THE FUTURE OF FOOD RETAILING AND ITS RELATIONSHIP TO PACKAGING

> Thesis for the Degree of M. S. MICHIGAN STATE UNIVERSITY PATRICIA ANN ORSAY 1970

THESIS







36 KU: 133 39 143 TEVEDE F199

#### ABSTRACT

## THE FUTURE OF FOOD RETAILING AND ITS RELATIONSHIP TO PACKAGING

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The purpose of this thesis is to survey the future trends in food retailing and draw some conclusions as to the degree and type of influence these trends may have on food packaging.

The parallel evolution of the packaging functions and food retailing today and packaging's role in solving retailer problems and marketing manufacturer's products are explained. The value of a systems approach to packaging development is discussed in a similar context.

The future trends in food retailing and packaging are partially explained through an analysis of the changing consumer market with respect to both general characteristics and potentially profitable market segments.

Future changes are predicted to occur both within the supermarket structure, in relation to size, layout and design, and electronic improvements, and from new retail methods such as computer card shopping, automatic vending, telephone and television shopping. The potential effects of these changes on packaging are discussed as the predictions are cited.

In conclusion, the value of the systems approach to both food retailing and packaging is stressed as a possible solution to preventing future problems before they occur.

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A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

School of Packaging



#### ACKNOWLEDGMENTS

I wisn to express my sincere thanks to Dr. Harold J. Raphael of the School of Packaging for the advice, confidence and encouragement he gave me, not only during the preparation of this thesis, but throughout my college career.

I would also like to recognize the assistance of Dr. John W. Allen of the Department of Marketing and Transportation who recommended and provided a valuable portion of the source material used.

And to my parents, whose undying confidence and ready encouragement over the years have made all of this possible, thank you.

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### CHAPTER I

#### INTRODUCTION

Food retailing has not and will not always take place through a supermarket outlet. Packaged food products, as we see them in the supermarket today, have not and will not always look as they do today.

If one looks at the history of food retailing and food packaging, it becomes evident that the two areas are highly interrelated. Changes occurring in one brought about or stemmed from changes in the other. Unit packaging of food products allowed the creation of the self-service store. As self-service retailing developed, more items were displayed and, as the value of the package as a marketing tool was realized, package design evolved to the sophisticated level we see today.

Looking at the retail food business at present, we find supermarket outlets, which have actually changed little since their inception, facing a critical profit squeeze, resulting from numerous factors. There are many trends and changes being discussed in relation to the

supermarket and/or the retail methods of the future and the majority of these are geared to solving present-day problems.

Packaging has an important role to play in the retail food outlet of today as well as in the outlet of the future. As the importance of packaging is realized, it may be seen that packaging may actually aid the food retailer in solving some of his present problems.

In looking to the future, there is no reason to believe that the historical interrelationship of packaging and food retailing will break down, thus, the retail methods of the future will cause packaging to change and future packaging changes may facilitate the development of some of these methods.

For any person involved in the packaging of food products, being able to see the interrelationships of this area with every facet of food retailing will not only help solve today's problems but, more importantly, will help solve future problems before they develop. This systems approach to packaging with respect to food retailing will allow for planned and profitable change in place of abrupt and forced change commonly associated with crisis situations.

# CHAPTER II

#### HISTORY

# The Parallel Evolution Of Food Retailing And Packaging

When tracing the history of packaging with respect to the nistory of food retailing in the United States, the fact that changes in the function of the package parallel the changes in the food retail outlets becomes readily apparent. Whether the changes in packaging caused the changes in retailing or vice versa, is not really important. What is important is the recognition that the two activities are highly interrelated so that changes in one area call for subsequent changes in the other.

While the nineteenth century gave birth to many industrial and technological ideas, food retailing and packaging saw little change until the 1890's. Prior to this time, staple commodities were sold through a general store along with many other products which the consumers could not or did not produce themselves. It was a seller's market as all that was produced was readily consumed. Early in the century, many small producers supplied products within a limited geographical area, and the package served to contain the product until it reached the

general store. Barrels, wooden boxes, and burlap sacks lined the walls of the retail outlet. The products were weighed or counted out and placed in paper bags or poured into bottles or jugs provided by the consumer. As food producers grew in size and transportation improved, the geographic area supplied by one producer also increased. This placed demands on packaging to provide more protection for the product for longer periods of time. Bulk packaging was still the order of the day and the main concern was getting the products to the retailer's shelves in reasonable condition. There was no benefit in packaging to appeal to the consumer because of the characteristics of the prevailing seller's market.

During the 1890's, and early 1900's, changes in production and distribution caused the seller's market to shift to a buyer's market. Increased productivity on the farm caused a great increase in the volume of output and overproduction occurred. This acted to free farm workers for jobs in the production of goods and services which in turn raised output volume in this sector and increased incomes so workers were able to purchase more of the goods they produced.

Also contributing to this shift to a buyer's market was the growth of the railroads as they opened new markets for manufacturers and more goods were made available to more people This increase in the outpouring of goods and

the disappearance of automatic consumption caused several changes to take place in food retailing and packaging.

The general store concept was abandoned and retailers began to specialize in certain types of goods, thus, food outlets appeared. Realizing they were able to produce more products than the retailers wanted, manufacturers turned to branding to identify their products and advertising to tell the consumer about product attributes and create a demand and subsequent customer loyalty.

Mass production and distribution called for mass packaging. Unit packaging increased which added convenience at the retail and consumer level and assured that the brand identification would be carried nome.

The package had now acquired the job of carrying the brand name to the retail outlet and thus provided the information the consumer needed to link the advertising to the product. Unit packaging also provided added protection for the product so that advertising which emphasized a particular brand on the basis of higher quality could be substantiated.

Thus, many changes took place in food retailing and packaging in the late 1800's and early 1900's, as a result of the shift to a buyer's market. The food store appeared and the protective function of the package came to overshadow that of containment. A second function, utility or usefulness, was being fulfilled through the spread of unit

packaging and easier identification of products. The package had been given its first opportunity to demonstrate its usefulness in areas outside of protection.

The 1920's were characterized by the spread of these trends rather than any drastic changes in food retailing or packaging. More food stores appeared, more branded products appeared and advertising was used extensively.

The next major changes in food retailing and packaging occurred during and as a result of the depression in the 1930's.

There was a major shift to self-service stores in an attempt to decrease costs. Advertising became a luxury few could afford. These two factors forced management to rely heavily on the package to sell their products and the value of the package as a marketing tool was finally and widely recognized. The motivational function of the package, that is so critical today, had been discovered.

Packages were designed to inform and persuade the consumer as well as identify the brand and protect the product. The package became the main advertising medium and primary salesman. Due to the importance of this new role, much attention was given to the elements making up the surface design of the package in an attempt to use packaging as a competitive weapon on the retail shelf. Color, copy, and artwork or illustrations were combined to

be aesthetically pleasing and persuasive in getting the consumer to buy one brand over another. This is not meant to imply that graphics were neglected or absent in earlier years. Paper labels and printed cartons had been on retail shelves for some time. However, it is interesting to note the elements of the design that were emphasized. As was previously mentioned, the first role the package played outside of protection or containment was that of identifying the brand. This was carried out initially by simply printing the brand and product name on the container or label. Wnen illustrations were employed they too emphasized the brand name rather than the product. Hawks brand pork and beans had a very small illustration of the product in a pan and a large illustration of a hawk. Easter brand raisins were sold in a folding carton with the brand name printed in fancy, script letters and an attractive illustration of Easter lilies. The product name, seeded raisins, appeared in small block letters in the lower corner of the package.

From the time the surface design was recognized with respect to its potential as a marketing tool, however, there was a gradual shift away from brand illustrations of the type just discussed to product illustrations, which were thought to be (and were finally proven to be) a more persuasive salesman.

The 1940's and 1950's provided a period of growth and sophistication of the trends started in the 1930's. Self-service was here to stay and the supermarket era began as retail food outlets increased in size but decreased in number. The economies of scale obtained in the operation of these larger stores were a contributing factor to this trend. However, the increasing number of new products being offered the consumer forced the increase in physical size if a store hoped to offer a complete variety of available products.

Package design became more sophisticated and much research was started to determine which colors, shapes, and combinations of these would motivate a consumer to purchase. An attractive, artistic package design was no longer enough. The art of design and the science of motivation and persuasion had to be combined to create the most effective package.

The potential value of the package was considered with respect to all aspects of the distribution channel, from the manufacturer to the consumer. The package could make the wholesaler's job easier if shipping cases were a reasonable, easy-to-handle size and identified properly. The retailer could be aided by making cases easy to open and products easy to stack on the shelves. In addition to good design, convenience features on the package were found to contribute to product sales.

When looking at the decade of the 1960's, food retailing showed little change while packaging became an increasingly important consideration in the marketing of food products.

The self-service supermarket was the established retail outlet for foods. Actually, since the 1930's the only changes in retail food outlets had been in physical size and number of items offered.

Impulse buying also increased as housewives relied less and less on a written shopping list. This increase in impulse buying placed even more reliance on the package to successfully sell the product.

While the recognition of the package as a valuable marketing tool had caused a shift in emphasis from the protective function to the utility and motivational functions of a package, this shift should not be thought of as decreasing the importance of the protective function. For food products in a retail outlet, the convenience and motivational impact of a package have been found to do more to contribute to the actual sale of the products than a package which primarily protects, unless of course the protective function is not fulfilled. In this case, the package's protective aspect, contributes greatly to sales, however, in a negative rather than positive way. This situation has occurred because the consumer has come to expect the package and processing techniques used in the

food industry to provide the necessary protection required by each particular product and maintain this protection until the product is consumer. The Food and Drug Administration, of course, through much legislation, has assured the consumer that their expectations will be met. Thus, adequate protection of the product is rightfully taken for granted and because of this, is not as widely or successfully used as a marketing tool in obtaining a competitive selling advantage. Increased protection, however, when used to increase shelf life or protect the product longer in the home may be employed to increase sales. Polyethylene bread bags are an excellent example of the protective function of a package being employed initially to increase sales through offering a fresher, higher quality product and ultimately the consumer benefits from an overall increase in product quality as the package became adopted by the majority of bread producers.

# Food Retailing Today

After reviewing the evolution of food retailing and packaging, a brief discussion of the characteristics and problems of today's supermarkets and the role packaging presently plays will provide a base on which to build predictions for the future in the two areas.

#### Characteristics

Approximately one-half of the supermarkets in the United States today nave been built since 1965 (76). The average total area of the retail outlet is 22,700 square feet with 68 per cent of this area or 15,436 square feet devoted to selling space. The remaining 32 per cent is divided between storage and handling space, butcher areas and produce areas. The average store draws from a trading area of two miles and has a parking to store area ration of 3.1 to 1.0, or approximately 75,000 square feet of parking area which will accommodate 170 cars (22).

The total investment cost for a supermarket of this size is \$625,000, excluding inventory, or \$28 per square foot. The average weekly sales volume is \$3.10 per square foot or \$48,000. Store margins are 19.6 per cent of sales and labor expenses run 8.3 per cent of sales. This low margin and high labor cost plus other expenses leaves a 2.0 per cent net profit before taxes or an average of \$49,920 annual net profit before taxes (22).

There are approximately 90,000 separate items carried nationally to be sold through retail food outlets and 6,000 new items are presented to the market yearly (47). The average supermarket displays 20,000 product facings made up of 7,500 separate products (22). Approximately one-fifth of the new items offered to the market are reviewed by a store at a rate of 100 per month and of these

1,200 presentations, 500 are adopted and 200 other products discontinued for a gain of 300 new products per store per year.

The responsibility for new product adoption decisions generally lies with the buying committee of the supermarkets. The structure of these committees may vary from a formal committee composed of top sales, marketing, merchandising and retail operations people who hold structured weekly meetings to an informal meeting of the sales manager and head buyer of a geographic division of a chain who meet whenever necessary to a single buyer-manager in an independent store who makes decisions as they are called for (76).

The independent supermarket in the retail food business is slowly disappearing. The economies of scale realized in operating a large organization have caused supermarket chains and cooperatives to dominate the industry (88).

Store departments and layouts are surprisingly similar throughout the industry. Grocery items are shelved in the center of the store in straight aisle configurations. Meat and produce departments are located around the perimeter with meat commonly at the back of the store and produce along one side. A substantial amount of backroom space is also devoted to these products for trimming and packaging operations. Frozen food and dairy cases are also

placed along the walls or free-standing refrigerated cases may be found one aisle width away from the perimeter. At the front of the store, check-out stands are placed parallel to one another. The number of checkouts per store varies depending on peak-hour traffic requirements. The average store realizes 70 per cent of their sales volume during 30 per cent of their open hours and this is usually the only time, if ever, that all stands are open (16). Product orders are handled by order clerks, department managers, or store managers depending on the size of the outlet. Agreements may be in effect with wholesalers for automatic delivery of a set quantity of some standard products and/or orders may be placed as the need arises.

## Why Consumers Choose A Store

While the average supermarket is capable of description in terms relating to size, number of items, etc., it must be realized that few stores could actually be found that exactly match each of these characteristics and even if two or more stores of this type were discovered, they would still not be identical in all respects. Variations arise from a multitude of factors, however, one of the most significant is the fact that people are involved. The managers and employees in the store along with the individual consumer have their unique personalities and attitudes and it is based on these that variations may occur and are also allowed to occur to satisfy diverse individual

preferences. Thus, it is easy to see why no two stores are identical and why different consumers choose different stores.

This is not to say, however, that stores cannot have similar characteristics and consumers similar preferences. Surveys conducted, both past and present, have shown that consumers do have similar reasons for selecting a supermarket. Interestingly, these reasons have not changed drastically over the past decade (70).

An A. C. Nielsen survey of 4,500 shoppers revealed five main reasons for store selection (70): (1) everyday low prices, (2) convenience of location, (3) quality and fresnness of meats, (4) variety and selection of merchandise, and (5) friendly personnel.

Everyday low prices are an important reason for all groups of consumers and have increased in importance as inflationary trends accelerate. Not only is this significant in itself, it also points out a trend away from the use of trading stamps, games, and other customer-attracting programs which were used extensively in the 1960's.

Convenience of location has been and has remained a reason for store selection even though our society is becoming more mobile. The fact that a housewife is increasingly likely to have a car at her disposal daily should not imply that she is also willing to spend more time traveling to and from a supermarket.

Quality and freshness of meats are major reasons for store selection, primarily because most meals in this country are based on meat and a substantial portion of the food dollar is spent on meat. When a consumer has to spend money, she wants the best products possible for the price.

