W.P.: 328

Working Paper

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TRANSFER PRICING POLICIES IN INDIAN COMPANIES: A SURVEY

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W P No. 328

August 1980

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Acknowledgement

The author wishes to acknowledge the financial support provided by the Indian Institute of Management, Ahmedabad.

TRANSFER PRICING POLICIES IN INDIAN COMPANIES : A SURVEY

INTRODUCTION

As the size and diversity of operations increase in an organisation, it becomes impossible for a single group of executives at the central office to take all operating decisions on time. It becomes necessary to delegate decision making authority to the lower level executives or in other words, companies have to decentralise. Decentralisation, however, brings with it the need for an effective system of planning and control. One very effective system of planning and control is the creation of 'responsibility centres' within the organization with the head of each centre being responsible for the goals set for it. A profit centre refers to a responsibility centre where the manager is evaluated on revenues as well as costs or profits, in short. The <u>ideal</u> profit centre would have its own manufacturing, marketing, R&D, and administrative set up, with total operating freedom on what goods to purchase and sell at what prices. In effect it will be a mini-company which can exist without the corporate structure. However, such situations rarely exist in the Indian context. It is common to find interdependence between several profit centres with transfer of goods and services across them.

Usually such transfers are treated as notional sales and purchases by the transferring (selling) and transferee (buying) profit centre, respectively. The selling division gets some credit for what it has sold and the buying division bears the corresponding cost. This is achieved by fixing a 'price' for the goods and services transferred. Such 'prices' are usually called transfer prices. Transfer prices can be used as a tool for :

a. <u>Measurement</u> of the profit made by the profit centre which can then be used as an indicator of the performance of the division.

b. <u>Motivating</u> the divisional manager in the desired directions. E.g., in a company operating on a job order basis, transfers between the plant and the marketing division were priced at full cost. Inumerable conflicts arose between the marketing people who wanted rush orders and the production people who wanted a steady and stable production. When the transfer pricing mechanism was modified to transfer the excess set up cost to the sales department, the number of rush orders dropped significantly since the sales people could now have a better idea of the total cost involved in processing a rush order.

c. <u>Management Control</u>. Since the transfer prices significantly affect the divisional profits (note that the overall company profit will not change if the transfer prices are changed), each divisional manager will, at the time of fixing the transfer price, critically examine the assumptions about the yield, efficiency, and other standards relating to their operations. Also an atmosphere of openness is created in the company as divisional managers will try to examine the other divisions' operations as well. All this plus the fact that transfer price facilitates the computation of a comprehensive measure such as profit have made this a valid tool of management control.

Given the importance of transfer prices, the top management should fix a transfer pricing policy only after considering in detail the effect such a policy will have on the actions of the divisional managers. Especially, the following guidelines have to be kept in mind while fixing transfer prices :

i. The transfer price should measure the economic performance of a division as accurately as possible.

ii. It should motivate divisional managers to take goal congruent decisions, i.e,, the actions taken by the divisional managers to maximize divisional profits should also maximize corporate profits.

iii. It should be easy to understand and administer.

A major objective of this study is to describe the current practices amongst Indian companies with regard to their transfer pricing policies[1]. To provide a perspective for this study, we shall briefly deal with the various transfer pricing alternatives and their pros and cons, on a theoretical plane.

TRANSFER PRICING MECHANISMS

Transfer pricing policy has two components -- one relates to <u>sourcing</u> and the other relates to <u>pricing</u>. The sourcing decision takes the form of allowing or not allowing the buying division to buy from outside and the selling division to sell outside. As regards pricing, companies have several alternatives as depicted in figure 1. We shall consider some of these alternatives below.

