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Abstract

This paper posits transaction costs as the reason manufacturers use dual distribution (i.e. sell to customers through both independent and company-owned distributors). Basing our analysis on Williamson's four types of transactions costs, we identify seven explanations for dual distribution. These reasons are life cycle considerations, lack of distributor competition, information costs, facilitation of collusion, manufacturer opportunism, price discrimination, customer service and manufacturer efficiencies. We conclude that the competitive effect of dual distribution depends on which of the above explanations is relevant. If more than one explanation is valid, it may be necessary to balance the competitive effects in both the manufacturing and retail markets to evaluate the practice.

I. INTRODUCTION

Manufacturers distribute their products through a number of different and complicated channels. Some firms completely integrate to the retail sector, while others sell their product to independent distributors for later resale to final customers. Still, other manufacturers opt to have a dual distribution system where they sell a portion of their product to independent distributors and sell the rest directly to final customers.¹ The theoretical considerations behind the choice of a dual distribution system are addressed in this paper. We focus on the body of economic literature dealing with vertical control to structure our analysis.

The theory of vertical control attempts to explain why firms might find it profitable to attempt to influence how their products reach the final customers. Future uncertainty about the market, lack of distributor competition, limitations on the transmission of information, and the incentive for opportunism have all been suggested as reasons that could explain why manufacturers either take more direct control of their products' distribution or impose constraints on independent distributors.

¹ A wide range of industries currently use dual distribution systems. Home appliances are sold directly to building contractors and through retail outlets for the general public. Some insurance policies can be purchased directly from the company or acquired through independent insurance agents. Tires are also distributed through mixed channels; directly to motor vehicle manufacturers and some consumers and indirectly through independent dealers to other, usually smaller, accounts.

Dual distribution represents a compromise between obtaining complete vertical control through vertical integration and either imposing various vertical restraints to control distributors or allowing the distribution market to transfer goods unfettered from production facilities to customers. We expect a careful examination of the issues relating to vertical control will identify a number of instances where dual distribution will appear to be the most efficient competitive tactic for a manufacturing firm to employ. However, we realize that dual distribution, like other vertical restraints, may be anticompetitive in certain circumstances.

The existing literature relating to dual distribution is summarized in the second section to lay a groundwork for the paper. Then, we review the concept of transaction costs as the reason why firms choose either vertical integration, vertical restrictions, or an unfettered distribution system. In the core of the study, we elaborate on particular types of transaction costs that may lead to dual distribution systems. Certain market characteristics must be present for each of the transaction costs explanations to be valid, as will be pointed out. We conclude by discussing the competitive effects of a dual distribution system. Depending upon the explanation which most correctly describes why dual distribution is used, this practice can produce either

procompetitive or anticompetitive effects.²

II. REVIEW OF THE LITERATURE

It is probably safe to say that the existing literature on dual distribution does not present a unified theory to explain the practice. However, the various papers offer some interesting insights, usually from a business perspective. We discuss this research below.

In a dissertation examining the need for manufacturers to gain promotional support from their independent wholesalers, Warshaw sets out very general reasons for mixed distribution systems. He notes that such systems "may be part of a firm's evolutionary process, by which it adapts to a dynamic market environment [13, p. 12]." On the one hand, Warshaw's evolutionary process might eventually result in an exclusively

² Before beginning that discussion, it is important to note that manufacturers wishing some control have the option of complete vertical integration, with only their stores handling the product. While such an option is available, it is not necessarily the most efficient distribution system. For example, diseconomies of scale associated with expansion into other stages of the distribution process may render vertical integration suboptimal. Instead of branching out to other stages, a manufacturer might find it cheaper to sell through independents while modifying their behavior through vertical restraints. Alternatively, the manufacturer may choose to partially integrate by setting up a dual distribution system. Because it is unlikely that complete vertical integration could be considered anticompetitive by itself, strong evidence of the noncompetitive effects of any vertical arrangements should be required before the vertical policy is condemned.

integrated industry without an independent distribution sector.³ On the other hand, dual distribution might survive as an "adaptive policy" to changes in the market.

