

AN HISTORICAL REVIEW OF TRANSFER PRICING THEORIES: ADDRESSING GOAL CONGRUENCE WITHIN THE ORGANIZATION

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ABSTRACT

This paper provides an historical treatise of five approaches to transfer pricing that evolved over time to address goal congruence from a perspective of profit maximization within an organization. The five approaches include: economic theory, mathematical programming, accounting theory, organizational behavior theory and strategic management theory. The economic, mathematical programming and accounting models sought to maximize profits through determination of an optimal transfer price. The organizational behavior and strategic management models provided theoretical approaches as to how the organization might resolve conflict to negotiate a satisfactory transfer price and bring about goal congruence. In addition, organizational behavior literature provided direction using the motivational aspects of profits.

INTRODUCTION

Owners and top level managers of corporations wish to maximize the long-term health and profitability of the organization. To do this, they set goals, plan and strategize how they might achieve these goals. Thus, organizational strategies evolve. In order for organizational strategies to be effective however, middle level managers must be motivated to make decisions that achieve the desired results. To motivate these managers, the concept of evaluating performance and distributing rewards based on divisional profitability developed over time.

This paper focuses specifically on tracing the historical impact of transfer pricing on divisional profitability and achieving goal congruence. As transfer prices affect divisional profits, and divisional managers each maximize their division's profits, conflicts may arise. The strategic objectives of the organization which top management was trying to motivate managers to achieve may be forgotten in lieu of these individual profits. This goal incongruence is a problem cited historically throughout the transfer pricing literature.

In a review of the transfer pricing literature, an evolution of five distinct categories or streams of literature emerge. Those are transfer pricing approaches based on:

- 1) Economic Theory
- 2) Mathematical Programming

- 3) Accounting Theory
- 4) Organizational Behavior Theory
- 5) Strategic Management Theory

The first three categories represent a quantitative focus which attempts to solve for an optimal transfer price that will be the basis divisional managers' choices that will maximize firm profits. The last two categories primarily represent a qualitative focus in which the transfer pricing problem is viewed from the perspectives of conflict/negotiation and administrative processes. It is from that final category, Strategic Management Theory, that goal congruence could theoretically occur. It is also at this point that the transfer pricing literature stopped developing the goal congruence discussion and began focusing on the tax effects of transfer pricing.

ECONOMIC THEORY

In the transfer pricing approaches based on economic theory, the firm is viewed as a mini-economy in which scarce resources need to be allocated. Just as in the general economy, prices are a mechanism to allocate these scarce resources. The objective of the economic theory based approaches is to find the transfer price that will lead the divisions, both buying and selling, to choose production levels which maximize total firm profits (Eccles, 1985). Persons within the organization are viewed as rational utility maximizers (Simon, 1978). Therefore, they hypothetically will not exhibit dysfunctional behaviors that would lead to a misallocation of the scarce resources.

The literature in the economic theory based approach to transfer pricing is built upon the Hirshleifer (1956) model. This was the first formal treatment of the transfer pricing issue from the economics viewpoint (Eccles, 1985; Grabski, 1985). This model assumed two profit centers: one was a manufacturing division and the other a distribution division. The manufacturing division had no external market for its product, whereas the distribution division had a competitive external market. Hirshleifer (1956) then analyzed the problem under varying demand conditions and concluded that when a perfectly competitive market exists for the intermediate product, it should be transferred at the market price. Otherwise, the basic conclusion yielded was to price along the marginal cost curve for intracompany transfers. This conclusion held even when the assumption of no external market for the intermediate product was relaxed. This market was then examined under situations of both perfect and imperfect competition (Eccles, 1985; Grabski, 1985).

To reach the same figures for the optimal output of each division, yet retain their autonomies, Hirshleifer (1956) suggested that the manufacturing division supply the distribution division with the quantities to be produced at specified prices. When divisional managers are evaluated based upon their divisional profits, as is often the case, the temptation frequently would exist to not supply truthful, relevant information. Thus, gaming is a possibility inherent in Hirshleifer's model (Grabski, 1985). Also, the assumptions of technological independence between the divisions are frequently not reflective of reality (Eccles, 1985).

