

OPERATIONAL CASE STUDY PRACTICE EXAM ANSWERS

Variant 2

The Practice Exam can be viewed at

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Section 1:

To: Mr Harris

Date: 6 June 2015

Hello Mr Harris

In response to your email of earlier, please find below the information that you asked for.

Reasons why the total standard cost for CHICKEN has increased

As you've correctly identified the standard cost per bag of CHICKEN has risen from £14.31 to £14.53, which is a marginal increase. Looking at the figures in detail we can see that the ingredients element of the standard costs has indeed fallen from £6.10 to £4.50 as you were expecting, however this has not manifested into a saving overall because the time taken to produce a bag of CHICKEN has increased from 9 minutes to 11 minutes (an increase of 22% in time taken). This increase in time is likely the result of having to mix four ingredients rather than two.

The increase in time taken to produce a bag of CHICKEN has a number of direct impacts on the total standard cost as I've previously calculated:

The direct labour cost per bag increases by £0.33 as more minutes are used.

The variable overhead cost per bag also increases by £0.20 based on our existing variable overhead rate. It is possible that this variable overhead rate needs to be revisited given the significant change in the production process.

Most significantly, the fixed overhead per bag increases from £5.82 to £7.10, an increase of £1.28. Therefore a greater proportion of the fixed overhead is being absorbed based on the existing absorption rate. Again the fixed overhead absorption rate needs to be reassessed. It's likely that our total labour hours will increase as a result of the changing production mix, although it's possible that fixed overheads themselves do not change significantly. This could result in a reduction in the absorption rate.

However, based on the existing overhead rates the impact of the reduction in ingredients cost is more than matched by the impact of the increased time taken, resulting in an increase in cost overall.

Errors of principle in the gross profit forecast and how these should be corrected

Opening inventory has been valued at the new standard cost rather than the old standard cost. The opening inventory is all based on the old recipe and therefore the old standard cost should be used to value it.

In the production costs line, sales quantity has been used rather than production quantity.

In the production costs line, the fixed overhead cost per bag has been deducted from the production cost. However using an absorption costing approach the full production cost per bag of £14.53 should be used.

The level of closing inventory is incorrect at 6,000 bags. The correct closing inventory will be 3,000 bags (= 5,000 (opening inventory) + 60,000 (production) – 62,000 (sales)). Closing inventory should be deducted from cost of sales rather than added.

Section 2:

To: Mr Harris

Date: 8 June 2015

Hello Mr Harris

In response to your email of earlier, please find below the information that you required.

Procurement (purchasing) policy:

We need to start an investigative process to find a range of suitable possible suppliers and as such a key element of a procurement (purchasing) policy is to understand the requirements of all the processes within our Company, and the identities and capabilities of suppliers who could potentially supply us with products.

Choosing appropriate suppliers will involve trading off their alternative attributes. It is rare to find a supplier that is so clearly superior to their competitors that the decision to buy is self-evident. This is especially so given the nature of our business and dependency on the annual crop production cycle. With our recent supply difficulties it is important that we constantly review and match our output requirements with our procurement requirements to ensure reliable ingredients of the correct quality are always available.

It is possible to apply some industry standard procedures to this process, and it is worth considering the following criteria and adopting a supplier 'scoring' or assessment procedure, rating alternative suppliers in terms of factors relevant to the Company.

These will include, in terms of:

Short Term Ability to Supply

- Range of products or services provided
- Quality of products or services
- Responsiveness
- Dependability of supply
- Delivery and volume flexibility
- Total cost of being supplied
- Ability to supply in the required quantity

Long Term Ability to Supply

- Potential for innovation
- Ease of doing business
- Willingness to share risk
- Long-term commitment
- Technical capability
- Operations capability
- Financial capability
- Managerial capability

Given the possible expansion and changes in the business we need to discuss the above criteria, discuss the most and least relevant and assess potential suppliers accordingly. Currently quality dependability and flexibility of supply are very important to us in the short term, but in the longer term as our business expands the other long term supply abilities are likely to become increasingly relevant.

Treatment of R&D facility costs

There are specific accounting rules contained within IAS 38: *Intangible Assets*, which address whether research and development expenditure should be capitalised or expensed to profit or loss.

Expenditure incurred in the pursuit of research must be expensed to profit or loss as incurred, where research is defined as investigation undertaken to gain new knowledge and understanding. An example of this in our case might be work undertaken in the early stages of developing new forms of animal feed. The costs of undertaking this work (which are likely to be largely staff costs) would reduce profit in the year that they were incurred.

