OPERATIONAL CASE STUDY February 2019 EXAM ANSWERS

Variant 5

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SECTION 1

ACTIVITY-BASED COSTING (ABC)

Implication of using a full costing approach rather than marginal costing on pricing

Under marginal costing fixed overheads are ignored when establishing the unit costs for our domestic products and the costs associated with commercial jobs. As a result, we do not know the full cost of our products and therefore pricing is potentially an issue.

In the longer term, to be a profitable business we need to ensure that all costs are covered by the selling prices we achieve: if we do not know the full cost of say a domestic climbing frame we cannot be sure that this will be achieved. Including an appropriate share of production overhead will allow us to establish the total cost to make our products and gives us a base against which we can compare the prices that we are able to achieve in the market. This will give us more accurate information about the relative profitability of our products. This is particularly acute in relation to commercial jobs where we currently add a 70% margin onto the variable costs of production and installation to arrive at selling price. This is an arbitrary and significant margin and could mean that we either under-price or over-price when giving a quote: recent feedback from Sally would indicate that we are actually over-pricing and that this margin is potentially too high.

Implication of using ABC on cost control

ABC works on the basis that the activities that generate cost are identified and production overhead is split into cost pools that relate to these activities. The act of identifying the activities gives us detailed information about why production overheads arise and by knowing this we are more able to control these costs. For example, with purchasing, the order size for accessories used regularly on commercial jobs is considerably smaller than for domestic products (5 compared to 100). Each order made generates cost to the business and therefore it might actually be more cost effective to increase the order size, although we would of course have to factor in the additional cost of holding inventory. The point is though, that ABC makes us look in detail at what drives overhead and gives us information to allow change for better cost control.
Issues to consider when determining cost drivers for the purchasing of accessories

To determine the cost driver for accessories in regular use we need to consider what causes cost to be incurred. For such items each time an order is placed a cost will arise (predominately staff time) and thus the cost driver will be the number of orders for each type of accessory (domestic or commercial). The order size for commercial jobs is far smaller than for domestic products and therefore it would be appropriate that commercial jobs would receive a greater share of the costs associated with purchasing accessories in regular use.

To determine the cost driver for unique accessories we also need to consider what causes cost to be incurred. Each unique accessory requires two quotes to be obtained which will generate a cost and presumably the cost will be the same or very similar for each unique accessory required. Therefore, the driver of the cost will be the number of unique accessories ordered and under ABC, each time the sale team place an order for a unique accessory they will be aware of the cost implications associated.
THE THREE SERVICE P’S OF THE MARKETING MIX

People

Our commercial customers are different to our domestic customers, because they are purchasing more than a climbing frame. They are purchasing a whole package, from design of a bespoke climbing frame to its installation. Our people therefore interact with commercial customers in lots of ways and it is important that our people act appropriately.

For example, we need to ensure that our sales people are properly trained and motivated to be polite and professional at all times so that the customer feels valued. Sales staff must also be good listeners so that they can communicate the customers requests to the design team.

Our installation teams also need to be courteous when on site and make sure that they are mindful of the environment that they find themselves working in. For example, if working at a school or nursery they need to liaise with the adults in charge to ensure that children are not in the vicinity of dangerous tools. Each installer must also have a certificate of disclosure to show that they do not have a criminal record and can legally work around children.

Processes

Because all commercial jobs are made to order it is important that the internal processes adopted to manage the customer relationship are as smooth as possible. If we can ensure that the times between initial enquiry, design approval and then installation are as efficient as possible, we can use this as a selling point in our marketing.

This is helped by the fact that usually a single sales person will manage the relationship with the customer all the way through the process. However, we must also make sure that design and production scheduling happens quickly so that customers are not waiting too long.

We also need to ensure that our installation teams are properly organised so that they pick up the right components and accessories for the right job. We need to ensure picking processes are based on the sales orders to ensure accuracy. This is particularly important as we have only recently taken over responsibility for installation.

Physical evidence

The services that our commercial customers receive are intangible and as such it is important that there is some form of physical evidence of the service. With respect to design this could be copies of the computer-generated drawings, either physically on paper or digitally in an email. This helps the customer to feel ownership of the design and to feel that they have had a bespoke service.