Warshaw then indicates three factors, which would precipitate the temporary or continued use of a mixed distribution system: 1) product coverage; 2) product promotion and control; 3) and product revenue considerations. Product coverage requirements may occur when large buyers perform many, if not all, of the same functions as independent distributors, and consequently, demand direct selling efforts. A direct sales force would be necessary to compete for these customers if distributors are unwilling to offer low prices to the large buyers. Product promotion and control requirements may occur when the distributor cannot or will not provide the necessary promotion and service.⁴ A firm may have to integrate into distribution if the product incorporates a complex innovative technology and/or if excessive intrabrand competition renders the optimal levels of promotion and services unprofitable. Finally, revenue consideration requirements may occur if the manufacturer

³ In an article by W. Sichel [12], a similar concept is introduced. Sichel views vertical integration as a partial step in redefining an industry. Once a measurable amount of an industry integrates (he suggests a number of methods), downstream or upstream, then the appropriate industry definition should include those other activities. Under this dynamic concept, Sichel believes the "bias against vertical integration concerning its competitive effects would be eliminated. [12, p. 481]."

⁴ In this case, dual distribution may accomplish some of the same goals as resale price maintenance or exclusive dealing.

is trying "to tap segments of the market which differ in price sensitivity.... [13, p. 19]." In other words, direct selling might be the only means by which the manufacturer can price discriminate.

To support these explanations for dual distribution systems, Warshaw discusses a few case histories of various businesses that changed to dual systems in the carpet, semi-perishable food, and electrical appliance industries. One example cited is a high quality carpet manufacturer who started producing lower priced carpet (due to excess capacity) in the mid 1950's and was forced, for the first time, to use independent wholesalers. These wholesalers were better equipped to service the growing number of dispersed suburban retail outlets [13, pp. 28-29]. In this case, a dual distribution system was employed for adequate coverage of a market with changing demand.

In a comprehensive analysis of dual distribution within a particular industry, Savitt [10] analyzed the level of and reasons for direct selling of ethical drugs. Independent wholesalers' share of drug sales decreased from 65% in 1948 to 50% in 1963 [10, p. 127]. Savitt observed that one reason the drug industry changed to direct sales was the move to highly diverse drugs that were dispensed, rather than compounded by the pharmacist [10, p. 185]. This change in technology led to an increased liability on the part of the manufacturer, generating an increased concern over the supervision and control of their

products' distribution.⁵

In a recent analysis by the Department of Justice, Schwartz and Eisenstadt [11, pp. 66-75] offer three general explanations for dual distribution: (1) price squeeze; (2) price discrimination; and (3) efficiencies. They reject the price squeeze explanation, according to which the manufacturer tries to lower the retail price and drive the distributor out of business. A manufacturer can instead sever all business relationships with distributors and sell direct. Thus, the manufacturer has no incentive to lower price to drive its distributors out of

⁵ In a more recent general article on the subject of dual distribution, Weigand went beyond these early analyses and claimed that the presence of certain economic and legal factors can make the use of dual distribution systems virtually mandatory. He observes that:

"Products and channels are not quite as controllable as is suggested by some of the business literature. In many instances, the channel is dictated by forces that are largely beyond the control of the top marketing executive [14, p. 96]."

Later in that article, Weigand [14, pp. 104-105] groups those forces into five general categories:

1. needs of customers differ;
2. responses of customers to promotion differ;
3. responses of customers to price differ (price discrimination);
4. legal peculiarities among areas differ;
5. capability of manufacturers and/or wholesalers to distribute the product itself may be constrained.

The only factor not previously mentioned appears to be number four, but that market factor is difficult to assess since it is not adequately discussed by the author.

business.⁶

Schwartz and Eisenstadt observe that the manufacturer can use dual distribution to implement a price discrimination scheme, but they note that such pricing is not necessarily anticompetitive [11, p. 69]. Finally, they discuss a number of possible efficiency explanations for dual distribution. For example, direct selling may allow the manufacturer to service large accounts more efficiently or to maintain the optimal level of service at minimum cost. They conclude that dual distribution is usually procompetitive.

It is difficult to evaluate these analyses, because they all lack a clear underlying theory. All the papers discuss situations where dual distribution is possible, but do not offer the theory of vertical control as a mechanism to define new situations where dual distribution are likely to occur. It is to this question of theory we now turn our attention.

III. THE NEED FOR VERTICAL CONTROL

In his seminal work on firm behavior, Coase [3] suggested that the presence of transaction costs leads firms to internalize some activities which are available in the marketplace. These transaction costs, while not specifically defined by Coase, have come to mean any costs "associated with the use of the market in

⁶ One could claim that a manufacturer would earn supranormal profits in the short run by hiking the wholesale price to the distributors to force them out of business. We discuss this possibility in a later section on opportunism.

transferring a good or service from one party to another [2, p. 12]."