Market Price Based Transfers: This will yield the closest approximation to the division's real profit.
Under this procedure, the selling and distribution expenses are usually deducted from the market price since these would not be incurred on an internal sale. Market prices provide a good check on the efficient functioning of both the buying as well as selling divisions and should be used as a basis of transfer price, wherever possible. This is especially the case when sourcing flexibility (in terms of buying and selling the internally transferred products outside the company) is available to the divisions. Market price based transfers are not feasible for several companies due to the following reasons :

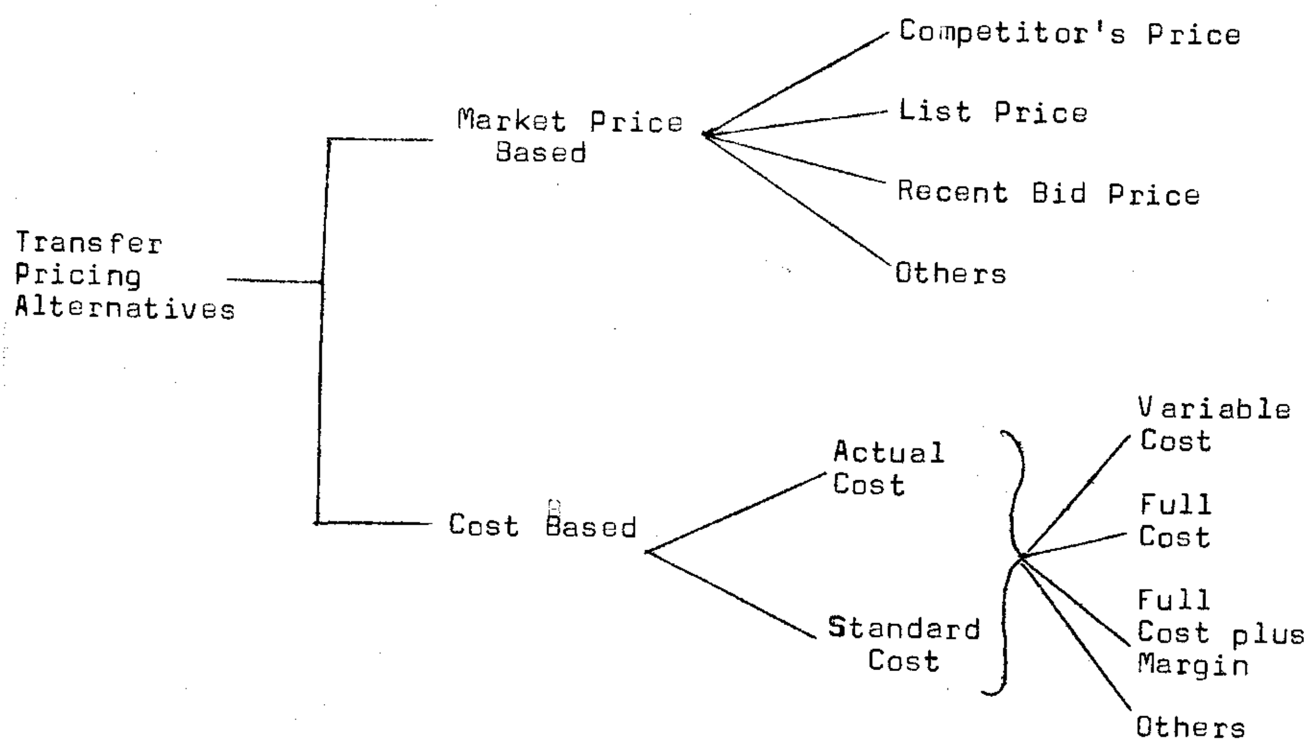
i. Market price may be difficult to obtain either because a similar product is not available in the market or for some other reasons.

ii. Market prices are affected by the volume of trade. For different volumes of goods transferred, market prices could differ.

iii. Market prices can be distorted during times of temporary glut or shortage.

FIGURE 1

TRANSFER PRICING ALTERNATIVES



But wherever such market price based transfers are possible, they do motivate divisions to be efficient and effective.

Cost Based Transfers: Although market prices provide the best basis for fixing transfer prices, all too frequently competitive market prices may not exist for the intermediate good. In such and similar situations transfer prices are based on costs, and inevitably lead to conflicts of interests. If they are based on standard costs, the effectiveness of the standards will be questioned and if based on actual costs, the operating inefficiencies of division are passed on to another.

