Transfer Pricing 5

This Module includes:

Transfer Pricing

SLOB Mapped against the Module

To attain detailed knowledge of measures to improve divisional performance and appreciate various methods of transfer pricing to ensure goal congruence and profit optimisation at entity level. (CMLO 3c, 4c)

Module Learning Objectives:

After studying this module, the students will be able to

- Gather fundamental knowledge of various methods and techniques of fixation of transfer price.
- Understand how the selection of a particular transfer price impacts the profitability of the entity.
- Appreciate the problem of goal congruence and its impact on divisional performance.
- Note some fundamental aspect of international transfer price.

Concept

5.1

Transfer pricing is concerned with the price one profit centre charges another profit centre within the company for products or services provided. Since the supplying profit center's revenue becomes the receiving profit center's cost, the transfer price chosen can have a significant impact on the evaluation of a profit center's performance.

Transfer pricing technique is a major issue in the current business world. As the scope of business is increasing day by day, it is not possible for upper level managers to manage such a large organisation. Organisations have a system of transfer pricing, therefore, in order to assess the efficiency and effectiveness of its department and divisional managers. This maybe in spite of the fact that transfer prices may be artificial in the sense that it is felt that there is no rationale for "selling" between departments and divisions. So for the purpose of better management and control organisations are divided in to smaller divisions, each having an independent divisional manger. Sometimes, performance of divisional mangers is linked with the profits earned by their respective divisions.

Divisional managers are therefore responsible for all operations (production, sales and so on) relating to their product, the functional structure being applied to each division. It is possible, of course, that only part of a company is divisionalized and activities such as administration are structured centrally on a functional basis with the responsibility of providing services to all divisions.

Transfer pricing plays a very important in international taxation also, as by fixing fair transfer prices one can avoid a lot of tax burden.

In general, a large organisation can be structured in one of two ways: functionally (all activities of a similar type within a company, such as production, sales, research, are under the control of the appropriate departmental head) or divisionally (split into divisions in accordance with the products or services made or provided).

Transfer pricing is a topic that one is need to know from both a theoretical standpoint and a numerical standpoint. The questions may require understanding the issues that a company faces in establishing the transfer price as well as be able to calculate an acceptable transfer price under certain situations.

As the transfer price chosen can impact performance evaluation, it is important that the transfer price is perceived as equitable to all parties involved. When there is a market price for the transferred good or service, market price is the appropriate transfer price. However, transfer pricing is often an issue for intermediate products that have no market value.

When one division of a company sells to another division, both divisions as well as the company as a whole are affected. The price charged for the transferred good affects the costs of the buying division and the revenues of the selling division.

Thus, the profits of both divisions, as well as the evaluation and compensation of their managers, are affected by the transfer price. Since profit-based performance measures of the two divisions are affected (for example, ROI and

Residual Income), transfer pricing can often be a very emotionally charged issue.

Advantages of Transfer Pricing

The main advantages are as follows:

(1) Top managers have more time to devote to general planning since they are not burdened with routine daily decisions.

(2) The decision-making task is distributed among more personnel so that each person has enough time to give matters sufficient attention.

(3) Better control can be achieved, as the manager can move quickly to make needed corrections.

(4) Managers are better motivated, as they have more control over those matters on which their performance is measured.

(5) Managers are more likely to exercise initiative in such matters as "comparison shopping" in order to reduce costs of outside materials. Comparison of internal and external costs tends to keep internal costs, such as transfer pricing of intercompany goods or services, in line.

(6) As managers become more proficient in decision making, they become more qualified for higher management positions.

Disadvantages of Transfer Pricing

The principal disadvantages are as follows:

(1) The extent of authority and responsibility to be decentralized is difficult to determine.

(2) Managers needed to head the decentralized units must be selected and trained, a process that is often time-consuming and expensive.

(3) The varied activities of decentralized units must be coordinated, a difficult task.

(4) Evaluating the performance of the units and the individual managers is often problematic.

Selection of Transfer Price

Any transfer-pricing system should aim to:

- Ensure that resources are allocated in an optimal manner;
- Promote goal congruence;
- Motivate divisional managers;
- Facilitate the assessment of management performance;
- Retain divisional autonomy.

Why do transfer-pricing systems exist?

1. To communicate data that will lead to goal-congruent decisions.
2. To evaluate segment performance and thus motivate managers toward goal congruence decisions.

3. Multinational companies use transfer pricing to minimize their worldwide taxes, duties, and tariffs. Ideally, the chosen transfer-pricing method should lead each sub-unit manager to make optimal decisions for the organisation as a whole.

The three specific criteria that can help in choosing a transfer-pricing method are:

(a) Promotion of Goal Congruence:

Goal congruence exists when each divisional or sub-unit manager acting in his or her own best interest takes actions that automatically result in achieving the organisation goals established by top management.

(b) Promotion of a Sustained High Level of Management Effort:

Effort is defined as exertion towards a goal, for example, sellers are motivated to hold down costs of supplying product or service, and buyers are motivated to acquire and use inputs efficiently. The environment in the organisation should be such that a sustained high level of management effort is promised.

(c) Promotion of a High Level of Subunit Autonomy in Decision-making:

Autonomy is the degree of freedom a division manager can exercise in decisions making. If top management favors a high degree of decentralization, this criterion is of particular importance.

Objectives of Transfer Pricing

A question arises as to how the transfer of goods and services between divisions should be priced. The price charged to the interdivisional transfer of goods and services is revenue to the selling division and cost to the buying division. Therefore, the price charged will affect the profit of both divisions; benefit (revenue) to one division can be created only at the expense of the other division. For example, the selling division will benefit from charging higher prices for such transfers of goods and services. However, for the buying division, this will result into higher costs. The transfer prices, thus, can have impact on the evaluation of each division's performance and measures applied for such measurements of performance.

While determining transfer prices, a number of criteria (objectives) should be fulfilled:

(i) Transfer prices should help in the accurate measurement of divisional performance (profitability).

(ii) Transfer prices should motivate the divisional managers into maximizing the profitability of their divisions and making decisions that are in the best interests of the organizations as a whole.

(iii) Transfer prices should ensure that divisional autonomy and authority is preserved. The main purpose of decentralization is to enable divisional managers to exercise greater autonomy and to measure the overall results achieved on a profit centre or investment centre. It is, therefore, not proper to give divisional managers authority by one hand by placing those in charge of divisional operations and to remove that authority by dictating transfer prices that affect the performance of the division.

(iv) Transfer prices should allow goal congruence to take place, which in effect means that the objectives of divisional managers are compatible with the objectives of overall company.

(v) A transfer pricing system, if properly established, can check multinational companies and international groups which may try to manipulate transfer prices between countries in order to minimize the overall tax burden.

Problems with transfer pricing

1. **Maintaining the right level of divisional autonomy:**

   Transfer prices are particularly appropriate for profit centres because if one profit centre does work for another the size of the transfer price will affect the costs of one profit centre and the revenues of another. However, a danger with profit centre accounting is that the business organisation will divide into a number of self-interested segments, each acting at times against the wishes and interests of other segments. Decisions might be taken by a profit centre manager in the best interests of his own part of the business, but against the best interests of other profit centres and possibly the organisation as a whole.

2. **Ensuring divisional performances are measured fairly:**

   Profit centre managers tend to put their own profit performance above everything else. Since profit centre performance is measured according to the profit they earn, no profit centre will want to do work for another and incur costs without being paid for it. Consequently, profit centre managers are likely to dispute the size of transfer prices with each other, or disagree about whether one profit centre should do work for another or not. Transfer prices affect behaviour and decisions by profit centre managers.

3. **Ensuring corporate profits are maximized:**

   When there are disagreements about how much work should be transferred between divisions, and how many sales the division should make to the external market, there is presumably a profit-maximizing level of output and sales for the organisation as a whole. However, unless each profit centre also maximizes its own profit at this same level of output, there will be inter-divisional disagreements about output levels and the profit-maximizing output will not be achieved.

Methods and Techniques

5.2

Transfer pricing methods may be classfied as under:

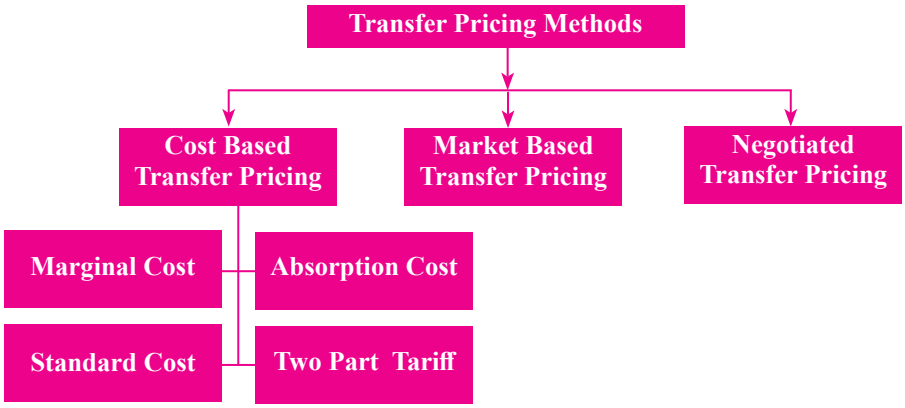

Figure : 5.1 Transfer Pricing Methods

1. Cost-based Prices

Four versions of 'cost' are commonly used, marginal cost, absorption cost, standard cost, and marginal cost plus a fixed charge. Actual costs will vary with volume, seasonal and other factors; furthermore, if actual costs are used as a basis for transfer prices, any inefficiency in the producing department will be passed on in the form of increased cost to the receiving department. The use of standard costs is therefore recommended, so that all of the supplying division's efficiencies and inefficiencies are reflected in its own accounts.