For installation, the physical evidence is ultimately the climbing frame itself being installed correctly. We already give a 15-year warranty on all our commercial climbing frames, which relates to the frame and the installation and this helps to support the quality of our installation service. In addition, testimonials from satisfied customers will give evidence of good service.
SECTION 2
EXTENDING CREDIT TERMS

Implications of extending credit terms

The first implication of extending credit terms to commercial customers is that our receivables days will increase which in turn will increase the length of the operating cycle. This means that more money will be tied up in working capital, which either needs to be financed via an overdraft or results in less money available for us to pay our suppliers and other commitments on time. If we do not pay our suppliers on time this means, despite the good relationships we currently have, that we might start to develop poor relations with them. It also means that we might not be able to take advantage of any prompt payment or bulk purchase discounts available from our suppliers.

Another implication is that the risk of receivables balances ultimately not being paid is increased. The aged receivables report at 31 March 2019 shows that already our customers take longer to pay than they should, and this increases the risk that they will never pay. Whilst we can expect the local government to ultimately pay what is already overdue, for our domestic small retailers there is potentially an issue as F$24,000 is more than 30 days late. Clearly our credit controller will be dealing with this, but the risk of non-payment is likely to be higher with these smaller scale retailers because there is a higher chance of these types of customer ceasing to trade, compared to the larger retailers and local government. Non-local government commercial customers are likely to be similar to our existing small retailer customers and therefore extending credit terms will increase the risk of irrecoverable debts.

Suitability of suggestions of how to manage implications

Factoring would involve a factoring business advancing us say 80% of the value of invoices as they are raised, and this means that we would receive a significant proportion of the monies due to us earlier than normal: this would help in managing cash-flow. A factor would also take over responsibility for managing the receivables ledger and because they are experts in credit control this means that it is likely they would recover more of the monies owed to us. We could even take out a ‘without recourse’ arrangement which would mean that the factor has responsibility for irrecoverable debts: this would eliminate our risk to irrecoverable debts. However, factoring is expensive, and we would need to consider the cost of this against the benefits to cash flow and reduced risk.

Offering a prompt payment discount to all of our credit customers might encourage at least some of our customers to pay earlier than they would normally which means that cash comes into the business more quickly, however not all customers will take advantage of it. It might also mean that some customers end up paying before they run into difficulties and the debt becomes irrecoverable, although this is likely to apply in only a small number of cases. Like with factoring we would need to consider the benefits to be gained against the cost of giving away the discount (which, at maybe 1% or 2% of invoice value, could be significant).
APPLICATION OF ZERO-BASED BUDGETING TO SALES DEPARTMENT BUDGET

Establish activities and objectives

The first stage of the process will be to decide on the decision units: effectively the support activities within each department that will generate cost. Each activity will have an objective associated with it. For example, the objective of attending toy fairs is to generate new business and create a buzz about the products.

Establish decision packages

For each activity, there will be potentially different ways in which its objective can be achieved or different levels of expenditure that could be incurred. These choices are reflected in decision packages which should be drawn up by those people closest to the activities (that is the sales people rather than the finance team). Decision packages can either be mutually exclusive (different ways of achieving the objective) or incremental (different levels of service to achieve slightly different outcomes).

There are many toy fairs across the country and currently we only attend a small number each year. We could create decision packages for individual toy fairs (each with different attendance fees and travel / accommodation costs and different potential benefits in terms of the likely attendees). Each of the toy fairs attended would potentially achieve the same objective, although perhaps with different degrees of success. Creating a decision package for each will allow us to compare and to select the toy fairs that would potentially be most beneficial.

Incremental decision packages can also be developed for each toy fair. We could start with a base package where maybe there are no free gifts and the brochures used are simple (perhaps black and white and giving only basic information). This is potentially a risky strategy given the competitive nature of the commercial market, and the fact that we want to increase market share: customers will expect glossy brochures and if our competitors are giving away free gifts, we will need to as well. Therefore, we need to develop packages that incrementally increase the level of spend in terms of free gifts and brochures. For each package we would need to establish the anticipated cost of the marketing and the benefits to be derived in terms of additional business and contribution into the business.

