

# **CHAPTER 10 - Multidimensional performance management**

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# CHAPTER 10 - Multidimensional performance management

## 10.8 The issue of transfer pricing in divisional performance

**Active reading:** Note the different levels at which transfer prices can be established. Think about the implications for the motivation of managers and the perceived fairness of the system adopted.

The rationale behind transfer pricing is to identify where value is added within the internal value system, to aid the monitoring of divisional performance, and to assist managers with decision making that maximizes the economic benefit for the organization. Setting transfer prices that encourage efficient internal trading can be a crucial part of implementing a successful strategy and extracting the maximum value for the customer. It can have motivational implications for the managers of business units, particularly across international borders, and encourage goal congruency and the achievement of the overall strategy.

The need for transfer pricing typically occurs in situations where Division A manufactures a product that is used in a product or service offered by Division B. This can have an added dimension if there is an external market for the product manufactured by Division A. Figure 10.5 illustrates the dilemma of transfer pricing.

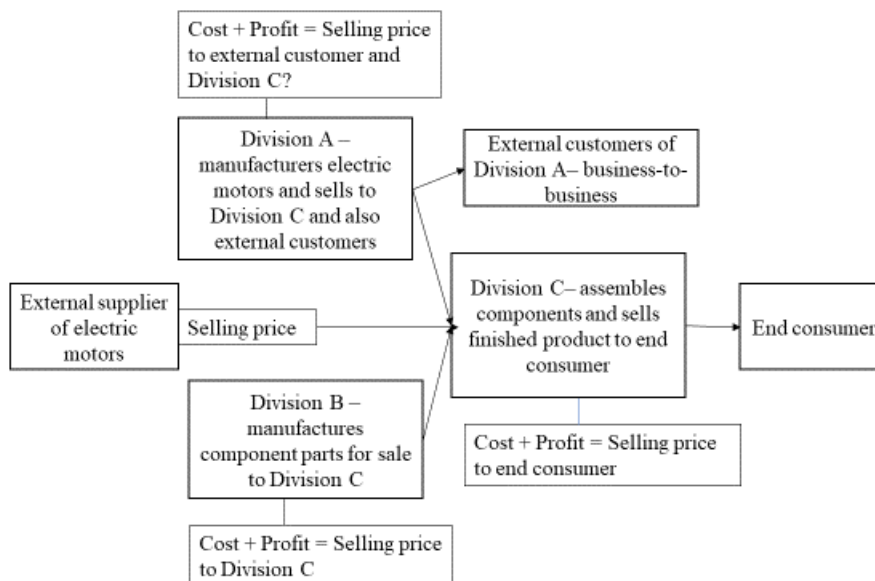


Figure 10.5 – the transfer pricing dilemma

For example, an organization consists of three divisions. Division A produces an electric motor that it sells on the open market, but is also a component of the vacuum cleaner manufactured by Division C. There are also alternative motors on the open market that could be used by Division C. What price would encourage Division A to sell to Division C and motivate Division C to buy from Division A instead of buying from an external source? If Division A sells all its production to Division C, it loses the opportunity to sell to external markets. Should it charge the same price to Division C as it does to its external customers?

Division C also uses components that are manufactured by Division B. These components are only produced for internal use within the organization, and Division B does not sell to external customers. As this is purely an internal transfer within the company, should this be made a cost value, or should Division B be allowed to make a profit? As the transfer price from Division A and Division B represents a cost to Division C, the choice of transfer price could potentially affect the end price to the consumer and hence the profits of Division C. Transfer pricing can have a significant impact on divisional performance monitoring which is why managers often challenge and wish to negotiate the transfer price.

Figure 10.6 indicates the underlying cost structure and transfer price options for a product manufactured in Division A and transferred (sold) to Division C.

	\$	\$
Materials	X	
Labor	X	
Direct (marginal) cost		X
Add manufacturing overheads	X	
Full manufacturing cost		X
Add delivery costs	X	
Add sales & marketing costs	X	
Add administration costs	X	
Total cost		X
Profit margin		X
Sales price		X

Marginal cost	+	Profit
Full manufacturing cost	+	Profit
Total cost	+	Profit
Sales price		

Figure 10.6 Basic cost structure and transfer price options

### 10.8.1 Options for transfer pricing

#### Marginal cost

In this instance, Division A recovers the direct (marginal) costs of manufacturing the product but is left with the manufacturing overhead. Division C would be more than happy to buy motors from Division A at this price.

### **Marginal cost plus**

It could be argued that it is not fair on Division A just to receive the marginal cost, and leave it bearing all the fixed cost. Hence it could be decided to transfer the motors at marginal cost plus a percentage mark-up to provide an incentive and contribution toward the fixed cost. If this transfer price is less than the price of other motors available in the open market, Division C will be happy to buy from Division A.

### **Full manufacturing cost**

Another method might be to transfer at full manufacturing cost. This enables Division A to recover the fixed costs of manufacturing. It is better to calculate the transfer price using a standard (or budgeted) cost as if actual costs are transferred; it does not encourage efficiency in Division A. Transferring the motor at actual cost means any inefficiency is transferred to Division C.

### **Full manufacturing cost plus**

It is also possible to add a mark-up to the full manufacturing cost. Again, if this is less than the price of a competitor motor in the open market, it will still be beneficial to keep the business within the company and motivate Division C to buy from Division A.

### **Full market price**

Another method is the use of market price. If, however, Division C could buy a product at a lower price on the open market, it might not be motivated to buy from Division A. Of course, the head office could insist that Division C uses Division A's motor and not allow it to buy on the open market. This policy, however, may demotivate Division C and create tension between divisions when, ideally, the divisions need to work together.