Variety and selection of merchandise are important to satisfy individual preferences conveniently. Each consumer purchases different products according to her needs and she wants to be able to purchase all of these items in one store.

Friendly personnel is becoming an increasingly important reason for store selection as stores grow in size and as these people become harder to find. The shopper likes to feel at nome in the supermarket and wants the opportunity to ask questions and receive help when she needs it.

A more detailed survey on consumer dynamics in the retail food industry was conducted by <u>Progressive Grocer</u> in cooperation with Reuben H. Donnelley Corporation and The Kroger Company in Cleveland, Ohio. Various consumer segments were defined and studied to determine what people buy, where and why they buy, how much they spend, etc. Reasons for store selection were determined for the majority of the consumer segments examined and while these reasons varied with respect to their relative importance between segments, the same factors were found to be

important to all consumers. As will become evident, the results of this study closely parallel those of the A. C. Nielsen survey.

Reasons for store selection were given by the following consumer segments: newlyweds (married less than one year); upper income (over \$10,000 annual income); industrial workers; young marrieds with children; and small town consumers.

Neatness and cleanliness were some of the most important reasons cited for store selection in all segments except for newlyweds, who failed to even mention it. This may be because the younger housewife takes this characteristic for granted.

Good meat or quality of meats ranked higher for upper income and young marrieds than for the small town and industrial consumer. However, this reason was second or third in importance in each of these segments. Newlyweds ranked this as their fifth reason for store selection.

Low prices were most important to small town consumers, young marrieds, and newlyweds, of lesser importance to the industrial consumer and important but not a major factor to upper income groups.

Convenience was the most important factor for newlyweds and ranked fourth for young marrieds while it was not mentioned significantly by the other groups.

Trading stamps were most important to the small town and industrial consumer; of lesser importance to newlyweds and young marrieds and of no importance to the upper income group. It is interesting to note that low prices <u>and</u> stamps are important factors for selection as prices tend to be lower without stamps.

Grocery selection was important to all groups with newlyweds desiring a wide selection of "name branded" products.

Fresh produce selection was more important to the upper income shopper than any other. However, this was also a factor in store selection for the small town and industrial consumer.

Friendliness and courtesy was mentioned by all groups but was more important to the upper income and small town consumer than the other segments.

Thus, consumers may vary in their preferences for products and in the relative importance of reasons for their store selection. However, it is relatively easy to see that there are specific reasons for store selection which are important and common to the majority of the consumers.

#### Problems In Today's Supermarkets

The retail food industry is frequently accused of being tradition bound and slow to experiment or change. The truth in this statement is evident when one realizes

that the supermarket of today is the same store that was conceived in the late 1930's. The size has been increased; yet, this has been more or less forced as the size of the product offering by manufacturers has increased.

In recent years, however, many forces have been at work which have placed the industry in a situation demanding some response and change in the traditional patterns of operation. Several problems, which were ignored as they were growing in magnitude, have now become so critical that they must be solved if the food retailers hope to remain at all profitable.

The beginning of a new decade finds the food industry in a critical profit squeeze. In 1965, the average industry profit on sales was 1.4 per cent and in four years this figure was reduced to 0.9 per cent (72). In this same period, earnings dropped from \$1.41 on \$1.00 to \$1.02, for a 28 per cent decline (98). While these facts alone appear to be a great problem, they are actually the end result of many smaller problems.

Increasing costs in all areas of business operations are a major cause of declining profits. Labor costs have been rising rapidly and have far exceeded price increases. Food prices increased 15 per cent over the past ten years while wages increased 30 per cent (72). While this increases operating expenses within the retail outlet, it also forces a decrease in retailer margins as

manufacturers and distributors pass part of their increased expense on to the retailer. The retailer suffers from increased expenses along with decreased revenues. Also reflecting the increased cost of labor are construction and repair expenses. Couple this with increasing land prices and the tight money market and investment costs skyrocket and add to the squeeze on profits.

This is not meant to imply that the retailer is the only member of the distribution chain that is plagued with increasing labor costs. As was mentioned, manufacturers and distributors are operating under the same conditions and, while passing some of their costs on to the retailer, the consumer is feeling the pinch through increased prices. Over the last four years, food prices have increased more than 10 per cent (72). While the retailer is definitely not the sole cause of this situation, he is closest to the consumer and, therefore, has been subject to the greatest consumer pressure for lower prices. This has forced the retail food business into severe price competition and once this trend is started the retailers must compete on this basis, regardless of their rising costs.

While rising wages are a major contributor to increasing costs, they are by no means the only cause. Shoplifting or pilferage losses have doubled in the past decade. In 1968, more than \$550 million walked out the door of the supermarket undetected. The average loss per

supermarket has reached an alarming 1.5 per cent of sales. For every \$0.94 that is lost, sales of \$54.52 must be realized just to break even (67). Impulse or high demand items which are easily concealed and/or carry a high price per unit are most often taken. This includes health and beauty aids, meats, tobacco products, candy, cosmetics, hosiery, and records. Approximately 8.7 cases of shoplifting are detected per store per week with a probable average of undetected cases running up to 171 per store per week. The value per theft has been estimated at \$3.05 (97).

Shoplifting or pilferage losses occur, not only when products are concealed and removed from the store, but also when a lower than purchase price is paid by the consumer. Cap switching between different sizes of the same product and label switching on meat products is a common method of pilfering. Small items are easily pocketed and easy-open blister packs for health and beauty products are often raided in the store. Product switching and package stuffing occurs when a high value item is placed inside a package for a low value item with or without removal of the latter. Concealing products in grocery sacks from the produce department, and emptying bottles of aspirin and vitamins are also common techniques for actual product removal. Premium and coupon raiding is common and, while the product is not removed, it is left in an unsalable condition (67).

Some supermarkets have moved to counteract this problem by placing drugs, cigarettes, and liquors near the checkouts and selling smaller items such as film and sunglasses at the checkout. Employee training in dealing with this problem, however, has been largely neglected. In a survey of retailers, 55 per cent of them admitted giving no employee training on how to nandle shoplifters (97).

The problem of rising costs, therefore, is a result of many factors such as increases in wages, prices, and losses. Another problem in supermarket operations which contributes to rising costs, as well as being a cause for other problem areas, is the proliferation of new products.

Every year at least 6,000 new items are offered to the market and in recent years this figure has been increasing by 1,000 a year. Problems have resulted not only at the retail level but throughout the distribution channel.

As more and more products are presented, the manufacturers chances of having his product accepted are reduced. Supermarket buying committees have only a certain amount of time and as new products increase, their chances of even being screened for acceptance decrease. Only onefifth of the products presented are screened and of these, only one-fourtn are accepted. This fact, however, tends to increase rather than decrease product offerings as manufacturers feel the more products they offer, the better their chances are for having one accepted.

At the distributor level, more products mean more problems in inventory control, order picking, space allocation, delivery times and ordering.

For the retailer, the time involved in new product screening usually increases. This causes managment personnel to devote less time to store managing which may create numerous other problems. It also becomes more difficult to make a decision, not only on which product to accept, but on which products to consider. The relative profitability of products on the shelf is an unknown quantity in most outlets so decisions on dropping products is also difficult. Decisions are often made on the basis of the margin received, allowances, etc., which, if these are the wrong decisions, adds to increasing costs. The risk of obsolescence also increases and the retailer is likely to find nimself overstocked with a product no longer in demand.

Increased items also means increased inventories which increases costs. Shelf space allocation becomes more difficult and shelf stocking more time consuming.

The consumer also contributes to the retailers problem with respect to new products. In a survey conducted by <u>Progressive Grocer</u>, 72 per cent of the consumers interviewed said that being able to purchase new items at their supermarket as soon as they entered the market was of importance to them. Only 5 per cent indicated a definite lack of interest in new items. Forty-nine per cent of

customers questioned said that they go to other stores when their supermarket fails to carry the new items they seek. Only 3 per cent would try and find a substitute product (96). Thus, the retailer must carry new items if he wishes to please his customers and keep them.

The increasing number of products has been a contributing factor to another problem facing today's food retailer: the out-of-stock problem. As with other problems, the incidence of out-of-stock situations has increased in recent years. More items, more deals, and seasonal sales trends, along with inexperienced personnel and lack of information at the store level are some probable causes of the problem. These factors contribute to improper space allocation and poor buying procedures which compound the already bad situation.

A survey conducted by A. C. Nielsen, started in 1963, included a review of inventory sales and stock records of 166 chains over a five-year period plus out-ofstock incidence for 3,700 items by day of the week for 12 chains. The highest out-of-stock incidence, 5 per cent, occurred on Monday. Lowest out-of-stock, 2 per cent, was found on Wednesday, Thursday and Friday and a 3 per cent stockout was reported for Tuesday and Saturday (90).

The survey also revealed an imbalance in the store inventory to sales ratio which would naturally aggrevate the problem. Market leaders (brands dominating a share of

of the market) accounted for 31.3 per cent of total sales but for only 23.2 per cent of inventory. Other brands comprised slightly over three-quarters of the store stock and produced only two-thirds of the sales (90).

This problem, however, is not unique to retailers. A more recent discussion among manufacturers, distributors, and retailers revealed that a 2 per cent out-of-stock figure is common to distributors, and being 12 per cent out-of-stock in dry grocery items is not uncommon at the store level. Thus, the entire problem is not at the retail level. However, it is believed that approximately 90 per cent of retail stockouts are the retailer's fault (83).

Personnel problems are the major contributing factor here. Fewer qualified people are available and 50 per cent of store personnel are part-time. Inexperience causes misjudgment with respect to how well an item will sell, the amount of space it requires, and the leadtime involved in ordering.

While sales of a particular product fall if the item is out-of-stock, overall store sales may also be hurt by out-of-stock conditions. Forty-two per cent of chain customers will not buy a substitute product when their desired brand is out-of-stock (90). Depending on the importance of the item, the customer may go to another store, thus, the retailer loses much more than the price of the one item.

Another problem is the presence of the in-store butcher shop. This department has seen little change since it was first incorporated into the retail food store, having operated independently before that time. Initially it was a convenience factor for the shopper and a revenue producer for the retailer. Today it creates more problems tnan advantages. Qualified butchers are almost impossible to find; the backroom takes up space that is badly needed up front; problems of sanitation are inherent in the processing methods and maintaining the required sanitary conditions is a costly and time-consuming process; and even though meat prices are high, retailer's margins are painfully low.

Tied in with the problems of rising labor costs, numerous new items, increased price competition, stockouts, and the meat department, which are all contributing to the profit squeeze, is the significant lack of information available to management. With the increased complexity of business comes an increased number of decisions to be made by managers in a shorter period of time. With less time for a greater number of more complex decisions, the chances of making a wrong decision increase. Yet, the cost of a wrong decision is also increasing in the face of the profit squeeze. Knowledge of the relative profitability of an item in a product group; turnover rates; the influence of facings on sales; the influence of shelf position on sales;

and sales and profit figures item by item would greatly increase a managers decision-making ability.

### What The Consumer Does Not Like In Today's Supermarkets

While there are many problems in today's supermarkets from the retailer's point-of-view, there are also problems from the consumer's point-of-view. The A. C. Nielsen Company conducted a series of interviews and panel discussions with consumers across the United States to determine, among other things, what today's shoppers disliked about supermarkets (84,70).

The checkout area was cited as an area most in need of improvement. Better bagging methods and service; more help in getting purchases to the car; better-controlled and more express lines; unloading assistance with large orders; and easy to read, conveniently placed cash register windows to aid price checking were all mentioned as areas for improvement.

Store interiors were criticized on the following points: aisles too long and narrow; insufficient aisle markers to help the consumer locate products; and a lack of rest rooms and lounge areas.

Out-of-stock conditions were often mentioned in relation to store operations, especially when this situation was discovered on advertised items. Consumers also critisized stores that frequently moved products around and/or stocked a limited selection of products. Finding price markings on packages is a common irritation for the shopper and she dislikes aisles cluttered with displays or stockers.

Store personnel came under attack for being poorly informed on prices and the location of products, and for not bagging products properly. As stores become larger, the consumer is afraid of losing the personal contact she now feels is so important and discourteous and unfriendly personnel are contributing to this problem.

Consumers requested larger parking lots with safer entrances and exits, more angled parking, larger spaces, and less shopping cart clutter in the parking lot. These problems are becoming more common as more and more housewives have an automobile at their disposal every day.

Thus, the retailer is not only under pressure to solve his internal problems. The consumers being served have also recognized problems in supermarket operations which they would like to see solved.

# Packaging: An Aid To Retail Problem Solving

In the earlier discussion of the evolution of the functions of a package and the evolution of food retailing it was pointed out that these two areas actually evolved along parallel lines, with each area responding to changes and/or causing changes in the other. Today we find the package fulfilling the functions of protection, utility, motivation and most recently, profitability. The
dominating food retail outlet is the supermarket and its job is to make food products available to the consumer in the most convenient, efficient manner possible and at a reasonably low price.

The package is actually only a small part of the product offering compiled by a manufacturer in trying to successfully market a product. However, it is becoming an increasingly important part as its value becomes recognized. In compiling this product offering the manufacturer has many factors to consider and coordinate: the quality and usefulness of the product; the characteristics of the market segment most likely to buy the product as well as other segments; potential sales volume at various prices; distribution outlets to be used; existing production capacity; competition and all elements making up competing product offerings; the promotional mix and allocation of funds to advertising, personal selling, and sales promotions; the length of the product life cycle; selling prices to distributors, retailers and consumers; the amount of time involved in research, development, test markets and up to full production; and the total costs involved in getting this product on the shelf, balanced against the risks of the marketplace. This list of considerations is not in any way meant to be exhaustive yet it should serve to point out that a total product offering is the result of many different decisions involving many

diverse areas, only one of which is packaging. This area was purposely not mentioned here as it will be discussed in greater depth later.

Since the initiation of self-service retailing and supermarkets, the motivational function of the package has become increasingly important. The package is definitely a manufacturer's silent salesman and it shoulders much of the responsibility for getting the consumer to choose the manufacturer's product rather than a competing brand. The package is the result of a manufacturer's decision and it may act to solve many problems for the manufacturer such as: extending the shelf life of the product; being easy to run at hign production speeds; replacing in-store salesmen in selling the product, thereby increasing sales at a lower cost, etc. The package, however, should not be looked on by a manufacturer as his personal tool alone, as it may be and should be designed to help solve problems encountered throughout the distribution channel, thereby creating a more favorable image of the manufacturing firm which in turn may increase distribution and sales.

