INTRA – TRANSFER –SEGMENTAL PRICING,ITS ADAPTABILITY CONCEPT IN DETERMINATION OF ORGANIZATIONAL PROFITABILITY

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Abstract

Purpose: The purpose of this paper is to highlight the relevance of intra-segmental-transfer-pricing as a measure of interdivisional, interdepartmental performance efficiency, when goods and services are internally transferred within the units in the organization.

Methodology/Approach: An empirical survey-based-data collection from TEXLON NIG. PLC (a textile unit with two functional departments –spinning and weaving), Oshodi/Apapa Expressway, Mile 2, Lagos, Nigeria.

Findings: Intra-segmental-transfer-pricing basically, is not a market oriented pricing mechanism. The system under which each independent unit has full freedom to negotiate (LAISSEZ FAIRE) is absolutely absent. The segmental pricing by independent units are virtually regulated by guidelines (CENTRALLY IMPOSED). It is a measure of efficiency rather than “Profit performance”.

Research Limitations/Implications:

i. In intra-segmental-transfer pricing, selling divisions are allowed to recover selling expenses from the user divisions even though no selling expenses are virtually incurred on intra-segmental transfers.

ii. The measurement of segmental profit performance is not possible under regulated guidelines (centrally imposed pricing), hence, profit performance of each unit cannot be measured with absolute certainty.

Practical Implication: Intra-segmental transfer-pricing is not a measure of divisional profit performance, its utility is limited to internal adaptability scenario.

Originality/Value: This paper exhibits more light on the theory/concept of segmental-transfer pricing as a measure of segmental profit performance and its theoretical utility rather than absolute measure of profitability.

Keywords: Efficiency, performance, laissez faire, centrally imposed pricing, independent units, regulated guidelines, negotiated prices, segmental-transfer-pricing.

Introduction:

Companies have the problem of pricing goods and services which are virtually transferred to other divisionals/units of the same organization, such pricing is referred to as “intra-segmental”, “intradivisional” or “transfer pricing”. The term “intra-segmental-transfer” is used to include any transfer of products between divisions, plants or units (V.K. Sexena and C.D Vashist 1994). Products transferred may include partly finished goods or finished goods transferred for use (Khan and Jain 2007). The value at which goods and services are transferred from one unit to another is termed intra-segmental-transfer-price.

A well established method of measuring the efficiency of the organization is decentralization, which usually involves the setting up of a number of separate profit centres. When each decentralized unit of the organization is deemed as a profit centre and transfer of goods and services between the independent profit centres take place, the problem of intra-segmental-transfer pricing arises.

Objectives of Intra-Segmental-Transfer-Pricing: The objectives of intra-segmental-transfer-pricing should be:

- ❖ To foster commercial attitude on those who are responsible for the performance of profit centres. The main emphasis is on profitability. The objective focuses on the units to improve their profit position.
- ❖ Optimize the profit of the organization over a given period of time. The emphasis is on maximum utilization of capacity.
- ❖ Optimize the allocation of financial resources. This is a long-term focus. The allocation of resources is based on relative performance of various profit centres, which in are turn the influenced by segmental-transfer-pricing policies.

Literature Review: Segmental-transfer-pricing methods are basically classified into three classifications:

❖ Cost-based-segmental Transfer pricing	Performance Oriented Measurement
❖ Market prices ❖ Negotiated prices	Market Oriented Measurement

COST-BASED-SEGMENTAL-TRANSFER-PRICING INCLUDES:

- ❖ Actual cost of production.
- ❖ Variable cost.
- ❖ Standard cost.
- ❖ Cost of sales.
- ❖ Cost sales (+).
- ❖ Opportunity cost based pricing.
- ❖ Prorating based pricing.

Actual Cost of Production: The purpose of adopting actual cost of production as a measure of profit performance is to meet the demand of user unit. Therefore, the responsibility for profit performance is centralized rather than decentralization which is a divergence to market oriented concept profit performance.

Variable Cost: When it is not the purpose to measure the profit performance of each unit, but the overall profitability (performance) of the organization, the price equal to variable cost is used. The technique is useful when the capacity of the selling unit is idle (C.D. Vashist and V.K Sexena 1994).