Thirty-seven years after Coase's article, Williamson [15] furthered this research by identifying some determinants of these transaction costs. Williamson categorized the major factors which generate market transaction costs into four categories: market uncertainty, number of potential trading partners, bounded rationality, and opportunism.⁷ The four factors interact to increase the cost of using the market process to achieve the optimal distribution system. Williamson argues that market uncertainty and bounded rationality increase long-term contracting costs and that small bargaining numbers and opportunism raise short-term contracting costs. In addition, the factors create a need for a system to detect and punish behavior that violates the terms of a contract. Thus, the combination of these four factors can make both long-term and short-term contracts with other firms in the production process, including distributors, costly and unattractive to manufacturers.⁸

⁷ Bounded rationality is defined as a condition in which human agents are intendedly rational, but only limitedly so. Thus, the decision making ability of an economic agent is limited by his ability to process information. This limitation allows uncertainty to evolve when no market uncertainty exists. Opportunism describes a situation in which human agents attempt to realize gains through the lack of candor or honesty. Basically, opportunism suggests that economic entities may attempt to take advantage of situations that evolve without concern as to the effect on trading partners.

⁸ An interested reader should consult either the original Williamson paper [15] or Blair and Kaserman [2, pp. 18-25] for a more complete discussion.

Consequently, manufacturers either integrate into other stages of the production process, such as distribution, or establish mechanisms to forestall some of the adverse effects arising from the above mentioned factors. Examples of the latter action include exclusive territories and resale price maintenance [6].

In the context of this paradigm, it is easy to see why manufacturers might find complete reliance on independent distributors difficult and costly. First, in any industry, manufacturers face uncertainty about future market demand conditions for their product. Manufacturers are not guaranteed, without long and detailed contracts, that distributors will act optimally (from the manufacturers' perspective) if market conditions change.

Second, the number of available distributors can pose a problem for manufacturers. Some markets may be able to support only a few independent distributors so a manufacturer may face a distributor cartel. Also, changes in market conditions could lead to a decrease in the number of buyers, not allowing a manufacturer to maintain a competitive distribution system.

Third, bounded rationality limits the feasibility of long-term contracts designed to minimize the effects of market uncertainty. Furthermore, bounded rationality makes it difficult for manufacturers to collude when using distributors, because the information requirements to police the collusion may become prohibitive.

Finally, opportunism can make it difficult to use distributors. The distributor has the incentive to behave

opportunistically and obtain quasi-rents from the manufacturer in exchange for providing the services or charging the prices desired by the manufacturer for particular end-users. On the other hand, a manufacturer may be tempted to behave opportunistically and directly service accounts after a distributor invested the resources necessary to obtain the account for the manufacturer. For all of these reasons, manufacturers might want to establish a dual distribution system, exerting some vertical control without investing in an entire distribution sector.

Before these motivations for using dual distribution as a vertical control practice are discussed in more detail, it is important to note that competition might be improved by dual distribution. Without this control, manufacturers might fail to realize potential cost savings, face non-competitive distribution sectors, or possibly be forced into restrictive, detailed contracts with the distributors or even into complete vertical integration. In the absence of dual distribution, manufacturers could incur extra costs, possibly leading to higher final product prices. This is not to say that dual distribution cannot lead to anticompetitive results. The competitive effects will depend on the transaction cost reduction purpose for dual distribution and the available alternatives.

IV. TRANSACTIONS COST AND DUAL DISTRIBUTION

A dual distribution system can evolve in response to any of the four categories of transaction costs cited by Williamson. A firm will adopt a dual distribution system if it is the profit

maximizing technique given the underlying structure of the industry. We discuss each transaction cost category and analyze the situations where dual distribution may evolve.

