Chartered Institute of Management Accountants

OPERATIONAL CASE STUDY NOVEMBER 2016 EXAM ANSWERS

Variant 3

The November 2016 exam can be viewed at

https://connect.cimaglobal.com/resources/november-2016-operational-case-study-variant-3

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SECTION 1

CUSTOMER DELIVERY ISSUES

Business Process Re-engineering

Business process re-engineering (BPR) involves the fundamental rethinking and redesign of existing business processes to achieve improvements in performance as measured in terms of cost, quality, service and speed. The main objective of BPR is to enable us to meet the needs of our customers which we are failing to do at the moment.

BPR will challenge our managers and staff to totally rethink the way they do things in order to improve organisational effectiveness. It may involve setting targets for improvements in performance not previously contemplated.

The first stage of BPR will be to identify and review our existing processes. In this case we would need to review all the process from the point where we receive customer orders to the point where we deliver the goods to the customers. We can then establish whether the process is necessary, adding value or supporting another value adding process. Those processes which are not adding value or which are not essential to supporting another value-adding process can be eliminated. The remaining processes can be redesigned so that they work in the most efficient way possible. The re-engineered processes can then be implemented resulting in our company working in the most efficient manner possible.

BPR often includes the creative use of IT wherever this can enhance business processes. In this case we will need to look at how our IT systems operate and the linkages between different parts of the system. We might consider the use of an enterprise resource planning (ERP) system to help solve some of the problems that we are currently experiencing.

We will need to handle the review carefully as the introduction of new processes may involve new working patterns and potentially redundancies and loss of staff goodwill. It is important therefore as you have suggested that we explain clearly to staff what the process involves and its potential benefits. It is essential that we deal effectively with the current issues to secure the long-term future of the business and employees.

The benefits to the company may be significant in terms of reducing organisational complexity by concentrating on core processes and eliminating unnecessary or uneconomic activities. It may also provide us with a cost advantage over our competitors. It should certainly result in an improvement in our customer service.

The use of BPR is a radical solution however, and requires careful consideration as this involves a fundamental review and possibly a costly reorganisation of the way in which we conduct our operations.

Quality reporting

External failure quality costs

The current issues in respect of customer deliveries will have resulted in significant external failure costs. The following financial indicators would have been useful in helping us identify the issues:

Excess delivery costs arising from the need to make good short deliveries and to return the excess of over deliveries.

Cost of processing complaints from customers in respect of delayed deliveries and under or over deliveries.

Inspection costs of returned goods to establish whether the panels can be returned to stock, need to be reworked/repaired or will require disposal.

Non-financial indicators

Non-financial indicators will be important to help us identify quality issues and to measure our progress in rectifying the quality issues.

Number of customer complaints - a rise in customer complaints would have provided an indicator that there was a quality issue which we could then have investigated further to establish the specific reasons.

Number of incorrect deliveries – if our systems had been operating effectively there should be no incorrect deliveries. This would be a clear indicator that we have an issue with our deliveries and trigger action to rectify the problems

Average score on customer reviews – our website enables customer to rate the quality of our products and services. This feedback should be monitored regularly and will provide and early indicator of any issues. We can clearly see from the information given that customer rating are very low.

Investigation of variances

We could potentially adopt a policy where we investigate every reported variance but this would be expensive and time consuming and would lead to the investigation of variances that would not result in improvements of operations even if the cause of the variance was determined. The objective of the policy should be to investigate those variances that yield benefits in excess of the cost of the investigation.