Hirshleifer's (1956) model does have utility, however, in those situations, though they are few, where a highly competitive (nearly perfectly competitive) market exists for the intermediate product (Kaplan, 1982). Kanodia (1979) developed a proof to illustrate that Hirshleifer's analysis, in situations of perfect competition for the intermediate product, was correct. Kanodia (1979) adapted Hirshleifer's economic model, with a certain external market, to a mathematical programming approach, and then adapted the Hirshleifer model, which assumed certainty in the environment, to conditions of uncertainty. In the Kanodia model, central management is assumed

to run the linear program based upon honest reports of the manufacturing and distribution divisions. From this they obtained an ideal transfer price which they imposed on these divisions. This situation provided no incentive to report honestly; therefore, as with the Hirshleifer (1956) model, misrepresentation by management may be expected to occur.

Kanodia's (1979) then changed his model for uncertainty. The distribution division then faced a vector of market prices and probabilities for the final product. Along with uncertainty, central management added an incentive scheme where division managers receive a percentage of division profits. This situation reflected only the risk attitudes in the distribution division. The allocation of rewards would not be *pareto optimal* and maximization of the overall objective of the firm is not guaranteed

Kanodia (1979) then introduced risk sharing by the divisions (both local and global) by imposing a vector of values for the transfer price and making it conditional on the final price. In the local risk sharing scheme, the transfer price was attained by forcing a separation between divisional managers' risk aversions. A linear program is run to find the transfer price which will be imposed on the divisions. The interactions of the divisions will produce the distribution of total firm profits. Pareto optimality is achieved for the manufacturing and distribution divisions. In the global risk sharing scheme, the linear program solves for total firm optimality. Corporate objectives are considered equally with divisional managers' risk aversions and an imposed transfer price is determined. Both risk sharing schemes, local and global, are assumed to motivate management to want to increase profits.

Both Eccles (1985) and Grabski (1985) criticized Kanodia's (1979) scheme as not being incentive compatible. The approach relies on truthful communication of information between divisions, but does not provide motivation for this communication. Transfer prices impact divisional profits. Since performance evaluations are based on these divisional profits, managers would have greater incentive to favorably impact these profits. Therefore, they would be more likely to misrepresent information (Eccles, 1985; Grabski, 1985).

The economic models discussed above share the criticism of not being incentive compatible. Because transfer prices are mandated, managers would have little autonomy in setting them. As previous studies have pointed out (Jennergren, 1977; Ismail, 1982; Kaplan, 1982; Eccles, 1985; Grabski, 1985) models which rely on transfer prices being mandated by central management, could even be criticized for breaking down the concept of the decentralized firm. Yet, managers are being evaluated on divisional performance as if completely autonomous decision making had existed. Thus, their perceptions of fairness would be distorted and dysfunctional behavior would result (Eccles, 1985).

Another criticism cited regarding the economic theory approaches is that they ignored strategy. The question of what business the company is in and how it chooses to compete was not addressed (Eccles, 1985). Divisions in newer product technologies would have different cost structures and would face different environmental conditions than older, established lines. The strategic decisions made by management, of what divisions to nurture by supporting greater production and experimentation, versus what divisions to phase out or maintain at current levels, are virtually ignored. The economic models focus on profit maximization in the current term, without regard for these longer term strategic decisions (Eccles, 1985). Thus, the economic models have been criticized for only being applied in conceptually simple cases (Grabski, 1985).

MATHEMATICAL PROGRAMMING

As in the economic theory approach, the objective of the mathematical programming approaches was to determine the transfer price which yielded the best results for the firm as a whole. However, the mathematical programming approach utilized opportunity cost as the basic concept for determining transfer prices, rather than marginal cost as employed by the economic approach. The procedures of this approach introduced a pricing mechanism which determined the allocation of resources when constraints on capacity exist or when multiple buying divisions exist (Eccles, 1985).

