90 | £108,000 | 90 | £118,800 | 90 | £113,580 |
| August | 80 | £96,000 | 80 | £105,600 | 90 | £113,580 |
| September | 90 | £108,000 | 90 | £118,800 | 100 | £126,200 |
| October | 120 | £144,000 | 120 | £158,400 | 110 | £138,820 |
| November | 150 | £180,000 | 150 | £198,000 | 160 | £201,920 |
| December | 130 | £156,000 | 130 | £171,600 | 150 | £189,300 |
| **Total** | **1300** | **£1,560,000** | **1190** | **£1,570,800** | **1350** | **£1,703,700** |

| | | | **Cash Flow Forecast At Actual Price** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NAME: | | | | | | | | | | | | | |
| PERIOD: | | | | | | | | | | | | | |
| RECEIPTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Cash from debtors/ sales | 105600 | 118800 | 132000 | 132000 | 105600 | 105600 | 118800 | 105600 | 118800 | 158400 | 198000 | 171600 | 1570800 |
| TOTAL RECEIPTS | 105600 | 118800 | 132000 | 132000 | 105600 | 105600 | 118800 | 105600 | 118800 | 158400 | 198000 | 171600 | 1570800 |
| | | | | | | | | | | | | | |
| PAYMENTS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
| Production | 60750 | 60750 | 60750 | 60750 | 60750 | 60750 | 60750 | 60750 | 60750 | 60750 | 60750 | 60750 | 729000 |
| Sales and Marketing | 18334 | 18334 | 18334 | 18334 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 18333 | 220000 |
| Rates | 4584 | 4584 | 4584 | 4584 | 4583 | 4583 | 4583 | 4583 | 4583 | 4583 | 4583 | 4583 | 55000 |
| Finance | 6667 | 6667 | 6667 | 6667 | 6667 | 6667 | 6667 | 6667 | 6666 | 6666 | 6666 | 6666 | 80000 |
| Office payroll | 17084 | 17084 | 17084 | 17084 | 17083 | 17083 | 17083 | 17083 | 17083 | 17083 | 17083 | 17083 | 205000 |
| General office overheads | 8750 | 8750 | 8750 | 8750 | 8750 | 8750 | 8750 | 8750 | 8750 | 8750 | 8750 | 8750 | 105000 |
| Contingency fund | 2500 | | | 2500 | | | 2500 | | | 2500 | | | 10000 |
| Factory overheads | 14500 | 14500 | 14500 | 14500 | 14500 | 14500 | 14500 | 14500 | 14500 | 14500 | 14500 | 14500 | 174000 |
| TOTAL PAYMENTS | 133169 | 130669 | 130669 | 133169 | 130666 | 130666 | 133166 | 130666 | 130665 | 133165 | 130665 | 130665 | 1578000 |
| | | | | | | | | | | | | | |
| NET CASHFLOW | -27569 | -11869 | 1331 | -1169 | -25066 | -25066 | -14366 | -25066 | -11865 | 25235 | 67335 | 40935 | -7200 |
| OPENIBG BALANCE | 20000 | -7569 | -19438 | -18107 | -19276 | -44342 | -69408 | -83774 | -108840 | -120705 | -95470 | -28135 | 20000 |
| | | | | | | | | | | | | | |
| CLOSING BALANCE | -7569 | -19438 | -18107 | -19276 | -44342 | -69408 | -83774 | -108840 | -120705 | -95470 | -28135 | 12800 | 12800 |

**Conclusion (Budgetary control part B)**

Now I conclude that more products are sold at the higher price than at the current price.

Based on the conclusion given on the first part and after comparing the figures on the master budget, which includes the data at the current price, higher, and actual price, I can tell that the increased higher price will give the company more profit than the current price.

The actual price on the master budget shows the higher net profit coming in to the company, which might give the company more ideas and choices to make the decision.

**Recommendation (Budgetary control part B)**

Before making the decision the company has to find out the following things:

Has the business any competitors? If yes how many?
Will the product be needed at that time of the year?
When increasing the selling price will it have any bad affect on your organisation, if yes what?