Many of the problems facing the food retailer today could be alleviated if packages were designed with these problems and possible solutions in mind.

Rising labor costs are a major problem in every supermarket today. Packaging, while it obviously cannot put an end to wage increases, can aid the retailer by

decreasing the amount of time needed for high priced labor to perform certain jobs.

Shipping cases which are well-marked with the information required to easily and quickly identify the contents will speed up the process of finding inventory to restock shelves. Cases that may be easily opened without using knives will both increase productivity and decrease loss through damage. Shrink-wrapped snipping trays and shippers with a tear-strip around the base are available which yield a tray of product that may be placed directly on the retail shelf, thus, reducing labor time required for unpacking. Shipping cases containing product volumes most convenient for retail use also save labor both in shelf stocking, as partially emptied cases do not have to be brought out or returned to the storeroom, and in checking inventory, as the numbers of partially empty cases in the storeroom are reduced. One-layer packaging of products, and packages placed upright or so price spots are convenient, cut down the time required to price-mark packages. Based on these few examples, it becomes evident that although packaging cannot stop rising labor costs, it may contribute to increasing the productivity per worker which will ultimately result in decreased labor costs.

The retailer problem of increasing losses from shoplifting or pilferage is one of the most obvious areas for packaging to assume the role of a problem solver. The

main reason for this is that many of the losses may be attributed to packaging deficiences.

Cap switching between high and low priced items is a common shoplifting method. Aerosol items and products in glass bottles and jars are most vulnerable to this practice. Some simple solutions to this problem would be non-interchangeable caps, prices stamped on the body of the package, item identity printed on the cap and/or shrink-sealed closure bands.

Meats, groceries and soft goods are subject to the similar practice of label or sticker switching. Color coded price category labels and stickers which may not be removed without damage may provide solutions.

Blister pack raiding has increased as health and beauty aid products have been offered in easy-to-open packages. Sacrificing some consumer convenience may be the answer as products are again presented in blisters with no opening, stretch films, or skin packs.

Product switching and package stuffing is liable to occur whenever a product is packaged in a tuck-flap carton. Reclosable cereal boxes are often refilled with cartons of cigarettes resulting in a costly loss. Improved packaging such as glued or locked end cartons, film overwraps, and tamperproof devices to signal an opened package could reduce losses.

Shrink band sealing or shadow-boxed and overwrapped bottles of vitamins, aspirin, and other expensive items

would cut down on the emptying of bottles which is a common shoplifting method in these product groups.

Meats and all types of frozen foods are frequently concealed in grocery sacks which may come from the produce department or be brought into the store. Store-issued plastic see-through bags would be an easy solution and for produce, would also be an improved package.

Premium and coupon raiding commonly affects tobacco and health and beauty aid products. Shrink-film overwraps could be used to improve the packaging.

While inadequate packaging has been the cause of many retailer problems with respect to shoplifting, it is evident that relatively simple solutions are available which will allow improved packaging to contribute to, rather than detract from, the effectiveness of operations at the retail level.

Another retail problem with many implications is that of product proliferation. The workload of the buying committee is increased and decisions become more complex and more critical as the number of products offered increases and shelf space remains the same. In this area, however, the retailer is only one of many people directly involved with the problem. The manufacturer faces increasing risks with respect to product acceptance at the retail level, not to mention the consumer level. Distributors may also suffer from decreased efficiency in

operations as, the time involved for inventory control, ordering, order-picking, handling, etc., increases as the product selection expands.

While packaging will not solve this problem, it may be employed to make the buying committee's decisions easier; increase a manufacturer's chances for product acceptance and decrease confusion at the distribution level.

Buying committee decisions to add a new product are based on many factors including: sales potential; gross margin; the number of duplicate items in that category; suggested retail selling price; the manufacturer's advertising and promotional plans; and packaging with respect to consumer appeal, ease of handling, attractiveness, and display practicability (68,76). While a decision is rarely made solely on the basis of packaging, this factor is becoming increasingly important due to the product proliferation problem. As more products enter the market, more duplications occur and packaging may be the deciding factor in choosing product A over product B, when both are alike in formula, usage, profit potential, price, etc. Thus, in packaging a product for retail distribution, the manufacturer may make the retailer's decision easier and increase his product's chance of acceptance if he considers the likes and dislikes of the buying committee when designing the package.

Among the packages disliked by buying committees are those that take up too much shelf space because they

are odd-shaped or are printed so that they must be shelved in a horizontal versus a vertical position; packages that are unwieldy or damage easily, e.g., large bags of dog food or sugar; tippable glass bottles; tapering closures that increase labor costs for price marking and create problems in double-layer stacking; envelopes or pouches sold as single units as they damage easily and require special displays, which become messy when partially empty; premium offers attached to the outside of a package; misleading savings offers, e.g. printed declarations of savings (in large type) for the return of a coupon (in reduced type) which causes checkout personnel or price markers to deduct the amount from the purchase price; different size packages with the same size caps; packages prone to pilferage; easily breakable containers; and packages that are difficult to price-mark in the shipping cases.

Package designs receiving favorable comments are those, not surprisingly, that have solved many of the problems mentioned above. Compact cartons and shapes that are easy to price-mark in-case and stack on shelves; pouches multipacked in cartons; rigid containers versus bags; flat-top caps; stable glass bottles and jars; straightforward savings offers; unbreakable packages and tamperproof closures; and packages that retain a product's freshness longer are all well received at the retail level.

The consumer appeal of a package is also a factor in buying committee decisions as is the method of packing

for distribution. In reviewing consumer appeal, the attractiveness of the design and general appearance of the package are considered as well as the amount of product information presented. Brand and product name, prominent price spots, directions for preparation and/or use, number of servings, and calorie count are all examples of information that may be important to a consumer in making her purchase decision. Packages which carry product information to the consumer in a clear and attractive manner increase a manufacturer's chance of acceptance.

With chains and cooperatives dominating the supermarket scene, the method of packing for distribution is receiving more attention. These large organizations operate their own central warehouses and distribution facilities. Therefore, packaging which eases the problems at this level is also appreciated. Well-marked shiping containers displaying information on the type and quantity of contents in large easy-to-read print will increase efficiency in inventory control and order-picking. Shippers of an easily handled size and weight and a shape that lends itself to palletizing facilitate handling and reduce the possibility of damage throughout the channel. Also, products shipped in quantities geared to retail turnover rates are well received as they help eliminate case breaking at the warehouse level and offer increased convenience to the retailer with respect to shelf stocking and inventory control.

Thus, the supermarket buying committee does review a product's packaging when making an accept or reject decision, not only from the retailer's point-of-view but the consumer's and distributor's as well. The manufacturer who recognizes the value of packaging as a problem solver with respect to these areas, and realizes that the product must be sold to the retailer before it may be sold to the consumer, is that much closer to successfully marketing his product.

## Packaging's Role As A Silent Salesman In The Supermarket

Once or twice a week, the average consumer spends approximately thirty minutes walking up and down the aisles of a supermarket, choosing twenty-nine food products from the 7,500 displayed (90). Theoretically, each item has slightly less than one-fifth of a second to attract the shopper's attention and persuade her to buy.

Operating in this situation is a manufacturer's silent salesman: the package. The package has been given the responsibility of not only selling the firm's products but first attracting the attention of the buyer and gaining her interest in order to carry out the final sale. The time allowed for this transaction is presently under onefifth of a second and this has been decreasing ever since the first supermarket opened and the volume of products started increasing. During this period, the relative importance of the functions of the package was shifting and, for obvious reasons, the motivational function became increasingly important.

Today, the motivational function of the package is of prime importance. Protection and utility cannot increase sales unless the consumer is first motivated to buy. Time and money spent on developing a high quality product, a protective and utilitarian package, a sophisticated marketing plan, and an advertising campaign, will be lost if the product never moves off the shelf. A good package can sell a poor product once but an outstanding product cannot make up for poor packaging.

In designing a package for maximum retail impact, the manufacturer has many factors to consider with respect to the entire distribution channel. As was discussed previously, the package may help a manufacturer get his product onto the retail shelf. Once the product is on the shelf, the package must sell it.

In order to be an effective salesman, the package must perform the following steps equally well (14): (1) attract the attention of the buyer, (2) set the stage to sell the product, (3) communicate, (4) create a desire for the product, and (5) trigger the sale.

The overall appearance of the package and/or certain visual aspects such as color, shape, illustrations, copy, etc., may be employed to attract the attention of the shopper. The package should stand out from competing

products on the shelf and appeal to the people selected as the target market.

In setting the stage to sell the product, the package should present the product in its most desirable state. The package should be compatible with the product and compliment it while convincing the consumer that the total offering will fulfill her needs. All the elements of design such as color, texture, shape, illustration and copy may be combined to project certain product characteristics and appeal to the selected segment of the market.

With impulse buying on the rise, emotional appeal is becoming increasingly important. Packages may be designed to appeal to appetite, well-being, prestige, economy, luxury and other emotional drives when setting the stage to sell the product.

The communication of pertinent product information is essential in good package design. The brand name, product name, net weight, ingredients and corporate address are required by law. A corporate logotype or trademark may be used to create product-line identification. The idea is that previous satisfaction with one product will lead the shopper to reach for another product produced by the corporation. Instructions for product preparation and/or use should be given in a concise but easily understood manner as should information on the proper use of the package. The package may also carry suggestions for additional uses of the product and advertise other products in the line.

Any special coupons, offers, or promotional deals should be clearly explained for the benefit of the retailer as well as the consumer.

In creating a desire for the product, the package must convince the buyer that this particular item will fulfill her needs more adequately than a competing product. The package should emphasize any unique characteristics of the product and if the actual product is no different from a competitor's, the package may create a uniqueness. The problem of product sameness is evident in all supermarkets today and is increasing with increasing numbers of products being produced. Convenience packaging has provided the manufacturer with a method of differentiating his product by making it easier to carry or hold, easier to open and use, more attractive to display, or by actually creating a new product form such as aerosol spray starch.

Advertising is used extensively to create a desire for a product and this may be transferred to the store level if the package design aids the shopper in recalling the ads. The package should be easily recognized both in the store and in the advertising media to provide for easy transfer of "desire creation."

A package which has successfully performed all of the previous steps must ultimately trigger the sale of the product. The last resistance of the buyer at the point-ofpurchase must be overcome by making the product appear just

a little better and more desirable than a competitor's. The package may provide that "something extra" which closes the sale.

In completing a sale, the silent salesman has been successful in his job of motivating a consumer to buy. The motivating function, however, does not end after the initial purchase. The consumer must also be motivated to use, reuse, and repurchase the product. While factors such as product quality, shelf life, ease of preparation, and satisfaction with the product in use, all influence a repurchase decision, the package also has a continuing role to perform.

The package should fit in well with its environment of use, be easy to store, and easy to open and use. Any claims made with reference to convenience features should be fulfilled. The product and the package should be capable of performing in the way that was promised to ensure repeat sales.

Designing a package to be an effective salesman is obviously an extremely complex procedure. As the value of using the package as a motivational tool was proven, and its use in this area became increasingly relied upon, the field of motivational research developed. Many sophisticated research techniques are available to try and determine the influence of colors, shapes, sizes, textures, and words on purchase behaviors. Subconscious level

testing was developed to test consumer preferences in a roundabout manner when straightforward interviews were found to be inadequate.

Consumer behavior is a relatively new field of study. While much progress has been made in discovering how people react to certain objects, words, and situations, the reasons behind most behavior pattern or why people react is still a mystery.

The package designer who makes use of these motivational research techniques will be that much further along in designing an effective silent salesman.

### The Value Of A Systems Approach To Packaging

The term system may be used to describe any ongoing process made up of a set of elements or parts which are united or related through a common objective or goal. The systems concept or approach allows one to look at a whole or complete process by examining the component parts and understanding their relationships rather than viewing the components as if they had no connection or were independent which could cause the total process to become inefficient or stop working.

The systems approach has been applied to many diverse areas in recent years. It came about as a result of the following factors: the increased complexity of business which called for more decisions to be made involving more considerations; increased competition and the

attending profit squeeze which made the wrong decisions more costly while the rewards for correct decisions increased; and increasing technology and the use of computers which has made volumes of data available to managers and their competitors thus forcing the use of the material as a sound basis for decision-making.

The definition of a particular system is dependent upon the person viewing the system and the terms system, subsystem, and supersystem may, therefore, be applied to the same process.

The components or parts of a system are: inputs, on which the system operates; processes, which convert inputs to outputs, and outputs or goals for which the system was organized.

The process of packaging a product may be analyzed within a systems framework. In examining packaging's role in the retail food industry, marketing may actually be the larger system or supersystem and packaging a subsystem of marketing.

When designing a package for a consumer product, all of the components making up the package which reaches the consumer as well as packaging materials and containers used for shipping the product and the actual product may be thought of as inputs to a package system. These inputs must be combined to fulfill the package functions of protection, utility, motivation and profitability.

The packaging system is comprised of various subsystems, all of which act to convert input components to outputs with the outputs of one process becoming inputs for a subsequent process and subsystem.

The package production subsystem may be thought of as that which takes the product and necessary packaging materials and combines them to yield a packaged product that is ready for distribution. Processes within this package production system could be such things as bottle fillers, cappers, labelers, case formers and sealers, and palletizers.

The next subsystem would be that of distribution. The outputs of the previous subsystem become inputs and the outputs of the distribution system would be the packaged product in the buyer's home or at the place of use. Handling, transportation, and storage are processes which act to change the inputs either intentionally or unintentionally, at the distributor or wholesaler level, at the retail outlet, and as the consumer transports the product to the point-of-use. Processes may occur whenever the package system is acted upon as in depalletizing, opening a shipper, price-marking, and shelf stocking or when damage occurs due to transportation, storage or handling.

The subsystem of consumer use of the product acts on the package as it looked on the retail shelf and yields the packaging materials to be disposed of. Processes of

handling and storage as well as use may act on the package in this situation.

The subsystem of disposal is an increasingly important consideration for the manufacturer. Often the packaging materials become inputs to our ecological system or to processes such as burning, the output being pollution. If a systems approach were applied in this area, the outputs of disposal could become inputs to a more beneficial system.

When designing a package using a systems approach all of these subsystems and processes must be considered as well as the functions of the package with respect to each subsystem and process.

The value of the systems approach to packaging stems from the obvious fact that all people in contact with the packaged product, as nearly as is feasible, are considered when the package is designed. The problems at the retail level caused by packaging could be solved and areas would be identified where packaging could add utility or help increase profitability.