Variable or marginal cost has been advocated as the basis when the company is not operating at full capacity. The opponents of this system argue that in the short run, it may suffice but in the long run, the full cost of the product is to be recovered and full cost is better than marginal cost as a basis of transfer price. Full cost pricing may, however, lead to suboptimal decisions by the divisional manager. In an under-utilised company, assume Division A sells goods to division B at Rs.80 (Rs. 50 variable and Rs.30 fixed). Division B processes it further at a cost of Rs. 40 (Rs. 20 fixed, Rs. 20 variable). An offer to buy the good at Rs. 90 were made to division B which would refuse it because it is below its variable cost (Rs. 80 + Rs.20). However, to the company as a whole the deal has a positive contribution.

Full cost plus a profit margin is then advocated as the best approximation to market price. In addition to the problem faced in the full cost method, one has to decide on how to arrive at a reasonable margin? Should it be on divisional ROI or corporate ROI or based on some other method? Such problems have led to little acceptance of this method as indicated later in this paper.

A number of modifications have been suggested to resolve the problems in cost based transfer pricing. Prominent among them is a 'two step model' (Anthony and Deardon, 1976) which advocates transfer of goods at standard variable cost plus a bulk of transfer of standard fixed costs. This method would provide the right kind of cost data for the buying division to take short term as well as long term pricing decisions. E.g., in the short term, the buying division would price on variable cost which would also be the variable cost for the company as a whole unlike the example given earlier for 'full cost' transfers.

METHODOLOGY

Methodology included both an administration of a questionnaire as well as field interviews in selected companies. The data collection was done in three phases as indicated below:

Phase I: Since only the large corporations are likely to experience the problems singled out for study, the top 100 companies in the private sector and the top 50 companies in the public sector[2] were chosen as potential research sites[3]. A letter was sent to the Chief Executives of these 150 companies asking them for information on a) whether the company has more than one profit centre, and, if so, b) whether the company would like to participate in this study. This phase was intended to select the likely candidates who would provide the kind of information required for this study. We had responses from 105 companies (a 70% response rate). This high response rate may be attributable to a proper identification of the target group, the procedure of mailing the letters directly to the Chief Executives in their personal name, and an increased awareness and interest amongst Indian companies in the use of formal control systems. Table 1 presents a summary profile of the 105 respondents. For Phase II, we only contacted the 71 companies which have more than one profit centre since companies where the entire unit is treated as a profit centre do not have transfer pricing problems.

Phase II: A detailed questionnaire (a copy enclosed as Appendix 1) was to the 71 companies selected in Phase I. The questionnaire sought information on the current practices of companies with regard to their transfer pricing

TABLE 1

TYPOLOGY OF COMPANIES RESPONDING
TO ONE PAGE QUESTIONNAIRE

Organised by	One Profit Centre	More than One profit Centre	TOTAL
DIVISIONS	13	53	66
DEPARTMENTS	21	18	39
TOTAL	34	71	105

NOTE 1. A division is an unit which deals with one or more products and which usually has available within it manufacturing, marketing and other departments.

2. A department is an unit responsible for a single function. Examples may be : manufacturing, marketing, etc.

policies. It was sent to the person whose name was suggested by the Chief Executive in his reply for future contact. We got back 42 questionnaires (a 60% response rate) out of which 41 were useable. We further collected data on the annual sales of these 41 companies from their latest Annual Report. The sales figure was used as a proxy for the size of the company. We also classified these companies by their type of 'ownership' (such as family-owned, public sector, etc.).

Phase III: Based on a preliminary analysis of the questionnaire responses, 24 companies were selected for field interviews. The head of the control function (usually designated as Chief Accountant, Finance Director, and so on) in each of these companies was interviewed. The interview was open ended, though a list of issues were prepared based on the questionnaire responses. A major objective of these interviews was to elicit more information on the rationale for their current transfer pricing policies.

RESULTS

Number of Profit Centres: Table 2 presents the analysis of number of profit centres in each of the 41 respondents and it also relates the number of profit centres in a company to its size and its ownership type. We notice that large organizations have a greater number of profit centres.