### **Adjusted market price**

An argument could be made that if Division A sells to Division C, it saves on the direct selling costs; that is, it is an easy sale and could save on distribution costs. The market price could be adjusted, that is, reduced by the savings made on selling and distribution costs.

### **Negotiated prices**

An alternative might be to allow divisional managers to negotiate a price between themselves. This process could, however, take time and be detrimental to the business if decisions are needed quickly, in which case, a policy that determines the price according to a prescribed basis is more beneficial.

All the above assume that Division A has spare capacity and can satisfy external customer demand and the requirement from Division C. However, as soon as Division A has limited capacity, and has a choice to make as to whether it sells to Division C or an external customer, the decision process changes. This is because in the situation of limited capacity, if a motor is sold to Division C, then Division A loses the opportunity to sell to an external customer. It raises the issue of a lost opportunity to sell at full market price to an external customer.

### **Opportunity cost**

When Division A has spare capacity, the opportunity cost of producing one extra unit is the marginal cost, as this is the only additional cost to Division A of producing the extra unit. When, however, there is no spare capacity, Division A loses the contribution it would earn from selling to an external customer, on top of the marginal costs incurred. Therefore, the opportunity cost is the marginal cost plus the lost contribution. If Division A makes the transfer to Division C, the organization loses the contribution from the external customer, and therefore the preferred option is to sell externally. The only exception to this is where Division C can add more value to the motor as part of its product than Division A can generate in the open market for the motor on its own. The use of the opportunity cost enables the decision to be made based on the benefit to the organization.

## **10.8.2 Transfer pricing across international borders**

**Active reading.** Note that when transferring across borders, there is a range of factors that need to be considered. It is often not as straightforward as it might seem.

When transferring products or services across international borders, other factors should also be considered, such as:

### **Tax regimes**

Different tax regimes and the view of local tax authorities to cross-border transfers need to be considered, for example, rules on allowable costs to be transferred. Transfer prices should not be set to avoid tax as there is a legal and ethical argument that states organizations should pay their fair share of taxes if they are enjoying the benefits of local resources. There is, however, the opportunity to consider the configuration of global operations of an organization, that is, where different elements, such as production, are undertaken in overseas locations to reduce the overall tax charge incurred by a global organization.

### **Ethical considerations**

The transfer price should be justifiable, and hence ethically calculated, and not just used to transfer profits between countries. However, there may well be an element of tax management within the decision.

## **Competitiveness**

The degree of competitiveness of the overseas market needs to be considered; for example, the transfer price should not make the offshore unit uncompetitive by charging a high transfer price.

## **Motivation**

The motivational aspect of transfer pricing also needs due consideration. Linked to the point above, local managers should feel that the price is fair and not just calculated for the benefit of a tax management policy by head office or political considerations.

## **Customers**

The view of customers should be considered in that some may feel the organization inflates the price for no real reason, other than to make profits in an overseas location, that is, consumers are becoming suspicious. Customers in some markets are skeptical of foreign organizations charging higher prices in different markets. The recent tax avoidance scandals have heightened consumer awareness of transfer pricing issues, and therefore the likely response of consumers should be taken into consideration.

## **Local suppliers**

The degree to which there are local suppliers of products that could supply the same product at a lower cost will affect the transfer pricing decision. In this instance, the differentiation and quality control aspects of the product could be a key factor in justifying a higher price than that available in the local market.

## **Currency risk**

The currency in which the transfer is made, that is, who bears the foreign exchange risk. If the overseas receiving division carries the risk, this could make profits fluctuate for no controllable reason. The performance management of offshore locations needs to take account of economic and managerial performance. For example, in some markets, it may be that it is not management actions that are generating higher profits, but the economic conditions. Therefore, external benchmarks need to be made with other companies in the same sector in the same overseas market.

**Learning activity.**

Division X manufactures and sells electric motors. The units can be sold in the open market for \$150. They are also transferred to Division Y, which uses the units as a component in one of their products.

The following information has been extracted from the accounts of Division X.

	\$000
<b>Sales Revenue (100,000 units at \$150.00 each)</b>	<b>15,000</b>
<b>Direct Manufacturing Costs</b>	
Bought-in materials	4,500
Labor	2,875
Packaging	500
<b>Indirect Manufacturing Costs</b>	
Variable overheads	125
Line production managers	375
Depreciation	
Capital equipment	1,875
Capitalised development costs	750
<b>Total manufacturing costs</b>	<b>11,000</b>
<b>Sales and Distribution Costs</b>	
Salaries of sales force	625
Carriage	250
General Overhead	625
<b>Total costs</b>	<b><u>12,500</u></b>
<b>Profit</b>	<b><u>2,500</u></b>

## Notes

- 1 The costs of the sales force and indirect production staff are not expected to increase up to the current production capacity.
- 2 Depreciation for all assets is charged on a straight line basis using a five year life and no residual value.
- 3 Carriage is provided by an outside contractor.

**Activity requirement:**

Calculate potential transfer prices for the electric motors if they are transferred at:

1. Variable production cost plus a mark-up of 10%
2. Full manufacturing costs plus a mark-up of 10%
3. Adjusted market price

**Solution**

Variable production cost plus a mark-up of 10%

$$\frac{(4,500 + 2,875 + 500 + 125)}{100} \times 1.1 = \$88$$

Full manufacturing cost plus a mark-up of 10%

$$\frac{11,000}{100} \times 1.1 = \$121$$

Adjusted market price

$$150 - \left(\frac{250}{100}\right) = 147.50$$

Note: it is assumed that carriage is variable, and the cost only incurred if an external sale is made.