#### CHAPTER III

# THE FUTURE OF FOOD RETAILING AND ITS RELATIONSHIP TO PACKAGING

#### The Changing Consumer

While many of the future trends in food retailing are geared to solving present day problems, change is also expected to stem from changes occurring in the consuming public being served.

#### General Characteristics And Trends

While the birth rate in the United States is actually declining, the population figures are expected to total 213.2 million by 1975. This represents an increase of 14 million over today's total population or the equivalent of the present population in the combined metropolitan area of Boston, Washington D. C., Pittsburgh, St. Louis, and San Francisco. Yet, this is only the beginning of the population increase. By 1980, the food industry will be called upon to serve the needs of an estimated 225 million persons. This added number of potential supermarket customers equals the present combined populations of Montana, Wyoming, Colorado, North and South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, and Illinois (70)!

While the increase in total numbers is a significant factor in itself, the shifting age distribution of the people already present is at least as important. In 1975, the 25 to 29 year age group will have increased 50 per cent over 1965 (75). This represents the largest increase of any one group, however, by 1975, the 15 to 19 year age group will increase 22 per cent over 1965; the 20 to 24 year age group will increase 41 per cent over 1965; and the 25 to 34 year age group will increase 40 per cent over 1965 (14). The 35 to 44 year age group will actually show a decline in 1975 compared to 1965 and the 45 to 49 year age group will exhibit little change. Thus, the major change will occur in the 20 to 35 year age group (75).

This shift in age distribution has many implications for the future. Obviously, the majority of the consuming public will be younger and their preferences will become more important in the marketing of all types of goods and services. Package designs will change to appeal to this younger consumer who is more conscious of fads and fashion than his older counterpart. Package designs will have to change as styles or fashions change so products do not become dated or old-fashioned. The use of bright, vibrant colors will increase, and we will see colors and color combinations presently not in general use for food packaging being used. Examples of this may be seen in today's market on packages appealing to the younger generation. Black has been traditionally avoided on food

packages, as have most dark colors, yet Screaming Yellow Zonkers produced by Ovaltine are packaged in an essentially all black package.

Illustrations will change to suit the times. A few innovative firms today are leaving the product illustration behind and replacing it with rather abstract, colorful, drawings of the product. True-to-life pictures of oranges on juice cans have been replaced by bold orange and yellow drawings of an orange slice.

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Package designers will be kept busy developing new, and appealing packages that mirror the fashion or style of the times. The younger customer is very aware of these factors and is a more aesthetically-demanding consumer. Visual excitement through the use of color and fashion may be stimulated by the package design. The final deciding element in any buy decision may well be the enjoyment, or entertainment, that a package can deliver at this instant.

Keeping the package design up-to-date will be a critical factor involving more time and money than ever before. It will also be vitally necessary as the young consumer is quick to reject anything old or dated.

Following this increase in young people will be an increase in marriage rates and an increase in the numbers of new households formed. The number of households formed compared to marriage rates is also rising as more and more newlyweds leave home immediately upon marrying rather than living as subfamilies with their parents, as was common in

the past. Numbers of households are also on the rise due to single people choosing to live alone. This not only includes young people who move away from home when they start working but widows, grandparents, and single relatives who, in the past, commonly lived with members of their family.

Even if population figures remained constant, as new households are formed, the demand for goods and services increases. Food product consumption will rise and with increasing numbers of newlyweds and single people, the demand for smaller product units will increase. As products are packaged in smaller units, more packaging materials will be used and more packages will appear on the retail shelf.

The retailer's problems with respect to handling, price marking, shelf stocking and ordering will be compounded with this increase in new items and the utility of the package, with respect to the retailer, will become increasingly important.

The consumer of the future will also have more money to spend. Income levels are increasing as a result of a shift in the occupational structure of the labor force as well as overall wage increases. Positions for unskilled laborers are decreasing as skilled and semi-professional jobs, paying higher salaries, are increasing. The number of women working is also increasing and contributing to the rise in income levels. More single girls are becoming career minded; more newlymarried women are keeping their

jobs after marriage; and an increasing number of women with children are finding jobs, at least part-time.

Disposable income in the United States jumped nearly 75 per cent from 1960 to 1968. In 1969, disposable income figures were \$588 billion and an increase of \$282 billion is expected by 1975. Putting these figures into perspective on a personal income basis, per capita income is expected to reach \$4,669 in 1975 and \$5,760 in 1980 for an approximate increase of 23 per cent each five years. Income per household will increase to \$14,668 in 1975 and \$17,471 in 1980 over the \$12,306 in 1970 (70).

With the increase in income, discretionary spending increases and these purchases are frequently a result of impulse buying. Leisure time is also increasing and more money is being devoted to leisure-time activities as well as to goods and services designed to increase the leisure time available.

These facts will have a great influence on future food retailing and packaging. The most evident impact will be in the areas of convenience foods and impulse items. The numbers of these items carried per store will increase and packaging will contribute greatly to their development. New food processing techniques will undoubtedly create new forms of products which may call for new packaging techniques. Packaging alone, however, will create many new products by allowing their presentation in a new form or by simply providing added convenience in use for old products.

The aerosol package is an excellent example of the former and the various packages now provided by Morton Salt add convenience in use for a staple commodity.

An increase in impulse purchases provides great opportunity for increased sales. However, it also places a greater burden on the package. Good design and the scientific development of package graphics will increase in importance as the motivational impact of the package becomes more critical.

Convenience products will be demanded by working women who have less time for meal preparation, young single people with less knowledge of food preparation, and the average consumer who wants to free the time usually spent in the kitchen for other activities. Impulse items will also be purchased more frequently by working wives as they have less time for meal planning and writing shopping lists.

Also stemming from the increase in the employed female population will be in increase in male shoppers. Traditionally, the supermarket was the women's domain and few men participated in the purchase of food. The future will see more males buying food for the family because the wife is employed.

Other factors are also adding to the increase in male shoppers. One is the increase in numbers of young people and marriages. Newlyweds frequently shop together, thus, the male influence is felt. A second factor is the leisure time leading to more outdoor activities such as

picnics or barbeques where the male assumes the cooking responsibility and often shops for his supplies.

The retail outlet will change to provide more products packaged to appeal to the male shopper as well as offering more information with respect to product preparation on the package.

Along with being younger and more affluent, the future consumer will be better educated. In 1965, 99 per cent of the 7 to 13 year olds were enrolled in school and 93.2 per cent of the 14 to 17 year olds as compared to 98 per cent and 83.3 per cent respectively in 1959 (14). Approximately 50 per cent of the high school seniors today enter college and college enrollment is expected to increase by 100 per cent by 1975.

This increase in educational levels carries implications for many areas. Higher income levels are a direct result of the increase in education. There has been an increase in skilled and semi-professional jobs which has both increased the need for educated people and benefitted from the increase in their numbers.

Education generally upgrades the style of living. People read more and pay more attention to current issues. The educated shopper is more sophisticated, more discerning and more discriminating, and less easily fooled.

To serve this customer, packaging will have to be upgraded and honest in the claims made with respect to the product and the package. Products will have to perform as

well or better than they claim to or repeat purchases will not occur.

Education also tends to increase mobility. When promoted, the husband may be relocated in his job or, as young people become successful, they may choose to find more comfortable living quarters. Of the population in the 20 to 24 year age group, 45 per cent move within a year's time.

Mobility tends to increase a persons adaptability or receptiveness to change. Because of this, the consumer may not hesitate to change brands or stores to find a better value or a product or store that better serves her personal needs.

In viewing all of these factors, definite trends appear that will change the market of the future.

The average consumer will be younger, more affluent, have more leisure time, be better educated, and more mobile. More men will be shopping while more women work. Food retailing and packaging will have to change to serve this new consumer.

#### Specific Market Segments

While the increase in population was mentioned previously, the effects of this trend were purposely not mentioned so that they could be explored in greater depth at this time. While the figures will not be repeated, the population of the United States is definitely increasing at a significant rate. Mass population will substantially increase the demand for all goods and services and, through increased technology and productivity, the supply of these goods and services will hopefully increase at a comparable rate.

While the mass population increases, various market segments are also increasing. It is this fact that holds the greatest significance for the future food retailer and manufacturer. Market segments, which today are too small to be profitable market targets, will grow sufficiently and become "mass" markets in themselves. In marketing products to these segments, their needs and desires will have to be discovered and then fulfilled.

In the following discussion which is largely taken from a consumer dynamics study done by <u>Progressive Grocer</u>, six of these segments will be explored with respect to their characteristics and unique problems (37). This is in no way an attempt to mention all of the possible new markets which may develop. However, it should provide a relative indication of the types of factors that will have to be considered when choosing a market segment.

<u>Newlyweds</u>.--As mentioned previously, this market segment will increase rapidly in the future due to the shift in age distribution. The newlyweds are defined as

those people married for the first time and for less than one year.

Over 86 per cent of this group are under twentyfour years of age, therefore, many of their characteristics also apply to the younger consumer of the future.

Newlyweds are highly mobile also as 90 per cent of the 18 to 24 year age group move during their first year of marriage.

The newlyweds spend more money per capita on food products than any of the other five groups to be discussed. The majority of the wives work, thus, they have less time for meal preparation but the couples benefit from a dual income. Possibly as a result of this latter factor, newlyweds are not bargain conscious. They are not nearly as receptive as other groups to special sales or deals.

Newlyweds tend to go food shopping frequently as they often have less storage space, especially for fresh and frozen items. They may stop to pick up a few items on their way home from work, therefore, convenience and quick service rate high as reasons for choosing a store.

Commonly, the husband and wife shop together and if a conflicting preference for a product or brand exists, the husband's wishes usually determine the final purchase.

The new bride is usually inexperienced in the kitchen and in the supermarket. In a survey conducted with newlyweds, 80 per cent of the wives said they had tried

recipes found on food packages while less than 50 per cent had used recipes from newspapers or magazines. This need for information and help is obviously present; however, it must be convenient to obtain and use. Her inexperience in the supermarket is evidenced by the tendency of the young wife to buy name brands and avoid special deals. The quality assurance associated with name brands is worth the additional cost.

The major problem facing this segment in the supermarket is finding products packaged in quantities to serve two people. Meats are criticized most heavily in this respect, yet, they also head the list of products providing insufficient information for use.

The future manufacturers and retailers choosing to serve this segment will have to provide convenience. The manufacturer will produce products in two serving quantities or perhaps provide packages with four or six servings containing two or three interior packages of two servings each.

Package graphics will have to appeal to the younger consumer, both male and female. Instructions for use will be required in a clear and concise manner and the package providing recipes and other serving ideas will have an advantage. Using the package to advertise other products in the line should be beneficial as the young wife is receptive to new ideas.

The retailer will have to provide these products packaged for two and should make shopping as convenient as possible. Quick service at checkout is important as is having personnel available to answer questions or make suggestions on food selection and preparation.

<u>Movers</u>.--It is difficult to define a "mover" because people from all segments of the population are becoming more mobile and moving more frequently. The numbers involved, however, should not be taken lightly. The number of households moved each year is greater than the Negro population, twice as large as the group earning over \$10,000 a year, and twice as large as the teenage market. By 1975, the mobility rate in the United States is expected to reach 20.8.

The mover is adaptable to change and therefore "switchable" with respect to products and stores. She seeks friendship, attention, and service in a store to help her feel at home and find the things she needs. She is also more critical and harder to please as she is constantly comparing her present to her past situation and has not reached the point where she may overlook disadvantages because a certain store is her favorite.

The mover has problems finding the brands she is used to, the meat cuts she is familiar with, and the items she is looking for. It is difficult for her to make up a convenient shopping list until she has learned the store layout.

The retailer may choose to target this segment by providing the service the mover wants. Well-marked store aisles, friendly and helpful personnel, and a large selection of well known brands placed on easy-to-see shelves, rather than at floor level, will all attract this mobile consumer.

It is much more difficult for a manufacturer to target this segment directly yet there are a few things that, if improved, would help the mover.

Distinctive package graphics which easily identify a national brand would make items easier to find. Centralized meat cutting providing packaged, standardized meats will also please this consumer. (This area will be explored in detail later.)

Upper Income Consumers.--The upper income consumer is part of the \$10,000 and over income segment and is also a member of the upper middle or upper class market. She is not the typical industrial consumer whose income has risen above this figure.

This market segment is rapidly increasing as the semi-professional and professional employment positions rise and it offers great potential to both the manufacturer and the retailer.

The upper income consumer is partial to national brands and very receptive to new products and exotic and unusual foods. She buys 87 per cent more gourmet foods

than the average consumer and consumes a greater proportion of party foods such as cheeses, rolls, etc.

This shopper has a car at her disposal and usually drives to the supermarket. Credit buying, friendly personnel, quality meats and produce, and convenience are all favorable store characteristics when she chooses a store. These factors as well as convenient parking facilities, wide selection of gourmet items, party foods, and national brands, and up-to-date stocking of new items would all aid a retailer in winning over this consumer.

The manufacturer has a potentially profitable market in marketing new items, and gourmet and party foods. The majority of these items are bought on impulse, therefore, the package must fulfill its selling function exceptionally well. Luxury appeals may be used to enhance gourmet items and party suggestions or recipes on snack packages would increase their appeal.

One of the main advantages in targeting to this segment is that cost is not a dominant factor. Naturally, inflated price strategies should be avoided, however, the consumer is willing to pay the price for quality and value. More money may be spent for convenience products and convenience packaging as well as on materials to provide a luxurious, high quality image.

Industrial Workers.--The industrial worker is classified, not on income, but on the source of the income.

Blue-collar workers make up this segment which is relativly easy to target due to neighborhood and city divisions along class lines.

This consumer has more discretionary money to spend on food as she has no social aspirations as the whitecollar worker with an equivalent income tends to have. She buys less frozen food and prepares basic meals with relatively large servings per person. The male influence in this segment is greater as he more frequently controls the money. This housewife often walks to the store and the husband goes to help carry the purchases home.

The retailer in an industrial neighborhood should have a high quality meat department which offers basic cuts. Frozen food items need not be extensive nor fancy. The produce department and grocery selection should also reflect the consumer's desire for basic items.

A manufacturer selecting this market would rely on simple items rather than exotic or little known products. Basic designs reflecting a simple, slightly masculine appeal would be best.

Young Marrieds.--The young married consumer is under forty years of age and has two or three children under the age of thirteen. She usually lives in the suburbs and her husband holds a white-collar job.