When to use Cost Based Transfer Prices:

- When market prices are unavailable, this is common for intermediate products.
- When the transferring division is treated as a cost centre. In this case, a profit is not necessary, as performance evaluation is based on cost control.

Various types of Cost Based Transfer Pricing System are:

(i) Marginal Cost:

Let us explore the transfer pricing method based on marginal cost, through the following example:

ABC Company Limited has two divisions – X and Y. Division X manufactures advanced computer microchips, and most of its production is taken up by division Y, which assembles computers. Data for division X are:

Standard unit production cost per unit	Amount (₹)	Amount (₹)
Direct materials		35
Direct labour		10
Variable manufacturing overhead		15
(A)		60
Fixed Overhead	20	
Fixed selling and administration	5	
(B)		25
Total cost (A+B)		85
Mark-up: 40%		30
List price to outside buyers		115
Note on Fixed Cost:		
Fixed costs are allocated on the basis of estimated volume Estimated production (units):		
Internal transfers		300
External sales		200
Total production		500

If we assume that variable cost can be used as marginal cost, then the transfer price based thereon would be ₹60. If costs, revenues and volume are as expected, the use of this price will result in a 'loss' for the selling division to ₹1,500, as calculated below:

	Amount (₹)
Internal transfers: 300 @ ₹60	18,000
External sales: 200 @ ₹ 115	23,000
	41,000
Total costs: 500 @ ₹85	42,500
Loss	1,500

However, if no more than the current 200 units could be sold externally, and the capacity represented by the production on chips for internal transfer would otherwise remain idle, there is no opportunity cost associated with a transfer at marginal cost, other things being equal, and division X would be indifferent to the production and transfer.

Obviously, if more than the current 200 units could be sold externally, X 's indifference may change, depending on whether a price in excess of marginal cost is offered. If no excess is offered, X would have a strong disincentive to supply Y.

(ii) Absorption Cost

Let us now proceed with the Absorption cost method, taking into account the previous example:

Using this variant of cost gives a transfer price of ₹70 (variable costs ₹50, fixed manufacturing cost ₹20) and a rather happier income statement:

	Amount (₹)
Internal transfers: 300 @ ₹70	21,000
External sales: 200 @ ₹105	21,000
	42,000
Total costs – as above	(37,500)
Profit	4,500

Although the new transfer price does not generate the same level of profit as a sale of that quantity to an outside party, nevertheless a contribution towards fixed costs is provided thereby, thus modifying the disincentive noted above. However, as the level of the transfer cost is increased, its effect on the buying division, B, could lead to problems of sub-optimization for the firm as a whole. For example, suppose Y could buy the same components from an outside supplier at a cost of ₹65. An internal transfer price of ₹70 would force Y to buy in a product at ₹65 that could be manufactured in-house for a variable cost of ₹ 50. Although the buying division would 'save' ₹5 per chip (₹70 – ₹65), the firm would lose ₹4,500 thereby:

	Amount (₹)
Marginal cost to produce	50
External purchase cost	(65)
Loss, if buy in	(15)
300 units × ₹15 =	4,500

This loss assumes that the opportunity cost of the released capacity is less than 15 per unit. If alternative goods generating more than this could be produced with the spare capacity – if, for example, the marginal 300 units could be sold externally at the list price – then ABC would be optimizing its resources by buying in the components:

	Amount (₹)
List price	115
Marginal cost	(50)
Contribution	65
Loss if buy in	(15)
Incremental profit	50
300 units × ₹50 =	**15,000**

We can see here a clear application of the minimum/maximum rule noted above, the sum of the selling division's marginal cost and the opportunity cost of the resources used (at list price) is ₹115, the minimum transfer price that the selling division could change without making a loss for the firm, which exceeds the ₹65 maximum transfer price dictated by the prevailing market price. ABC should not transfer the components internally as long as the market price is less than ₹115.

(iii) Standard Cost

One of the problems of cost-based systems is that they allow a transferor division to pass on cost inefficiencies to a transferee division. Such inefficiencies can result from anything as simple as high fixed overheads per unit arising from low output levels in the current period, or high unit material costs resulting from machine defects in the current period.

One variant on the absorption cost method is standard cost. Such standards are used irrespective of what actual costs were, with the result that the impact of adverse or favorable cost variances rests with the transferor division. Many business managers would consider that this gives the most equitable distribution of profit.

(iv) Two-part tariff

Under this variant, the selling division transfers at marginal cost (including any opportunity cost), but raises a fixed annual fee on the buying division for the privilege of receiving transfers at that price. The theory underlying this approach is that the buying division will have a correct understanding of the selling division's cost behaviour patterns.

The buying division will be able to correctly identify the appropriate marginal cost when calculating the optimum output level. The fixed fee is designed to cover a share of the selling division's fixed costs and provide a return on the capital employed in it, and thus both selling and buying divisions should be able to record a profit on intra-company transfers.

Drawbacks of this system include:

- The supplying division has no incentive to supply units swiftly, because individual units do not generate a profit.
- A profit is made when the fixed fee is transferred.

Advantages and disadvantages of Cost Based Transfer Pricing:

Advantages:

- Costs are likely available since they will be computed for other purposes.
- For organisations, units that do not control investment or revenues, cost based transfer prices are consistent with the appropriate performance measure for those units.

Disadvantages:

- Using actual costs transfers inefficiencies.
- Can lead to sub-optimal decisions as divisional managers make decisions that are beneficial for their unit, but detrimental to the company as a whole. This is particularly the case in absorption or full cost based transfer prices. Even if there is idle capacity, a manager may refuse a special order if it does not meet the absorption or full cost transfer price. This can result in the buying manager purchasing externally, resulting in lower overall company profit.

2. Market-based Prices

The price of a comparable product or service in the market can be seen as an objective basis for the transfer price between divisions. In most circumstances, where there is a perfectly competitive market for an intermediate product, the current market price is the most suitable basis for setting the transfer price. When transfers are recorded at market prices divisional performance is more likely to represent the real economic contribution of the division to total company profits. If the supplying division did not exist, the intermediate product would have to be purchased on the outside market at the current market price.

Alternatively, if the receiving division did not exist, the intermediate product would have to be sold on the outside market at the current market price. Divisional profits are therefore likely to be similar to the profits that would be calculated if the divisions were separate organisations. Consequently, divisional profitability can be compared directly with the profitability of similar companies operating in the same type of business. It is the price that reflects the autonomous nature of divisionalization, in as much as it simulates the price that would be offered and paid by fully independent entities. If the selling division is operating efficiently relative to its competitors, it would be expected to show a profit at such a price, and, similarly, a market-based price should not cause problems for an efficiently managed buying division, as the only alternative to an internal transfer would be to buy the goods of

services in the open market at that price.

However, it is not always easy to determine the appropriate market price to use:

- A comparable product might not be available in the market.
- Different suppliers will quote different initial prices.
- Different buyers command different discounts and credit terms, depending on the order size and their status.
- Current market prices may reflect temporary aberrations in trading conditions, and thus might not prevail in the longer term.
- An internal transfer of goods may involve savings in advertising, packaging and delivery costs, and thus an external market price would not be entirely appropriate.

When to use Market Based Transfer Prices:

- When a competitive external market for the product exists.
- When managers have the autonomy to purchase externally or internally.
- When transferring and receiving divisions are treated as a profit or investment centre and, therefore, are evaluated on profit based measures, such as ROI or residual income.

Advantages and disadvantages of Market Based Transfer Pricing:

Advantages:

- As the transfer price is based on competitive market conditions, managers are motivated to become more efficient – the market sets the price; therefore, to increase profit, costs must be reduced.
- Easy to use when market prices are readily available.

Disadvantages:

- A market price may not exist for the exact product.
- In some industries, market prices can fluctuate widely creating uncertainties in planning for both the supplying and receiving profit centre managers.

3. Negotiated Transfer Prices

The transfer prices may be determined by various means, including the use of mathematical formulae based on opportunity cost and by determining the correct transfer price to encourage all divisions to operate at the profit-maximizing output level.

Alternatively, transfer prices could be set through a process of negotiation between the buying and selling divisions. It could be argued that this is the correct procedure in a truly autonomous system, with no interference whatsoever from central management or head office. The resulting transfer price should be acceptable to both the buying and selling division since the relevant managers have been directly responsible for the negotiations.

However, there are disadvantages to the use of negotiated transfer prices.

- The negotiations may be protracted and time-consuming.
- The managers may find it impossible to reach agreement. In this case central management may need to intervene. If a transfer price is imposed as a consequence, then this may cause behavioural problems and would negate the objective of giving autonomy to divisions.

- On the other hand, central managers might act simply as arbitrators in any dispute during negotiations, providing a mediation service to assist the negotiations to reach a conclusion that is acceptable to all concerned.
- The managers may not be negotiating from an equal basis. For example, one of the managers may be more experienced than the other with the result that the outcome of negotiations may be unfair. This could lead to poor motivation and consequent behavioural problems.

When to use Negotiated Transfer Pricing:

- When an external market does not exist and market prices are not available.
- When divisions are forced to purchase internally.
- Where there is not an excessive number of transfers subject to negotiation.

Advantages and Disadvantages of Negotiated Transfer Pricing:

Advantages:

- Of all transfer pricing methods, negotiated transfer pricing provides managers with the greatest control over divisional profits.

Disadvantages:

- Negotiations may be time consuming and require a great deal of data, which can be costly to accumulate.
- The bargaining parties may not be able to resolve disputes; to counter this, an organisation needs a mediation or arbitration mechanism.
- Disputes can result in conflict and hostility between divisions.
- Focus is on divisional results, not the company as a whole.

