

# FOOD DISTRIBUTION RESEARCH PRIORITIES TO ALLOW MAJOR IMPROVEMENTS IN TOTAL SYSTEM PRODUCTIVITY BY 1985

Food Retailing  
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It appears that the total system concept for food retailing is an idea whose time has come and one whose objective for the obtainment of optimum performance by having the complex operation fully integrated and coordinated is both timely and desired. There are numerous technological, social, and economic changes that have acted as catalysts to make the systems concept and the obtainment of its productivity objectives a high priority issue for the retail food industry, labor, government, and consumer.

## Uncertainty of the Economy of Great Concern

The extraordinary uncertainty of the economy is of great concern in the U.S. today. Unemployment and the projection that this problem will remain with the nation for a number of years has gotten the public's attention. In addition, there is now a realization that double digit inflation is possible with high employment. Also, our present fuel supply is finite and will be more costly as oil producing nations utilize their market power and as the cost of producing energy in the U.S. races to keep up with the need. The "Third World's" efforts to upgrade their level of living by utilizing their bargaining power for other scarce commodities will further add to the input cost of agriculture and industry, thus making inflation a continuing threat and a reduction in real expendible income and level of living of U.S. consumers a real possibility. This has led to the consumer-government-labor challenge of industrial

leadership in this Nation, with special attention being given to the food industry, whereby encouraging this industry (retail food) to examine every facet of its operation to see where productivity improvements can be made.

## Technological Improvements Available

Industry is fortunate that numerous technological developments are in a stage of implementation that will make improvements in productivity possible, especially if industry receives the cooperation of labor, government, and consumers. Probably the most significant of these technological changes will be universal product code scanning that's being proclaimed as the revolution at the checkout counter. Central processing, especially of meat, has also been technically sound for a decade and now with pressure from regulatory groups for improved sanitation and with the support of labor and consumers who are interested in lower food prices, it could become economically feasible and contribute to the promised productivity improvement.

## Food Retailing Phase of Systems Concept

The food retailing phase of the total systems concept for greater productivity will be considered in three segments: (1) issues related to supplying stores; (2) in-store productivity; and (3) external forces affecting store productivity.

## 1. Supplying Retail Stores

A new discipline, plus several new methods of combining logistics with merchandising at retail, and a recent research study could provide the force for greater productivity in the supplying of retail stores.

### PDM Discipline

The new discipline of physical distribution management was initiated by the computer in the 1960's. It is concerned with economic evaluation of related activities that had not been coordinated before, with an allowance for tradeoffs of factors enabling the finding of the best possible service at the lowest possible cost. Such activities as scheduling and receipt of merchandise, warehouse activity, transport to stores and management of inventory, are included in the PDM package. The inventory management element is most significant as it analyzes orders to establish guidelines for buyers and takes into account interest, transport costs, storage costs, damage and physical obsolescence.

The PDM system makes all concerned aware of the conditions that exist in each area of cost and services and provides opportunity for evaluating economic tradeoffs among distribution, merchandising, and operations. Studies are needed to determine how this new discipline can best be utilized to achieve the productivity goals of the retail food industry.

### Savings From Consolidated Loads

A yet unpublished ARS-USDA study of improved distribution procedures through consolidating loads indicates that combined delivery systems can result in 80

percent fewer deliveries to supply the needs of an average retail food store. This study points out future research needs as being improved facilities for assembling and handling combined deliveries, improved methods for delivering to and handling foods at small food stores in urban and rural areas, and improved methods, handling, and equipment in the wholesaling and retail areas of food distribution.

### Limited Assortment Food Stores

The hypermarket, warehouse-type supermarket, and super stores have all introduced a wide variety of methods for moving products with less manpower. Large wire baskets with shelves full of high volume items, called pallet-tainers, are being used by Jewel Food Stores. A forklift truck scoops up a pallet-tainer in a store room and places it in a special steel rack in the display area, thus eliminating the store shelf stocking of these items. Reloading of milk in display cases is another labor saving innovation with milk cartons that have been stocked on carts being moved directly into the dairy display case.

Pathmark's new experimental store is also giving special attention to improved handling procedures. The new unit displays merchandise in cut cases on inexpensive shelving; the store has two perimeter aisles and a wide center aisle running front to rear. Product moves off the truck in the front door and onto the shelves.

Much of the experimentation in logistics retailing has been stimulated by the European productivity sensation-- the Limited Assortment Discount Food Store. Since many European countries were hit sooner and more dramatically by inflation than the U.S., this 400-1,000 item retail food store with 36

inventory turns, a 3.5 percent payroll expense, and a nine percent total operating expense, is attracting the attention of food retailers worldwide. The limited item stores have been impressive with their increase in the share of the market and in competition with other types of retail stores. The key to success is the high rate of productivity that has been obtained by utilizing advanced handling and merchandising techniques. Price marking is done at the warehouse or not at all. Merchandise is containerized-palletized with shrink wrap, in wire baskets, and is fork lifted into display position on the sales floor.

The new physical distribution management discipline and the U.S.D.A. recommendations for consolidating loads and the new experimentation in limited item discounting will challenge the researcher and operators to develop optimum procedures for determining order size, frequency and time of delivery, type of receiving facility and equipment, size of receiving area, if any, store aisle and door width, pricing and display procedures, and methods of checking deliveries.