This consumer is extremely price conscious and wants a wide variety of items to choose from. She is,

however, one of the best food customers as she buys to feed several people. Nutrition and health are important to her because of her family responsibilities.

The young married consumer watches television often, is more receptive to advertising, and is prone to impulse buying.

Survey results showed that 75 per cent of this segment prepared recipes found on packages.

Shopping is not a pleasant experience, however, as the woman usually has her children along. While this is undesirable and hectic for the consumer, the manufacturer may benefit from the situation as the children have a high degree of influence over purchase decisions and are extremely receptive to television advertising.

In serving this segment, a retailer should offer a wide variety of items at low prices, stock new products as they enter the market, and advertise special low prices or deals.

The manufacturer actually has two potential markets in this segment: the women and the children. Both consumers are easily reached by advertising so, to be successful, the package should be easy to identify both in the advertisements or in the store.

In selling to the children's market, package designs should carry a fanciful, childlike appeal. Cartoon characters and special premium offers of novelty toys have a great rate of acceptance with this segment.

Nutritional and healthful products appeal to the adult consumer and by fortifying the children's products the mother is more likely to purchase the products.

Products which provide a good value for a low price would be well received as would packages that carry recipes or meal planning suggestions.

Package designs should also rate high in attention attracting power as the shopper has her children distracting her throughout the shopping trip and she is prone to impulse buying.

<u>Negro Customer</u>.--The Negro customer characterized here lives in the central city areas of our large cities. Many of these cities are becoming predominantly populated with Negroes and the size of this segment, as well as its concentration, makes it an attractive market.

The Negro customer is extremely quality conscious and leans heavily towards nationally advertised brands and products with established reputations for quality. She prefers fresh produce in bulk displays and does more impulse buying than any other segment.

Courteous treatment from store personnel is very important to this consumer and should be stressed by the retailer serving this market. National brands and special displays have been found to increase sales.

The manufacturer producing nationally branded products may rely on the package to carry the brand name in

an easily identifiable manner to the retail shelf. The package should also project the quality of the product and be tied in with advertising messages.

The supermarket customer of the future will obviously differ from the average consumer of today in many ways. This changing consumer configuration is the reason behind many of the changes expected in the retail outlets as the retailers realize they must adapt to their customer's needs and wants in order to be successful.

Packaging will also change as it will have to motivate a characteristically different customer in the future. The emotional appeals and convenience features selling today's products will not sell those of tomorrow. New technology in food processing will undoubtedly bring new products to the market which could conceivably require a whole new packaging technology to provide the protection and convenience required.

The growth in population will also affect both areas. Growing segments will become new target markets. However, a thorough knowledge of the consumer will be required to turn the potential into profit.

# The Influence Of Changes In The Present Retail Outlet On Packaging

The supermarket of the middle and late 70's will be big in size, wide in variety of merchandise, more efficient in operations and equipment, and highly consumer-oriented in terms of attractive appearance, merchandise presentation and services (22).

The supermarket of the future will show an increase in the number of products offered; store size; sales volume; and hopefully, profits.

The number of new products offered to the market shows no sign of decreasing from its present rate of 6,000 per year. Manufacturers are producing more and more items as: technology improves; markets increase in size, allowing for profitable segmentation; competition increases and their market share becomes less secure or declines; consumers demand more convenience; and as the profit squeeze increases. The manufacturer is also analyzing the consumer market and fulfilling its demand for more variety, added convenience, and new and improved products.

The retailer is caught in the middle of this increased flow of goods and is being forced to increase his assortment. One of the main criteria used by the consumer in choosing a store is the variety of merchandise. The retailer who fails to provide the necessary variety loses customers to the competitor providing the selection.

Thus, product assorment is a definite competitive advantage. However, as all stores increase in size and assortment, this advantage will decrease and other competitive tools will be employed.

The store of the 1970's will offer 10,000 items to the consumer for a 34 per cent increase over today's

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Size
average selection. The increase will come from totally new products as well as expanded product lines.

While product offerings are expanding, the size of the supermarket will also be increasing. Today's store of 22,700 square feet will grow 37 per cent to reach 31,000 square feet in the 1970's (84).

This increase in size, while necessary to accommodate the volume of new products, is also due to several, more economic, factors.

The trend toward increased price competition is expected to accelerate and as low prices become a firm competitive advantage, the use of stamps and games will continue to decline in importance. Store size is affected because low-price retailing brings increased store traffic and requires large premises to operate successfully. Aisles must be wider to handle the increased customer traffic; shelves are likely to be deeper to hold more merchandise; and additional checkouts are needed to service customers properly.

Low-margin pricing also offers the retailer a chance to increase his turnover of high-profit products outside the usual supermarket assortment. Once customer traffic is increased due to low prices on grocery and frozen food items, the opportunity is open for increasing the impulse buying of high-margin products. New lines and expansion of lines in categories such as gourmet foods, health and beauty aids, fancy candy, and specialty fruits

and vegetables will require larger departments in these areas in a larger store.

In the face of the present profit squeeze, the larger store benefits from a greater return on square footage and investment. Investment costs are definitely increasing and show no promise of stabilizing or declining in the future. Costs per square foot (excluding inventory) are presently \$28 and a 30 per cent increase is forecast. The store of the future will require an investment exceeding \$1 million versus today's \$600,000 (84). While this is not encouraging in itself, the possibility of greater profit and increased efficiency and productivity makes the larger store an attractive proposition.

Sales volume is expected to follow the pattern set by product offerings and store size and increase. Weekly sales in the \$80,000 to \$90,000 range are anticipated, for a 79 per cent increase compared to the present \$48,000 volume. Sales per square foot of selling area, projected to \$3.75, is 21 per cent greater than today's \$3.10 per square foot (84).

While costs will also be rising (labor is expected to jump from today's 8.3 per cent to 10.0 per cent), increased productivity and efficiency are expected to help the profit picture. Annual net profit will approach \$100,000 and yield a 2.2 per cent net profit on sales before taxes (22).

The future then, from a retailer's standpoint, holds promise of bigger and better product offerings, stores, sales, and profits. When analyzing this picture from a manufacturer's vantage point and considering the implications with respect to packaging, the retailers optimism is not readily transferred.

While the expected increase in the number of products offered is an encouraging factor from the standpoint of product acceptance and potential sales, it must be remembered that competitors will also increase their offerings and competition will greatly increase.

The fact that packaging will become an increasingly critical element in the total marketing mix cannot be emphasized enough.

The fleeting one-fifth of a second given to today's package to make a sale will become a rare but welcome occurrence in the future. The larger supermarket and greater number of products will result in the consumer spending much less time shopping per product.

The silent salesman's job will become increasingly difficult as the selling time alloted to each package dwindles. Package design will call for a more scientific approach and require greater amounts of time and money devoted to development. The attention attracting power of the package may become the most critical factor in fulfilling the function of motivation. Premarket testing of

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the design will be a must. More sophisticated and reliable test procedures will be developed and will be used extensively as a manufacturer will no longer be able to rely on the good judgment of a few designers or marketing men to sell a product.

More products mean more competition and more imitation. While some of the future items will undoubtedly spring from technological progress and be totally new concepts, many of the "new" products will be a result of expanded product lines in the form of new flavors, new sizes, and new shapes. As each manufacturer expands his product line, the overlap between competing lines will have to increase, thus, more imitation will inevitably occur.

It is a well known fact that the more closely products resemble each other, the less part reason plays in the selection of one brand in preference to another. More often than not, the package will be called upon to provide some type of product differentiation. More product information with respect to suggestions for use, recipes, or menus, and/or easy-open features or reusable containers, which increase the utility or convenience of the product or package, are a few methods which may be employed to differentiate a product.

Advertising will become more important in creating demand for an item, thus, the package must be designed to look good and create a desire in magazines, newspapers, and

on television as well as being readily identifiable as the same package on the store shelf. Product-line identification will increase as the manufacturer relies more heavily on past performance and reputation to sell new The family-of-products concept will also increase. items. This involves the use of one basic design for all products in a group with only the colors, product illustrations, or type styles being changed for product identification. Most cake mixes and many snack products use this technique today. The similarity of package elements strengthens the visual impact and provides easy identification and greater attention attracting power, particularly if the products are grouped together on the shelf. All products benefit from the multiple facings of the line.

While the future trends in food retailing will obviously make the silent salesman's job more difficult as it sits on a longer shelf, among more products, this is not the only implication arising from the expected supermarket changes. The motivational impact will only become more important if the package does in fact reach the retail shelf.

The fact that product offerings will increase at the retail level should not imply that buying committees will be eagerly accepting all new products. Product offerings from manufacturers will also increase and the greater selection coupled with more imitation will allow the committees to be more selective in choosing new items.

The future retailer's plans to add more high profit items in the non-food classes to his merchandise assortment will also cut into the space devoted to standard grocery products.

Thus, the manufacturer will not only have to devote more time and money to the motivational impact of the package but will also have to pay much more attention to the likes and dislikes of the buying committees. The systems approach to packaging will receive widespread use as all members of the distribution channel will have to be pleased with the manufacturer's offering. If one firm fails to consider the wholesalers' or retailers' problems when designing the package, there will always be other firms with similar offerings who were not as nearsighted in their approach and, thus, have attained a competitive advantage before even reaching the retail shelf.

## Layout And Design

While the increase in total supermarket area is a significant fact in itself, even more important is the fact that selling area will increase more than proportionally. The selling area's share now stands at 68 per cent and the sales area in the store of the 1970's will receive a 74 per cent share-of-space figure. Much of this increase will be effected when backroom space devoted to processing is decreased or eliminated.

The two most "compelling needs" of today's store and the supermarkets of the future that must be satisfied are the saving of labor and space. As will become evident, the future trends in layout and design are geared to this end. Space problems will not be particularly lessened solely because of increased size as the additional space is already being allocated to greater assortments of product types now stocked; new products; new departments; and customer service areas such as rest rooms, lounges, and snack-bars.

Centralized Meat Cutting .-- While the importance of meat cannot be overlooked in terms of customer drawing power, the meat department is probably the worst offender in the store with respect to consumption of labor and space. On the store's balance sheet, meat is decidedly on the weak The results of a McKinsey study illustrate this side. point very well as they pointed out that beef was actually a money loser in thirty-three out of forty-six supermarkets analyzed (4). While there are many problems involved in going to centralized meat cutting--union objections; costs of new equipment and plant; development of high-speed, assembly-line fabricating equipment and distribution techniques--the pressure for increased savings in space and labor cannot be ignored. Both chain executives and independents surveyed forsee 80 per cent of their red meat being received in some prepared form by 1975 (84).

The processing and packaging of fresh red meats wil will move from the backroom of the retail store to centralized locations in chain and wholesale distribution centers and in plants of the packers.

The Agricultural Marketing Service of the United States Department of Agriculture has reported that a group of 40 retail stores with a yearly meat volume of \$13 million can save \$650,000 a year in construction, equipment, and labor costs (4).

In addition to cost savings, centralized meat processing and packaging has the following advantages: meat is processed at the level of optimum quality and maximum yield; the assembly-line method increases labor productivity; many cuts with low retail value have high processing value at the centralized level; there is better meat distribution according to market preference; and overhead costs are subject to better control.

Some consumer complaints will also be solved when this switch occurs. Whether processing and packaging is done by the chains or the packers, branding of meats will become widespread and will carry a guarantee of consistent quality to the store level. Cuts of meat will become nationally standardized so that the mobile consumer will be able to find the same products in all areas of the country. Standardization also carries benefits to consumers in a local area as, in today's market, cuts may vary

considerably between stores both with respect to the product name and the price.

Retail delivery of meats will take place once or twice daily, depending on the size and location of the store. For special cuts, customers would telephone the store or the meat wholesaler the day before she needed the product and the packaged item would be delivered to the supermarket the next day.

Once centralized processing and packaging of fresh meat has been established, frozen meats are expected to follow rapidly. Consumer education programs would be required to overcome the major obstacle to this method: consumer resistance.

Initial large investments would be required to provide the necessary freezing facilities at the various levels of processing, distributing and retailing, however, this investment would be rapidly recovered due to the many advantages inherent in the method.

Store deliveries per week would be reduced; inventory and operating control simplified; and distress selling common to fresh meat operations would decline causing greater stability in prices as well as a better matching of supply and demand.

Studies of frozen versus fresh meat retail store operations point out additional areas of cost savings as follows: a 100 per cent frozen operation would cost from one-third to one-half of what the present method costs;

man-hour requirements would be reduced by 85 to 90 per cent; total investment in meat handling equipment would decline by 35 per cent; and the total area now devoted to the meat department could be reduced by 60 per cent (4).

Centralized meat processing and packaging appears to be inevitable, first with fresh meats and after that with frozen cuts. Packaging will have a large part to play and may well contribute greatly to the success or to the failure of the concept.

At the present time, high-speed, assembly-line equipment is not readily available for the processing or the packaging operations. A farsighted material supplier is probably presently involved in developing meat packaging machinery, after taking notice of the success achieved by the Cryovac Division of the W. R. Grace Company when they developed the patented Cryovac process for packaging poultry items.

The materials needed to package fresh meats are currently in use and these will be effectively employed in the central operations. Undoubtedly, new developments and technologies will increase efficiency in the use of materials and in the packaging methods.

The package will also carry the brand name to the retail store and the motivational function of packaging may finally be applied to meats. Decorative, appealing labels will be designed and information provided on product

preparation or suggested uses for the cuts. This could easily result in increasing the demand for meats. Studies have shown that the housewife actually knows how to prepare only a small percentage of the retail cuts available. Thus, by providing recipes and preparation information on the label, the consumer will benefit from a more useful selection of products and may purchase more meat.

Frozen meats will call for new or improved materials which will be determined by the processing method and distribution cycles employed. Different film properties are required for packaging meats frozen at minus  $30^{\circ}$  to  $40^{\circ}$  Farenheit versus packaging at minus  $100^{\circ}$  to  $300^{\circ}$  Farenheit. Also, different protective properties are required depending on the storage period involved.

The cost of packaging materials will be reduced for frozen meats as no tray or backing board is required. The meat is frozen throughout the distribution cycle, thus, provides its own support. Using a tray or board merely increases the freezing time by acting as an insulator to one side of the meat.

The arrival of centralized meat cutting will make a great contribution to satisfying the retailer's need for savings in labor and cost.