Conflicts between Divisions and Company as a whole:

If Divisional Managers are given "absolute free hand" in decision making on Transfer Prices, there is a possibility that divisional goals may be pursued, ignoring overall Company interests. This may force the top Management to interfere in decision-making.

However, interference of top Management and "dictating a Transfer Price" on the divisions is usually the main basis of conflict between a Division and the Company as a whole.

Conflicts Resolution:

To resolve transfer pricing conflicts, the following transfer pricing methods can be suggested -

(i) **Dual-Rate Transfer Pricing System:**

The dual price method of transfer pricing was introduced in order to overcome the problems caused by using marginal cost, namely poor morale in the selling division, and lack of motivation by the receiving division to maximize the group's profit. The dual pricing method uses two prices:

The supplying division is credited with a price based on total cost plus a mark-up. The receiving division is debited with marginal cost.

(ii) **Two-Part Transfer Pricing System:**

Under this variant, the selling division transfers at marginal cost (including any opportunity cost), but raises a fixed annual fee on the buying division for the privilege of receiving transfers at that price.

Divisional Performance and Problem of Goal Congruence

5.3

Transfer pricing system should accomplish the following objectives:

1. It should motivate the divisional manager to make sound decisions, and it should communicate information that provides a reliable basis for such decisions. This will happen when actions those divisional managers take to improve the reported profit of their divisions also improve the profit of the company as a whole.
2. It should result in a report of divisional profits that is a reasonable measure of the managerial performance of the division.
3. It should ensure that divisional autonomy is not undermined. One of the purposes of is to allow managers to exercise greater autonomy. There is little point in granting additional autonomy and then imposing transfer prices that will affect the profitability of the division.

Each divisional manager wants to increase profits of his respective division. Now a problem arises where output of a particular division can be the input for a particular division, in this situation the problem is to decide proper transfer price as improper price may impact the profitability of both the divisions and give birth to various conflicts. Divisional mangers may not be interested to transfer goods internally; instead they can choose to deal with external parties and may adversely impact the profitability of organisation as a whole. That's why it is very important to decide fair transfer prices.

When goods are transferred from one division to another, a portion of the revenue of the supplying division becomes a portion of the cost of the receiving division. Consequently, the prices at which goods are transferred can influence each division's reported profits, and there is a danger that, an unsound transfer price will result in a misleading performance measure that may cause divisional managers to believe that the transfer price is affecting their performance rating unfairly. This may lead to disagreement and negative motivational consequences.

In some situations, the decision-making and the performance evaluation objectives required for establishing a transfer pricing system may conflict with each other. For example, in some situations the transfer price that motivates the short-run optimal economic decision is marginal cost. If the supplier has excess capacity, this cost will equal variable cost. The supplying division will fail to cover any of its fixed costs when transfers are made at variable cost, and will therefore report a loss. Furthermore, if a transfer price equal to marginal cost is imposed on the manager of the supplying division, the concept of divisional autonomy is undermined. On the other hand, a transfer price that may be satisfactory for evaluating divisional performance may lead divisions to make sub-optimal decisions when viewed from the overall company perspective.

In the absence of a competitive market for the intermediate product, the theoretically correct transfer price can be established only when the information for all the divisions is gathered together to give a composite picture. This is likely to result in staff at the central H.O. gathering together the information and setting the transfer prices.

When transfer prices are set by central H.O., there is a loss of divisional autonomy. It can be argued that if divisions are not free to set their own transfer prices, central headquarters might just as well dictate the types and volumes of products to be transferred instead of dictating the prices at which transfers are to pass between them. However, even though imposed transfer prices from central H.O. are likely to be an infringement of divisional autonomy, they are likely to be less objectionable to divisions than direct interference with production and marketing plans.

Determination of Inter-Departmental or Inter-Company Transfer Price

5.4

Rules for Transfer Pricing:

The limits within which transfer prices should fall are as follows:

- The minimum- the sum of the supplying division's marginal cost and opportunity cost of the item transferred.
- The maximum- the lowest market price at which the receiving division could purchase the goods or services externally, less any internal cost savings in packaging and delivery.

The minimum results from the fact that the supplying division will not agree to transfer if the transfer price is less than the marginal cost + opportunity cost of the item transferred (because if it were the division would incur a loss).

The maximum results from the fact that the receiving division will buy the item at the cheapest price possible.

Example:

Division X produces product L at a marginal cost per unit of ₹100. If a unit is transferred internally to division Y, ₹25 contribution is foregone on an external sale. The item can be purchased externally for ₹150.

- The minimum- Division X will not agree to a transfer price of less than ₹(100 + 25) = ₹125 per unit.
- The maximum- Division Y will not agree to a transfer price in excess of ₹150.

The difference between the two results (₹25) represents the savings from producing internally as opposed to buying externally.

In most cases where the transfer price is at market price, internal transfers should be expected, because the buying division is likely to benefit from a better quality of service, greater flexibility, and dependability of supply. Both divisions may benefit from cheaper costs of administration, selling and transport. A market price as the transfer price would therefore result in decisions which would be in the best interests of the company or group as a whole.

Conclusion:

Since transfer prices are set according to motives other than performance evaluation of divisional managers, the transfer price could result in hostility, a lack of managerial effort towards goals such as profit maximization or goal incongruent decisions. The potential negative consequences are particularly strong if divisional managers are evaluated based on profit performance evaluation measures. To resolve this situation an organisation could use dual transfer prices, one for performance evaluation purposes and one for financial reporting purposes. The result is divisional managers are not penalized for transfer pricing decisions that are beyond their control.

The disadvantage is two sets of records must be kept, which can be time consuming and costly.

International Transfer Pricing

5.5

Globalization and the rapid growth of international trade has made inter-company pricing an everyday necessity for the vast majority of businesses. However, the growth of national treasury deficits and the frequent use of the phrase 'transfer pricing' in the same sentence as 'tax shelters' and 'tax evasion' on the business pages of newspapers around the world have left multinational enterprises at the centre of a storm of controversy. The creation of foreign subsidiaries and bases of operation for cross-border flow of products, services, trademarks, funding and technology is having a significant impact on the issue of transfer pricing in today's international business scenario. The transfer pricing problem for multinationals is of great significance. There are different income tax rates in different countries. So, it becomes desirable from the view point of overall corporate strategy to show higher profits in low-tax countries and lower profits in high-tax countries. One way to do so is through transfer prices.

While domestic transfer pricing is concerned with fairly compensating an internal division for products it has produced and supplied to another division, international transfer pricing is usually set according to another purpose, such as lowering a company's worldwide taxes. For example, a company can choose a transfer price to locate profit in a division in a country with a low corporate tax rate. Transfer pricing guidelines set down by international bodies, such as the, Organisation for Economic Co-operation and Development (OECD), are intended to result in transfer prices that reflect the underlying economic characteristics of the goods or products being transferred. In these settings, the international transfer price is consistent with the objectives of internal transfer pricing. However, if the international transfer price reflects other considerations, such as negotiations between tax authorities about sharing tax revenues, international transfer prices will no longer be consistent with the objectives of internal transfer prices and the resulting profits reported by the profit centres will no longer reflect the principle of controllability.

Factors influencing international transfer pricing decisions:

- tax rates
- income repatriation restriction
- dividend repatriation restrictions
- duties and tariffs
- exposure to foreign exchange rate fluctuations
- political climate
- the need to maintain cash flows in the foreign division
- competitive position of the foreign division
- trade treaties that restrict transfer pricing

There are two basic issues relating to transfer prices in case of multinational companies having divisions in different countries. It is important to note that it is the substance of the situation that always determines whether a transaction has taken place, rather than whether an invoice has been rendered. For instance, management services may be

delivered through the medium of a telephone call between executives of a parent company and its subsidiary. In this example, a service has been performed that the provider had to finance in the form of payroll costs, phone charges, overheads, etc. and the service itself is of value to the recipient in the form of the advice received. As a result, a transaction has taken place for transfer pricing purposes even though, at this stage, no charge has been made for the service. Transfer pricing rules typically require related entities to compensate each other appropriately so as to be commensurate with the value of property transferred or services provided whenever an inter-company transaction takes place. The basis for determining proper compensation is, almost universally, the arm's-length principle.

Simply stated, the arm's-length principle requires that compensation for any intercompany transaction conform to the level that would have applied had the transaction taken place between unrelated parties, all other factors remaining the same.

Although the principle can be simply stated, the actual determination of arm's-length compensation is notoriously difficult. Important factors influencing the determination of arm's-length compensation include the type of transaction under review as well as the economic circumstances surrounding the transaction. In addition to influencing the amount of the compensation, these factors may also influence the form of the payment.

One of the important aspects of management accounting in multinational firm's is that of transfer pricing. Transfer prices may be set with the following objectives in mind:

Minimization of import duties:

If import duties are levied on the price of the import (rather than, say, on its volume-specific composition), then a low transfer price will reduce the import duties of the group as a whole if its goods enter a high-import-duty economy.

Management of direct taxation:

By being aware of the respective government's legislation concerning domestic tax neutrality, withholding taxes the firm may plan effectively to minimize their global tax charge.

Management of indirect taxation:

Most countries have indirect tax regimes involving a value-added tax. This requires that the firm effectively pays the tax on its purchases (input tax) and then recoups the taxes in the price of its sales (output tax). In competitive markets it may be hard to pass on the indirect tax to the price of the good and so its input tax will not be wholly recovered. To avoid this, it may transfer some goods to itself at very low prices which can then be sold on at high prices to recover the indirect tax paid on other lines of product.

Repatriation of profits in kind:

Where a country operates currency controls it may be difficult (or of low worth) for the Multinational enterprise (MNE) to repatriate profits in local currency, yet it is unable to exchange its local currency profits for a world currency. In this situation, the firm seeks to export product (either manufactured by itself or purchased with the local currency) at a low price for sale at home to gain the revenue in its home currency. This can likewise avoid local restrictions on the amount of dividend that can be declared or repatriated.