TABLE 2

NUMBER OF PROFIT CENTRES

Number of Profit Centres	SIZE IN TERMS OF SALES (in crores of rupees)				TYPE OF OWNERSHIP				TOTAL
	0 - 30	30-50	50-100	Greater than 100	Public	Family	MNC	Others	
2 - 3	3	2	2	2	3	0	2	4	9
4 - 5	4	1	5	1	2	3	3	3	11
Greater Than 5	3	4	7	7	4	6	7	4	21
TOTAL	10	7	14	10	9	9	12	11	41

Note : 'MNC' denotes Multi-national Corporation.

Our field interviews revealed that product diversity is a more crucial determinant of the number of profit centres in a company. It, therefor , follows that the size and diversity are closely related, at least in the companies included in this study. However, we do not notice any significant relationship between the type of ownership and the number of profit centres in a company. That is to say, that the extent of decentralization in a company is not significantly influenced by its ownership type. This finding goes counter to the popular notion that family-owned undertakings are not as decentralized as, say, a multi-national subsidiary.

<u>Significance of transfers</u>: In Table 3, we notice that 4 of the 41 companies do not have any transfer of goods or services across profit centres and as such, these 4 companies are excluded from further analysis. We also see from Table 3 that neither the number of profit centres in a company nor its ownership type seem to affect the significance of transfers. In fact our field interviews revealed that product interdependence amongst divisions (in terms of vertical integration, etc) affects significance of internal transfer.

<u>Transfer Pricing Policy</u>: Table 4 presents the basis followed by companies in setting transfer prices. We find that the market price based transfers are the most

TABLE 3

SIGNIFICANCE OF INTERNAL TRANSFERS

Internal Transfers As a % of the turn-over of the selling division	NUMBER OF PROFIT CENTRES			SALES (IN CRORES OF RS.)				TYPE OF OWNERSHIP				TOTAL
	2-3	4-5	Greater than 5	0-30	30-50	50-100	Greater than 100	Public	Family	MNC	Others	
0-20%	6	-	9	4	3	5	3	1	3	6	5	15
20-40%	0	5	4	2	1	5	1	1	3	4	1	9
40-100%	2	5	6	2	2	4	5	4	3	1	5	13
No Transfers	1	1	2	2	1	0	1	3	0	1	0	4
TOTAL	9	11	21	10	7	14	10	9	9	12	11	41

TABLE 4

BASIS FOR SETTING TRANSFER PRICES

Basis for Setting Transfer Prices	TYPE OF OWNERSHIP: Public	Family	MNC	Others	SALES (IN CRORES OF RS.): 0-30	30-50	50-100	Greater than 100	TOTAL	%
a) MARKET PRICE	-	5	6	5	3	3	7	3	16	47%
i) Competitor's Price	-	-	2	2	-	1	1	2	4	-
ii) List Price	-	2	1	2	2	-	3	-	5	--
iii) Most Recent Bid received	-	-	-	-	-	-	-	-	-	--
iv) Any other	-	3	3	1	1	2	3	1	7	--
b) VARIABLE MANUFACTURING COST	-	1	-	1	2	-	-	-	2	6%
c) FULL MANUFACTURING COST	2	2	5	5	3	3	5	3	14	41%
d) FULL COST (INCLUDING SELLING & ADMN. COSTS)	-	1	-	-	-	-	-	1	1	3%
e) FULL MANUFACTURING COST PLUS A PROFIT MARGIN	1	-	-	-	-	-	1	-	1	3%
i) Profit centres return on investment	1	-	-	-	-	-	1	-	1	-
ii) Profit centres return on sales	-	-	-	-	-	-	-	-	-	-
iii) Corporate return on investment	-	-	-	-	-	-	-	-	-	-
iv) Corporate return on sales	-	-	-	-	-	-	-	-	-	-
TOTAL									34	100%

Note: **Four** companies had no transfers across profit centres. In addition three companies were not included in this table since their transfer pricing policies were fixed from outside the company. Thus we have only tabulated 34 out of our 41 respondents.

popular with 47% of the companies following this method. But this phenomenon is still not satisfactory if we consider the fact that 67% of our respondents said that a similar product was available outside. This is further compounded by the fact that only 17% of the companies gave their managers freedom to sell their products outside instead of transferring them internally and similarly only 52% of the companies were given freedom to buy from outside what they can acquire internally. Our field interviews could not generate satisfactory explanations neither for the sourcing policies of companies with similar products available in the market nor for the non-use of market prices as transfer prices by such companies.