<u>Prepackaged Produce</u>.--In the fresh produce department, the meat centralization equivalent has already made great progress. Increasing quantities of prepackaged

produce is coming into the store from chain and wholesale warehouses, from produce wholesalers, and from the source. The latter is the big trend of the future. The increased use of improved transportation methods will help accelerate this trend and will result in an expanded line of advertised, branded produce.

The retailer's costs are cut and the backroom trimming and sorting space freed for more profitable use. The consumer also reaps the benefits from purchasing a higher quality product consistently.

Prepackaged produce has already made a significant impact on the packaging industry solely on the basis of the volume of materials used. Shrink films, paperboard and foam trays, and polyethylene bags are used in great quantities in packaging all types of produce items.

The future is equally attractive and extremely interesting from a packaging standpoint as containerization is expected to expand in many new directions, one of them being produce. The idea of containerization--moving many units in a single container--is not new, however, as the principle is applied to new areas, the potential possibilities for use increase.

Movable bins or carts may be loaded with retail packages of product at the wholesale level, shipped to the store and rolled into coolers and/or displays. Both coolers and display areas will have to be designed to accommodate the standard size containers.

Plastic shipping containers may be developed to serve as display units in the retail outlet. They could be placed in a dispenser fixture fitted with an upwardthrusting spring that moves full trays of produce upward as the top tray sells out.

Another interesting possibility would be the delivery at retail of four-wheeled carts with trays that can be tilted for more attractive display of the prepackaged produce items.

While no attempt will be made to predict when these innovations will reach the supermarket, when they do arrive they will call for changes in packaging methods.

The use of containers in any of the situations previously described will require some type of standardization of sizes. Movable bins and carts will have to fit into display areas and shipping containers into dispensers. Dimensional standardization of these items will not present as large a problem as the also needed standardization of retail packages. Various quantities of products must be prepackaged for consumer satisfaction, however, these quantities will have to be placed in modular packages so that the required assortment of package sizes may be conveniently shipped together. While the development of standardized packages is no easy task, produce items could be classified on shape and size which would facilitate package development. For example, apples, oranges, peaches,

and perhaps tomatoes could all be shipped in the same container along with lettuce, cabbage, grapefruit, melons, and cauliflower. The latter group would have fewer trays per container than the former group, yet the same container could be used.

Grocery Items.--While most improvements related to solving problems in the grocery product area do not appear to be forthcoming in the near future, there are several ideas proposed which would increase efficiency in this area, a few of which are now being adopted on a small scale.

The major labor cost related to grocery items stems from price-marking and shelf stocking. Warehouse case opening/pricing production lines would alleviate the burden at the retail level, however, most shipping cases are not packed to facilitate this method. Manufacturers will have to convert to cases containing single product layers positioned for rapid price-marking and featuring easy-open, reclosable devices.

Containerized shelf stock is a welcome idea to the retailer. Whole sections of shelving stocked with merchandise would be wheeled in off delivery trucks and rolled on to display. Problems arise here as to who will do the shelf stocking for general grocery items, however, the method is in limited use for soft drinks. One of the leading cola manufacturers is experimenting with a unit display that is wheeled into place on a hand truck carried

by their own driver-salesman. The benefits of increased efficiency and productivity naturally accrue to the manufacturer.

Special displays prepared and containerized at the warehouse or manufacturing level would provide similar advantages as the display could be moved intact to its selling floor position. The Quaker Oats Company recently offered a prebuilt display for a new cereal product to retail outlets. The display contains five cases of product, stacked one case per tier, in tray-type containers on a corrugated pallet. The unit is enclosed by a corrugated sleeve during shipping and storage which is easily removed at the supermarket level.

While prestocked shelves and prebuilt displays are possible solutions to the retailer's problems, their use, in areas other than those cited, has little chance of becoming a commonplace procedure very soon. Shelf stocking at the warehouse level would not decrease labor costs, only shift their place of occurrence. Prebuilt displays offer some promise, however, their use would be limited to new products with a high volume potential. The retailer could obviously not display five cases of every cereal product he normally stocks.

<u>Refrigeration</u>.--The average supermarket has 50 per cent of its total equipment and fixture investment in refrigeration (55). As frozen food offerings continue to

expand, more refrigerated space will be needed and the investment required will increase. Major trends in this area, therefore, are geared to utilizing the store space devoted to refrigerated items more efficiently.

The low, old-fashioned freezer type cases are becoming obsolete. Tall upright cases with two to four shelves above a bottom freezer bin are the trend today and in the future. This provides eye-level viewing of the face panels of many products as well as allowing more efficient space utilization.

This trend alone will call for packaging changes. Many frozen products are now packaged in relatively shallow packages and graphically designed for horizontal display. Vertical display will require a more stable package shape for shelf stocking. Additional factors, such as lighting and viewing angles, will have to be considered in graphic design so that the motivational impact is retained.

Walls of frozen foods will become commonplace in tomorrow's supermarket as vertical cases are designed with less case and more product area. Flexible shelving, baskets, and dispensers may be incorporated for merchandising flexibility. Pouched frozen products may be hung up on peg displays as is common in the luncheon meat category today. Many areas of packaging would be affected if and when the latter trend catches on. Folding cartons would

not be used. Plastic pouches would contain the product, as boil-in-the-bag products today. These pouches would have to be made from a strong material to prevent puncture from any sharp pieces of product and provide adequate handling protection.

From a manufacturing standpoint, the pouch package would require form-fill-seal equipment in the plant. The manufacturer would be producing the package as well as the product. Paperboard strips could be applied to carry the graphic elements and permit hanging of the product, however, holes may also be punched in the top of the pouch for the latter purpose. New printing methods and inks would be required to print on the pouches or clear pouches would use the product's appearance as a selling point.

The mobile rack concept may also be applied to the frozen category. These could be wheeled into display position as needed and stocked in the backroom or warehouse.

Rear-fed frozen food banks are also being thought of. Stocking would be done through the back of the frozen wall and could look very similar to a mail room. Packages stocked in this manner would have to be a fairly standard shape and size to allow optimum utilization of space.

Departmentalization, Decor, And Lighting.--With the large increase in both size and product offerings in the supermarket of the future, the layout of today's store would be inconvenient. Adding consumer convenience and

making shopping a pleasant experience is the trend of the future.

Departmentalization or the "boutique" concept will be widely used. Products may be grouped by category, such as cake mix, or by use, such as desserts. Each group could be set apart from another in alcoves or nooks provided by curved shelving or partitions. Free-standing grocery gondolas would still be in use, however, the shapes could provide distinctiveness. Decor will become more elaborate with the wide use of new plastic materials simulating stone and wood. Wall lighting may engage systems of changing lights or scenes. Large, attractively designed signs would adorn each grouping while providing easy identification for the shopper.

One of the most significant decor advances will be the use of panels or wall lighting that will change the store's appearance with the seasons or for special occasions. Various lighting combinations will also be used to highlight certain areas or draw attention to specials.

Shopping in the store of the future will be much more pleasant for the consumer as well as being convenient.

Package design will definitely be affected by these changes. Products will be competing within their own groupings and in a smaller area. The long aisles will be gone. Head-on viewing may be possible for many products, thus, the entire facing will be available to catch the

consumer's eye. Lighting changes will affect the colors on the package so these will have to be chosen to be equally appealing under any conditions. Branding may become more important as products compete solely in their categories. Close review of competitor's packages should become commonplace when designing a package.

The separation and easy identification of product groups may decrease impulse buying. A housewife will no longer have to walk up and down long aisles searching for the products she needs. She will now be able to locate a particular product group easily and go only to those groups containing the products she needs. The products within the particular group will benefit from a longer exposure or selling time, however, the remaining items in the store will have lost their one-fifth of a second and the chance to make an impulse sale. With the increasing reliance on impulse sales, this practice could create problems for everyone in the channel.

The retailer or designer will have to keep this possibility in mind when designing the store layout. Traffic patterns should flow in such a way that the majority of the "boutiques" are passed. The decor may also be used to intrigue the consumer and motivate them to investigate the offerings in every group.

<u>Checkouts</u>.--The checkout area of the supermarket is one receiving many complaints from today's shoppers and

retailers. The time needed to unload, checkout, and bag purchases causes consumer frustration and retailer costs to increase. While electronic developments will be discussed in a separate section, some mechanical improvements are also predicted for the future.

The unloading operation is an inconvenience for the shopper as well as a valuable time waster. A specially designed shopping cart has been developed which is to cut checkout time by 33 per cent (17).

As the shopping cart is placed in the checkout position, a movable belt lining the bottom of the cart basket is linked to a specially designed counter unit. When the checker activates the switch, the belt is drawn forward and upward so that all of the merchandise in the shopping cart is lifted and placed within arm's reach of the checker. After the transaction is completed, the switch is reversed and the belt returns to the cart. The checkstand area is reduced in size, thus, the process also contributes to space saving.

Automatic or semi-automatic bagging devices are predicted to appear at checkout. Delicate products packaging will have to be improved before such methods are employed. Produce items, and eggs would require stronger packages to withstand the increased handling at the checkout.

<u>Multilevel Store</u>.--Along with the problems of rising labor, material, and land prices, a future issue

will be land shortage. Good locations are at a premium in many areas today. As the population increases and stores grow larger the problem will become even more acute. Multilevel stores have been proposed as a partial solution to the problem.

Supermarkets may conceivably be three to five stories high. Each level, which would encompass at least 8,000 square feet of sales area, would merchandise products from one or more departments. Meat, produce and dairy may occupy the first level; grocery and frozen items the second level; and non-foods, drug items and a lounge area could occupy a third level. Warehouse facilities may be available on each floor or in a basement. Conveyor systems or elevators would be used to carry products to each level as needed.

Depending on the exact layout of the future multilevel store, some change may be called for in packaging. A conveyor system may place restrictions on shipping case sizes and shapes. The subject of standardization gains prominence in this type of discussion as manufacturers could not be expected to package differently for each retailer. The retailer, of course, could reject any shipper that did not conform to his particular system.

### The Impact Of Electronics

In recent years, the food industry has actively sought new techniques or systems to help management solve

its many problems. Electronic data processing has offered partial solutions up to this time, however, the future will see computer applications accelerating in all phases of the store operations.

The warehouse was one of the first areas to use data processing in calculating product movement figures. Profit per unit, turnover, and sales figures were made available on all items shipped from the warehouse to an individual store. This information greatly aided the management at the warehouse level as they were able to classify their customers on the basis of their relative profitability.

The use of this information then spread to the retail level as the warehouse people made product movement figures available to individual stores.

Improvements are still being made with respect to the applications found for data collected at the warehouse level. The next step is going to involve sophisticated data collection systems at the store level. Only a fraction of the potential applications of the computer have been realized in the food industry, however, the future will find their use widespread and common in many areas of operations.

<u>CPI Program</u>.--The CPI program is based on warehouse collection of product movement data, however, it was taken a step further than other similar systems in that it

provides recommendations on shelf space allocations and reorder points to individual retailers.

The concepts are simple enough: items should be ordered only when a full case will fit on the shelf; and the establishment of shelf capacity and reorder points can accurately signal when items should be ordered and in what quantities.

The full-case shelf stocking concept saves manhours in ordering and in stocking, reduces inventory, and helps eliminate out-of-stocks.

Historical data, gathered over a twenty-six week period, is used to determine turnover rates and profit per item. Based on these figures, recommendations are made on shelf space allocation and reorder points. Implementation at the retail level involves an initial reset of all product items involved. Items are given the shelf space needed for one week's movement plus one case and reordering is done only when one full case may be fit onto the shelf.

Computer printed labels are affixed to the store shelf for each item. The product name, case pack, size, shelf capacity, reorder point and code number appear on the label. The rows and number of facings allocated to each item are penciled in during the reset operation. Various colored dots may be affixed to the label to indicate backroom stock, warehouse out-of-stock, discontinued items, and items that are to receive more space as it becomes available.

Ordering procedures may be implemented in three The standard ordering method may be used where the ways. order clerk checks the shelf stock, reorder point, and writes the orders as needed. A leased Dataphone system may also be employed where the clerk enters the order data on a magnetic tape which is then transmitted to the warehouse in less than two minutes. The most advanced and sophisticated ordering method employs an optical scanning device. Additional shelf labels are required which contain the product code and the store's retail price. When the reorder point is reached, a scanning device resembling a hand gun is placed over the shelf label and activated. The scanner's reading is transmitted to the order entry unit's magnetic tape and this information is transmitted to the warehouse as before. One case may be ordered in one-fourth of a second. The savings resulting from decreased inventory and labor costs more than make up the cost of the operation.

If this procedure becomes widely used in retail outlets, packaging changes may follow. The retailer will demand shipping cases packed in convenient quantities. Packages designed to make shelf stocking easier will be welcomed. Multipacks may increase in use as well as tray type shippers that may be placed directly on the shelf. Improved case markings will speed up operations at the warehouse and retail level.

<u>COSMOS</u>.--One of the most promising management information systems to be developed for food industry use is Computer Optimization and Simulation Modeling for Operating Super Markets or COSMOS. The first phase of this system is presently installed and operating in a select number of retail outlets and as the validity of the system is confirmed it will be released for general use.

Some of the critical issues facing those engaged in grocery distribution are: which of the thousands of available products should be handled in the available store space; how much shelf space should go to each product; where should products be displayed; which products should be promoted; and at what price should each product be sold. These problems are compounded because solutions will vary depending on the demography and competitive environment of each store.

The goal of COSMOS is to provide an integrated management information system designed for all operating elements in a chain or group of stores. Computer reports will recommend specific actions to be taken to improve the profitability of a store and evaluate the consequences of past actions.

COSMOS I is designed to deal with the problems of product proliferation and changing consumer demands related to product mix, pricing, and space allocation.

Item evaluation is done on a profit calculation of item profit per cubic foot of shelf space. This figure is obtained by subtracting all direct handling costs--such as distribution and in-store processing--from gross margin and dividing this by the amount of space occupied by the item. Products within a category are evaluated against each other on the basis of this profit figure. Recommendations may be made on any of the following: shelf space allocation by amount and position; profitable price changes; promotion of items with potentially high profit; or deletion of unprofitable products. The recommendations are primarily designed to affect the big profit makers and big profit losers.

Reports are issued to various levels of management and contain information on those areas and products over which the manager has control. The management by exception technique is employed as only those products requiring attention are reported.

The National Association of Food Chains is guiding the project, which is sponsored by manufacturers. The system will provide the manufacturers with information on the true profitability of their products and the affect of various product mixes in different areas. A predictability approach to marketing decisions may become a reality when the COSMOS program becomes fully implemented.