If the company has more than three competitors in the UK then they have to be careful as its competitors can pot the business down as once you put the prices up they put their prices down which will affect you sales.

If the above questions are positive for the company I finally can recommend Oakdene Engineering to go with the actual price, which means they can keep their products at the current price for the first six months of the year and for the rest of the year to use the increased price.

## ***5. Standard costing and variance analysis***

**Introduction (Standard costing and variance analysis)**

At Oakdene engineering is produced a house hold product with the following standard costs for one product:

Direct materials – three kilos at £1.25 per kilo
Direct labour - three hours at £5.10 per hour
The company produces 50,000 units a month.

As an accounting assistant I was asked to compare the actual with the standard cost. There are three managers, the purchasing, personnel and the production managers have different ideas and all of them think that they are going to be successful.

**Method (Standard costing and variance analysis)**

To sort this problem the following accounting techniques will be used:

- The report technique
- Tables
- Calculations
- Formulae's

**Findings (Standard costing and varian ce analysis)**

As shown at the introduction the standard costs for one unit are:

Direct materials – three kilos at £1.25 per kilo
Direct labour - three hours at £5.10 per hour

The standard budget for the company is to produce 50,000 units in one month.

Materials

The cost of the materials needed for 50,000 units is:

Three kilos x 50,000 units = 150,000 kilos x £1.25 = **£187,500** per 50,000 units

**Labour**

The cost of labour for the 50,000 units is going to be:

Three hours x 50,000 units = 150,000 hou rs x £5.10 = **£765,000** per 50,000 units

The total standard budget is £187,500 + £765,000 = **£952,500 per 50,000 units**

In June 2000 the actual results were:

Direct materials - 158,000 kilos costing £189,600
Direct labour - 156,000 hours costing £819,00 0
Which is a total of the actual budget of **£1008,600**

**£189,600 / 158,000 kilos = £1.20 per unit = to 0.05p favourable**
**£819,000 / 156,000 hours = £5.25 per hour = to 0.15p adverse**

When taking away the actual total of June £1008,600 from the standard budget that is £952,500 will give us a variance adverse of £56,100

| | | |
|---|---|---|
| Materials | **P**rice | Actual usage x difference I price<br>158,000kg x 0.05 = **7,900 favourable** |
| | **U**sage | Standard price x difference in usage<br>£1.25 x 8000kg = **10,000 adverse** |
| Labour | **R**ate | Actual hours x the difference in rate<br>156,000 hours x 0.15p = **23,400 adverse** |
| | **E**fficiency | Standard rate x difference in efficiency |

| | | | |
|---|---|---|---|
| | | £5.10 | x 6,000 hours = **30,600 adverse** |

From the table above the adverse amount will be added together and will be taken away from the favourable amount.

7,900 – 10,000 –23,400 – 30,600 = £56,100 adverse variances.

**Critical evaluation**

It is very difficult to find out why Oakdene engineering ltd is come down to £56,100 adverse in the variances.

Some of the reasons that might have caused the adverse are:

1. Supervision of staff – staff might not have been supervised and they have wasted time by taking longer breaks or arriving late or living early.
2. Machine breakdown – there might be machines that do not work and that will need time to repair which will waste time and money.

There are a lot of ways to find out why this happened but we have to take in to consideration that it will take time to find out the information we need.

It might help if we interview all the managers so we will be able to carry out an investigation.

The data and information we find out from the investigation has to be gathered together which it will take time.

We have to measure of how long it takes to produce one unit.

**Conclusion (Standard costing and variance analysis)**

To conclude, I am going to state what we found out from the information given to as.

We found out that in June 2000 the prices changed, the things that changed are:

- The price for the materials was 0.05p favourable
- The pay for hour to make the product was 0.15p adverse.

By using a table we calculated and showed the figures of Price 7900 favourable, Usage 10000 adverse, Rate 23400 adverse and Efficiency 30600 adverse.

After adding the figures together we found out that Oakdene Engineering has to improve or change the ways of doing thing as they ended up on have £56100 adverse variances.

