PRIVATE LABELING OF MILK AND THE IMPACT ON MARKET STRUCTURE

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INTRODUCTION

Branding, as a means of product differentiation, is a practice of long standing in the food industry. Historically, food manufacturers have used brands as a means of gaining a larger share of the market while avoiding the consequences of direct price competition. Merchandising food, particularly dairy products, under private label brands,[1] however, is a practice of more recent origin.

Introduction of private label brands of dairy products can be traced to that period of the 1920s when private label brands of evaporated milk first appeared in some markets. This was followed by private label brands of butter in the 1930s and fluid milk and ice cream during the 1950s [6, p. 44].

Today, private label brands account for an increasing portion of dairy products moving through the market system. For example, a recent study involving major food chains operating in Kentucky and the North Central region showed that two-thirds (65 percent) of the chains interviewed had some type of central milk buying program. Seventy percent of the food chains with central milk programs (excluding chains which owned and operated their own milk processing facilities) carried their own private label brand of milk which accounted for 56 percent of their fluid milk sales [5, p. iv].

This increased use of private label brands of fluid milk has no doubt influenced the structure of fluid milk markets. Studies in recent years have tended to focus on the extent and growth of private labeling in the dairy industry as associated with changes in market structure from a broad national market perspective. For many dairy products this approach is logical since their market tends to be national in scope. Fluid milk markets, however, differ. While market areas have greatly expanded in recent years, fluid milk markets are still considered to be somewhat local in nature.

Thus, this study was an attempt to analyze the effect of private label brands of milk on the structure of local fluid milk markets. Through personal interviews with plant managers, data were obtained relative to: (1) initial changes in the number of competitors and market shares with the introduction of a private label brand of milk into major fluid milk markets in Kentucky and (2) management's reactions about the effect of private labeling on market structure.

ROLE OF PRIVATE LABEL BRANDS

Crucial to any inquiry into the impact of private label brands on market structure is an understanding of their role in marketing milk. In theory, brands have been treated solely as a means of product differentiation and, thus, a nonprice competitive device used primarily as a way of avoiding the consequences of direct price competition. Chamberlin discusses product differentation as a method whereby a seller, operating under conditions of monopolistic competition, separates his market from those of his rivals [4]. Bain recognizes the importance of product differentiation as a significant struc-

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[1] Private label refers to merchandise packaged mainly to a distributor's specifications for resale only by that distributor under a brand name owned by the distributor.

tural variant from the standpoint of influence on the conduct and performance of sellers operating within the markets [1]. In both cases, product differentiation (branding) is dealt with primarily in terms of nonprice competition. Thus, the role of brands in our imperfectly competitive theoretical framework is that of a nonprice competitive device.

Some evidence suggests that private label brands have begun assuming the role of a means of direct price competition. In this changed role, private label brands become a vehicle for engaging in direct price competition at both the wholesale and retail levels [2, 3].

Accepting this changed role helps explain the accelerated growth rate of private label brands in fluid milk markets. Because they provide an effective method of engaging in direct price competition, both fluid milk processors and retail food chains have become involved in private labeling. The processor engages in private labeling to remain competitive, pricewise, in the market and to retain counter space in the supermarket. The retail food chain uses private labels as a means of vertical integration either through owning and operating milk processing facilities or contracting through a central milk buying program. In either case, the objective is to secure their own brand of fluid milk that will retail at a lower price than the processor brands.

Therefore, the consequences of introducing a private label brand of milk into a local market may differ substantially from that of introducing an additional processor brand. The remainder of this paper is devoted to an examination of the impact of private labeling on the structure of local fluid milk markets.

RESULTS AND DISCUSSION

Effect of Private Label Brands on Market Structure

Market structure is more inclusive than either the number of firms operating in a market or the market shares controlled by each firm. Since these are frequently used measures of a change in structure, much of this analysis centered around changes in number of firms and market shares when a private label brand was introduced into a market.