While COSMOS I deals with problems of product mix, pricing, and in-store allocation of display space, there are subsequent stages dealing with increasingly complex issues.

COSMOS IA will deal more directly with out-of-stock conditions and prepare the way for stages II through V.

COSMOS II will be concerned with promotional strategies and the optimum balance between promotions to build traffic or increase profits.

Storewide pricing strategies will be evaluated under COSMOS III. COSMOS IV will aim at maximizing returns from advertising expenditures.

Recommendations on store layouts and the optimum location for various categories or subsections will come from COSMOS V.

The results of COSMOS will affect every area involved in the marketing of food products, including packaging.

Initially, COSMOS I will concentrate on shelf space allocations. Unprofitable products will be rapidly detected and removed from the shelf. This fact has two implications for packaging. It may make new product introduction easier because, as unprofitable products are removed, more space will be available to devote to new items. On the other hand, good package design will become even more important as competition will increase between

profitable products. Designers will be forced to pay closer attention to competing product designs when developing a package.

Product life cycles will be shortened as products will be removed as soon as sales start to fall off. The practice of using package redesign to extend life cycles will probably be widespread, however, the decision on when to redesign will become more difficult. Many firms today rely on falling sales to signal the time to redesign, yet, in the future this practice could obviously not be used as the product would be removed from the shelf before the redesign was completed.

Once the entire COSMOS system is underway, many benefits will accrue to the manufacturer. A scientific approach to marketing will be possible. More time and money will be needed to develop a new item, however, the benefits of success will be greater.

Scientific package test procedures will be developed. In-store testing may be possible to test the impact of various new designs or redesigns on sales. The influence of advertising and various promotions on sales will be discovered. The true importance of shelf location related to package visibility and sales may be known. Neighborhood preferences for package sizes and designs will become apparent and this could lead to package designs being developed for individual market segments.

COSMOS will allow the retailer to tailor his product offering to meet the specific needs and desires of his particular customers, at an optimum level of profit. It will also help the manufacturer to identify new or more profitable market segments and aid him in designing an offering for these segments.

<u>Electronic Checkouts</u>.--The checkout area in today's supermarket is one of much concern to consumers and retailers. Consumers dislike the time involved in the checkout procedure and the fact that cash register windows are hidden from full view. Retailers suffer from checkers ringing up incorrect prices and consumer dissatisfaction.

The supermarket of the future will be equipped with computerized checkouts. Not only will they solve the problems found in this area today, they will provide solutions to other problems as well.

When electronic checkstands are first used, the physical appearance of the checkout area will have changed only slightly. New cash registers will be slightly smaller and more streamlined and contain colored keys which coincide with department labels. The major changes will take place in the marking of products. Instead of price-marking, each product will be tagged with a code number. Shelf labels will provide the consumer with the price information corresponding to the various numbers. At the checkout, checkers will punch in code numbers, however, product

prices will appear in the register window. The register will be hooked into a computer at a data center and information will be transmitted via telephone lines at the time of the store transaction. The computer will do two things: convert the code to a retail price; and deduct the quantity rung up from the store's inventory record. The consumer will be furnished with a register tape containing both the price and the code number, which will allow her to check the accuracy of the transaction.

From a management viewpoint, this procedure allows for "instant" inventory control, and automatic ordering. The system starts with the deposit of historical data, such as current inventory and code numbers, into a "memory bank" or master file. Each day, receiving and sales transactions are fed into the file and computer print-outs make the information available to management. Sales, gross profit, turnover, and remaining inventory per item per day appear on the data sheet. The manager is able to "instruct" the computer to order from the warehouse and when items arrive at the store, the information is fed into the computer to update the inventory figures.

If a manager wishes to change the price of an item, he need only feed the information to the computer. The checkers need not be told about price changes as the code numbers remain the same. Significant savings in labor costs can be realized by eliminating price changes by hand.

This will be the basic procedure involved when electronic checkstands are introduced. The major advantage to management, that of "instant" inventory control, will be realized immediately, however, future improvements are predicted which will provide additional benefits.

At the outset, coding of products will be handled in a manner identical to price-marking. Future improvements will involve the development of a universal coding system and code numbers applied by the manufacturer. The package will have to provide an easy-to-locate position for this code number. Retailer savings in the form of decreased labor costs will be realized.

Optical scanning devices will be another major improvement at the checkout. Code numbers will be printed using magnetic inks and the scanner will "read" the codes and automatically record the transaction. Benefits to the retailer include the elimination of costly checker errors and increased speed at the checkout. Fewer checkstands will be required, thus, space will be available for more profitable uses.

The use of optical scanners may require changes in packaging. Depending on the device developed, certain metal or foil packaging materials may interfere with the "reading" of code dates. These materials may have to be eliminated or new manufacturing processes developed to correct any problems that develop.

#### CHAPTER IV

# THE INFLUENCE OF RETAIL METHODS OF THE FUTURE ON PACKAGING

Up to this point, the future of food retailing has been discussed in relation to the changes expected in the supermarket of today. Since this outlet is presently the dominating force in the retail food business, these changes are geared to solving the problems of today's supermarkets, and, as such, are of utmost importance to today's retailer. There is no guarantee, however, that the supermarket will always be the major method employed in selling food products. Several of the new methods to be discussed are presently in operation on a small scale. The future may find one of these taking over a major portion of the retail food business.

As we have seen, historically, packaging changes have occurred both as a cause for and as a result of major changes in retailing methods. There is no reason to believe that this trend will not continue, thus, the future changes in food retailing methods will affect packaging and vice versa.

### Computer Card Shopping

Computer card shopping is a new method of food retailing that offers potential for the future. The validity of the method is presently being confirmed through the operation of a store called Distelec, in Paris, France.

Distelec is a small Parisian grocery store where shoppers pick up computer cards rather than packaged products. Each item carried by the store has one facing on the shelf and under each item is a rack of numbered punch cards. The customer takes a card for each item she desires and turns these in at the checkout counter. As the cards are fed into a computer, the order is transmitted to an adjacent warehouse where a stock boy selects and bags the products desired. A detailed invoice is also printed out listing the items, quantity, and price. As the shopper pays for her purchases they are brought out from the warehouse, ready to be taken home.

The Paris store is a very small operation compared to American supermarkets. The building covers 6,200 square feet on one floor with one-quarter of this devoted to selling space and the remainder to warehousing. There is no fresh produce or meat and only a limited number of frozen foods among the 1,500 items displayed (74). While this size outlet would not be an attractive supermarket alternative, the concept is sound. The number of items offered could easily be increased and expanded to include

meats and produce. The stock boy compiling the Distelec orders could be replaced by automatic order-picking devices if this method were to achieve success in the future.

Computer card shopping offers solutions to many of today's problems. Pilferage, shelf stocking, and price marking would be eliminated. Construction and investment costs would be reduced as the majority of the store area would be devoted to warehouse space. This would also allow for more efficient space utilization. The land shortage problem would be alleviated due to this increased efficiency, and one location would serve as both warehouse and retail outlet.

Labor costs would be greatly reduced as few personnel would be needed at checkout and the operations consuming the majority of time today, such as shelf stocking and price marking, would be eliminated. As costs decrease and efficiency increases, food prices will decrease. The Distelec operation has been able to offer products at prices up to 5 per cent lower than the leading food discounters (74).

Shopper convenience would definitely increase with this method. The customer no longer has to load and unload a shopping cart, thus, the time spent in shopping and at checkout will be reduced.

Computer card shopping would also cause some changes with respect to the competitive enviornment of the

package. Each package would only have one facing. Designers could no longer rely on multiple facings to provide motivational impact and sell the product.

Today's competition for shelf space would be eliminated and each package would have an equal opportunity to make a sale. Competition between product categories will increase as the items will all be closer together. The manufacturer with a poor package design for a high volume product, who today is relying on facings for sales, will have to look to redesign for sales in this outlet.

## Automatic Vending

Automatic vending has great potential for future food retailing as the method has extreme flexibility in application. Vending machines may be designed to hold from one to hundreds of products, in almost any form, and the machines may be placed anywhere. The increase in convenience for the consumer will be a matter of degree, depending on the application.

Retailer problems will be solved because the function of the retailer that we recognize today would be eliminated.

Two different applications of automatic vending, on a large scale, have been successful in Europe.

Consumers in Wiesbaden, Germany, may shop at a "food automat" (16). As the shopper enters the store, she passes through two turnstiles and presses a button to
obtain a numbered plastic token. Once inside the store, she is free to purchase products from any of the ten vending machines displaying 100 items each. Each item is marked with a price and code number and may be easily seen by the shopper but not touched.

To make a purchase, the shopper first places her token (which contains an identifying magnetic code) in the slot provided on a small unit containing numbered buttons. When she presses the buttons corresponding to the product code, the item is mechanically pushed from the machine and delivered to the consumer. When she has completed her shopping and has her purchases collected in a bag or sack, she proceeds to Station 1 where she drops here token. At Station 2, the cash register automatically scans a memory system and registers all purchases done by that particular The register also produces a tape and displays the token. total amount of the purchase. At Station 3, the customer deposits the approximate number of coins needed to pay for the products and at Station 4 she receives her change. Until the shopper has completed the operation at Station 4, she cannot leave the store because the exit is blocked by a turnstile.

Another example of large scale food vending may be found in Stockholm, Sweden. Situated outside, on a main throughfare, is a 100 foot long vending machine. The machine has 1,515 compartments, 492 of which are refrigerated for various fresh foods (16). Purchases are made from this

machine in a manner identical to that used on the small vending machines common in this country. The problem of having to have correct change for this method will be overcome in the future if credit cards replace cash.

In the United States, automatic vending plays a much smaller role in food retailing. Items such as soft drinks, cigarettes, and candy are commonly found in small machines.

The spread of automatic vending will greatly increase consumer convenience. The vending machines may be placed in virtually any location and products may be purchased at any time.

The owner of a vending operation has none of the problems common to today's retailer. He may have to employ people to stock the machines, yet, they may also be stocked by the distributors, as they are today.

The spread of automatic vending will require major changes in packaging. From a motivational standpoint, the package's job will be much more difficult. As with computer card shopping, only one facing will be displayed, thus, the impact obtained with multiple facings is lost. Each item will have an equal opportunity to make a sale. Visibility of the package design will become more important as the consumer is farther away and is separated from the product by a glass window. This separation also eliminates the motivational value of package texture and feel as well as the value of recipes or suggestions for use on the

package backs. Standardization of sizes and shapes will be mandatory for many methods of automatic vending, thus, the use of either element as a motivational tool will be eliminated. As standardization will also cause many packages to be identical, the face panel design will become increasingly important. Bright colors and distinctive, but easyto-read, type styles will be relied on to differentiate a product.

Advertising will become more important as the package will no longer be able to communicate all of the unique features and uses of a product.

From a protection standpoint, the package will have to withstand the forces encountered as the machine dispenses the product. Packages may have to have the weight of the contents evenly distributed to prevent tipping or jamming in the machine. Tolerances may also become more important to make sure the package fits the machine, if it is of the dispenser type similar to cigarette machines today.

Utility must be considered with respect to the distributor or person stocking the machine as well as the consumer. Case sizes must be convenient to handle and should be packed to facilitate unloading and machine stocking in product groups.

Automatic vending will actually cause a shift in the relative importance of the functions of the package.

Protection will become more important as well as utility with respect to the distributor. The motivational function will decrease in importance and other forms of advertising will have to be relied on.

While these changes in packaging will occur if and when automatic vending becomes a major retail method, standardization of sizes and shapes is also an example of a packaging change that could precede and, therefore, contribute to a shift in retailing methods.

There is a current trend aimed at increasing standardization in packaging. If this trend accelerates, the future may provide standardized packages and this, in turn, could facilitate the shift to automatic vending as a major food retailing method. Thus, automatic vending will require changes in packaging, however, changes in packaging may allow an increase in the use of automatic vending.

# Display Panels

The retail methods discussed thus far may be employed to sell all types of products. This method, however, may be applied within the supermarket structure or may appear as a method in itself.

The display panel method is actually similar to the two methods previously described. A large wall would display supergraphic illustrations of products which could be selected by pushing a button for a number code, punching a card, or inserting a charge plate. Products would be



assembled automatically in a warehouse-type operation and automatically conveyed to the checkout area.

This method may have its widest application in the area of prepackaged, high-volume, staple commodities. The motivational function of the package would be eliminated unless it were to appear on the panel in addition to the product picture. Protection would become relatively more important as would utility. The latter would particularly increase in importance with respect to the distributor and retailer. The staple goods handled by this method would be virtually identical within each product group, thus, the utility afforded the channel members through case size, adaptability to automatic handling, etc., would be the differentiating factor determining which products are carried.

The brand name would become more important as it would have to provide product distinctiveness through image creation. Advertising would have to be relied on both to carry the brand name and product features to the consumer and to make sure the consumer is able to readily relate the two. The brand name will have to sound distinctive and be easily remembered, as brand switching is common among products of this type.

## Telephone Shopping

As the population increases, numbers of automobiles increase, congestion increases, tension increases and telephone shopping becomes more attractive. TeleMart

Enterprises, Inc., will soon make grocery shopping by phone and computer a reality for some 3,000 California housewives a day (45). The success of this operation may well be the key to the future of telephone shopping.

The TeleMart shopper will make up her shopping list from a grocery catalog listing 3,000 food and non-food items, each with a code number. Between 7:00 A.M. and 11:00 P.M., she may phone a TeleMart operator and her call will be hooked into an audio-response computer. The computer will quote various quantity prices and verify her order, item by item. The cost of the order will be tabulated and a delivery time scheduled. After the housewife hangs up, an order sheet will be computer printed and sent to the warehouse to be filled by warehouse clerks. The computer will also figure out the loading pattern and the delivery schedule for each truck. When the housewife receives her order, she may pay by check or be billed monthly (45,94).

The TeleMart concept offers many advantages to the retailer and the consumer. Land and building costs will be less for this warehouse-type operation. The problems of pilferage, price-marking, and checkouts will be eliminated and space will be utilized more efficiently.

The housewife never has to leave home to do her shopping, thus is relieved of all of the problems common to supermarket operations.

If this concept is successful, the future will see automatic order-picking devices at the warehouse level to replace the warehouse clerks now used. As the system becomes fully automated, it will become more efficient and less expensive because human error and labor costs will be virtually eliminated.

As we have seen, changes in food retailing methods call for or cause changes in packaging and, telephone shopping is no exception.