To win host-country approval:

To avoid accusations of overcharging locals for product or of exporting unfair amounts of value from the country, the MNE may set a transfer price that seems fair to the authorities.

To disguise profitability of a subsidiary:

The MNE may deliberately declare low profits in an operating country to prevent local businesses setting up in competition.

To enable penetration pricing:

The MNE may allow an operating subsidiary to receive inputs at low prices in order that these may be passed on in the local market as low final good prices. This will help the MNE to destroy local competitors without the subsidiary's low profits provoking the authorities to accuse it of tax avoidance.

Solved Illustrations & Cases

Illustration 1

The Production Director of PQ Company is concerned with the problem of measuring the efficiency of process managers. In the production department there are six processes and all products processed pass through a combination of these processes. One specific area of investigation is the measurement of output values which involves the use of transfer prices.

You as a Management Accountant of the Company have been asked by the production director to make a report on advantages and disadvantages of using each of the following systems of transfer pricing as related to process costing:

(i) Variable Cost;

(ii) Actual Full Cost;

(iii) Full Cost Plus Profit Margin;

(iv) Standard cost.

Solution:

The report will cover the following points:

(i) Variable Cost

Variable cost-based pricing approach is useful when the transferor / selling division is operating below capacity. The manager of the transferor division will generally not like this transfer price because it yields no profit to that division. The obvious problem is that selling division is left holding all its fixed costs and operating expenses. The profit center concept will be vitiated.

(ii) Actual Full Cost

When full cost is used for transfer pricing, the transferor division cannot realise a profit on the goods transferred. Further, full cost transfer pricing can provide perverse incentives and distort performance measures.

(iii) Full Cost Plus Profit Margin

With such a system, the transferor division obtains a profit contribution on units transferred and hence, benefits if performance is measured on the basis of divisional operating profits. However, the manager of the buying/ transferee division would naturally object that his costs (and hence reported performance) are adversely affected.

(iv) Standard cost

To promote responsibility in the selling division and to isolate variances within divisions, standard costs are usually used as a basis for transfer pricing in cost-based systems.

Illustration 2

In a meeting with the Director Finance of your company, he had pointed out that there might be some disadvantages in taking divisions as a profit centres. As a Management Accountant of the company you are required to state the various disadvantages in taking divisions as a profit centres.

Solution:

As a Management Accountant, the following points are considered to be of importance:

(i) Divisions may compete with each other and may take decisions to increase profits at the expense of other divisions thereby overemphasizing short term results.

(ii) It may adversely affect co-operation between the divisions and lead to lack of harmony in achieving organizational goals of the company. Thus, it is hard to achieve the objective of goal congruence.

(iii) It may adversely affect co-operation between the divisions and lead to lack of harmony in achieving organizational goals of the company. Thus, it is hard to achieve the objective of goal congruence.

(iv) The cost of activities, which are common to all divisions, may be greater for decentralized structure than centralized structure. It may thus result in duplication of staff activities.

(v) Top management loses control by delegating decision making to divisional managers. There are risks of mistakes committed by the divisional managers, which the top management, may avoid.

(vi) Series of control reports prepared for several departments may not be effective from the point of view of top management.

(viii) It may underutilize corporate competence.

(ix) It leads to complications associated with transfer pricing problems.

(x) It becomes difficult to identity and defines precisely suitable profit centres.

(xi) It confuses division's results with manager's performance.

Illustration 3

BC Company fixes the inter-divisional transfer prices for its products on the basis of cost, plus a return on investment in the division**.** The Budget for Division for Alpha for the year 2021-22 appears as under:

	₹
Fixed Assets	5,00,000
Current assets	3,00,000
Debtors	2,00,000
Annual Fixed Cost of the Division	8,00,000
Variable Cost per unit of Product	10

Budgeted Volume 4,00,000 units per year

Desired ROI 28% on ₹10,00,000

Determine the transfer Price for Alpha.

Solution:

Computation of the Transfer Price per unit for the Product Alpha

Particulars	₹
Variable Cost per unit of Product	10.00
Annual Fixed Cost per unit (₹8,00,000 ÷ 4,00,000 units)	2.00
Desired Return (@ 28% on ₹10,00,000) ÷ 4,00,000 units)	0.70
Transfer price	12.70

Illustration 4

Aurthor company is a multidivisional company and its managers have been delegated full profit responsibility and autonomy to accept or reject transfers from other divisions.

Division X produces a sub-assembly with a ready competitive market. This sub-assembly is currently used by Division Y for a final product that is sold outside at ₹1,200. Division X Charges Division Y market price for the sub-assembly which is ₹700 per unit. Variable costs are ₹520 and ₹600 for Divisions A and B respectively.

The manager of Division Y feels that Division X should transfer the subassembly, at a lower price than market because at this price, Division Y is unable to make a profit.

Required:

1. Compute Division Y's profit contribution if transfers are made at the market price and also the total contribution to profit for the company.
2. Assume that Division A can sell all its production in the open market. Should Division X transfer goods to Division Y? If so, at what price.
3. Assume that Division X can sell in the open market only 500 units at ₹700 per unit out of 1,000 units that it can produce every month and that a 20 per cent reduction in price is necessary to sell at full capacity. Should transfers be made? If so, how many units should it transfer and at what price? Submit a schedule showing comparisons of contribution margins under three different alternatives to support your decision.

Solution:

Calculation for Division Y's contribution Margin	₹	₹
1. Selling Price of Final Product		1,200
Less: Division Y's variable cost	600	
Division Y's purchase cost	700	1,300
Division Y's loss		(100)
Calculation for Company's contribution Margin		
Selling price of final product		1,200
Less: Division Y's variable cost	600	
Division X's variable cost	520	1,120
Company's Contribution margin		80
2. Selling price of sub-assembly		700
Less: Division X's variable cost		520
Company's contribution margin		180

The company contribution is₹100 greater if the sub-assembly is sold on the intermediate market rather than to Division B. Thus, it should be sold in the intermediate market. The market price would be the appropriate transfer price if transfers were made:

3. Alternative 1: Transfer 1,000 units to Division Y.

   Alternative 2: Sell 500 units in the intermediate market at ₹700 and transfer 500 units to Division Y.

   Alternative 3: Sell 1,000 units on the intermediate market at 20% reduced price.

Alternative 1:	₹
Company sales: (1000 units × ₹1200)	12,00,000
Less: Variable costs (1000 units @ ₹520 + 1,000 units @ ₹600)	11,20,000
Contribution margin	80,000

Alternative 2:	₹
Company sales:	9,50,000
(500 units @ ₹700 + 500 units @ ₹1,200)	
Variable costs: (1000 units @ ₹520 + 500 units @ ₹600)	8,20,000
Contribution margin	1,30,000

Alternative 3:	₹
Company sales:	
1000 units @ ₹560 (700 – 140)	5,60,000
Variable costs: (1000 units @ ₹520)	5,20,000
Contribution Margin	40,000

Conclusion:

Transfers should be made, 500 units should be transferred to Division Y. The transfer price should be set at a price greater than the variable cost of Division X (₹520) and less than the marginal revenue to Division Y (₹ 600). Division Y's marginal revenue will be ₹600 (₹1,200 market price_division Y's own variable cost ₹600).

Illustration 5

The WEBEL Ltd. manufactures and sells television sets. The Assembly Division assembles the television sets. It buys the Picture tubes for the television sets from the Picture tubes Division. The Picture tubes division is operating at capacity. The incremental cost of manufacturing the Picture tube is ₹700 per unit. The Picture tubes Division can sell as many Picture tubes as it wants in the outside market at a price of ₹1,100 per picture tube. If it sells Picture tube in the outside market, the Picture tubes Division will incur variable marketing and distribution costs of ₹40 per unit. Similarly, if the Assembly Division purchases Picture tube from outside suppliers, it will incur variable purchasing costs of ₹20 per screen.

Required:

(i) Using the general guideline on transfer pricing policy what is the minimum transfer price at which the Picture tubes Division will sell Picture tube to the Assembly Division?

(ii) Suppose division managers act autonomously to maximize their own division's operating income, either by transacting internally or buying and selling in the market. If the two division managers were to negotiate a transfer price, what is the range of acceptable transfer prices?

Solution:

(i) If the Picture tubes division sells Picture tube in the outside market, it will receive, for each tube, the market price of the tube minus variable marketing and distribution costs per tube = ₹1,100 – ₹40 = ₹1,060. The

incremental cost of manufacturing each tube is ₹700. The Picture tubes Division is operating at capacity. Hence, the opportunity cost per tube of selling the tube to the Assembly Division rather than in the outside market is the contribution margin, the Picture tubes Division would forego, if it transferred Picture tube internally rather than sold them in the outside market. Contribution margin per tube = ₹1,060 – ₹700 = ₹360.

Minimum transfer price per tube = Incremental costs per tube + Opportunity costs per tube up to the point of transfer to the selling division.

That is, Minimum transfer price per tube = ₹ 700 + ₹360 = ₹1,060

(ii) If the two division managers were to negotiate a transfer price, the range of possible transfer prices is between ₹1,060 and ₹1,120 per tube. As calculated in requirement (i), the Picture tubes Division will be willing to supply Picture tube to the Assembly Division only if the transfer price equals or exceeds ₹1,060 per tube.