Most of the linear programming approaches to transfer pricing solved for profit maximization as the primary constraint. Conversely, Harris, Kriebel and Raviv (1982) viewed cost minimization as the vehicle to profit maximization. By using cost minimization under varying levels of information, the authors proposed a scheme that would penalize divisions for being efficient. This scheme created a situation in which transfer prices increase as divisions become more efficient forcing the divisions to cut costs to maximize profits. Unfortunately, the authors did not consider what that might do to product quality, nor did they consider what type of work climate this would create. Harris et al. (1982) also assumed the development of realistic budgets as a prerequisite of their approach. Central management would, therefore, have to elicit truthful, relevant information to be used as the basis of these budgets from divisional managers. Once again, with performance evaluations based on divisional profits, little incentive would exist for the divisional managers to share this factual information. Gaming would again be the most likely result. Therefore, it is doubtful that the objective of long run profit maximization of the corporation would be enhanced under this scheme.

Burton and Obel (1980) simulated the behavior of planning approaches using decomposed mathematical programming models. Five different *a priori* levels of information were used under three different approaches to determine which combination performed best. The levels of *a priori* information were as follows:

- (i) No *a priori* information;
- (ii) High initial transfer price and equal resource sharing;
- (iii) Market based transfer prices;
- (iv) Equal resources sharing and production capacity constraints;
- (v) Historical prices and budgets.

The three approaches were: a price-driven algorithm, a mixed approach and a resource approach. The authors found that more *a priori* information yielded better results and that historical information became less relevant as the environment became more random. Also, they found that the price-driven algorithm performed best. Therefore, they concluded that more information available for planning in an uncertain environment enhances the planning process. However, several questions remain regarding their data. This data consisted of random numbers combined with actual price fluctuations, over a purported relevant range, in the meat industry. The demands for the product were also fluctuated over this same range. It is not clear whether these amounts replicated actual market conditions, whether they pertain to a specific firm or the industry as a whole, or even to a group of firms in the industry. Do these fluctuations represent seasonal fluctuations? Because of these unanswered questions, caution should be exercised when relying upon these conclusions.

The mathematical programming approaches, in general, fell under similar criticisms like the economic approaches. First, centralization of decision making, via mandating of transfer prices, was viewed as a threat to divisional autonomy (Ismail, 1982; Kaplan, 1982; Eccles, 1985; Grabski, 1985). Second, gaming by divisional management was encouraged due to the performance evaluation factor. Because these methods relied on conveyance of truthful information by divisional managers, they would have been difficult to implement in practice (Kaplan, 1977; Eccles, 1985; Grabski, 1985).

Ismail (1982) recognized these problems inherent in the mathematical programming approach. He therefore developed a decision rule, with fewer input requirements, to illustrate the achievement of overall optimality of divisional results. Divisional autonomy was preserved while allowing for demand uncertainty. This was done by using a stochastic model for the selling division because it would be more reflective of the uncertainty of demand in the external environment. A deterministic model was used for the purchasing division. He then developed a decision rule to “maximize the product of the amount of goods transferred multiplied by the difference between the bid and asked transfer prices,” (Grabski, 1985, p. 41). The transfer price set was a combination of the price that the purchasing division was willing to pay and the price that the selling division was willing to accept.

In summary, the mathematical programming approaches provided a means of maximizing total firm profits based on inputs from divisional managers. They required a less restrictive set of assumptions than the economic theory approaches (Eccles, 1985). However, the mathematical programming approaches ignored the firm strategy, the extant administrative processes and individual perceptions of fairness regarding performance measurement, evaluation and reward.

ACCOUNTING THEORY

The transfer pricing approaches based on accounting theory had the same objective as the economic theory and mathematical programming approaches: they sought to find the transfer price that would motivate divisional managers to make decisions that benefited the firm as a whole. The accounting theory approaches also used the same assumptions about individual motivation and incentives as the preceding approaches. The primary focus of this stream of literature was whether market price or some form of standard variable cost should be used (Eccles, 1985).

The first effort to apply Hirshleifer's (1956) theory to accounting was made by Solomons (1965). He prescribed five different transfer prices applicable to five different environmental conditions (external markets and extent of internal transfers). The first of these prescriptions was that market price was applicable when the external market was highly competitive. Kaplan (1982) later agreed. The next four were for situations when the external market was not highly competitive. They were for varying forms of cost, dependent upon how important the transfer price issue was to the organization. The final prescription was for the situation when there was no competitive external market for the product. He recommended mathematical programming to solve this situation because the producing division was assumed to be operating under capacity constraints. Also, it was assumed that most of the producing department's goods were transferred to other departments. Kaplan (1982) would have categorized this department as a cost center.