The analysis is divided into the following parts: (1) managers' responses regarding impact of private label brands on number of firms in local markets, (2) shifts in market shares and (3) managers' reactions about the overall effect of private labeling on market structure.

Number of competitors

An attempt was made to get some idea of changes in structure by asking handlers to identify instances when competitors left a market following the introduction of a private label brand. Managers identified a total of 21 firms that had left seven major market areas because of competition from private label brands. The number of competitors eliminated ranged from one to seven per market.

Market Shares

To evaluate the impact of private label brands on market shares, managers were also asked to estimate their share of the market one year prior to and one year following the introduction of private labels in various markets in the state. These estimates, plus data from other sources, provided the basis for an examination of three selected markets (Lexington, Paducah and Bowling Green) in detail. The results are summarized in Table 1.

The reason most often given for changes in firms' shares in a particular market was usually associated directly or indirectly with private labeling. Market shares decreased in some cases because private labels had come into a market area and had obtained some of the wholesale business.

Some processors lost an outlet because a retailer started packaging his own brand. In this situation, handlers were dealing with a food chain that had entered into processing and was supplying its own retail stores.

Some processors, who had been packaging private labels for retailers, lost accounts. Others lost shelf space in the store. This is not uncommon, since the retailer controls the amount of space allotted to each brand. Some handlers refused to process private brands and as a result, lost a share of the market.

Firms increasing their shares in some markets did so through either (1) negotiating a contract enabling them to supply one or more private labels or (2) obtaining increased shelf space in stores.

Overall effect of private labeling

To further study the impact of private label brands on market structure, managers of fluid milk processing plants were asked to expess an opinion about various statements concerning market structure. They were asked to assign numerical values to these statements ranging from -99 (strongly disagree) to +99 strongly agree). All were asked to respond regardless of whether private label brands were packaged by their firm. Thus, the analysis could be divided into two parts, responses of (1) those who packaged private label brands and (2) those who did not. The individual statements, means, and F values are shown in Table 2.

Table 1. NET CHANGE IN MARKET SHARES OF FLUID MILK PROCESSORS IN SELECTED KENTUCKY MARKETS PRIOR TO AND FOLLOWING THE INTRODUCTION OF PRIVATE LABEL BRANDS

	Market Shares (Percent)[a]		Reason for Change
	Prior	Following	
Lexington market (population: 131,000)			
Processors			
A	20	20	No change
B	10	35	Packaged the private label brand
C	20	30	Paper containers
D	15	10	Loss to private labels
E	25	*	Out of business
F	10	*	Out of business
G	*	2	Expansion of distribution area
H	*	1	New firm
I	*	1	Expansion of distribution area
J	*	1	Expansion of distribution area
Paducah market (population: 34,000)			
Processors			
A	2	4	N/A
B	7	*	Lost counter space to private label
C	4	8	Packaged one private label
D	55	57	N/A
E	32	30	Loss to private labels
F	*	1	Expansion of distribution area
Bowling Green market (population: 28,000)			
Processors			
A	25	35	Packaged private label
B	45	45	No change
C	20	*	Out of business
D	1	*	Out-of-state firm - retraction
E	9	*	Out-of-state firm - retraction
F	*	15	Expanded distribution area
G	*	1	Expanded distribution area
H	*	1	Expanded distribution area
I	*	3	Expanded distribution area

[a]Market shares were computed from a combonation of primary data collected from processors and data from other sources. For the Lexington and Bowling Green markets, the comparison was made during the period of one year prior to and one year following the introduction of private label brands. Because of limited data for the Paducah area, the comparison was based on market shares two years prior and one year following.

*Processor either entered or left marketing area during the period under study.