We would need to consider the following factors before deciding whether to investigate a variance.

a) **The size of the variance** – costs tend to fluctuate around a norm and therefore variances may be expected on most costs. We will need to decide how large a variance must be before it is considered 'abnormal' and worthy of investigation. The size could be determined in terms of an absolute amount or a predetermined percentage of the standard cost. It may be appropriate to set different percentages for different cost items. For example, we may want to set a fairly low level for goods returned inwards since the effect of a variance relates not only to the costs of the goods returned which are quantifiable but also to the damage to our reputation which is not quantifiable. The problems with deliveries to our customers should have been apparent from both an adverse variance on goods returned inwards and delivery costs which we have failed to recognise.

b) **The likelihood of the variance being controllable** – managers may know from experience that certain variances may not be controllable even if a lengthy investigation is undertaken to determine their cause. Managers may argue that a material price variance is less easily controlled than a material usage variance as it is determined by external factors. On the other hand a material price variance may be due to the efficiency of the purchasing department and this would only be apparent after further investigation. We would need to consider each of the reported variances and determined which ones, if any, would be considered uncontrollable.

c) **The standard set** – A variance may arise when changes in the price of inputs occur resulting in standard prices being outdated. Any investigation of variances would indicate a general change in market price rather than efficiency or inefficiency in acquiring the resources. Any investigation of these variances would indicate a need to revise the standard. Ideally, standards should be reviewed frequently and updated to avoid variances being reported due to out of date standards.

SECTION 2

DELIVERY OUTSOURCING – Cost analysis, advantages/disadvantages

Analysis of delivery costs

We can influence to a certain extent the level of fixed and variable costs in our cost structure. Companies with lower variable costs and higher fixed costs have a higher contribution margin and higher operational gearing. Operational gearing measures the sensitivity of profits to changes in sales. Higher degrees of operational gearing can provide significantly greater profits when sales are increasing but higher percentage decreases will also occur when sales are declining. High operational gearing results in a higher risk since the company has a high level of fixed costs which must be paid even if volumes and hence contribution, is low. We currently have high variable costs and therefore relatively low operational gearing. If we were to outsource our distribution service it would reduce further our operational gearing but will have a fairly minor impact.

Our current distribution service uses a mixture of both fixed and variable costs. Fuel costs, tyres, maintenance and repairs would be considered variable costs since these are all likely to vary with the number of miles travelled. Taxes and permits, insurance and drivers' salaries are all likely to be considered stepped fixed costs since these would take a stepped increase if our activity level increases significantly and result in the need for additional vehicles. Administration costs would be considered fixed costs although these are likely also to take a stepped increase outside a large relevant range.

As the activity level increases, for example the number of deliveries or the number of miles travelled, the total variable costs will increase in direct proportion and the fixed costs will remain the same up to a certain level of activity. As the volume of activity rises, the cost per delivery will fall as the fixed costs per delivery will fall.

If we decide to outsource the distribution service the price per delivery from the outsourcing company would be a variable cost. The logistics company is offering to provide the service at a cost of F$75 per delivery which is below our current cost per delivery.

We could also calculate an indifference point, that is, the number of deliveries where we would be neither better nor worse off using the logistic company's service.

If our number of deliveries is not expected to rise above the indifference point, then we would be better off, in the short-term, using the outsourcing company. However this is not a short-term decision since it would commit the company for the medium to longer term. We should also bear in mind that there may be other costs involved with outsourcing, for example, administration costs in managing the relationship with the company.

Benefits of outsourcing

The benefits from outsourcing include the following:

If we believe that delivery to customers is not one of our core activities then outsourcing our delivery service will enable us to focus on our core activities, of manufacturing and selling solar panels, as these are the things we best understand. The delivery service might more effectively be provided by a third party on our behalf. Outsourcing would enable us to focus on our core business and by so doing become more specialised and proficient in that business without the distractions of carrying out other functions in which we have limited expertise.

Outsourcing organisations are often able to provide services at a lower cost than if we were to carry out the activities in-house. The cost of services charged by an external provider may often be lower because of the particular expertise and economies of scale that the provider enjoys.

Outsourcing may result in improvements in the quality of the distribution service because the external supplier can provide specialist expertise, knowledge, equipment and best practice not possessed by ourselves.