Solomons (1965) recognized the effect of transfer pricing on performance evaluation and the problems thus caused (Eccles, 1985). However, he chose to focus solely on the transfer price as a method of resource allocation. He also implicitly assumed that the buying division was forced to

source internally (Eccles, 1985). Benke and Edwards (1980) built upon Solomons' (1965) model; however they were willing to forfeit the objective of profit maximization for performance evaluation. They established a general rule for transfer pricing that prescribed standard variable cost plus lost contribution margin for most situations. They tested this general rule in various economic situations ranging from perfectly competitive external markets to no external markets (Eccles, 1985; Grabski, 1985).

Anthony and Deardon (1980) departed somewhat from Solomons (1965) and Benke and Edwards' (1980) prescriptions for varying forms of standard cost in less-than-competitive markets by suggesting that firms use market price whenever it is available. They reasoned that market price would force the selling division to constantly review its make-or-buy decisions; therefore, it would only produce what it could produce profitably. Further, Anthony and Deardon (1980) suggested three cost-based methods, but recommended they be used when neither market nor "rough estimates" of market were available. These three cost based methods were: standard variable cost plus a monthly charge for fixed costs, standard variable cost plus a portion of the contribution earned, and dual pricing where the selling division receives an approximation of the outside sales price minus a discount and the buying division pays standard variable cost.

Like Anthony and Deardon (1980), Kaplan (1982) recommended market price when the external market is highly competitive. When external markets are not perfectly competitive, Kaplan (1982), like Solomons (1965), suggested marginal cost. Due to the limitations associated with marginal cost, particularly the lack of profit, thus lack of incentive to the supplying division, he suggested a two-part transfer price. This two-part price was to be used only when the transfer is not a major portion of the supplying division's output. Kaplan (1982) held that when the transferred product represents a major portion of the output, the division should be classified as a cost center. Kaplan (1982) also recognized the performance evaluation problem and suggested that negotiated market-based prices could be used when a perfectly competitive market does not exist. However, he mentioned that the use of this method would depend upon the sharing of information among negotiators. This problem arose due to the fact that Kaplan (1982), like other accounting theorists writing on the transfer pricing issue, assumed that performance evaluations are to be based on divisional profits without consideration of each division's strategic situation.

The accounting theorists, like the economic theorists and mathematical programmers, focused on how transfer prices affect economic decisions (Eccles, 1985). These decisions, made by the division managers, regarding how much to produce based upon the transfer price, were a short-term aspect of corporate performance. Because of the performance evaluation and reward system, managers were making decisions for the short-term: that is because the quantitative methods ignore strategy in their models. Also, the performance evaluation system assumed in the models ignored strategic decisions. These strategic decisions may cause divisions to be operating under different objectives and constraints.

ORGANIZATIONAL BEHAVIOR THEORY

Grabski (1985) noted how unusual it is that only a small amount of research focusing on organizational behavior theory and transfer prices had been published by the mid-eighties. He stated that it is probably because "the transfer pricing technique is needed before the impact of the method on an individual and an organization can be addressed," (Grabski, 1985, p. 43). Unfortunately, it appears that this viewpoint was quite prevalent because very little research had been done in this area. Yet, most of the problems pointed out in the complex mathematical models cited the inability to obtain fully truthful information from divisional managers because their compensation schemes are tied to divisional profits (Kanodia, 1979; Harris, et al., 1982;

Ismail, 1982). Therefore, the technical transfer pricing schemes could not work unless they fit the organization, and are accepted by the managers as fair and neutral. Also, for these models to work, divisional profits must be seen as an appropriate evaluator for performance. The organizational behavior articles, in general, see individuals as profit “satisfiers,” rather than the profit “maximizer” view of the quantitative stream of literature. The following articles addressed the impact of transfer pricing schemes on individuals.