**Recommendation (Standard costing and variance analysis)**

I recommend Oakdene Engineering to look through the reasons that have caused the adverse variances. Separate them into two groups, which are:

| Beyond the management control | Within management control |
|---|---|
| 1. Price going up<br>2. Staff illness<br>3. Power cut<br>4. Fire<br>5. Flood etc. | 1. Staff absence<br>2. Supervision<br>3. Machine maintenance<br>4. Price search<br>5. Staff motivation<br>6. Management<br>7. Poor materials and wastage |

If the cause of the adverse is anything under within the management control column then they should take it under consideration and improve things.

The things that they might improve are:

- Make sure that the staff absences are for a good reason.
- Staff must be supervised at all the times.
- The machines should be used correctly and staff must take good care of them such as clean them every tine they finish work.
- The management must make more afford to find cheaper prices.
- The staff must be motivated to make them enjoy work by giving them benefits or pay rise.
- Before buying the materials a specialist must test them to make sure that the material is worth the money.
- When ordering materials Oakdene must make sure that they order only enough material needed for the work and they should take care of it and not waste material.

## 6. ***Overhead Absorption & Job Costing***

**Introduction (Overhead Absorption & Job Costing)**

On this part of my investigation I am going to show how to put different overheads on to the different job centres with the Oakdene Engineering and I am going to produce a job costing shit.

**Method of investigation (Overhead Absorption & Job Costing)**

The methods that will be used on this task are:

- Table
- Calculation
- Cost sheet

**Findings (Overhead Absorption & Job Costing)**

The way to get the overhead into cost unit is:

Direct variable cost add overhead portion and add the profit.

Apportionment and expenses to cost centres

| Overheads | Method | Assembly | Painting | Packing |
|---|---|---|---|---|
| Rent & rates £72,100 | Floor area | £30,900 | £15,450 | £25,750 |
| Foreman's salaries £26,750 | Number of employees | £15,047 | £6,688 | £5,016 |
| Depreciation machinery £108,800 | Machine value | £54,400 | £32,640 | £21,760 |
| Insurance of machinery £7,500 | Machine value | £3,750 | £2,250 | £1,500 |
| Total overheads | | £104,097 | £57,028 | £54,025 |

Thinking that it is not fare to separate the overhead e.g. foreman salaries based on the number of the employees as the department with more employees does not need to spend a lot of time to do the work because there are to many people working.

The overhead absorption rate of each department based on the direct labour hours are:

**Painting**

37 hours x 48 Weeks x 8 members of staff = 14208 £57028 / 14208 = **£ 4.01**

**Packing**

37 hours x 48 weeks x 6 members of staff = 10656 £54025 / 10656 = **£ 5.07**

**Assembly**

37 hours x 48 weeks x 18 members of staff = 31968 £104097 / 31968 = **£ 3.25**

The problem that might come from this calculation is that not all the hours might be used from staff the reasons are:

Staff might be ill
Maternity leave
Paternity leave
Staff not supervised (waste of time)
Staff might sign in on behalf of each other etc.

**Activity C**

On the activity C, I am going to show the job-costing sheet.

| ***Direct cost*** | | ***Quotation*** |
|---|---|---|
| **Labour:** | | |
| Assembly | | £2500 |
| Painting | | £2200 |
| Packing | | £4800 |
| **Total** | | **£9500** |
| **Materials:** | | |
| Assembly | | £100 |
| Painting | | £400 |
| Packing | | £500 |
| Total | | **£1000** |
| **Absorption:** | | |
| Assembly | 1000 x 3.26 | £3260 |
| Painting | 900 x 3.26 | £2934 |
| Packing | 960 x 3.26 | £3129.60 |
| **Total** | | **£9323.60** |
| **Admin 20% of the all totals above** | **19823.60 x 20%** | **£3964.72** |
| **Profit mark up 25%** | **19823.60 x 25%** | **£4955.90** |
| **Price** | | **£28744.22** |

**Conclusion (Overhead Absorption & Job Costing)**

After doing all the calculations and other requirements, I have reached the following conclusion:
The total overheads for assembly are £ 104,097, for the painting department are £57,028 and for the packing department the total overheads are £54,025.