If the Assembly Division were to purchase the Picture tube in the outside market, it will incur a cost of ₹1,120, the cost of the tube equal to ₹1,100 plus variable purchasing costs of ₹20 per tube. Hence, the Assembly Division will be willing to buy Picture tube from the Picture tubes Division only if the price does not exceed ₹1,120 per tube. Within the price range of ₹1,060 and ₹1,120 per tube, each division will be willing to transact with the other. The exact transfer price between ₹1,060 and ₹1,120 will depend on the bargaining strengths of the two divisions.

Illustration 6

Division A is a profit centre, which produces four products P, Q, R and S. Each product is sold in the external market also. Data for the period is as follows:

	P	Q	R	S
Market Price per unit (₹)	350	345	280	230
Variable Cost of Production per unit (₹)	330	310	180	185
Labour hours required per unit	3	4	2	3

Product S can be transferred to Division B but the maximum quantity that might be required for transfer is 2,000 units of S.

The maximum sales in the external market are:

P	3,000 units
Q	3,500 units
R	2,800 units
S	1,800 units

Division B can purchase the same product at a slightly cheaper price of ₹ 225 per unit instead of receiving transfers of products S from Division A.

What should be transfer price for each unit for 2,000 units of S, if the total labour hours available in Division A are:

(i) 24,000 hours?

(ii) 32,000 hours?

Solution:

Statement Showing Contribution per unit and per labour hour

Particulars	P	Q	R	S
Selling Price per unit (₹)	350	345	280	230
Variable Cost per unit (₹)	330	310	180	185
Contribution per unit (₹)	20	35	100	45
Labour Hours per unit	3	4	2	3
Contribution per labour hour (₹)	6.67	8.75	50	15
Ranking	IV	III	I	II

Statement Showing Production Plan

Total Hours	Products	Hours/unit	Allocation of Hours
24,000	P	3	-
	Q	4	13,000
	R	2	5,600
	S	3	5,400
			24,000

Statement Showing Transfer Price per unit of the product S

Total labour hours required for S (2000 units × 3 hours per unit)	6,000
Hours diverted from Product Q (1,500 units × 4 hours per unit)	6,000
Variable Manufacturing cost for Product 'S' (2000 × ₹ 185) =	₹ 3,70,000
Contribution foregone/ Opportunity Cost of Product Q (1500 × ₹35)	₹ 52,500
	₹ 4,22,500

(i) Hence, Transfer Price per unit (₹4,22,500 ÷ 2,000 units) = ₹211.25

Statement Showing Production Plan

Total Hours	Products	Hours/unit	Allocation of Hours
32,000	P	3	7,000
	Q	4	14,000
	R	2	5,600
	S	3	5,400
			32,000

Statement Showing Transfer Price per unit of the product S

Total labour hours required for Product S (2000 × 3 hours per unit)	6,000
Hours diverted from Product P (2,000 × 3 hours per unit)	6,000
Variable Manufacturing cost for Product S (2000 × ₹ 185) =	₹ 3,70,000
Contribution foregone /Opposition cost for Product P (2000 × ₹ 20) =	₹ 40,000
	₹ 4,10,000

(ii) Hence, Transfer Price per unit (₹4,10,000 ÷ 2,000 units) = ₹205.00

Illustration 7

A company has two divisions, X and Y. Division X manufactures a component which is used by Division B to produce a finished product. For the next period, output and costs have been budgeted as follows:

Particulars	Division X	Division Y
Component units	50,000	-
Finished units	-	50,000
Total variable costs	₹2,50,000	₹6,00,000
Fixed Costs	₹1,50,000	₹2,00,000

The fixed costs are separable for each division. You are required to advise on the transfer price to be fixed for Division X's component under the following circumstances:

(i) Division X can sell the component in a competitive market for ₹10 per unit. Division B can also purchase the component from the open market at that price.

(ii) As per the situation mentioned in (i) above, and further assume that Division Y currently buys the component from an external supplier at the market price of ₹10 and there is reciprocal agreement between the external supplier and another Division Z, within the same group. Under this agreement, the external supplier agrees to buy one product unit from Division Z at a profit of ₹4 per unit to that division, for every component which Division Y buys from the supplier.

Solution:

(i) Transfer price decisions can be taken on the following basis.

Transfer Price = Marginal Cost + Opportunity Cost i.e. ₹ (5 + 5) = ₹10

Note: Marginal Cost = ₹2,50,000 / 50,000 units = ₹5

Opportunity cost ₹5 is computed on the basis that the Division A will sacrifice ₹ 5 if they sell the product to Division Y.

(ii) In this situation, the transfer price will be worked out as under:

Transfer price = Marginal Cost + Contribution + Profit foregone by Division Z

= ₹(5 + 5 + 4) = ₹14

In situation (ii), if Division Y purchases from Division X, it will not purchase from external supplier.

Hence, the supplier will stop purchasing from Division Z, which will result in a loss of profit to Division Z @₹4 per unit, and therefore this amount will be recovered from the transfer price.

Illustration 8

XYZ Ltd which has a system of assessment of Divisional Performance on the basis of residual income has two Divisions, X and Y. X has annual capacity to manufacture 15,00,000 numbers of a special component that it sells to outside customers, but has idle capacity. The budgeted residual income of Y is ₹ 1,20,00,000 while that of X is ₹1,00,00,000. Other relevant details extracted from the budget of X for the current year were as follows:

Sale (outside customers) 12,00,000 units @ ₹180 per unit

Variable cost per unit₹ 160

Divisional fixed cost ₹ 80,00,000

Capital employed ₹ 7,50,00,000

Cost of Capital 12%

Y has just received a special order for which it requires components similar to the ones made by X. Fully aware of the idle capacity of X, Y has asked X to quote for manufacture and supply of 3,00,000 numbers of the components with a slight modification during final processing. X and Y agree that this will involve an extra variable cost of ₹5 per unit.

You are required to calculate,

(i) The transfer price which X should quote to Y to achieve its budgeted residual income.

(ii) Also indicate the circumstances in which the proposed transfer price may result in a sub-optimal decision for the Company as a whole.

Solution:

(i) **Contribution required at Budgeted Residual Income:**

Fixed cost ₹ 80,00,000

Profit on ₹7,50,00,000 × 12 % = ₹ 90,00,000

Residual Income = ₹ 1,00,00,000

Total Contribution required = ₹ 2,70,00,000

Contribution derived from existing units = 12,00,000 × ₹20 = ₹2,40,00,000

Contribution required on 3,00,000 units = ₹ 2,70,00,000 – ₹ 2,40,00,000 = ₹ 30,00,000

Contribution per unit = ₹ 30,00,000 / 3,00,000 units = ₹10

Increase in Variable Cost = ₹5

∴ Transfer price = Variable Cost + Desired Residual Income + Increase in Variable Cost

= ₹ 160 + ₹ 10 + ₹ 5

= ₹175

Illustration 9

A company has two profit centres, X and Y. X sells half of its output on the open market and transfers the other half to Y. Costs and external revenues in an accounting period are as follows.

	X	Y	Total
	₹	₹	₹
External sales	8,000	24,000	32,000
Costs of production	12,000	10,000	22,000
Company profit			10,000

Required

What are the consequences of setting a transfer price at market value?

Solution:

If the transfer price is at market price, X would be happy to sell the output to Y for ₹ 8,000

	X	Y	Total
	(₹)	(₹)	(₹)
External Sales	8,000	24,000	32,000
Transfer sales	8,000	–	–
Transfer costs		8,000	–
Own costs	12,000	10,000	22,000
Profit	4,000	6,000	10,000

The transfer sales of X are self-cancelling with the transfer cost of Y, so that the total profits are unaffected by the transfer items. The transfer price simply spreads the total profit between X and Y.

Consequences:

(i) A earns the same profit on transfers as on external sales. Y must pay a commercial price for transferred goods, and both divisions will have their profit measured in a fair way.

(ii) A will be indifferent about selling externally or transferring goods to Y because the profit is the same on both types of transaction. B can therefore ask for and obtain as many units as it wants from X.

X division's market-based transfer price therefore seems to be the ideal transfer price.

Illustration 10

Mineral Ltd. has two profit centres, A and B. A transfers all its output to B. The variable cost of output from A is ₹5 a unit, and fixed costs are ₹ 1,200 a month. Additional processing costs in B are ₹ 4 a unit for variable costs, plus fixed costs of ₹ 800 a month. Budgeted production is 400 units a month, and the output of B sells for ₹15 per unit.

Required

Determine the range of prices for which the transfer price (based on standard full cost plus) should be selected, in order to motivate the managers of both profit centres to both increase output and reduce costs.

Solution:

Any transfer price based on standard cost plus will motivate managers to cut costs, because favourable variances between standard costs and actual costs will be credited to the division's profits. Managers of each division will also be willing to increase output (above the budget) provided that it is profitable to do so.

(a) The manager of A will increase output if the transfer price exceeds the variable cost of ₹ 5 a unit.

(b) The manager of B will increase output if the transfer price is less than the difference between the fixed selling price (₹ 15) and the variable costs in B itself. This amount of ₹ 11 (₹ 15 – ₹ 4) is sometimes called net marginal revenue.

The range of prices is therefore between ₹ 5.01 and ₹ 10.99.

Illustration 11

The Domino Company has two decentralized divisions, A and B. Division A has always purchased certain units from Division B at ₹ 75 per unit, because Division B plans to raise the price to ₹100 per unit, Division A desires to purchase these units from outside suppliers for ₹ 75 per unit. Division B's costs follow:

Division B's variable costs per unit ₹ 70

Division B's annual fixed costs ₹ 15,000

Division A's purchase 1,000 units

If Division A buys from an outside supplier, the facilities Division B uses to manufacture these units will remain idle. Would it be more profitable for the company to enforce the ₹ 100 transfer price than to allow Division A to buy from outside suppliers at ₹ 75 per unit?