Perform cost/benefit analysis and rank decision packages

Once the decision packages have been fully developed, a cost/benefit analysis needs to be performed. Clearly, the main benefit of attending toy fairs is to generate interest in our products and to grow sales. There are other benefits though in terms of keeping up to date with what our competitors are doing and seeing what the latest trends are in respect of outdoor toys. Each decision package would need to be considered against these benefits and then ranked in order of preference.

Allocate resources

Once all decision packages across the business for support activities such as the Sales Department have been ranked the whole budget would need to be considered and the resources available allocated to each part of the business accordingly.
SECTION 3
TIMBER VARIANCES FOR THE NEW COMMERCIAL RANGE

Mix variances

The total mix variance is F$2,937 favourable, which means that overall a greater proportion of less expensive timber was used than budgeted. We know that as a result of the shortage of timber we changed the mix.

The weighted average standard price for timber is F$13.13 and only Grade A timber has a higher standard price than this at F$15 per length. Therefore, the favourable mix variance for Grade A timber tells us that we used proportionately less of a more expensive timber. This indicates that Grade A was one of the timbers in short supply.

For Grade B the standard price at F$12.50 is lower than the average and hence the small adverse mix variance indicates that we used proportionately less of a less expensive timber. This also would indicate that Grade B was in short supply, although not to the same degree as Grade A given the scale of the variance.

For Grade C the favourable mix variances indicates that we used proportionately more of a less expensive timber. This means that we Grade C was used as a substitute for the other two grades of timber.

Yield variance

The adverse yield variance indicates that we did not achieve the budgeted level of output, in terms of climbing frames, for the amount of timber we used. This can be linked to changing the mix, in that we had to substitute the higher quality timbers with the lowest quality timber.

We may have needed to add additional supporting beams into the climbing frames as a result of using the poorer quality timber or we may have had more wastage than budgeted due to the lower grade timber being more difficult to work with.

Impact on other variances

The timber shortage issue will have led to price variances for timber. We know from the mix variances that Grade A and to a lesser extent Grade B timber was in short supply and therefore it’s possible that we will have had to pay more for this leading to adverse variances. Grade C timber, however was used as a substitute and we know that we were able to negotiate a bulk purchase discount on this which would have resulted in a favourable price variance.

The timber shortage and subsequent substitution of higher grade timber for lower grade timber is also likely to have an impact on labour efficiency. We know that more timber was used in production than should have been for the level of output and therefore it is likely that additional direct labour time was needed either to create the additional strengthening pieces or to deal with the more difficult to work Grade C timber. Therefore, an adverse labour efficiency variance it likely. Given that variable overheads are based on direct labour hours, this is also likely to lead to an adverse variable overhead efficiency variance.
CUSTOMER REALTIONSHIP MANAGEMENT (CRM) SYSTEM

Potential benefits

The successful implementation of a CRM system will help the sales teams to manage their relationship with our customers because the system will contain all the pertinent information about those customers. At present the sales team focus on personal selling and having a direct relationship with the customer (whether it be a retail customer for the domestic market products or a commercial customer). As the business grows and more customers come online it becomes increasingly difficult to manage these relationships on a one-to-one basis. The system will allow for flexibility and will help to ensure that sales staff are not over-burdened.

A CRM system will also potentially facilitate the organisation and synchronisation of business processes. For commercial customers requiring the bespoke service a number of separate departments are involved: sales, design, production, dispatch and installation. Having a CRM system will facilitate the follow through of each order and will potentially allow the process to be smooth with less risk of error and more chance of a quicker delivery time.

A CRM system will also allow for more targeted and efficient marketing. The system will give us a database of information about past customers and hence when we have new products out we can target accordingly. In addition, for commercial customers who perhaps own a chain of children nursery’s or restaurants, we can target our existing products to them.

Potential issues

The main issue associated with installing a CRM system will be its cost. Off-the-shelf packages are available, although we might need to consider a bespoke package to ensure that we achieve the integration between the departments. This will obviously be more expensive and therefore it is important that we conduct a cost / benefit analysis to ensure that overall it is beneficial. We also need to consider if the resources that this would use up could be better spent elsewhere (such as production scheduling and inventory management software).