The overhead absorption based on labour hours for each department is:

| | |
|---|---|
| Assembly | £3.25 |
| Painting | £4.01 |

| | |
|---|---|
| Packing | £5.07 |

On the job costing the overall price is £28744.22

APPENDIX 1

**Break-even**

**What is break-even analysis?**

Break-even is a management accounting technique, which depend on the nature and the behaviour of the costs.

The break-even point is the point at which the business makes neither profit nor loss (the point at which all the costs are covered).
The break-even can be worked out by using:

- Graph
- Table
- Calculation

The break-even can help a business to make a decision on whether to make a move and expand the business or not. The breakeven calculations help the business to find out approximately how much profit or loss is going to make.

**What is behaviour of the costs?**

Costs can be classified into:

- Fixed costs (indirect costs) e.g. rent, rates, heating, advertising, salaries, telephone.
- Variable costs (direct costs) e.g. materials of the product and the labour.

**What are the fixed costs?**

The fixed costs are the costs that the business has to pay even if it doesn't sell any products. The example is shown above. Fixed cost do not remain fixed at all levels of the production e.g. if decided to increase the number of the production then the fixed cost has to go up as well.

**What are the variable costs?**

The variable costs are the costs that you pay depending on the number of the products the business makes. If the number of the products increases then the variable costs increase.

**What are advantages of the breakeven?**

The advantage of breakeven is:

- It will give you a rough idea of how much money you need and how much you are going to make.
-

**What are the disadvantages of the breakeven?**

The disadvantages of breakeven is:

- Breakeven calculations are not accurate. You might not sell everything that you are aiming for.

Breakeven is used to give businesses an idea if they are going to be on loss or profit.

Appendix 2

**Marginal Costing**

**What is marginal costing?**

Marginal costing is the cost of the extra units produced with in the production line.
The technique of marginal costing recognises that fixed cost do vary with time rather than activity e.g. even if the number of units produced will increase or decrease the amount of money paid for the rent will remain the same.

Management accounting technique help in decision making on:

- ✓ Contribution to sales ration, rather than profit margin.
- ✓ Use of spare capacity for special orders.
- ✓ Make or buy decision
- ✓ Allocation of scarce resources.

The disadvantages of using the marginal costing is:

- ✘ If we reduce prices that will only cover the costs of the business to attract new customers it will be difficult to persuade customers to pay more later on.
- ✘ People might not want to buy the product at reduced price as they might think that it is something wrong with it e.g. the quality, not long lasting life etc.
- ✘ Other companies might take advantages and sell the same product for less when you decide to go back to the original selling price.

**What is a make or buy decision?**

The make or buy decision is a management decision on whether they should manufacture a particular product or buy it from another supplier. The reasons that managers want to buy a product instead of making it might be because:

- ✓ It might be cheaper to buy

- ✓ Other suppliers might supply better products than the company can make

Make or buy decision can affect the structure of the business and the fixed and variable costs.
When making the products the fixed cost is high and when buying it makes a very little difference to them.
Before making the decision the company has to compare the marginal cost of producing the product with the price quoted by the supplier.

Opportunity cost is a benefit used when a particular course of action is taken.

The things that the accountant has to keep in mind while using the marginal costing technique are:

- Fixed costs must be covered
- Effect on customers
- Special edition products
- Problems of product launched on marginal cost basis

Appendix 3

**Investment Appraisal**

**What is the payback?**

The pay back is an accounting technique, which is used to see how long it takes to pay back it original value. The faster the pay back more profit for the company. This does help manager to make decision on whether or not to go ahead with the project.

**What are the advantages of the payback?**

The advantages of the payback technique are:

- It is easy to calculate and understand
- It has an affect on the early cash flows, which are more accurate than the later ones.
- It will help managers to find out how much capital they need to invest

**What are the disadvantages of the payback?**

The disadvantages of payback technique are:

- The cash flows are ignored after the payback period

**What is the accounting rate return?**

This method is an accounting technique used to calculate a percentage accounting rate of return on the initial cost of the project.
The formulae for this method is:

(Total estimated cash flow divided by estimated life of the project) over the initial cost times 100 over 1.