From the viewpoint of the impact on individuals, Earnest (1979) used transfer pricing as an example of how the expectancy theory of motivation might be used to evaluate alternative accounting procedures. The author set up a hypothetical situation comparing the incremental cost, opportunity cost, and market price methods of transfer pricing via the expectancy theory equation. Earnest (1979) concluded that market price transfers result in increased performance as evidenced by profits. Several versions of expectancy theory have been formulated, but in general “expectancy theory states that motivation is a combined function of the individual’s perception that effort will lead to performance and of perceived desirability of outcomes that may result from performance,” (Steers and Porter, 1983, p. 55). Thus, motivation was considered to be a result of both intrinsically and extrinsically motivating factors. Intrinsic rewards come from within: they are feelings of satisfaction, accomplishment, enjoyment of one’s work. Extrinsic rewards come from outside of the individual and consist of things like pay, promotion and peer recognition (Earnest, 1979). However, when Earnest (1979) illustrated how transfer pricing alternatives might be chosen, he ignored the fact that a component of the expectancy theory equation is intrinsic reward (Deci, 1975), and thus assumed that divisional profits are the only motivational force.

Ackelsberg and Yukl (1979) questioned how defining divisional profits as the motivational force in decentralized organizations affects the decision making of persons who are to be motivated by those profits. They used a business game with students as the participants to determine how smoothly the decision making process flowed with variations in the emphasis on profits. When corporate profits were emphasized, transfer pricing decisions flowed more smoothly, more integrative problem solving occurred and less aggressive, competitive behavior was exhibited. When divisional profits were emphasized, the opposite occurred. Although external validity may be questioned, due to the use of students as decision makers, the results seem to indicate that the proper focus for optimal results is the financial health of the organization, not the health of the divisions alone.

Thus, the organizational behavior literature on transfer pricing focused on the impact of various transfer pricing approaches on divisional profits and consequently on motivation. Also, the problems of using divisional profits, as opposed to overall corporate profitability, as the key criterion for performance evaluation were discussed. The primary theme of this stream of literature was managing conflict. Economic decisions and corporate performance were virtually ignored and the macro perspective of strategic management was entirely absent.

STRATEGIC MANAGEMENT THEORY

The perspective of the whole organization was taken by Swieringa and Waterhouse (1982). They looked at four models of the organization from organization theory and attempted to explain how these organization types would handle the transfer pricing problem. The four organizational models discussed are:

1. The Behavioral Model—Cyert and March (1963)
2. The Garbage Can Model—Cohen and March (1974)

3. The Organizing Model—Weick (1973)
4. The Markets & Hierarchies Model—Williamson (1975)

The organization seen by Cyert and March (1963) focuses on goals, expectations and choices. Goals emerge as a set of constraints which define acceptable performance. These goals are arrived at by a bargaining process which mixes expectations and demands. Organizations are also viewed as negotiating an environment to deal with uncertainty. In this negotiated environment, the actions of participants are “regularized” as well. Thus the organization learns and adapts over time as a result of experiences and negotiating/bargaining activities. The transfer pricing scheme was thought to evolve through this organizational learning cycle. Division managers negotiated acceptable transfer pricing rules which resulted from the goals of cost savings, reinforcing the decentralized system, etc. (Swieringa and Waterhouse, 1982).

Cohen and March’s (1963) garbage can model saw organizations as negotiating to solve problems, but being constrained by the collection of choices available. The nature of the choices made depended upon a somewhat complicated intermeshing of a mix of all choices and solutions available, all problems of the organization faces, and all outside demands. The process of transfer price choice would reflect this complicated intermeshing. The resultant transfer price scheme would reflect that problems were worked on in the context of choice. What was chosen is what would be best for the situation selected from what happens to be available.

Weick’s (1973) organizing model was a fluid, dynamic model of change. The organizing process was seen as cyclical. Members of the organization were seen as creating, or enacting, the environment to which they adapt. This is because retained interpretations largely determined what actions are responded to and what meanings are given to those actions. Therefore, the choice of a transfer pricing rule would be seen as a means of legitimizing past actions, as individuals only have their retained interpretations by which shape their choices.