Solution:

Total purchase costs ₹ 75,000

Total outlay costs if purchased inside ₹ 70,000

Net advantage to the company as a whole ₹ 5,000

Therefore, it would be more profitable for the company to enforce the ₹ 100 transfer price.

Alternatively,

Division A's Action

	Buy Inside	Buy Outside
Total purchase costs	-	₹75,000
Total outlay costs	₹ 70,000	-
Net cash outflow to the company as a whole	₹70,000	₹ 75,000

Illustration 12

The A division of G Corporation, operating at capacity, has been asked by the D division of G to supply it with electrical fitting no. 26. A sells this part to its regular customers for ₹ 7.50 each. D which is operating at 50 percent capacity is willing to pay ₹ 5 each for the fitting. D will put the fitting into a brake unit that it is manufacturing on essentially a cost-plus basis for a commercial airplane manufacturer.

A has a variable cost of producing fitting no. 26 of ₹ 4.25. The cost of the brake unit as being built by D follows:

Purchased parts (outside vendors)	₹ 22.50
A's fitting no. 26	₹ 5.00
Other variable costs	₹ 14.00
Fixed overhead and administration	₹ 8.00
	₹ 49.50

D believes the price concession is necessary to get the job.

The company uses return on investment and profits in the measurement of division and division manager's performance.

1. Assume that you are the division controller of A. Would you recommend that A supply fitting no. 26 to D? Why or why not? (Ignore any tax issues.)
2. Would it be to the short-run economic advantage of the G Corporation for the A division to supply the D division with fitting no. 26 at ₹5 each? (Ignore any tax issues.)
3. Discuss the organizational and manager-behavior difficulties, if any, inherent in this situation.

As the G's controller, what would you advise the G Corporation president do in this situation?

Solution:

1. The division controller should not recommend that A supply D with fitting no. 26 for the ₹5.00 per unit price. A is operating at capacity and would lose ₹2.50 (₹7.50 - ₹5.00) for each fitting sold to D. The management performance of A is measured by return on investment and profits; selling to D ₹5.00 per unit would adversely affect those performance measures.
2. G would be ₹5.50 better off, in the short run, if A supplied D the fitting for ₹5.00 and the brake unit was sold for ₹49.50. Assuming the ₹8.00 per unit for fixed overhead and administration represents an allocation of cost D incurs regardless of the brake unit order, G would lose ₹2.50 in cash flow for each fitting sold to D but gain ₹8.00 from each brake unit sold by D.
3. In the short run there is an advantage to the company as a whole of transferring the fitting at the ₹ 5.00 prices and thus selling the brake unit for ₹49.50. In order to make this happen, G will have to overrule the decision of the A's management.

This action would be counter to the purposes of decentralized decision making. If such action were necessary on a regular basis, the decentralized decision making inherent in the divisionalized organisation would be a sham. Then the organisation structure is inappropriate for the situation.

On the other hand, if this is an occurrence of relative infrequency, the intervention of corporate management will not indicate inadequate organisation structure. It may, however, create problems with division managements. In the case at hand, if G' s management requires that the fitting be transferred at ₹5.00, the result will be to enhance D's operating results at the expense of A. This certainly is not in keeping with the concept that a manager's performance should be measured on the results achieved by the decisions he or she controls.

In this case, it appears that A and D serve different markets and do not represent closely related operating units. A operates at capacity, D does not; no mention is made of any other inter-divisional business. Therefore, the G controller should recommend that each division be free to act in accordance with its best interests. The company is better served in the long run if A is permitted to continue dealing with its regular customers at the market price of ₹7.50. If D is having difficulties, the solution does not lie with temporary help at the expense of another division, but with a more substantive and long-term course of action.

Illustration 13

Mother Co. Ltd has two business units, viz. X unit engaged into telemarketing, and Y unit focusing on business analytics. Recently the CEO was reviewing the half yearly financial data which had the following key indices:

Turnover of X unit at 90% capacity utilization ₹250 Lakhs. Turnover of Y unit at 60% capacity utilization ₹550 Lakhs. Profit Margin of X and Y units respectively 18 % and 15 % respectively

Present number of shared employees from the X unit to the Y unit on requirement basis 10 employees. Number of hours required on cross training of one employee and the rate per hour Approx. 10 hours at ₹3,000 per hour.

The CEO's next half year overall target for the company is ₹1,200 Lakhs with a profit margin of 18% for the company as a whole. However, the X unit head has told categorically to the CEO that he cannot spare any additional employee as the X is working at optimum capacity. The Y unit head, on the other hand, finds it cost effective to cross train employees of the X for specific tasks instead of hiring directly from the market.

Required

(i) Analyze the strategic problem that Mother Co Ltd is facing.

(ii) List few suggestions in brief.

Solution:

(i) The present position of the units and the overall company is as under:

	X	Y	Combined
Turnover (in ₹ Lakhs)	250	550	800
Capacity	90%	60%	67%
Turnover at full capacity (in ₹ Lakhs)	278	916	1,194
Profit Margin	18%	15%	16%
Present Profit (in ₹ Lakhs)	45	83	128
Profit at full capacity (in ₹ Lakhs)	50	138	188

In Mother Co. Ltd., both unit heads are focusing only on their respective unit performances rather than strategizing on the company's performance growth as a whole.

Calculations revealed that the X unit is a low margin high manpower-oriented unit as its overall contribution is just 35% share of the overall company, whereas the Y is a high margin low manpower-oriented unit as its share is 65%.

It is clear that the strategic problem being faced by Mother Co. Ltd is concerned with divisional performance measures in terms of goal congruence. The CEO's target for the next half yearly is really ambitious, and this can be achieved only if goal congruence is met by the heads of both units.

(ii) Few brief suggestions are given below:

- Overall revenue target of 1,200 thousand to be achieved by cranking up the utilization for each division at 100% (still there will be a gap of ₹ 6 thousand).
- Company's profit margin of 16% calculated at full capacity, to be increased by 2% through means of cost cutting techniques.
- Cross training can be helpful in proper utilization of work force.
- The Y should focus on further cost reduction and improve its % of profit margin.

Illustration 14

Simens Ltd. has two Divisions A and B with profit centre concept. The Division A produces Component 'Alpha' which it sells to 'outside' customers only. The Division B produces a product called the Beta which incorporates Component 'Alpha' in its design.

B Division is currently purchasing required units of Component 'Alpha' per year from an outside supplier at market price.

New Director of Cost has analyzed that A Division has enough capacity to meet entire requirements of Division B and accordingly he requires internal transfer between the divisions at marginal cost from the overall company's perspective.

Manager of Division A claims that transfer at marginal cost are unsuitable for performance evaluation since they don't provide an incentive to the division to transfer goods internally. He has given preference on a transfer price based on Cost-plus-mark up.

New Cost Director having opinion that transfer price suggested by the manager of Division A will not induce managers of both the Divisions to arrive at optimum plan.

You are the Management Accountant of the Company and are requested to help him to solve the problem.

Solution:

Marginal Cost based price is not acceptable to the Manager of Division A. Hence, as a Management Accountant of the Company the following alternatives are suggested:

1. Dual-Rate Transfer Pricing System:

Dual-rate transfer pricing uses two separate transfer prices to price each inter-divisional transaction.

For example, the supplying division may receive the full cost plus a mark-up on each transaction and the receiving division may be charged at the marginal (variable) cost of the transfers. The former transfer price is intended to approximate the market price of the goods or services transferred.

2. Two-part transfer pricing system:

A solution that has been proposed where the market for the intermediate product is imperfect or non-existent, and where the supplying division has no capacity constraints, is to price all transfers at the short run marginal cost (assumed to be equivalent to variable cost per unit of output) and for the supplying division to also charge the receiving division a fixed fee for the privilege of obtaining these transfers at short-run variable cost. This approach is sometimes described as a two-part transfer pricing system.

With this system, the receiving division acquires additional units of the intermediate product at the variable cost of production. Therefore, when it equates its marginal (variable) costs with its net marginal revenues to determine the optimum profit-maximizing output level, it will use the appropriate variable costs of the supplying division. The supplying division can recover its fixed costs and earn a profit on the inter-divisional transfers through the fixed fee charged each period. The fixed fee is intended to compensate the supplying division for tying up some of its fixed capacity for providing products or services that are transferred internally. The fixed fee should cover a share of fixed costs of the supplying division and also provide a return on capital.

Illustration 15

AB Ltd has two Operating Divisions – A and B. A manufactures the Unit (marginal cost ₹5, market selling price ₹ 10), while B manufactures the Product (each requiring 1 Unit, a marginal cost of ₹3 and a market selling price of ₹12). In the absence of any considerations, other than those stated, is the manufacture of the Product to the advantage of AB Ltd and will a transfer pricing system, based on market price, induce the manager of B to manufacture the Product?

Solution:

The manufacture of the Product incurs a total marginal cost of ₹ 8 to AB Ltd and generates sales revenue of ₹12.

Clearly, it is to the advantage of AB Ltd to manufacture and sell the Product.

However, if units are transferred from A to B at the market price of ₹10, then the manager of B might reject product manufacture, on the ground that each product gives division B a loss of ₹1 i.e.,₹12 sales revenue less the ₹13 marginal cost to the division (₹10 transfer price + ₹3 marginal cost).

EXERCISE

Theoretical Questions

Multiple Choice Questions

1. Which one of the following is not considered as a method of Transfer Pricing?

   A Negotiated Transfer Pricing

   B Market Price Based Transfer Pricing

   C Fixed Cost Based Transfer Pricing

   D Opportunity Cost Based Transfer Pricing

2. Method of pricing, when two separate pricing methods are used to price transfer of products from one subunit to another, is called:

   A Dual pricing

   B Functional pricing

   C Congruent pricing

   D Optimal pricing

3. The Eastern division sells goods internally to the Western division of the same company. The quoted external price in industry publications from a supplier near Eastern is ₹200 per ton plus transportation. It costs ₹ 20 per ton to transport the goods to Western. Eastern's actual market cost per ton to buy the direct materials to make the transferred product is ₹100. Actual per ton direct labour is ₹50. Other actual costs of storage and handling are₹ 40. The company president selects a ₹220 transfer price. This is an example of:

   A Negotiated transfer pricing.