Table 2. REACTIONS OF MANAGERS TO STATEMENTS CONCERNING THE IMPACT OF PRIVATE LABEL BRANDS OF MILK ON MARKET STRUCTURE, KENTUCKY FLUID MILK PROCESSORS, 1972

Statement	Mean Score		
	With Private Label	Without Private Label	F Value*
1. Private label contracts are advantageous to large processors	45.6	65.4	0.08
2. Private label brands of fluid milk have forced some small processors out of business	59.9	59.6	0.00
3. Private label brands of fluid milk have forced small processors out of some markets	44.2	58.2	0.58
4. Private labeling is one way for retailers to gain market power	59.8	57.1	0.03
5. Private label brands inject a greater degree of risk for the processor because business is in large lumps	79.4	51.7	5.02**
6. Private label brand contracts between retailers and processors provide stability in markets	34.6	59.0	0.66

*Analysis of variance was used to test for differences in responses by the two groups (those that packaged private label brands and those that did not) to each statement. An observed value of F greater than the value given in the F-distribution table at .05% signficance (4.24) indicates a significant difference between the two groups.

**Significant difference at the 5% level.

It has generally been accepted that private label accounts are particularly suited to large-scale processors. Since many such accounts are with food chains, the volume required could be quite large. All respondents tended to agree that private label accounts are advantageous to larger firms. It is possible, too, that some firms might not be able to handle certain private label accounts because of the size of their operations.

A reduction in the number of firms operating in any market could come through processors being forced out of a market area and/or out of business. If a processor is given the chance to handle a private label account and refuses to do so, someone else will probably be more than willing. It is also possible that a processor will not be given the opportunity to package a private label. In either case, much needed volume may be lost. Managers of both groups tended to agree that small processors had been forced out of some markets and, in some cases out of business, because of private label brands.

There has been concern over the possibility that retailers have gained market power via private label brands. Retailers know that these brands will sell and are shifting to them. There is some competition for private label accounts and competition usually breeds lower prices, better service or both. Again, these lower prices could be extended to the processor's own brand, thereby giving an impression of increased market power. Individual handlers appeared that some bargaining power had shifted to the retailer.

If a processor has most of his business concentrated on trying to fulfill private label accounts, there is always the possibility that these accounts will be terminated suddenly, leaving a firm with much less business than before. An extreme case could cause the firm to close. While processors expressed similar opinions, a significantly greater number of those packaging private labels were aware of the increased risk associated with private label contracts. Perhaps some processors had actually experienced the sudden loss of an important account, whereas those managers not packaging private label brands could only speculate about the possibility.

An attempt was made to determine if managers thought that a more stable market situation could be brought about through contractural agreements between processors and retailers. Processors generally agreed that variations in price and volume could be decreased. However, the number agreeing differed in the two groups. Evidently, fewer of those packaging private label brands had actually experienced any increased stability. This is not surprising, however, since it was found that most operated private label accounts very similar to their other accounts, rather than on any formal contractural basis.

OBSERVATIONS AND IMPLICATIONS

Evidence suggested that private label brands of milk had indeed affected the market structure of the three local fluid milk markets studied. While some instances of firms being forced out of a market area were cited, perhaps the greatest recognizable shift occurred in market shares. Although small shifts in market shares are normal and expected for most markets, the most noticeable shifts recorded were attributable to introduction of a private label brand into a market.

This leads to some interesting implications for both market structure and the competitive behavior of firms. First, the lumpiness of private label accounts leaves firms in a vulnerable position because the loss of one account could shift market shares drastically.

Secondly, private label brands can have a significant influence on barriers to entry of new firms. Characteristically, private label accounts are relatively large. The small firm is not only unable to handle such accounts but would be at a competitive disadvantage in trying to compete pricewise in a market dominated by private labels. Thus, both the number of firms in a market and market shares become inaccurate measures of the competitive situation in some given market. The presence of private label brands injects a new dimension into our structural framework.

Private labeling and shifts in market structure, in turn, influence the competitive behavior of individual firms. This aspect has been explored more fully in a previous publication [3].

One final observation: the reactions of plant managers regarding the overall impact of private labeling on market structure largely reinforced case study findings. The conclusion reached from both sets of data is that the introduction of a private label brand of milk into a local market can and likely will influence the structure of that market.

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