The last organizing model reviewed by Swieringa and Waterhouse (1982) is Williamson’s (1975) markets and hierarchies model. Williamson saw two separate models of achieving cooperation in organizations. The first is the markets model in which exchanges are achieved by negotiating and contracting. Bound rationality (limited observational, language and computation abilities of individuals) precludes individuals from foreseeing or anticipating all possible courses of action and their contract implications. Williamson discussed how individuals may create problems in this process due to self-interest, therefore may make false claims. This has been evidenced in the economic and mathematical programming literature on transfer pricing. Managers had a disincentive to reveal truthful information because they would later be evaluated on this information. Thus the negotiation process of determining a transfer pricing scheme in a markets model organization could be costly due to time consumed “haggling and negotiating” (p. 156). The hierarchies model by Williamson (1975) highlighted organizations which economize on transactions costs by replacing a series of “market contracts” with a single incomplete employment contract and common resource ownership. Cooperation is encouraged in this model. Thus in a hierarchy, the best result for the organization as a whole would be reflected in the transfer price scheme chosen (or in the decision to purchase the products externally, if that happened to be the best result).

Swieringa and Waterhouse (1982) found that each model led to different definitions of the problem, asked different questions to analyze the problem and resulted in different answers to the transfer pricing problem. These models suggest that the process of devising a transfer pricing scheme is not a straightforward one. Forces of change and the negotiation process may conflict with pressures for organizational stability and control. Choices are not always apparent as factions’ perceptions may differ, therefore the solution may not be an optimal one as suggested in the more mathematical approaches. This

is organizational reality. Differences of opinions and perceptions often blur the view of what is best for the organization.

Swieringa and Waterhouse (1982) concluded that these conceptual viewpoints were complementary. All four models could be used to view the problem. They provided more of a description of, rather than a prescription for, the alternative processes of making complicated transfer pricing decisions. Swieringa and Waterhouse (1982) did, however, succeed in showing that “the choice and process of choice cannot be conveniently abstracted from the complications of the context,” (p. 162).

Like Swieringa and Waterhouse (1982), Bower and Doz (1979) focused on the rules and procedures when analyzing the transfer pricing issue from a business policy perspective. They concluded that these processes, rules and procedures may be as important as the prices themselves (Bower and Doz, 1979; Eccles, 1985). However, this conclusion did not result in a solution to the dilemma.

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The issue of organizational unity and goal congruence was addressed by Eccles in 1983; he stressed that it is the business strategy which determines the appropriate transfer pricing scheme.

[T]he key to the transfer pricing problem is strategy. Transfer pricing schemes are a means of generating information and control for implementing corporate, business unit and product strategies (Eccles, 1983, p. 151).

Eccles (1983) looked at various transfer pricing schemes employed by thirteen different companies. A framework for content analysis of the interviews, (approximately 150 executives were interviewed), called the manager’s analytical plane (MAP), was used. The two dimensions of the framework were the strategic variables of the: 1) extent of vertical integration and 2) extent of diversification. The results of this analysis enabled the author to develop a categorization of organization type and transfer pricing methods used. Four categories of organization types resulted: competitive, cooperative, collaborative and collective. The collective organization does not have transfer pricing because there is no interdivisional movement of products. The competitive organization is highly diversified and has little vertical integration, such as a conglomerate or a holding company. The criteria for performance in these organizations stress business unit (divisional) performance as compared to a budget, other business units or competitors. The business units depend on each other little, if at all. Two different methods of transfer pricing were found to be used: market-based pricing and dual pricing. Because the business units are essentially independent companies in the competitive organization, the philosophy of selling at market as if the products must be acquired externally was used.

Both of these transfer pricing schemes were aligned with strategy because in a conglomerate different business units may operate under different competitive strategies. Therefore, market or some version thereof would be the only fair and neutral price (Eccles 1983, 1985). Also, different transfer prices may apply to the separate divisions because of the various strategies employed. Market-based pricing was in agreement with Kaplan’s (1982) recommendation of the

market as a transfer price if there is a competitive market for the product. Divisions operated as if they were separate entities, so the pricing reflected the distinctness of the units. In cooperative organizations business units are interdependent and cooperation is emphasized. This type of company is usually vertically integrated and most of the divisions operate as cost centers. Control is achieved through the organizational structure. Decisions are made at the top and managers' evaluations and divisional budgets are based on total corporate performance (Eccles, 1983, 1985). The transfer pricing schemes in this type of organization are naturally some form of cost. Eccles (1983, 1985) found three types used: actual full cost, standard full cost and cost plus investment. Performance was evaluated in this type of company by determining what the business unit contributed to total corporate performance rather than on divisional performance alone (Eccles, 1983, 1985).