Full manufacturing cost (41% of the companies) is the next most popular basis. Only two companies followed variable manufacturing cost as a basis. This was justified since these two companies have not operated at or near full capacity for the past few years and hence variable cost become the relevant cost for decision making. Neither size nor ownership type seem to affect the transfer pricing policy. However, a notable exception is the public sector units which seem to follow a full cost system. Out field interviews pointed out that transfer prices are sometimes imposed on these companies by the government when goods are transferred from the refinery to the marketing division.

<u>Actual Vs. Standard Costs</u>: Very surprisingly, 44% of the companies using a cost based system for transfer pricing did so on actual costs (see Table 5). Though this issue was probed in the personal interviews, no satisfactory answers could be given as to why they used actual costs. This phenomenon occurred in all the public sector units included in this study. Such a practice is not desirable since under this system, the efficiency or inefficiency of one division is likely to be passed to another. While advocating the use of standard costs, we might note that standards should not be revised down if a department is able to reduce costs through innovations since such a revision would curb creativity amongst managers.

<u>Rigidity in enforcing transfer pricing formula</u>: From Table 6, we find that small organizations tend to be more flexible on their transfer pricing policies than larger ones. This may be due to the complexity of operations in large organizations.

CONCLUSION

From the above discussions, we find that transfer pricing is an issue influenced by very many factors. Judging by the number of companies using transfer prices and the enthusiasm shown by the controllers to better their system

TABLE 5

BASIS FOR FIXING COST BASED TRANSFER PRICES

Basis for Fixing Cost Based Transfer Rates	SALES (IN CRORES OF RS.)				TYPE OF OWNERSHIP				TOTAL	%
	0-30	30-50	50-100	Greater than 100	Public	Family	MNC	Others		
Actual Cost	1	2	3	2	3	3	2	-	8	44%
Standard Cost	4	2	2	2	-	2	2	6	10	56%
TOTAL	5	4	5	4	3	5	4	6	18	100%

TABLE 6

RIGIDITY OF ENFORCEMENT OF TRANSFER PRICES

Rigidity of Enforcement of Transfer Prices	SALES (IN CRORES OF RS.)				TYPE OF OWNERSHIP				TOTAL
	0-30	30-50	50-100	Greater than 100	Public	Family	MNC	Others	
Price Derived Rigidly Enforced	4	4	11	2	2	3	10	6	21
Price Derived Only Acts as Input	3	1	1	4	1	3	1	4	9
No Response	1	-	1	2	-	3	-	1	4
TOTAL	8	5	13	8	3	9	11	11	34

we can conclude that transfer pricing is a very important issue in Indian industry though we have not been very successful in an attempt to explain why a particular firm uses a particular transfer price. An answer to this question would be of immense use for practicing managers involved in evolving and administering transfer prices and hence this topic offers immense potential for future research.

FOOTNOTE

1. Though a few studies have been done in the U.S. on the transfer pricing practices of Americal Companies (Solomon, 1968; Vancil, 1979), no systematic effort has been made in India on this topic so far.

2. Public sector companies have socio-economic objectives. For the purpose of this study, we sought information from these companies only on the financial criteria they used for performance measurement.

3. These companies were selected based on the Economic Times List of Industrial Giants for the year 1979.

4. The detailed questionnaire was pre-tested on a group of 20 executives who participated in an Executive Development Programme at the Indian Institute of Management. The questionnaire was further pre-tested on a few companies in Ahmedabad.

* * *

REFERENCES

1. Anthony, R.N., and Dearden, J. Management Control Systems : Text and Cases. Homewood, Illinois: Richard D. Irwin, Inc., 1976.