   B Cost plus 20% transfer pricing.

   C Cost-based transfer pricing.

   D Market-based transfer pricing.

4. Division P transfers its output to Division Q at variable cost. Once a year P charges a fixed fee to Q, representing an allowance for P's fixed costs. This type of transfer pricing system is commonly known as:

   A Dual pricing

   B Negotiated transfer pricing

   C Opportunity cost based transfer pricing

   D Two-part tariff transfer pricing

5. In which of the following circumstances is there a strong argument that profit centre accounting is a waste of time?

   A When the transferred item is also sold on an external market

   B When the supplying division is based in a different country to head office

C. If the transferred item is a major product of the supplying division

D. If there is no similar product sold on an external market and the transferred item is a major product of the supplying division

6. Popular method of transfer pricing is the _____.

A. Opportunity cost pricing

B. Negotiated pricing

C. Market based pricing

D. Cost based pricing

7. Division under transfer pricing system is treated as …….

A. Profit centre

B. System centre

C. Investment centre

D. Cost centre

8. Which of the following is/are not method of transfer pricing?

A. Total cost method

B. Marginal cost method

C. Market price method

D. Skimming price method

Answers:

1-C, 2-A, 3-D, 4-D, 5-D, 6-C, 7- A, 8- D.

⊙ State True or False

1. Transfer pricing technique is a major issue in the current business world.
2. Transfer pricing plays a very important in international taxation also, as by fixing fair transfer prices one can avoid a lot of tax burden.
3. Transfer prices should not help in the accurate measurement of divisional performance (profitability).
4. Profit centre managers tend to put their own profit performance above everything else.
5. The price of a comparable product or service in the market can be seen as an objective basis for the transfer price between divisions.
6. Globalization and the rapid growth of international trade has made inter-company pricing an everyday necessity for the vast majority of businesses.
7. There are two basic issues relating to transfer prices in case of multinational companies having divisions in different countries.
8. Cross training cannot be helpful in proper utilization of work force.
9. A Profit Centre is a company's department that is responsible for the profits of the company.
10. Divisional Autonomy is the degree of freedom a division manager can exercise in decisions making.

Answers:

1- True, 2- True, 3- False, 4- True, 5- True, 6- True, 7-True, 8-False, 9- True, 10-True.

Fill in the Blanks

1. Many firms use ……. negotiated transfer prices even though they do not lead to optimal results for individual products.
2. Transfer Pricing is not considered as a method of Transfer Pricing
3. There are different ……. rates in different countries.
4. In the absence of a ……. for the intermediate product, the theoretically correct transfer price can be established.
5. While ……transfer pricing is concerned with fairly compensating an internal division for products it has produced and supplied to another division, ……. transfer pricing is usually set according to another purpose, such as lowering a company's worldwide taxes.
6. The ……principle requires that compensation for any intercompany transaction conform to the level that would have applied had the transaction taken place between unrelated parties, all other factors remaining the same.
7. The ……. may deliberately declare low profits in an operating country to prevent local businesses setting up in competition.
8. ……. are therefore responsible for all operations (production, sales and so on) relating to their product, the functional structure being applied to each division.
9. ……is a topic that one is need to know from both a theoretical standpoint and a numerical standpoint.
10. As managers become more proficient in…… they become more qualified for higher management positions.
11. Market value as a transfer price has certain disadvantages:

    (A) The market price might be ……., induced by adverse economic conditions, say.

    (B) There might be an ……. external market, so that if the transferring division tried to sell more externally, it would have to reduce its selling price.

    (C) Many products do not have …….
12. Transfer prices based on full cost are appropriate if top management treats the divisions like.....
13. Many firms base transfer prices on..... since they are easy to understand and convenient to use.
14. When ..... is used to measure divisional performance, the objective is to maximize the total amount of ..... not to maximize the overall ..... figure.
15. A ..... transfer price is one agreed upon between the buying and selling divisions that reflects unusual or mitigating circumstances.
16. If the selling division has, ... a transfer price based on ..... would be an appropriate transfer price, although it would hurt the performance of the selling division.

Answers:

1- Cost plus, 2- Fixed Cost Based, 3- Income tax, 4- Competitive market, 5- Domestic, International, 6- arm's-length, 7- MNE, 8- Divisional managers, 9- Transfer pricing, 10- Decision making, 11- (A) temporary, (B) imperfect, (C) an equivalent market price, 12- cost centers, 13- cost, 14- RI, residual income, profit, 15-negotiated, 16-excess capacity, variable cost.

Short Essay type Questions

1. Explain the opportunity cost approach to transfer pricing.
2. When is the negotiated pricing preferred over the market price approach in setting transfer prices?
3. Why are market based transfer prices considered optimal under many circumstances?
4. Why do companies often use prices other than market prices for interdivisional transfers?
5. What properties should transfer pricing policies have?
6. Under what conditions is a market-based transfer price optimal?
7. Write a note on transfer pricing in multinational companies.
8. Write explanatory notes on 'Cost-based and market-based transfer prices'.
9. What are the objectives of transfer pricing? Under what conditions are market-based prices and negotiated prices optimal?
10. What are the advantages and disadvantages of top management's direct intervention in a transfer pricing dispute?
11. What is the general transfer-pricing rule?
12. What are the limitations to market based transfer prices?
13. Discuss the advantages and disadvantages of negotiated transfer prices.
14. When using the negotiated price approach to transfer pricing, within what range should the transfer price be established?
15. What are some goals of a transfer pricing system in a decentralized organization?

Essay Type Questions

1. What is a transfer price? Under what conditions are transfer prices necessary?

   (i) Market prices (ii) Full Cost (iii) Full cost plus mark up (iv) Opportunity Cost (v) Negotiated price
2. Explain a dual transfer price. What are the advantages and disadvantages of using such a pricing system?
3. What is the disadvantage of negotiated transfer prices when no intermediate market exists for the producing division?
4. Identify three cost based transfer prices. What are the disadvantages of cost-based transfer prices? When might it be appropriate to use cost-based transfer prices?
5. Division A has no external markets. It produces a product that is used by Division B. Division B cannot purchase this product from any other source. What transfer pricing system would you recommend for the inter-divisional sale of the product? Why?
6. "Under the general guidelines for transfer pricing, the minimum transfer price will vary depending on whether the supplying division has idle capacity or not." Do you agree? Explain.
7. What are the objectives of transfer pricing? What are the requisites of a sound transfer pricing system?

8. Discuss the essential guidelines for the success of transfer pricing system.
9. Explain the effect of import duties, or tariffs, on the transfer-pricing policies of multinational companies.
10. Many firms use cost plus negotiated transfer prices even though they do not lead to optimal results for individual products. Why?
11. "In setting transfer prices for multinational companies, tax considerations can be the tail that wags the dog." Explain.
12. "Variable-cost transfer prices ensure that we make no dysfunctional decisions". Comment.
13. What are the objectives of sound transfer pricing system? How do market based prices and negotiated prices help in achieving these objectives?
14. "Transfer pricing is confined to profit centres." Do you agree? Explain.
15. "An action that is optimal for a division may not be optimal for the company as a whole." Explain.
16. When is the negotiated price approach preferred over the market price approach in setting transfer prices?
17. Why would standard cost be a more appropriate transfer price between cost centers than actual cost?
18. Using the criteria for evaluating transfer prices, evaluate each of the following transfer prices.
19. How does the choice of a transfer price affect the operating profits of both divisions involved in an intercompany transfer?
20. Why might income tax laws affect the transfer pricing policies of multinational companies?

Practical Problems

⊙ Multiple Choice Questions

1. M Group has two divisions, Division P and Division Q. Division P manufactures an item that is transferred to Division Q. The item has no external market and 6,000 units produced are transferred internally each year. The costs of each division are as follows?

	Division P	Division Q
Variable Cost	₹ 100 per unit	120 per unit
Fixed cost each year	₹1,20,000	90,000

Head Office management decided that a transfer price should be set that provides a profit of₹ 30,000 to Division P. What should be the transfer price per unit?

A. ₹ 145

B. ₹ 125

C ₹ 120

D ₹ 135

2. Minimax Ltd. fixes inter - divisional transfer prices for its products on the basis of cost plus a return on investment in the division. The budget for division X for 2022 – 23 appears as under -

	₹
Fixed Assets	8,00,000
Current Assets	5,00,000
Debtors	2,00,000
Annual fixed cost of the division	8,00,000
Variable cost per unit of the product	10

Budgeted volume 4,00,000 units per year

Desired ROI 28%

Transfer price for division X is

(A) ₹ 13.05

(B) ₹ 10.70

(C) ₹ 8.70

(D) ₹ 14.70

Answers:

1-B, 2-A

⊙ Comprehensive Numerical Questions

1. M/s. Bright Star has two divisions Bright and Star. Bright manufactures an intermediate product for which there is no intermediate external market. Star incorporates this intermediate product in the production of the final product. The expected units of the final product which Star division estimates it can sell at various selling prices are as follows:

Net Selling Price (₹)	Quantity Sold (Units)
1,000	10,000
900	20,0000
800	30,000
700	40,000
600	50,000
500	60,000

The cost of each division are as follows:

	Bright	Star
Variable cost per units (₹)	110	70
Fixed costs per annum (₹)	60,00,000	90,00,000

The transfer price is₹ 350 for the intermediate product and is determined on a full cost plus basis.