A. Market Uncertainty

One factor that manufacturers must consider when selecting a distribution system is the uncertainty of present and future demand for their product. This uncertainty may be related to the life cycle position of either a firm or an industry.⁹

Manufacturers competing in the early stages of a life cycle are probably uncertain about their present and future demand. These firms may prefer to deal with independent distributors in order to avoid investing in a suboptimal distribution network. It is not clear, however, that all these independents will be needed later in the life cycle. Once certain customers are secured by independent distributors, a direct sales effort might be established (or expanded) to optimally service the accounts. A switch to direct selling could also occur if customers no longer need special services offered by the local independent distributors. For example, one service which may no longer be needed is personal sales promotion. If the customer has

⁹ The life cycle position of a firm or industry could be generated by uncertainties concerning the product's acceptance, costs, promotions or any other factor.

developed a strong preference for a particular product¹⁰, the manufacturer might be able to service the account at lower cost. More detailed life cycle theories can be postulated for both an individual firm and the overall industry.

A firm life cycle theory posits that the use of independent distributors will decline as the firm prospers. By using independents, a new firm can sell its product without a heavy investment in distribution-related assets. This strategy serves to reduce sunk costs, because a new firm would not have to invest in industry-specific distribution capital that it might not be able to salvage if the entry failed. On the other hand, the independent distributor can simply replace one failed manufacturer with another account and continue to utilize the distribution-related assets.

The entrant can also obtain a quick exposure for its product by using independent distributors with established sales networks. Once the entrant is established, the opportunity to service key accounts internally may allow the firm to compete more efficiently against the dominant firms.¹¹ The ability to enter a market with an independent distribution system and then

¹⁰ After examining a number of dual distribution systems, Warshaw noted, "The less the degree of brand preference the manufacturers can build for his product, the more important becomes the need for coverage [13, p. 14]." In other words, if a manufacturer cannot build brand name recognition, he is more likely to require independent distributors.

¹¹ The established firm may be able to spread the fixed costs of distribution over a large output so integration is profitable.

switch some accounts to the internal system may serve to facilitate entry and expansion. Thus, a dual distribution system, under this scenario, serves to make a market more competitive.

A similar life cycle model could be postulated for an industry. In the early stages of an industry life cycle, the customers may prefer the service associated with an independent distributor. As the industry matures, the customers may provide more service internally (or need less service) and prefer to deal directly with the manufacturer. Of course, if only one class of customers exists, this analysis suggests that dual distribution will only exist when the industry changes from independent distributors to direct sales. However, in the cases where producers' goods are sold to a wide range of industrial customers, a dual distribution structure can evolve to serve the diverse customer requirements.

The life-cycle explanation of dual distribution is difficult to distinguish from opportunistic behavior on the part of the manufacturer. The key issue is whether the independent distributor is adequately compensated for the initial services provided. For example, if the new entrant offers the distributor a large margin on early sales, comparable to the distributor's costs of obtaining the customers, then the distributor will earn a normal return and accounts can be switched to the manufacturer without opportunism. Other scenarios will be discussed in more detail in a later section on manufacturer opportunism.

B. Few Available Distributors

Manufacturers must also consider the number of distributors available at the current time and in the future. As mentioned before, only a few independent distributors may exist in certain areas. In addition, future market conditions may lead to a reduction in the number of independent distributors. If only a small number of distributors exist, manufacturers may not be able to either prevent the distributors from earning supracompetitive profits or insure that the distributors provide the correct amount of service. Some sort of vertical restraint might be necessary to induce the distributors to act competitively and provide the necessary service.

Direct dealing with certain customers might be the vertical restraint that could generate the optimal level of intrabrand competition. In an article related to this subject, Harris and Weins [4] present a model where a dominant public firm can force a fringe of independent firms to behave more competitively. This model suggests that a manufacturer with a distribution system could use its position in the distribution market to improve the allocation of distribution resources.

Manufacturers might also find that even a limited presence in distribution provides a credible threat to the independent dealers of increased manufacturer selling activity.¹² If independents react to this threat by maintaining competitive

¹² Blair and Kaserman [2, pp. 124-135] discuss vertical integration as a response to disequilibrium into downstream markets.

prices and providing adequate services to their remaining customers, the manufacturers will not have to complete the vertical integration into distribution. It is possible that the threat of dual distribution could keep distribution competitive. However, one would expect to see some dual distribution to remind the other distributors that the threat of competition is credible.