Another potential issue is that we will need to ensure that staff are adequately trained in the use of the system to ensure that it is used to its full potential. We do not have IT expertise in house and therefore we will need to engage external experts to help with this.
SECTION 4

RELEVANT COSTS

Materials

WoodYard will give us 100 lengths of timber for free and the relevant cost for these is nil, however the 100 lengths in inventory are regularly used in production. The relevant cost for these 100 lengths of timber will be their replacement cost at F$14.50 a length.

The bolts, caps and screws I assume are again regularly used in production as we will take such items from the stores inventory. Like with the timber these will need to be replaced at the current price which will be higher than F$150.

The swing sets have to be specially ordered in and therefore the relevant cost will be the cost of purchase. We need to include the cost of delivery as well as this is an incremental cost for this particular job. Therefore, the relevant cost will be the full F$1,000.

The F$800 paid for the three slides is a sunk cost because this was incurred in the past. These slides have been in inventory for three months and therefore I assume that there is no alternative use for them in the business in terms of a future commercial job. On that basis the relevant cost will be the F$500 that we could sell the slides for in the second-hand market. This represents the opportunity cost, that is, the revenue forgone as a result of using the slides for this job.

Other relevant costs to the business

A relevant cost to the business will be any additional cost for production and installation labour. We are already at full capacity and therefore the proposal is to squeeze this job into the schedule and to pay overtime. The overtime paid as a result of this job will be an incremental cost to the business.

Another relevant cost to the business will be any additional overhead costs incurred. There will be future travel costs associated with the installation team transporting the climbing frames to the hospitals and possibly Grace Lucas, Design Manager may need to carry out further visits to the premises. There might be other small incremental costs such as paper, however these costs will be very minimal.

There could also be opportunity costs associated with undertaking this job: that is opportunities forgone as a result of carrying out the work required in production and installation. Some scheduled production (and presumably scheduled installation) is likely to be delayed and we need to ensure that this does not result in lost sales or lost goodwill from our existing customers.

In addition, we will lose the sale of the specialist cutting machine which represents a lost opportunity. The cost of this opportunity lost will be the lost sale proceeds of F$4,000 less any scrap value that we might achieve when we scrap the machine.
POTENTIAL INVESTMENT IN WOODYARD

Difference between valuation of F$2.5 million and net assets

The carrying value of WoodYard’s net assets represents those assets and liabilities which are
allowed to be recognised by international financial reporting standards. This will include
tangible assets such as premises and cutting equipment and working capital such as
inventories of timber, receivables and payables balances and cash.

The net carrying value of these items will be lower than the value that WoodYard could be
sold for because this value will include intangible elements such as brand strength, customer
loyalty and position in the market. Collectively these elements are goodwill which will have
arisen over time as a result of WoodYard investing in marketing, developing strong links with
its customers (such as us) and being able to source supplies of unusual woods through strong
links in the supply chain.

This goodwill cannot be included in the financial statements of WoodYard as an intangible
asset because it cannot be reliably measured or separated from the business: both criteria
that need to be fulfilled to recognise an asset. Hence this is why there is a difference between
the market value of WoodYard and the carrying value of its net assets in the financial
statements.

Impact on financial statements in 2019 if we acquire a 100% stake

If we acquire a 100% stake in WoodYard it means that we would have 100% of the voting
rights, giving us the ability to make all the decisions about the business. This would give us
control over the operations and hence WoodYard would become a subsidiary.

With a subsidiary we will need to prepare consolidated financial statements to reflect the
combined business as if it was one entity. This involves adding together the assets, liabilities,
income and expenses of both businesses on a line by line basis, to create a set of financial
statements which combined the two businesses together. Given that WoodYard is likely to be
acquired at the end of November 2019, we will only include 1/12th of its income and expenses
for the year to reflect our period of control over the activities of the business.

Some adjustments will also be required. Firstly, within the consolidated financial statements
we will be able to include an intangible asset for the goodwill of WoodYard (which will be the
difference between the price that we end up paying for the business and the fair value of its
net assets on the date that we acquire it). This is a consolidation adjustment and will only
appear in the consolidated statement of financial position.

Secondly, we will need to eliminate any inter-company trading between the two companies
during the month of December 2019. This will reduce consolidated revenue and cost of sales.
In addition, we will need to calculate the profit included within the value of any WoodYard
inventory that Trigg Adventure holds at 31 December 2019 and credit this to consolidated
inventory with an opposite entry to profit.