**What are the advantages of the accounting rate return?**

The advantages of the accounting rate return are:

- It is easy to calculate
- All cash flows are used
- It is easy to understand the results

**What are the disadvantages of using accounting rate return?**

The disadvantage of using the accounting rate return is:

- The timing of the cash flow is ignored.

**What is the net present value?**

The net present value is an accounting technique used to show that money has time value. This means that money does lose value if it is not invested. The longer you live your money sitting in the bank with out putting it on a saving account more its value is going to fall.

Appendix 4

**Budgetary Control**

**What does the term budget mean?**

Budgets are plans prepared in advance for an operating time of a business. This will give the business an idea of how much profit they are going to make but we must understand that these plans are made before the beginning of the trading year which mean that plans might not go as they are planed.

**The advantages of using the budgets are:**

Motivation e.g. the head of financial departments knows what is expected of them so they work towards that objective.

Responsibility e.g. managers are given more responsibilities as they work through budgets themselves.

Control e.g. if the budgets show that plans are not going to end successfully then managers can take action before the trading year begins.

Decision making e.g. it will be easer for the business to make decisions as they have forecasts of what they are going to achieve from the business.

Planning e.g. by using budgets managers will be able to plan easily forward and they can find out if sales will cover their overheads.

**How to prepare a budget**

Budgets are prepared before the trading period starts.
The budgets must have the following criteria:

- The budgets must conform company policies and objectives
- The individual budgets must be responsible and achievable
- All budgets that will make the master budget must be similar
- When setting a budget, things that are expected during the trading year must be taken in to consideration.

The final master budget is taken to the chief executive.

There are different cash flows that might be used for a business, they are the sales budget, the production budget etc.

The problems of using the budgets are:
- Budgetary slack
- Incremental budgeting
- Lack of involvement and motivation
- Spending the total allowance budget
- Assigning variances to managers
- Fixed budget

Appendix 5

**Standard Costing**

**What is a standard cost?**

A standard cost is a pre- determined cost based ob the future, materials, labour and overhead costs and working condition.

**What are the standard costs set for?**

Standard costs are set for: materials, labour and overheads.

- The standard material cost is the expected quality multiplied by the material price.
- The standard labour cost is the expected labour hours multiplied by the wage rate.
- The standard overhead costs is the expected quality of goods produced divided by the overheads.

People within a business that can give information to set the standards are:

- Buyer
- Personnel
- Management service
- Production

Standard costs enable budgets to be produced for costing individual costs or production runs.

After the production has been completed, then the actual figures are produced to compared with budgets.

Differences are identified and if things are going wrong the managers will take action. Reports are issued only if there are problems.

Adverse variances can be caused by a number of issues. These issues are divided in to different categories. The categories are:

| **Beyond the management control** | **Within the management control** |
|---|---|
| Prices going up | Staff absences |
| Staff illness | Supervision |
| Power cuts | Machine maintenance |
| Fire | Staff motivation |
| Flood | Materials |
| | Wastage |

Appendix 6

**Overhead Absorption And Job Costing**

Fixed costs need to be spread in to the cost centres.

**Allocation** is when it is possible to say how much has been used by each department. The way to do that is by using meters or swipe cards.

**Apportionment** is when a method is used and agreed by all managers.

**Overhead absorption** – after the overheads are in to the cost centres, they must be absorbed into the cost unit price. There are three possible methods that can be used:

1. Labour hours
2. Units of production
3. Machine hours

Once the a price has been set to cover variable costs, fixed costs and profit, then estimates can easily be prepared for jobs.

**Job costing** is used where:

- Each job can be identifies separately from other jobs
- Costs are charged separately for each job

The main steps involved on the job costing are:

- A separate job cost has to be issued for all jobs within an organisation.
- If things are not looking to well for a particular job the managers then will take it on consideration.

**Cost units** are the units of production to which costs can be charged.

**Cost centres** are sections of a business which costs can be charged.

The problems that might come from overhead apportionment and absorption costing are:

- Managers might not agree with the decision taken
- The way that they decide to separate the overheads it might not be fare on all departments within the company.
- It might bring conflicts between managers and then it will be a communication break down within the business, which will affect the success of the company.