Finally, it should be noted that manufacturers have the option of trying to find more distributors to handle their products and thereby lower retail margins. This alternative, however, could be a costly and lengthy procedure. First, when establishing these new outlets, manufacturers might have to incur additional costs by providing credit and other services. Second, existing dealers might have protection in their contracts from manufacturers establishing new outlets within their sales area so a manufacturer could have to wait for the contract to expire. Third, if the period of higher retailer margins is expected to last only a short time, it may be difficult to sign up new distributors. Thus, increasing the number of distributors is not always a viable option.¹³

It may be possible to determine if this explanation accounts for dual distribution in particular industries. One approach

¹³ One could argue that a manufacturer faces all these problems when opening new company-owned distributors. However, the manufacturer's entry into distribution in some local areas makes further entry more credible and enhances competition in the areas not chosen for direct sales. Thus, the manufacturer benefits from entry more than the independent distributor.

would simply count the number of distributors and compare this number to other similar industries that successfully use independent distribution. Alternatively, evidence of the inability to sign up distributors in certain areas or a chronic loss of distributors could support the hypothesis that the observed dual distribution is a response to the lack of available distributors.

C. Bounded Rationality

The concept of bounded rationality recognizes that the decision making capability of a firm is limited by its ability to receive, store and process information at an acceptable cost. It is generally assumed that the firm can utilize information at lower cost if the firm acquires the raw data directly from the market instead of indirectly from distributors [2, pp. 24-25]. Moreover, bounded rationality raises the costs associated with designing, negotiating and enforcing long term contracts, because these contracts must be complex to provide for all the possible contingencies. Thus, bounded rationality tends to make contracting solutions to the vertical control problem more difficult. This has implications for both competitive and noncompetitive markets.

1. Bounded Rationality and Competition

Bounded rationality implies that problems with the transmission of information into an organization may make long term contracts between manufacturers and distributors either more expensive or even infeasible. Such a long term contract must

specify the rights and responsibilities of the parties to the contract for a large number of scenarios, because the firm can not cost-efficiently analyze the available information to correctly predict the future even when market uncertainty does not exist. Thus, long term contracts may be very complex, because they must be written to simultaneously deal with both the market uncertainty and bounded rationality problems.

To avoid the need for long term contracts, the firm has an incentive to vertically integrate into distribution. A firm may be able to acquire the necessary information to negotiate relatively short-term contracts with distributors if it uses dual distribution. We expect a firm, employing dual distribution to control the bounded rationality problem, to serve a representative sample of end-user accounts.¹⁴

Abstracting from the obvious contracting problem, dual distribution may provide the firm with direct access to all types of customer information. For example, the firm could quickly obtain performance data from its direct consumers thereby facilitating product improvements. Moreover, sales techniques, pricing policies and service networks could be better evaluated. Overall, dual distribution may be one approach used by manufacturers to reduce the information-based transactions costs of competing in a market. If these information costs are high

¹⁴ It is also possible that a manufacturer might only need to find out information in certain end-use markets and not in others. Consequently, the firm may integrate into the distribution only for end-use markets where information is necessary.

when the market is in a state of transition, we should expect to find dual distribution to be more prevalent in dynamic markets than in static markets.

2. Bounded Rationality and Collusion

Bounded rationality also has an effect on the ease of collusion. When dealing through distributors, manufacturers must gather information to ensure that any collusive agreement is being upheld and then be able to effectively respond to any competitive action. If these requirements become excessive, the firm may not be able to police the collusive agreement and the manufacturer collusion will tend to disintegrate. Dual distribution can make collusion more likely in industries with structures conducive to collusion by reducing the costs associated with maintaining a collusive agreement.

Assuming the manufacturers could generate a collusive arrangement, dual distribution may enhance the maintenance of

that agreement in two ways.¹⁵ First, direct selling might improve the information flows between the companies concerning certain customers.¹⁶ Without direct selling, rival manufacturers cannot determine whether special deals to entice certain customers originate from the manufacturer or the independent dealer. Monitoring collusive arrangements then becomes difficult, if not impossible, for the participants, making such arrangements unlikely to survive. On the other hand, if the manufacturer sells directly to those customers thought to be targets of discounting, rival firms will know that any observed or inferred cheating on the agreement is due to competitive action by the manufacturer, not the independent dealer.

It is particularly important for manufacturers to be able to detect cheating when there are large benefits from competitive

¹⁵ One could argue that dual distribution raises entry barriers by forcing a new manufacturer to enter both production and distribution at the same time. However, this argument is credible only if independent distributors are not available. In a dual distribution system, independents remain and can be used to facilitate entry. In industries where the degree of vertical integration is increasing, underemployed distributors should be more than willing to take on new manufacturers and make entry easier than it would be if the level of vertical integration was constant. This analysis might be incorrect if the incentives for opportunistic behavior on the part of manufacturers had increased, because a distributor could not justify building a distribution system for an entrant only to lose its customers to opportunistic sales tactics once the network was established. However, the manufacturer could still obtain distribution by offering larger margins.