## 2. In-Store Productivity Issues

The electronic cash register (ECR), when upgraded to universal product scanning in addition to hard savings and check-out productivity, will change in-store merchandising away from an art to more of a science. The data that the ECR will generate should provide timely, accurate, and meaningful information for handling such problems as in-store department, commodity group, and individual product location; inventory and shrinkage management; selection and space allocation; advertising and promotion effectiveness;

improved work methods and work scheduling for increased productivity; item, commodity, and department profitability. Considerable study is needed to include the input of the decision-makers into the UPC-ECR system and to ascertain how the benefits of the system can best be communicated to investors, employees and their unions and to consumers and their government spokesmen.

## \$5 Billion Loss of Food in Marketing

The electronic cash register and the tie-in scales will increase throughput at the check stand and will also provide data for measuring productivity of the perishable operations, especially produce and meat. Given the facts generated by the ECR, decisionmakers should be able to evaluate the cost of living with the "old produce man" and "butcher syndromes." With conservative estimates of yearly losses of \$5 billion for agricultural products beyond the farm fence, and a sizeable chunk of this taking place at retail stores, it certainly challenges retailers and their supporting research and development colleagues to look objectively at the operations that are responsible for these losses.

Centralization of operations with processing, packaging, product identification, pricing, and backroom storage being moved to central points should be carefully studied for its long-run productivity and profit potential. Previous studies have shown that centralization contributes to increased labor efficiency, better use of machines and facilities, more effective merchandising, improved inventory management, improved quality and safety of product and greater delivery efficiency for the retail food store operation.

### Need for Flexible Food Stores

If, as projected, economic instability will be the norm as will continuing changes in social and cultural values along with shifts in population, it will be necessary for food firms to become much more flexible if they are to cope with these changing conditions. This could mean that retail food firms will no longer be a one-type store operation but will offer many types such as convenience, limited item, supermarket, super store, or warehouse discount, depending on the findings of market studies as to the wants and needs of consumers in selected market areas. Few firms will be able to afford the luxury of providing products and services not wanted by their customers. In addition, there must be flexibility so that stores can be expanded or contracted according to the changes in the market for its products and services. This is especially important for the larger store operations where alternatives for utilizing the facilities is often limited when demands for its original products and services decline. Research for the development of a flexible type store to meet changing market needs should be coupled with developing procedures for market analysis to improve site location practices and changes in store image as perceived by consumers. The combination of high land prices plus increased construction costs, along with the unavailability of long term financing, further strengthens the need for studying retail store flexibility.

With true labor expense at the retail store level representing 65 percent of total store expenses and with new contracts resulting in further increases in wages, ways must be found to increase productivity. Labor scheduling to needs, utilizing effectively part-time employees, night-stocking, and other procedures may be utilized. Probably the greatest breakthrough will be the development of the limited items store.

### 3. External Forces Affecting Retailers

Margin expansion resulting in increases in food prices and the ageless questions about profits is expected to result in tough challenges of food retailers by government, consumer, and labor groups.

#### Government Intervention

The FTC (Federal Trade Commission), with its industrywide investigation into retail food prices, will zero in on market concentration and the relationship between store price levels. Congress through its JEC (Joint Economic Committee) will also be investigating pricing practices at the retail store level. In addition to price investigations, the so-called "regulatory wonderland" with FDA (Food and Drug Administration), OSHA (Occupational Safety and Health Act), FEA (Federal Energy Administration), and the ICC (Interstate Commerce Commission) all have their regulations and guidelines that must be interpreted and implemented by food distributors.

The top corporation officers of food firms were further convinced of their need to effectively cope with government by the Supreme Court ruling that company executives can be held personally accountable in court for violations of federal food regulations by their firms. With the FDA in the process of finalizing model ordinances for supermarkets, this ruling by the Supreme Court could have even greater meaning.

#### Consumerism

The problem of consumer concern relative to the price-safety-value of the products they buy, especially food, has been exaggerated by the inflation-

unemployment situation and by projected concerns about similar situations in the period ahead. Consumers are very edgy and unhappy about the present and appear to be quite nervous about the future and are looking for a way to achieve countervailing power, thus neutralizing the political muscle of agriculture, labor, and business. The leaders in the consumer movement see an answer to their problem in an Agency for Consumer Advocacy. Whether such an agency will ever be created is questionable, but there is no question that consumerism and consumer legislative initiative will continue and that food retailers will be influenced by the consumer movement's attitudes and legislation.

#### Labor's Role

With labor continuing to influence the U.S. Congress by its political action program, retailers can expect new bills such as national health insurance that will add millions of dollars in labor cost to the industry. Since labor cost is now well over fifty percent of total expenses at the retail food store, it's essential that if prices are to be controlled methods must be found for achieving improved productivity in food stores. Labor and consumer opposition to such technological changes such as the electronic checkout and centralized meat must be overcome.

There is a great need for facts as it relates to the cost-benefits to society of government regulations, consumer legislation, and the adoption of new technology. Not only is there a need for establishing procedures of operations related to the food system, but there is a need by the industry decisionmakers to analyze these facts through research to determine where changes can most economically be made. There is also a need for openness relative to operating

figures of the industry so that consumers and their legislators are better informed about the cost-benefits. Additional studies are also needed to develop and prepare factual information for use by those who influence and create public opinion as well as those who pass and enforce the legislation.

#### Summary

The prospects for the food retailing industry for the period ahead to 1985 will be closely related to the economy of the U.S. and the world and to energy and agricultural decisions that industry representatives have limited if any control over. The food industry does, however, have considerable control over their individual operations and the system that supplies them. So as to cope with the uncertainty of the economy it's essential that food retailers give priority to researching the issues and determining adequate alternatives and acceptable solutions for improving productivity in their store supply system and in their individual store operations; and, also with external forces, especially those created by consumers, labor, and government. If problems are opportunities, then the retail food industry has a chance to make it big by 1985.

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