The adoption of VC in segmental transfer pricing will lead to full utilization of capacity.

Standard Cost: All segmental-transfers are valued at standard cost. The variations are absorbed by the selling or supplying units. The responsibility of profit performance is centralized (Khan and Jain 2007). Profit performance of each unit cannot be measured.

Cost of Sales: In addition to actual cost of production, expenses of selling and distribution, administration are allowed to be recovered from the user division. The managers of supplying divisions are not permitted to make profits on goods transferred internally. The supplying division is allowed to recover full cost of goods transferred. The measurement of divisional profit performance hence cannot be measured.

Cost of Sales (+): The selling division is allowed to recover full cost of sales (+) make-up or an allowance for profit. This allowance is expressed as a percentage of capital employed or cost of sales. The fallacy is that, the selling divisions are allowed to recover selling expenses from the user divisions even though no selling expenses were incurred on inter-segmental transfers. To meet this objective, actual cost (+) profit margin is used for transfer pricing. Profit performance of each unit is therefore measurable and efficiency can be reasonably fixed. This profit is termed “notional profit” as it is not market oriented decision.

Opportunity - Cost - Based - Segmental - Transfer - Pricing: HORNGREN observed that for decision making purposes, a segmental transfer price should be one which is based on marginal (incremental) cost of goods (+) any opportunity cost to the organization as a whole (for not being able to use the gods in the best possible way). He said, the effect differs in different situations”

- In perfectly competitive market: That is, all goods sold internally can be sold externally, intra-segmental-transfer pricing is:

SVC + LCM = Prevailing Market Price

Where:

SVC = Standard variable cost

LCM = Lost contribution margin

❖ In slightly imperfect competitive market:

SVC + LCM is a Market Adjusted price, that is prevailing market price less economics achieved by selling internally.

❖ In perfectly competitive or slightly imperfect market: That is most products sold externally. Products sold internally do not have a market price. Production capacity used to produce internally sold goods can be used to produce externally sold products. segmental-transfer-pricing equal to:

SVC + LCM = Phantom Market Price.

Prorating-Based-Transfer Pricing: It is used in a special situation where the group or units as a whole benefits from doing the work internally rather than accepting external quotation. The contribution advantage is shared equitably between the divisions involved through negotiation.

Market Pricing: A competitive market implies the existence of buyers and sellers. Such market provides an incentive to efficient production because excessive costs cannot be passed on to buyers. Since market price will, by and large be determined by demand and supply in the long-run, it is possible that profits which result under this will provide a good indictor of the overall efficiency of the various units. Competitive market price provides reliable measure of divisional income because this price is established independently.

Negotiation Price: Each decentralized unit is considered as an independent unit and competitive price is arrived at by negotiation. The segmental managers have full freedom to go for outside purchases if the prices quoted by divisions are not acceptable. A system of negotiated prices will foster the commercial attitude among divisions of the unit.

Segmental-Transfer Pricing, Not Market Oriented Mechanism: The administration of segmental transfer pricing is the sole responsibility of the top management. The overall objective while regulating prices is kept in view. Pricing disputes may arise between the receiving and the giving units, should be settled at divisional levels or be referred to the top management. In order to have effective system of segmental transfer pricing:

- ❖ Prices of all inter-divisional transfers should be determined by negotiation.
- ❖ Negotiators must have access to full data on alternative sources and markets.
- ❖ Buying and selling divisions must adhere to the guidelines.

Mathematical Application: The rate at which goods and services of selling units are transferred to the buying divisions can be ascertained through mathematical application, adopting market oriented mechanism.

Considering the data procured from the organization under study:

Data 1: TEXLON Plc is in collaboration with non –indigenous company to produce Local Asoke – Weaving. The yarn component (Man-made fibre) is imported, while others are locally produced, using both standard and non-standard fibres. The information procured is;

I.	Cost of indigenous fibres in a batch (roll of produced Asoke):	
-	Standard fibres	₦ 18,000
-	Non Standard fibres	<u>₦ 27,000</u>
		₦ 45,000 per roll
II.	Cost of imported man-made fibres	₦ 36,400 per roll
III.	Cost of blending (yarn)	₦ 10,000 per roll
IV.	Technical know-how	₦ 100 per roll.