¹⁶ A similar explanation has been suggested to explain the existence of resale price maintenance programs in certain industries. For a review of this literature, see T. Overstreet [6, pp. 19-24].

behavior, as is the case with sales to customers with relatively elastic demand functions [8, p. 57]. Thus, a dual distribution system designed to facilitate collusion would tend to focus on serving customers with elastic demands. Of course, a price discrimination theory for a dual distribution system (discussed later) is another explanation, with respect to targeted price elastic customers.

Second, dual distribution may facilitate retaliation once a price discount has been detected. A manufacturer with a dual distribution system can offer direct discounts to selected customers (e.g. key accounts of a competitive rival) without offering the same discounts to all its other accounts (especially those served by independent distributors). If the manufacturer only used independent distributors, any price cut would be more difficult to target towards selected customers. This implies that retaliation policies would be cheaper to implement when a firm uses dual distribution. As retaliation for a price discount becomes cheaper, competitors recognize that it is more likely, hence they tend to refrain from competitive price discounting. Thus, dual distribution can serve to facilitate the maintenance of collusive pricing.

In conclusion, for either of the collusion scenarios to be plausible, two additional conditions must hold. First, the industry structure must be conducive to collusion.¹⁷ Second, a

¹⁷ For a list of conditions conducive to collusion, see Posner [8].

substantial number, or maybe all, of the major competitors must have their own direct selling effort. If not, the firms without direct selling efforts would not be able to detect or deter competitive behavior as well as their competitors. Thus, these firms will tend to face more competition and it is more likely that any collusive agreement will break down.

D. Opportunism

In contracting with distributors, a manufacturer would like to bind the distributor to behave in a manner to maximize the manufacturer's profits, while the distributor would like the manufacturer to at least guarantee him a competitive return. However, these hypothetical contracts are probably unenforceable, so either the manufacturer or the distributor may undertake post-contractual opportunistic behavior by attempting to increase their profits through dishonest action.¹⁸ Once faced with opportunism, the trading partner's alternatives are limited to simply severing the business relationship or possibly a law suit. Both alternatives might be costly to the firm. Thus, the victim may find it more profitable to allow the opportunistic firm to capture the profits. However, one can expect the victim to undertake actions to minimize the possibilities for opportunism before entering into the contract. These can range from instituting certain policies to prevent opportunism (e.g., vertical integration and restraints) to refusing to participate

¹⁸ See [5] for a general discussion of opportunism.

in a market unless the projected returns allow for opportunism. In an extreme case, the possibility for opportunism can prevent the market transaction. We can conclude that the threat of opportunism restricts the viability of market-based contractual relationships.

In vertical relationships, opportunism can affect both distributors and manufacturers. Distributors may have problems preventing manufacturers from behaving opportunistically and stealing accounts. Manufacturers may have problems preventing distributors from behaving opportunistically and failing to carry out either the optimal pricing or service schemes, unless they are given a premium payment. Also, if it is efficient to have one national distributor, the distributor could try to extract a share of the efficiency profits from the manufacturer. Given these opportunism problems, firms have an incentive to integrate or impose vertical controls. We discuss these four opportunistic possibilities below.

1. Manufacturer Opportunism

It is theoretically possible for a manufacturer to behave opportunistically with respect to its distributors and "steal" the customer accounts developed by the distributors if the industry changes such that independent distribution is no longer as efficient as it once was. The basic concept envisions a manufacturer abandoning independent distribution for a class of customers, because the incremental profits are greater than the costs of opportunistically selling direct. The opportunistic profits are the savings from selling direct after the distributor

invested resources to build a customer base. The incremental costs of opportunism include the foregone profit on sales to accounts that distributors would have obtained if the manufacturer was not opportunistic. Also, retaliation by the distributor can lead to lower profits if the distributor can convince accounts to switch to other manufacturers. The present value of the opportunistic profits must exceed the present value of the costs for opportunism to occur.