Disadvantages of outsourcing

There are several disadvantages of outsourcing including the following:

If the distribution service is considered to represent (or contribute to) a core competence for us, for example, customer service, then outsourcing would be inadvisable as the basis of our competitive advantage could be threatened unnecessarily. Quality and customer service is an important aspect of our business and if we do decide to outsource we need to ensure that the quality standards provided by the delivery company meet the standards we would expect and also our customers' expectations.

There may be resistance from staff groups and unions representing in-house workers whose jobs may be threatened. This may harm industrial relations and possibly lead to disruption in performance. Under these conditions, the initiative may be counter-productive. Outsourcing and a threat of job losses could affect staff relations and lead to a lack of motivation within the workforce.

The move to outsourcing may detract from our positive organisational culture by eroding shared values and goodwill.

Additional costs will be incurred associated with determining service specifications and ultimately monitoring performance.

Once the distribution service has been contracted out, it may be very difficult to take it back in-house at a later date, if things do not work out.

SECTION 3

DELIVERY OUTSOURCING – impact on financial statements, redundancies

Treatment of the delivery vehicles in the Financial Statements

Non-current assets will be classified as 'assets held for sale' if their carrying amount will be recovered principally through a sales transaction rather than through continuing use.

In general, the following conditions must be met for an asset (or 'disposal group') to be classified as held for sale:

- management is committed to a plan to sell
- the asset is available for immediate sale
- an active programme to locate a buyer is initiated
- the sale is highly probable, within 12 months of classification as held for sale (subject to limited exceptions)
- the asset is being actively marketed for sale at a sales price reasonable in relation to its fair value
- actions required to complete the plan indicate that it is unlikely that plan will be significantly changed or withdrawn

The outsourcing of the delivery service has been decided and the vehicles are available for sale. We are actively seeking a buyer for the vehicles at a reasonable price and given the nature of the assets it is highly probable that a buyer will be found within 12 months. The delivery vehicles would therefore be classified as "held for sale". These would be shown in the statement of financial position, under current assets, at the lower of the carrying amount and the fair value less costs of disposal.

Managing redundancies

The directors are keen to avoid compulsory redundancies if possible and there are a number of methods we can use to avoid or at least limit the number of compulsory redundancies.

Some staff affected may wish to volunteer for redundancy particularly if we offer redundancy payments above the statutory minimum. For the remaining staff, we would need to assess whether it is possible for any of them to be offered a different position within the organisation. We should delay any further external recruitment until we have assessed whether the staff affected by redundancy could fill any of the current vacancies. This may involve fairly minimal retraining costs to enable the administration staff to move to other administration roles with the company, but for the delivery vehicle drivers there may be significant retraining costs required to make up for any skill deficiencies.

We may also be able to create other job opportunities by encouraging staff over normal retirement age inducements to retire. We should also give consideration to adopting more flexible working practices such as offers of job-sharing between two or more people, and/or a shorter working week for certain groups.

There will also be costs associated with managing the redundancy process.

We will need to consider and discuss possible alternative actions with the relevant trade unions and/or staff representatives and be clear as to how we intend to conduct the process and the timescales involved. The process will need to be sensitively handled and management should seek to cushion negative impacts upon any individuals affected. We will need to ensure that there is effective communication and transparency of processes. This will involve administration costs mainly in respect of HR employee time but also in producing literature to keep employees and interested parties informed.

There will also be costs involved in providing support for staff affected by the redundancies.

We should consider appropriate and varied forms of support for individuals affected by job reductions. This might involve organising counselling and peer support groups, support for those retiring early and if, as a last resort, there is a need for compulsory redundancies, we must follow any established and agreed processes. For those workers made redundant we should do all we can to assist displaced individuals to find new work by offering a range of opportunities such as retraining, career coaching, sessions in CV writing and financial advice, outplacement consultants and job fairs, in order to get redundant workers back into work as soon as possible.

We need to recognise that it is important, as suggested by the Directors, that redundancies should be avoided wherever possible. Staff redundancies will have an impact on both the company's reputation and the motivation and performance of our existing employees.