Collaborative organizations are a combination of the competitive and cooperative organizations. They have individual, competitive profit centers, yet are interdependent. There is an emphasis on measuring quantitative results for performance evaluation combined with, (due to the interdependence), the need to be concerned about other units and total corporate performance (Eccles, 1983). These companies are usually matrix organizations.

In a matrix organization, the company is organized both around product groupings and functional areas. This mixed focus was evident in the setting of transfer prices; both cost-based and market-based transfer pricing schemes were emphasized. It is extremely difficult, if not impossible to find a transfer pricing scheme which satisfies top management's need for control. Usually, the transfer price was set by negotiation. Conflict, therefore, was commonplace in this sort of organization. However, because the transfer price was negotiated, management theoretically perceived the transfer price and the reward system to be fair. Eccles' (1983) article was important because of its focus on the strategy of the organization guiding the transfer pricing policy, performance evaluation and reward. The study helped point the direction to the gap in the literature and the research issue.

SUMMARY

The economic, mathematical programming and accounting models sought to maximize total profits by determining an optimal transfer price. Division managers, as rational, profit maximizers (Simon, 1978), would choose production levels which would lead to these maximized profits. The assumption was that divisional autonomy was to be preserved at all costs. If central management mandated a transfer price which optimized corporate profits as a whole, decentralization was assumed to be destroyed. A problem with this assumption is that when managers of divisions know that they are to be evaluated on the divisional profits, gaming was encouraged. Any mathematical program that would be run using incomplete information would not be optimal, but complete information is difficult to obtain in light of the performance evaluation system which is based on divisional profits.

The organizational behavior literature focused on the motivational aspects of profits. It centered around the conflicts caused by performance evaluation based on divisional profits. This stream of literature failed to result in any concrete solutions as to what transfer price to use for overall corporate performance (Eccles, 1985; Grabski, 1985). Another complicating factor in the literature is the assumption that divisional autonomy takes precedence over total corporate performance. An organization has a variety of structural forms and organizational processes to choose from when implementing a particular strategy. The choice of structural form makes an economic difference. These choices, structural form and organizational processes, must be internally consistent and consistent with the organization's strategy, (Eccles, 1983, 1985; Galbraith and Kazanjian, 1986). The adage "structure follows strategy" (Chandler, 1962) means

that the structure is the vehicle through which the organization carries out its strategy to achieve its objectives. Being decentralized, just by its very nature, does not necessarily mean that the divisions are totally autonomous. Within any multidivisional form is the choice of the extent of divisional autonomy that is appropriate for the implementation of the strategy. Degree of relatedness of the divisions is what determines the extent of autonomy. Thus, greater diversity of a quantitative and qualitative nature requires greater divisional autonomy (Rumelt, 1974; Galbraith and Kazanjian, 1986).

Eccles (1983, 1985) addressed this strategy/structure issue by categorizing organization types and transfer pricing schemes used. The more diversified organizations used market-based transfer pricing whereas the more closely related used cost-based transfer pricing. It is the strategy of the organization that determines the control processes and these control processes should motivate individuals toward achievement of corporate objectives, rather than toward maximizing divisional results at the expense of overall profitability. Both the organizational behavior and strategic management theories reviewed touched upon these issues. They theorized how the organization resolved conflict to negotiate a satisfactory transfer price and bring about goal congruence. Eccles (1983, 1985) fit the internal pricing scheme with the strategy while considering the motivational factor of performance evaluation. Strategic management theory holds that organizations make decisions, both short-and long- term, toward achieving the long- term objectives of the company (Andrews, 1980; Byars, 1987; Schendel and Hofer, 1979). Thus, the operating systems of the organization must support these objectives as well. Eccles (1983, 1985) theorized model held that transfer prices, as part of the operating system of an organization, should be consistent with the strategy of that organization. Further, the author asserted that divisional managers perceive the performance evaluation and reward systems to be fair when the organization's strategy is considered in setting the transfer price. Essentially, Eccles (1983, 1985) held that if there is a proper fit of the organizational strategy, organizational structure and transfer pricing scheme used, then managers perceive the performance evaluation and reward systems to be fair. Further, if managers perceive these systems to be fair, they will be motivated to achieve corporate goals because they will be rewarded for such action. Therefore, gaming would end and goal congruence would exist.

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