Opportunistic behavior by manufacturers might explain temporary changes in the degree of direct selling in an industry using a dual distribution system.¹⁹ If demand is very sensitive to changing economic conditions, a national sales force (established for other reasons) might frequently face severe declines in demand. Instead of laying off employees for short periods of time, manufacturers might direct their selling efforts to accounts previously serviced by the independents. This reaction could occur because the manufacturer's opportunity cost of selling direct to more accounts is probably lower during times of economic downturns. Obviously, this redirection of selling efforts is constrained by the manufacturer's future need for an independent distribution system.

There are two reasons why we have little concern about manufacturer opportunism as an explanation for dual distribution.

¹⁹ This explanation is obviously not applicable for customers who have always been serviced by a national sales force. Direct selling of those customers might better be explained by a cost saving or revenue enhancing argument.

First, in order for this explanation to be correct, one has to assume that distributors do not expect this opportunistic behavior. If the distributor thought the manufacturers would take accounts obtained by the distributor, the independent would not have as much incentive to invest resources to develop accounts. All distributor expenses would have to be covered by the distributor margin on current sales. Under this condition, (i.e., distributors recouping investments in the initial period), manufacturer attempts to sell direct are not opportunistic. Thus, manufacturer opportunism is only likely to be an explanation for dual distribution if it results from structural changes in the market. Second, even opportunism from structural change in the market does not necessarily injure competition. Each distributor knows that structural change and the resulting opportunism is a possibility when making investments in distribution-related assets. Thus, the distributor would require a risk premium to develop new accounts. Assuming the distributor is compensated for the risk of losing accounts, opportunistic behavior in the distribution market may not have adverse competitive effects.

2. Price Discrimination

Direct selling to selected customers may allow a manufacturer to implement a price discrimination scheme.²⁰ Such price discrimination would require the firm to be able to identify different demands for groups of customers and prevent the resale of the product.²¹ In industries characterized by the presence of independent distributors, a dual distribution system may be the best method to guarantee that the profit maximizing discriminatory prices are charged.²² By exerting no vertical control (i.e., using a completely unfettered independent distribution system), manufacturers could not always guarantee lower prices for the customers who have the most elastic (price sensitive) demands. Even if the manufacturers gave discounts to these dealers, it would be difficult to insure that the entire discount is passed on to the final customer.

The distributor might have an incentive to opportunistically keep some of the discount for itself and charge the favored

²⁰ Phillips [7, p. 6] defines price discrimination as a firm selling two varieties of a commodity to "two different buyers at different net prices, the net price being the price paid by the buyer corrected for the cost associated with the product differentiation."

²¹ Price discrimination can be based on a collusive agreement to charge price inelastic customers a high price or unilateral action by each firm to charge customers with price inelastic demands for the firm's product a high price. In either case, one class of customers pays a high price, while another class of customers pays a low price.

²² Blair and Kaserman [2, pp. 120-124] also touch upon this possibility.

customers higher retail prices than the manufacturer desires. Also, the distributor may opportunistically sell discounted product to other customers who the manufacturer may want to pay full price. Thus the possibility of opportunism makes it difficult for a manufacturer to implement a price discrimination scheme through independent dealers.

Assuming a manufacturer determines the gain from charging different prices to final end use customers is worth the added cost of establishing more than one channel of distribution, a manufacturer must itself prevent low price buyers from acting as arbitragers and reselling product either to independent dealers or customers of those dealers. One way this could be accomplished is by monitoring the purchases by the direct account to insure that an amount over what the company could reasonably use itself is not purchased. Another strategy could be to refuse to honor warranties unless the product was bought directly from the firm or through a licensed independent dealer. If these or other strategies do not work, however, price discrimination would be less profitable, and thus, less likely to explain the distribution system.

Given that the manufacturer can prevent arbitrage, the output and welfare effects of a dual distribution-supported price discrimination scheme are not clear. As is well known in the economics literature,²³ this type of price discrimination can either increase, decrease, or keep constant (relative to without

²³ The first to point out this result was J. Robinson [9].

discrimination) the output sold by the manufacturer. The final comparison will depend upon the demands of the various groups, and whether all groups were being served prior to the discrimination.²⁴

For a dual distribution system to facilitate price discrimination, it must separate customers into two classes based on characteristics that proxy the elasticity of demand. Moreover, the system must incorporate either explicit or implicit restrictions on the ability of the low-price customers to resell the product.