2. Solomon, D. Divisional Performance : Measurement and Control. Homewood, Illinois: Richard D. Irwin, Inc., 1968.

3. Vancil, R. Decentralization : Managerial Ambiguity by Design. Financial Executives Research Foundation, Inc., 1979.

* * *

APPENDIX A

SURVEY QUESTIONNAIRE ON FINANCIAL MEASUREMENT PRACTICES IN INDIAN COMPANIES

NAME OF THE COMPANY

Please adopt the follwoing definitions in inerpreting some keywords used in the questionnaire:

> Division is a unit that is responsible for one or more of the company's 'businesses' or 'productlines'. It usually has its own marketing, production and financial staff. It may be called 'subsidiary', 'group', or by other names in your company.
>
> Functional Department is a unit performing a single function. Examples may be marketing, production, R & D, etc.
>
> Profit Centre is a division or a functional department which is evaluated on the net profit it makes i.e., it is held responsible for both revenues and costs.
>
> Products are tangible goods such as components, sub-assemblies, spare parts etc.

If you wish to qualify/elaborate your answers through additional comments, please do not hesitate to do so. Such comments may prove very helpful in aiding us arrive at meaningful conclusions.

Please tick (/) the appropriate box

How many profit centres does your company have?

2 - 3 /__/ 4 - 5 /__/ greater than 5 /__/

I TRANSFER PRICING

When one profit centre transfers products to another, it becomes necessary to attach "prices" to these transfers. Such "prices" become 'revenues' for the 'selling' profit centre and 'costs' for the 'buying' profit centre. We shall refer to these "prices" as transfer prices.

1.1 Does your company have different transfer pricing policies for different products?

Yes /__/ No /__/

If yes please select two major products which have differing transfer pricing policies. If no select a major product and provide your answers in the column marked Product I.

1.2 The amount of product (s) transferred account for:

Percentage of the total turnover of the selling division.	Product I	Product II
0 - 20%		
20 - 40%		
Greater than 40%		

Product I **Product II**

1.3 The transfer prices for the products you have selected are based on:

1.3.1 Market Price — Yes / No

If it is based on market price, the 'market price' used is derived from

* Competetiors' price
* Your list price
* Most recent bid received
* Any other (please specify)

1.3.2 Variable manufacturing cost

1.3.3 Full manufacturing cost

1.3.4 Full manufacturing cost plus a share of selling and distribution expenses

1.3.5 Full manufacturing cost plus a profit margin — Yes / No

If yes the margin is based on:

* Profit centres return on investment
* Profit centres return on sales
* Corporate return on investment
* Corporate return on sales
* Any other (please specify)

1.3.6 Negotiated between divisions

1.3.7 Any other (please specify)

		Product I	Product II
1.4	If the transfer price is based on costs, it is based on:		
	Actual costs	/_/	/_/
	Budgeted/Standard costs	/_/	/_/
1.5	Is the above transfer pricing mechanism rigidly enforced or does it only act as an input in determining the actual transfer price?		
	The price derived is rigidly enforced	/_/	/_/
	The price derived only acts as an input	/_/	/_/
1.6	Is a product similar to the one you have selected available outside the company?		
	Yes, a similar product is available	/_/	/_/
	No, a similar product is not available	/_/	/_/
	If No, please proceed to Q. 1.9		
	If Yes, please continue		
1.7	Does the 'selling centre' have the freedom to sell the product in the outside market?		
	It has complete freedom to do so	/_/	/_/
	It does have partial freedom to do so	/_/	/_/
	It does not have the freedom to do so	/_/	/_/
1.8	Does the 'buying centre' have the freedom to purchase the product from outside market?		
	Yes, it does have complete freedom to do so	/_/	/_/
	It does have partial freedom to do so	/_/	/_/
	It does not have the freedom to do so	/_/	/_/
1.9	Is the capacity of the 'selling centre' under-utilised		
	Yes, it is under-utilised	/_/	/_/
	No, it is not under-utilised	/_/	/_/