Development expenditure is dealt with separately within IAS 38 and development is defined as the application of research findings or other knowledge to produce new or substantially improved products. It is likely that the work undertaken by Zoe to date in terms of the new recipes for CHICKEN and SHEEP would be considered as development work because the products already existed, what has happened is that they have in effect been improved.

Development expenditure can be capitalised as an intangible asset in the financial statements as long as certain criteria are met. The capitalised value will then be amortised over its useful economic life. The criteria for capitalisation are:

The product developed can be sold or used.

There is an intention to complete the product so that it can be sold or used.

The costs incurred can be reliably measured.

The product being developed is technically feasible.

Adequate resources are available to complete the development of the product.

The product will generate future positive benefits for the entity.

In our case, Zoe has been developing new recipes for our existing products which:

are likely to bring positive benefits to MW in the future;

we know can be sold; and

which are clearly technically feasible.

Therefore, subject to further clarification, it is likely that the costs incurred within the facility in pursuit of the new recipes can be capitalised in the statement of financial position. However, if Zoe is undertaking work into new products which are as yet untested and for which there is no proven market then these costs are likely to need to be expensed to profit or loss.

Profit or loss will therefore be impacted by all expenditure within the department that relates to research and also by the amortisation charge on any capitalised development expenditure.

One final point to note is that IAS 38 only relates to costs which would otherwise be treated as expenses (e.g.: staff costs). There might well be tangible assets which have been acquired within the department, such as testing equipment. In accordance with IAS 16 these will be capitalised as part of property, plant and equipment and then depreciated in the normal manner. This depreciation charge will also therefore impact on profit or loss.

Section 3

To: Mr Harris
Date: 26 July 2015

Hello Mr Harris

In response to your email of earlier, please find below the information that you required regarding the acquisition of SP and its impact on our financial statements.

The effect on our financial statements:

As the auditors have identified, on acquisition SP will become a subsidiary of MW. Consolidated financial statements are prepared in order to show the substance of the situation in that MW and SP will be operated under common control and therefore can be viewed as a single entity. It should be noted though that each entity will still prepare individual financial statements, the consolidated financial statements are an additional requirement.

In order to prepare the consolidated financial statements we need to apply acquisition accounting in accordance with IFRS 3 *Business Combinations*. This is a little more involved than simply adding the two sets of financial statements together and involves the following steps:

Prepare the financial statements for both MW and SP as individual entities, taking care to ensure that both entities use the same accounting policies. These financial statements form the base data for the consolidated financial statements and will be referred to as the books of each entity.

Add together MW's and 100% of SP's assets, liabilities, revenue and expenses. Even though we only own 75% of SP, we in effect control 100% of the net assets and therefore we include 100% of the net assets.

Eliminate the cost of investment of SP in the books of MW and replace this with goodwill (see later).

Include a non-controlling interest (see later) in the equity section of the statement of financial position to reflect that fact that we do not own 100% of the net assets of SP.

Eliminate any inter-company trade that occurs between MW and SP.

Additional calculations - goodwill and non-controlling interest:

At the date of acquisition goodwill will need to be calculated as the cost of investment (that is, what was paid for SP, in this case £3 million) plus the value of non-controlling interest less the value of SP's net assets at that date.

Therefore in order to calculate goodwill at acquisition we will need the value of non-controlling interest on the day of acquisition (that is, the value of the remaining 25% stake) and also the value of SP's net assets on that date (this will be found from the SP's statement of financial position prepared on that date). Subsequent to acquisition goodwill will need to be reviewed annually for impairment and then written down accordingly, with the charge as appropriate being made to consolidated profit.

In short this means we will still have one set of financial statements for each company and then a set of consolidated financial statements for the group, showing the total asset value that we (MW) control, the amount we have paid over and above the asset value of SP, the 'goodwill' and the value of the remaining 25% of SP shares, known as the non-controlling interest.

Report to Mr Harris

Organisation structure

Purpose:

This report will consider the advantages and disadvantages of MW adopting a functional organisational structure, given the current expansion plans.

Introduction:

The business has developed by both organic growth and our recent acquisition and from a simple family run business into a multi-product business in the same industry.

Functional structure:

As such the organisation has expanded from a very basic level to a point where the size and complexity will require the dividing up of the responsibilities. A functional structure is appropriate, which divides the primary roles of production, research, sales and marketing, human resources and finance into their respective departments, headed up by you, the chief executive.

This structure is usually found in smaller companies, or those such as ours which have a narrow rather than diverse product range.