3. Efficient Provision of Customer Service

Besides being differentiated by their respective demands, customers might be grouped together by specific services they can or can not efficiently provide for themselves. Distributors may not desire to serve the particular needs of the customers or may attempt to opportunistically extort higher payments from a manufacturer to adjust their distribution format to the customer needs. Thus, the manufacturer might institute some form of vertical control to efficiently serve a particular class of customers.²⁵ It could easily be the case that providing the special services and selling the output are not easily separable. As a result, the manufacturer who provides the special services

²⁴ R. Battalio and R. Ekelund, [1] discuss this second possibility and the resulting output effects.

²⁵ Savitt [10, p. 187] mentioned this possibility when he wrote, "To the extent that intermediate institutions perform fewer and fewer functions, they become obsolete members of the marketing system and, hence, their survival becomes threatened."

may choose to sell direct.

One specific group of customers could prefer to deal with one national distributor to achieve efficiencies from a single source of billing and the ability to obtain product anywhere in the country. A national distributor, however, might behave opportunistically towards the manufacturer since regional distributors cannot efficiently serve these national customers. Thus, a firm might find it more profitable to sell direct to national accounts.

This form of dual distribution should be easily highlighted by the special services provided by the manufacturer. These services should differ from the usual services offered by distributors, although the actual difference may only be one of degree so careful analysis may be necessary to detect the efficiency.

4. Manufacturer Efficiencies

While customers might be grouped together by the services desired, they might also be grouped by the differences in the costs of service. In order to realize these cost savings, manufacturers might have to establish a national sales force. Once again an independent national distributor could behave opportunistically and capture some of the efficiencies from servicing large accounts. A number of cost savings are possible when one sells to large accounts. The most noticeable could be transaction cost savings when the firm sells a large quantity directly to one customer instead of selling that same quantity through many different outlets. Another potential cost savings

could be in repayment time. Dealers typically receive time to pay for the product they order, while direct accounts may be willing to pay upon delivery. For certain large accounts, this amount may be sufficient to induce direct selling. Inventory costs could also be lower, because the large national distribution center could maintain the same speed of delivery with lower inventories.

Still another possible cost savings resulting from direct selling to certain customers involves the optimal use of the manufacturer's facilities. Through direct dealing, a manufacturer may be able to discover selected customers' sales requirements and then schedule their production accordingly. For certain large accounts, this information may lead to substantial production cost efficiencies if that production can be scheduled when capacity is available.

Manufacturers employing a dual distribution system due to firm efficiencies should also be able to identify the cost savings that result from dealing with particular customers. Also, the customers should tend to be homogeneous (i.e., large firms or firms in a particular line of business). Finally, one would expect all comparable firms in the industry would use dual distribution under this explanation.

V. CONCLUSION

The use of a dual distribution system may affect competition in both the manufacturing and retail market for a product. The competitive effect depends, in large part, on which explanation(s) proves to be relevant. For example, if the firm

efficiency scenario is relevant, a dual distribution system would lead to lower prices at both the manufacturing and retail level. On the other hand, if dual distribution facilitated collusion among manufacturers but increased competition in distribution, the dual distribution system could increase manufacturing margins, lower distribution margins and have an indeterminate effect on price.

The facts of the particular case can go a long way in eliminating individual explanations for dual distribution. For example, the collusion scenario is only viable in structurally noncompetitive markets where dual distribution is employed by a number of competitors. Manufacturer opportunism typically requires a structural change in the market to trigger the shift to dual distribution. Uncertainty explanations assume that some form of product life cycle can be identified in which the attractiveness of independent distribution changes. Of course, we cannot guarantee a unique explanation for dual distribution will exist for any set of facts. However, analyzing the dual distribution problem with our methodology should structure an otherwise more complex problem.

Finally, an evaluation of the competitive effect requires an assumption concerning the policies that would exist without dual distribution. It is probably easiest to measure the competitive effect of a dual distribution system relative to a situation of no vertical control, because the effects of dual distribution are more noticeable. However, the manufacturer also has the options of complete vertical control or the use of other vertical restraints. Either of these policies could capture some of the

benefits of dual distribution, although the net benefits might not be as large. Moreover, the other policies could be used to generate anticompetitive effects analogous to the dual distribution effects. Thus, an evaluation of the net competitive effect of a dual distribution system could be difficult. However, an analysis of the effects of dual distribution relative to a situation of no vertical control may identify the particular cases where anticompetitive effects are possible and further study is warranted.

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