SECTION 4

VARIANCES AND SHORT-TERM FINANCE

Sales Variances

It is clear from the variance report that we are not performing as well as budget. For the month of November we are showing a total adverse variance.

The price variance has accounted for F$290,800 of the total variance. Each of our models has an adverse price variance which probably reflects the need to cut prices in response to the bad publicity about the delivery issues. It may also reflect the level of competition in the market. The highest variance however is in the Solar Eclipse model where we have probably had to make significant price reductions to achieve sales.

The sales mix and quantity variance gives us an interesting insight into what is happening in the market. In total, the sales volume variance was adverse. Sales volumes are 1,100 units less than budget, despite the reductions in sales prices. By breaking this down further into the sales mix and sales quantity variance, we can see that we are F$6,550 worse off because the sales mix is different to what we estimated in the budget. There has been a switch from the 'Solar Eclipse' model and 'Solar Halo' brands to the 'Solar Bright' and 'Solar Glow' brands. The 'Solar Bright' brand produces the lowest contribution and, if this trend continues, it will impact significantly on the company's profits. The variance reflects the competition in the market from the new competitor product but possibly also a movement towards lower cost solar panels. The sales quantity variance of F$119,075 is even more significant and tells us that our customers are not only switching towards our lower priced brands but are also buying less from us. This again is an indication of the competition in the market and possibly the effect on our reputation from the recent bad publicity.

We also need to look at the impact of the lower solar panel sales on our other products i.e. kits, inverters etc.

Planning and Operational Variances

Standards are normally based on the anticipated environment. It could be argued that if the environment is significantly different from the expected environment, actual performance should be compared with a standard that takes account of these changed conditions. This would provide a more meaningful measure of managerial performance.

The planning variance may not be controllable but does provide some useful information to managers on the accuracy of their planning and could help to improve the accuracy of future plans. It appears that our planning was inaccurate as the potential effect on prices of the market competition has not been incorporated in the budget.

Operational variances are considered to be controllable and hence they provide a better measure of the operating efficiency. If we are trying to assess the performance of the sales managers, it would be better to separate out the planning variances from the operational variances. It is important though to identify who has responsibility for the reduced sales. It would be unfair to evaluate the sales manager on the adverse sales variances if the main reason for the variances was the issues with the delivery to customers.

Sources of short-term finance

The main sources of short-term finance are:

Trade Payables

Trade credit is a source of short-term finance. We could delay payment to our suppliers which would help to alleviate our cash flow difficulties but we would lose any early settlement discounts. Delaying payment without prior agreement from our suppliers is also unethical and suppliers may stop further supplies or take legal action against us. Both of these would be harmful to our reputation and credit rating. It is important therefore that we ensure agreement with our suppliers before taking this course of action.

Trade receivables

We could use our trade receivables as a source of short-term finance by factoring the debts or using invoice discounting. There would be interest costs and fees involved with either of these options and we would need to evaluate whether this was worthwhile. Invoice discounting has the advantage that it is a confidential service whereas with factoring the customers are aware that the debt is being factored and this may raise a question mark over our financial stability.

Bank borrowings

Bank overdraft: we could try to increase our bank overdraft facility. This has the advantage that it is flexible and that we only pay interest on the amount used which means it is a relatively cheap source of finance. The interest rate is variable which means we are exposed to any changes in bank base rate and makes it more difficult for us to budget for the interest costs. We should however be able to increase our overdraft but would need to check our current security arrangements with the bank. They will probably require us to provide up to date cash and profit forecasts to support our application for an increase in the facility.

Bank loan: alternatively, we could agree a short-term loan with the bank to cover the period of the additional cash deficit over and above our overdraft limit. Interest however will be payable on the whole sum of the loan for the specified period of the loan. This is therefore liable to be more expensive than an increase in the overdraft. We may also have to provide further security for the loan.