Advantages of the functional structure:

The key advantages of a functional structure are that it gives the departmental managers direct hands-on involvement in the operations, and gives greater operational control from the top. The functional structure also provides a clear definition of roles and tasks increasing accountability. Functional departments can also provide concentrations of expertise, and encourage knowledge development in areas of functional specialism, such as R&D which is expected to play a key role in our future. It should also be easy for you as chief executive to keep in touch with all the operations, and is a relatively simple control structure.

Disadvantages of the functional structure:

There may be disadvantages as MW and SP hopefully become larger and more diverse. A major concern is that as this takes place senior manager's focus on their functional responsibilities, become overburdened with routine operations and too concerned with narrow functional interests. As such they may find it hard to take a strategic view of the organisation as a whole or manage co-ordinated responses quickly.

The functional structure can be inflexible; the departments may become inward looking 'functional silos', we need to avoid this by encouraging inter department communication.

Also if further expansion is considered in the future, the functional structure is not good at coping with product or geographical diversity, as the business grows further, organisational review will be required. If and when this point is reached a divisional or matrix structure may become more appropriate, we need to keep the effectiveness of the management structure under regular review and consider any changes required accordingly.

Section 4:

To: Mr Harris
Date: 17 October 2015

Hello Mr Harris

In response to your email of earlier, please find below the information that you required.

Overall analysis:

At the overall level the management report of SP shows that the actual profit from production was £251,200 compared to a budgeted profit from production of £2,200,000. In broad terms this difference arises from a reduction in quantity sold from 100,000 to 80,000 units (a 20% reduction) and from a very large fall in the profit per unit from £22.00 to £3.14.

Before looking at the detail, the first point to note is that the scale of some of the variances could indicate that SP's budgeted figures were incorrect to begin with. It is possible that a very optimistic budget was set in order to make SP look more attractive to a potential acquirer. Alternatively, it could be that the budgeted figures were based on old data.

Overall there is clearly a significant movement and there are a number of possible factors can that be identified from analysis of the variances. Further analysis will clearly be needed to determine the actual reasons, however, these are my initial thoughts:

Analysis of sales variances:

As noted in the previous section of the report there has been a 20% reduction in the volume of sales which has had the impact of reducing budgeted profit by £440,000. It is possible that there has been a decline in the market for horse feed or that a significant customer has been lost during the year.

Sales price has also declined from £120 per unit to £118 per unit. Again this could indicate that the market for horse feed is struggling and that SP has had to reduce prices in order to generate the volume of sales. It's possible that without the sales price reduction, sales volumes might have fallen even further.

Analysis of materials variances:

Material J shows both an adverse price and usage variance which means that SP have used a greater number of kilograms of the material at a higher price per kilogram.

Material K on the other hand shows an adverse price variance but a favourable usage variance which means that SP have used a lower number of kilograms of the material but at a higher price per kilogram.

Clearly material prices have increased from the budget. This could be due to market forces affecting the price of these materials, perhaps there is a shortage in supply due to a harvest issue or possibly SP has had to source materials from alternative and more expensive suppliers.

The price of material K has increased by 40% per kilogram and material J by 10% per kilogram. This disparity in the movement could then help to explain the usage variances. It would appear that SP has changed the mix of materials used so that less of material K is used (which is the material with highest proportional increase) and more of material J. Overall the usage variance is positive and

therefore this apparent change in mix appears to have been successful. Analysis of mix and yield variances here would be useful.

Analysis of labour variances:

Both the rate and efficiency variances are adverse which means that SP have used a greater number of labour hours and paid a higher rate per hour. It is possible that more hours were needed in order to deal with the change in the mix of the product, which perhaps necessitated the need to pay an overtime rate which is higher than the main rate. Alternatively it could be that the rate increase originated from government legislation of a minimum wage or that trade unions negotiated a higher rate of pay.

Analysis of variable overhead variances:

The variable overhead efficiency variance will be affected by the same factors as the labour efficiency variance as it is based on labour hours used. The variable overhead expenditure variance however does indicate that SP appear to have had good control over such costs as the variance is favourable.

Analysis of fixed overhead variances:

The fixed overhead expenditure variance indicates that SP has been good at controlling these costs, which ties in with the comment above concerning variable overhead expenditure. This could be an indication of sound management at SP as despite all the other adverse production variances these costs have been controlled.

The fixed overhead volume variance is adverse because of the change in the level of production from that budgeted. This variance is a measure of the over or under absorption of the fixed overhead costs caused by actual production being different to budgeted production. Given that budgeted production is 20,000 units less than budget then the fixed overhead cost will have been under-absorbed and hence an adverse variance arises to reconcile to actual profit.