V. TEXLON NIG. PLC is to pay a royalty at 10% of selling price fixed by it for sale in the local market, less cost of landed imported components of man-made fibres, less cost of standard components produced locally. TEXLON NIG. PLC has fixed 20% profit on selling prices. Determine the intra-segmental-transfer-price which the TEXLON NIG. PLC should accept for local sale.

TEXLON NIG. PLC SHOULD ACCEPT FOR LOCAL SALE:

Suppose Selling Price = x and royalty = y.

x = (₦ 91500 + y + 25% (91500 + y)

= ₦ 91500 + y + ₦ 22875 + 0.25y

= ₦ 114375 + 1.25y………… (i)

y = 0.10 (x – ₦ 36400 - ₦ 18000)

= 0.10x - ₦ 5440 …………. (ii)

Multiplying Equation (ii) by 1.25

1.25y = (0.10x + 1.25) – (₦ 5440 x 1.25)

1.25y = 0.125x - ₦ 6800……… (ii)

Re –arranging equation (i)

x = ₦ 114375 + 1.25y…… (i)

-1.25y = -x + 114375………….. (iv)

Hence:

1.25y = 0.125x - ₦ 6800…………… (iii)

-1.25y = -x + ₦ 114375………. (iv)

= -0875x + ₦ 107575

0.875x = ₦ 107575

∴ x = ₦ 122943

The value of y (royalty).

Putting x = ₦ 122943 in Equation (iv)

-1.25y = - x + ₦ 114375

-1.25y = - ₦ 122943 + ₦ 114375

-1.25y = - ₦ 8568

y = ₦ 6854

Validity test:

➢	Landed cost of imported		
	Component per roll	=	₦ 36,400
➢	Cost of indigenous		
	Man-made component per roll	=	₦ 45,000
➢	Cost of blending (yarn) per roll	=	₦ 10,000
➢	Cost of technical know-how per roll	=	₦ 100
	Total cost excluding royalty	=	₦ 91,500
➢	Add royalty (y)	=	₦ 6,845
	Total cost including royalty	=	₦ 98,354
➢	*Add profit 20% on sales or 25% at cost*	=	₦ 24,589
➢	Segmental transfer price for local market (x)	=	₦ 12,2943

➢

Note

At cost	at sales
¼ $\frac{100}{400}$ 0r 25%	$\frac{1}{5}$ or $\frac{100}{500}$ or 20%

Conclusion: Segmental-transfer-pricing basically is not a market oriented pricing mechanism. It is notional concept and its adaptability is mainly useful for internal decisions.

References:

Brown J.L & Owler L.W. (1978) 14th Edition Wheldon's
Cost Accounting and Cost Methods, Macdonald and Evans Ltd, Estover, Plymouth PL6 – 7P2.
Jain P.K & Khan M.Y (2003): 1st Edition Cost Accounting and Financial Management Tata McGraw-Hill Publishing Company Ltd, New Delhi – India.
Jain P.K & Khan M.Y (2007): 14th Edition, Management Accounting, Tata McGraw-Hill

Publishing Company Ltd, New Delhi – India.

Gupta R.K (1087): 3rd Edition, Cost Accounting and Financial Agra Book Store, Educational Publishers, 1/125, Pachkuian, Agra = 282010 – India.

Saxena V.K & Vashist C.D (1985): 1st Edition Advanced Cost Management Accounting. Sultan Chaud and Sons, New Delhi – India.

Saxena V.K & Vashist C.D (1989): 2nd Edition Rev. Edition Advanced Cost Management Accounting. Sultan Chaud and Sons, New Delhi – India.

Saxena V.K & Vashist C.D (1993): 4th Edition Rev. Edition, Accounting. Sultan Chaud and Sons, New Delhi – India.

Shearing & Taylor (1998): 4th Edition Financial and Cost Accounting for Management. Macdonald and Evans, Ltd= Estover Ploymouth PL6 – 7P2.