You are requested to:

(a) Prepare profit statements for each division and the Company as a whole for the various selling prices.

(b) State which selling price maximizes profit for the Bright division and the Company as a whole and comment on why the latter selling price is not selected by Star division.

(c) State which transfer pricing policy will maximize the Company's profit under a divisional organisation.

2. The following information is available:

	Division A	Division B
	₹ per unit	₹ per unit
Variable cost	10	15
Transfer price at market value	-	20
Fixed costs	5	10
Profit	5	25
Transfer price/selling price	20	70

Division A can sell externally ₹20 per unit or transfer internally to Division B at ₹20 per unit. Division B receives an offer from a customer of ₹30 per unit for its final product.

Requirements

(a) Would Division B accept the offer of ₹30 per unit given the existing transfer price?

(b) Is this the correct decision from the company's point of view?

(i) Division A has surplus capacity?

(ii) Division A is operating at full capacity?

Give proper explanations.

3. Division M is a profit centre, which produces four products A, B, C and D. Each product is sold in the external market also. Data for the period as follows:

		A	B	C	D
Market Price per unit	(₹)	150	146	140	130
Variable Cost of Production per unit	(₹)	130	100	90	85
Labour Hours Required per unit		3	4	2	3

Production D can be transferred to division Y, but the maximum quantity that might be required for transfer is 2500 units of D.

The maximum sales in the external market are:

A = 2,800 units

B = 2,500 units

C = 2,300 units

D = 1,600 units

Division Y can purchase the same product at a slightly cheaper price of ₹ 125 per unit instead of receiving

transfers of product D from division M.

What should be the transfer price for each unit for 2500 units of D, if the total labour hours available in division M are:

(i) 20000 hours?

(ii) 30000 hours?

4. X Ltd. a manufacturing company has two divisions: Division A and Division B. Division A produces one type of product X which it transfers to Division B and also sells externally. Division B has been approached by another company which has offered to supply 2500 units of Product X for ₹ 35 each.

The following details for Division A are available:

	Amount (₹)
Sales revenue:	
Sales to Division B @ ₹ 40 per unit	4,00,000
External sales @ ₹ 45 per unit	2,70,000
Less:	
Variable cost @ ₹ 22 per unit	3,52,000
Fixed costs	1,00,000
Profit	2,18,000

If Division B decides to buy from the other company, what will be the impact of the decision on the profits of Division A and X Ltd. assuming external sales of Product X cannot be increased.

5. Division A transfers 1,00,000 units of a component to Division B each year. The market price of the component is ₹25. Division A's variable cost is ₹15 per unit. Division A's fixed costs are ₹5,00,000 each year.

What price would be credited to Division A for each component that it transfers to Division B under:

(i) Dual pricing (based on marginal cost and market price)?

(ii) Two-part tariff pricing (where the Divisions have agreed that the fixed fee will be ₹2,00,000)?

6. M Ltd has been offered supplies of special ingredient B at a transfer price of ₹15 per kg by H Ltd which is part of the same group of companies. H Ltd processes and sells special ingredient Z to customers external to the group at ₹15 per kg. H Ltd bases its transfer price on cost plus 25 per cent profit mark-up. Total cost has been estimated as 75 per cent variable and 25 per cent fixed.

Required:

Discuss the transfer prices at which H Ltd should offer to transfer special ingredient B to M Ltd in order that group profit maximizing decisions may be taken on financial grounds in each of the following situations:

(i) H Ltd has an external market for all of its production of special ingredient B at a selling price of ₹15 per kg. Internal transfers to M Ltd would enable ₹1.50 per kg of variable packing cost to be avoided.

(ii) Conditions are as per (i) but H Ltd has production capacity for 3000 kg of special ingredient B for which no external market is available.

7. The AB group comprises two divisions – A and B. Each divisional manager is paid a salary and bonus linked to divisional profit. A produces the X and B produces the Y. There is a 'perfect' outside market for the X with a going market price of ₹ 20 over which A has no influence. One unit of the X is incorporated in each unit of the Y.

The marginal cost of an X is ₹ 10 and the marginal cost of a Y (excluding the cost of the component X) is ₹10.

At unit selling price ₹ 50 no Y are sold but demand for Y rises by 100 units per period with each ₹ 5 reduction in the unit selling price.

Required:

(a) Assuming that there is no production constraint in division A, tabulate the contribution generated by AB Ltd. from sales of Y ranging from nil to 500 units per period in 100- unit increments. Use this tabulation to identify the optimum unit selling price and output of the Y.

(b) Tabulate the contribution generated by division Y from sales of Y ranging from nil to 500 units per period at 100-unit increments with the X being transferred from A to B at market price. Use this tabulation to identify the unit selling price and output of the Y that is likely to be induced if X is transferred from A to B at market price.

8. Assume that Division X, which is part of the XYZ group, manufactures a single product A. Division X's maximum capacity is 4,50,000 units a year. It sells 4,20,000 units to external customers at a price of ₹75.95 a unit. This gives Division A, a contribution of ₹30.50 a unit.

Division Y is also part of the XYZ group but is situated in a different place to Division X. Division Y purchases 1,20,000 units of product A, each year from a local company Z (which is not part of the group) at a local currency price which is equivalent to ₹65.33 a unit.

It has been suggested that, in the interests of maximizing the group's profit, Division Y should purchase A from Division X. As there are no marketing costs involved when transferring goods to Division Y, Division X would set the transfer price for an A at ₹ 69.60.

This would give Division X the same contribution as an external sale, i.e.₹30.50 per unit. Division X would give Division Y's orders priority and so some external customer orders could no longer be met.

Requirements

Should Division Y continue to purchase from company Z or switch to Division X in order to maximize the group's profit if:

(a) The tax rate in the country in which Division X operates is 25 per cent and the tax rate in Division Y's country is 30 per cent;

(b) The tax rate in the country in which Division X operates is 40 per cent and the tax rate in Division Y's country is 20 per cent?

(Assume that changes in the contribution can be used as a basis for calculating changes in tax charges and that Division Y generates sufficient profit from other activities to absorb any tax benefits).

9. Division A has costs of ₹15 p.u., and transfer goods to Division B which has additional costs of ₹5 p.u. Division B sells externally at ₹ 30 p.u.

The company has a policy of setting transfer prices at Cost + 20%.

Calculate:

(a) The transfer price

(b) The profit made by the company overall

(c) The profit reported by each division separately

10. Division A has costs of ₹20 p.u., and transfer goods to Division B which has additional costs of ₹8 p.u. Division B sells externally at ₹30 p.u.

The company has a policy of setting transfer prices at Cost + 20%.

Calculate:

(a) The transfer price

(b) The profit made by the company overall

(c) The profit reported by each division separately

Determine the decisions that will be made by the managers and comment on whether or not goal congruent decisions will be made.

11. The materials used by the X Division of XYZ Company are currently purchased from outside suppliers at ₹40 per unit. These same materials are produced by XYZ's Y Division. The Y Division can produce the materials needed by the X Division at a variable cost of ₹28 per unit. The division is currently producing 80,000 units and has capacity of 1,00,000 units. The two divisions have recently negotiated a transfer price of ₹35 per unit for 20,000 units. By how much will each division's income increase as result of this transfer?

⊙ Unsolved Cases

1. The Finance Director of Hind & Co. is currently overloaded with work due to changes in financial accounting policies that are being considered at board level. As a result, he has been unable to look at certain management accounting aspects of the business and has asked you to do a review of the transfer pricing policy between the components and assembly divisions.

As a Cost Management Accountant of the Company you are required to express your views.

2. From an organizational point of view, two approaches to transfer pricing are (a) to let the managers of profit centers bargain with one another and arrive at their own transfer prices (negotiated transfer pricing) and (b) to have the firm's top management set transfer prices for transactions between the investment centers. Identify the advantages and disadvantages of each approach.

Key Terms

Transfer pricing: Transfer pricing is concerned with the price one profit centre charges another profit centre within the company for products or services provided.

Cost-based transfer price: Four versions of 'cost' are commonly used marginal cost, absorption cost, standard cost, and marginal cost plus a fixed charge.

Decentralized organisation: A company with a decentralized organizational structure is one where mid- and lower-level managers make most of the decisions, rather than the senior management team.

Divisional Autonomy: Divisional Autonomy is the degree of freedom a division manager can exercise in decisions making

Dual-rate Transfer Pricing: Dual-rate transfer pricing uses two separate transfer prices to price each inter-divisional transaction.

Goal Congruence: The transfer price will achieve this if the decisions which maximize divisional profit also happen to maximize group profit – this is known as goal congruence.

International Transfer Pricing: International Transfer pricing refers to the pricing strategy in play when there is transfer of goods/ services between associated enterprises, in International Transactions.

Market based Transfer Price: The price of a comparable product or service in the market can be seen as an objective basis for the transfer price between divisions.

Negotiated Transfer Price: Transfer Price could be set through a process of negotiation between the buying and selling divisions.

Opportunity Cost approach to Transfer Pricing: It represents the opportunity which has been foregone by following one course of action rather than another. Thus, if goods are transferred internally the organisation could lose a contribution to profit which could have been obtained from an external sale. Generally, an opportunity cost approach will be used to establish a range of transfer prices in situations where the market is imperfect

Operating Profits: A Company's operating profit is its total earnings from its core business functions for a given period, excluding the deduction of interest and taxes.

Profit Centre: A Profit Centre is a company's department that is responsible for the profits of the company.

Two-part transfer Pricing System: Under this variant, the selling division transfers at marginal cost (including any opportunity cost), but raises a fixed annual fee on the buying division for the privilege of receiving transfers at that price.