The motivational function of the package will change considerably. The package will no longer be a silent salesman. Impulse buying will decrease greatly and all forms of advertising will increase. Branding will become more important. The brand name may become the dominant element of the package design and will have to reflect the product image, both in appearance and sound. Advertising will also stress the brand name and it should have high retention value so the housewife will readily relate the advertisement with the catalog listing.

While the motivational impact of today's package is critical in making the initial sale to the consumer, tomorrow's package must motivate the consumer to repurchase. The package will have to perform exceptionally well in the home and do so consistently. Brand switching may decrease as a consumer will tend to reorder the same brand unless she was dissatisfied with her last purchase. This will



make it more difficult for a manufacturer to use redesign or convenience features in an attempt to increase his market share.

The utility and motivational functions of the package will increase in importance with respect to the distributor or wholesaler. The fulfillment of these functions may be the deciding factor in having the channel accept the product. The shipping case will have to contain a convenient number of products, be easy to handle and unload, and be well-marked for easy identification. Automatic warehousing will require standardized case sizes and shapes and magnetic code numbers on the shippers. Depending on the handling equipment being used, the package may have to be designed to withstand different types of forces than are encountered today.

The systems approach to packaging will become more important as the likes and dislikes of the channel members have an increasing influence on the success of an item.

# Television Shopping

Not too many years ago, the idea of ordering groceries by telephoning a "talking" computer seemed impossible, yet, today just such an operation is in existence. While almost every home today contains a telephone and a television set, tomorrow's home will be equipped with a unit combining the two. A Touch-Tone telephone and small color television set will form the unit which, by punching

code numbers, may be instantly hooked into a computer at various retail outlets.

The customer using the telephone shopping method for food products, will receive a monthly catalog listing the items carried by a particular outlet, and their code numbers. To order a particular item, the shopper will first punch a code number to connect her to the computer at the retail outlet. She then punches the code for the product she desires followed by a number to indicate the quantity. Shoppers will frequently have a programmed order with the store for weekly reorders of staple commodities. By punching a personal code number, this standing order will automatically be delivered.

The color television set may be used to screen the "weekly specials" or any portion of the item assortment carried by the outlet simply by punching the proper buttons. Most new products, seasonal items, and specialties are introduced through the weekly specials so general screening would probably be done only when a new brand is sought. the items may be held on the screen for the period of time desired by the shopper.

As the order is received at the distribution center, it may be separated into two categories--one to be filled from the automatic warehouse and the other from the conventional warehouse. Items of standard shapes and sizes would be handled in the former category and odd-shaped packages or fragile items in the latter. After the order

is combined from both warehouses, it goes to a packing room where frozen, perishable, and nonperishable items are separated and placed in containers to maintain the required temperatures throughout shipment.

The computer sorts the orders and trucks to find the most efficient loading and delivery system and the consumer may receive her purchases within the day, depending on the time she placed the order.

The television shopping method offers the advantages of telephone shopping without the disadvantages. While either of these methods may easily become the dominating force in food retailing in the future, the supermarket of today will not necessarily disappear. For special occasions or for certain high-quality items, the shopper may wish to go to a retail outlet. Just as in today's society, a shopper may go to a special meat or vegetable market for some items while her regular shopping is done at a supermarket. The central distribution outlet employed in telephone and television retailing will probably not stock high-priced or low-volume items.

Many of the characteristics of television shopping will initiate changes in packaging.

The motivational function will change, however, the changes will occur primarily in the graphic elements used.

The package will have to look attractive on color television and the design elements will have to be kept

simple so they may be seen clearly. The package may actually have a longer selling time than is common today, if the shopper stops her screening at that item. The package back providing useful information and suggestions will no longer be an effective motivational tool and advertising will increase to take over this function. Branding may become more important and, as with other methods, the brand name should be easy to identify and recall. The package design will be tied in more heavily with advertising and the design that is created for television impact will have an advantage.

Increased standardization of package sizes and shapes will probably occur and permit more items to be handled automatically. The package and shipping container may have to be designed to withstand new types of forces encountered with automatic handling equipment, however, actual damage should decrease as the human element is removed.

As the methods become more automated and, thus, more efficient, food prices will stabilize or drop and the majority of the problems found in today's supermarkets with respect to the retailer and consumer will be solved.

## CHAPTER V

## CONCLUSION

It should now be evident that packaging and food retailing are highly interrelated. By taking a systems approach to package development, the various areas in food retailing that are or may be affected by packaging are identified as well as the interrelationships of these areas. This approach will become increasingly important in the future as each area increases in complexity.

It is impossible to predict which of the food retailing methods will be dominant in the future, therefore, it is impossible to predict specific packaging changes. As was discussed, the two areas have evolved, and should continue to evolve, in a parallel manner with each affecting the other.

Some general trends in packaging are emerging, however, regardless of the retail methods employed. Packaging has become an increasingly important factor in the marketing of food products in recent years. As the systems concept is applied to packaging, its value with respect to many diverse areas may be recognized. While more and more

firms are realizing this fact, there is a long way to go in developing a scientific approach to packaging.

The future will find packaging becoming even more important than it is today, as more firms realize its value. Scientific test procedures will be developed for testing the motivational impact of a package and these will be reliable and meaningful. Tests which accurately simulate all types of handling and transportation procedures as well as methods to qualify and quantify the true handling, and distribution enviornment will achieve widespread use.

The entire approach to packaging will become more sophisticated and scientific. Corporate packaging departments will evolve and these will gain equal status with marketing and advertising.

The systems approach will be extensively employed and, with the help of computers, it will be possible to develop the optimum package with respect to providing the most advantages and fewest disadvantages for every function of the package in relation to every member of the total packaging system.

The systems approach may also be applied in the retail food industry so that every aspect involved in the marketing of food products will be considered in relation to every other aspect.

If packaging and food retailing had been approached in this manner in the past, the present problems

confronting the industry would not have occurred. If this approach is applied now and in the future, problems will be identified before they occur or an least before they reach damaging proportions.

#### BIBLIOGRAPHY

#### Books

- Blood, Jerome W., ed. <u>The Potential of Packaging</u>. New York: American Management Association, Inc., 1963.
- 2. Cheskin, Louis. How to Predict What People Will Buy. New York: Liveright Publishing Corp., 1957.
- Darrah, L. B. Food Marketing. New York: The Ronald Press Co., 1967.
- 4. Dunsford, Nelson, ed. <u>Packaging for Retail Impact</u>. New York: American Management Association, Inc., 1965.
- 5. <u>Packaging's Role in Physical Distribution</u>. New York: American Management Association, Inc., 1966.
- 6. Editors of Fortune. Markets of the Seventies. New York: The Viking Press, 1967.
- 7. Fladager, Vernon L. <u>The Selling Power of Packaging</u>. New York: McGraw-Hill, 1956.
- 8. Guss, Leonard M. <u>Packaging is Marketing</u>. New York: American Management Association, Inc., 1967.
- 9. Johnson, Arno H. <u>American Market of the Future</u>. New York: University Press, 1966.
- 10. Lief, Alfred. <u>A Close-Up of Closures</u>. New York: Glass Container Manufacturers Institute, 1967.
- 11. McClellan, Grant S. <u>The Consuming Public</u>. Vol. 40, No. 3. New York: The H. W. Wilson Company, 1968.
- 12. McConaughy, David H.; Sturdivant, Frederick D.; and Wasson, Chester R. <u>Competition and Human Behavior</u>. New York: Appleton-Century-Crofts, 1968.

- 13. Pilditch, James. <u>The Silent Salesman</u>. London: Business Publications Limited, 1961.
- 14. Raphael, Harold J. <u>Packaging: A Scientific Marketing</u> <u>Tool</u>. Distributed exclusively by the Michigan State University Book Store, East Lansing, Michigan, 1969.
- 15. Weiss, E. B. <u>A Five-Year Projection: Marketing</u> <u>Packaged Goods Through Food Channels</u>. New York: Doyle Dane Bernbach, Inc., 1968.
- 16. <u>Retail Trends That Will Shape Tomorrow's</u> <u>Marketing</u>. New York: Doyle Dane Bernbach, Inc., 1967.

#### Periodicals

- 17. "Auto-Unload Speeds Checkout Time 33%." Chain Store Age, August, 1969, p. 55.
- 18. Barber, Hildred. "Affiliated Stores First in Line for Wholesalers' EDP Net." <u>Supermarket News</u>, March 10, 1969, p. 36.
- 19. Beem, Eugene R. "Retailing in the 1980's." Marketing Insights, III, 8 (November 18, 1968), 10-12.
- 20. Benvenuto, Elaine. "Adamy Projects." Supermarket News, October 20, 1969, pp. 1, 18.
- 21. Bevic, Patricia. "Automated Depots Called Profit." Supermarket News, October 14, 1968, p. 52.
- 22. "The Big Supermarket of the 1970's." Progressive Grocer, August, 1969, pp. 43-53.
- 23. Brand, Bill. "Multilevel Held Answer to Soaring Land Costs." <u>Progressive Grocer</u>, October, 1969, pp. 74-75.
- 24. Brody, Aaron L. "Increased Profits Through Better Packaging Realities." <u>Packaging Realities</u>, American Management Association, Inc., 1969, pp. 7-17.
- 25. "Bumps on the Shelf." <u>Dun's Review and Modern Industry</u>, November, 1962, pp. 12-14.
- 26. Calkins, Jan. "Optical Scanner May Replace Regular Checkout Systems." <u>Supermarket News</u>, March 16, 1970, p. 24.

- 27. Calkins, Jan. "Prof's Distribution Plan Would Cut Handling Cost." Supermarket News, October 28, 1968, p. 22.
- 28. "'Upside Down' Depot." Supermarket News, February 16, 1970, pp. 1, 10.
- 29. "Central Meats: Problems and Progress." Chain Store Age, April, 1970, pp. 32-33.
- 30. "Central Prepackaging to Widen Meat Sales." <u>Supermarket</u> News, May 26, 1969, p. 30.
- 31. Chambless, Donald F. "Successful Marketing of New Products: Putting the Package in Perspective." In <u>The Package: Key Component of Marketing Strategy</u>, <u>Management Bulletin 53</u>, American Management Association, 1964, pp. 1-4.
- 32. "Checkouts Call for 'Revolution.'" Supermarket News, January 19, 1970, pp. 1, 13.
- 33. Clark, Kenneth E. "Packaging the Product for Supermarket Distribution." In <u>The Package: Key Component of</u> <u>Marketing Strategy</u>, Management Bulletin 53, American Management Association, 1964, pp. 16-18.
- 34. "Computer Merchandising? It's 'Just Around the Corner.'" Supermarket News, May 19, 1969, p. 26.
- 35. "Computerized Checkouts Are Here." Chain Store Age, January, 1970, pp. 24-27.
- 36. "Console to Control 3 Stacker Cranes." Chain Store Age, September, 1969, pp. E24-E25.
- 37. "Consumer Dynamics in the Super Market." <u>Progressive</u> <u>Grocer</u>, October, 1965-September, 1966, pp. K1-K286.
- 38. "Consumer Packaging for the 70s." <u>Packaging Digest</u>, VII, 4 (April, 1970), 18-47.
- 39. "Containers Boost Production." Chain Store Age, July, 1969, pp. E44-E48.
- 40. "Conventional Unloading Equipment More Efficient." Supermarket News, May 19, 1969.
- 41. "COSMOS: Better Display Plans." Chain Store Age, April, 1970, pp. 74-75.

- 42. "COSMOS: New Hope for Profit." Chain Store Age, February, 1970, pp. 34-35.
- 43. "COSMOS Plays No Favorites." <u>Grocery Mfr.</u>, January, 1970, pp. 12-17.
- 44. Davidson, William R., and Doody, Alton F. "Next Revolution in Retailing." <u>Harvard Business Review</u>, XLV, 3 (May-June, 1967), 4-20.
- 45. "Dialing for the Groceries." Business Week, No. 2117, March 28, 1970, pp. 10-16.
- 46. "Electronic Whiz-Kid Managers Next?" Chain Store Age, October, 1969, pp. 33-35.
- 47. "Electronics to Trigger Information Explosion." <u>Progres</u>sive Grocer, December, 1969, pp. 42-49.
- 48. "Executives Dream of Automated Depot." Supermarket News, January 26, 1970, pp. 20-21.
- 49. Gamlin, Joanne. "Computerized Picker in Depot Wings?" Supermarket News, November 4, 1968, p. 28.
- 50. Gouled, William S. "Automated Merchandising: Its Scope and Requirements." In <u>The Package: Key Component</u> of <u>Marketing Strategy</u>, <u>Management Bulletin 53</u>, American Management Association, 1964, pp. 22-24.
- 51. Graf, Franklin H. "What Buyers Really Want from Salesmen." <u>Progressive Grocer</u>, September, 1968, pp. 66-70.
- 52. Gunton, Michael. "UK Co-op Builds a Depot of the Future." Supermarket News, March 17, 1969, p. 41.
- 53. Harle, Abbott. "'Mechanization' A Liberating Force in Super Market Design Concept." Progressive Grocer, October, 1969, pp. 80-86.
- 54. Hauser, Philip M. "Is the Market Moving Away From You?" In <u>A View to 1970</u>, Super Market Institute, Inc., 1965, pp. 10-13.
- 55. "How Improved Operations, New Equipment, Better Merchandising Will Enhance the Super Market of the 70's." Progressive Grocer, September, 1969, pp. 56-67.
- 56. "How to Merchandise New Items for Increased Sales and Profits." <u>Progressive Grocer</u>, June, 1968, pp. 52-56.

- 57. "Kroger Depot Operation Handled By 2-Man Team." <u>Super-</u> market News, October 21, 1968, p. 30.
- 58. "LA Chains Exchange Views on '70's." <u>Supermarket News</u>, September 8, 1969, pp. 1, 21.
- 59. Luth, Phillip J. "Supercenters to Offer 'Beautiful Experience.'" <u>Progressive Grocer</u>, October, 1969, pp. 70-73.
- 60. "Many Depot Executives Wary of Carts." <u>Supermarket News</u>, September 29, 1969, pp. 25-26.
- 61. Margulies, Walter P. "Packaging Decision: Harder to Make Than Ever Before." <u>Advertising Age</u>, XXXVIII, 24 (June 19, 1967), 90-92.
- 62. "Mercury Lamps Offer A 'Third Choice' in Store Lighting." <u>Progressive Grocer</u>, July, 1968, pp. 64-65.
- 63. "New Ways of Packaging for Profit." Reprinted from <u>Dun's</u> Review and Modern Industry, October, 1959.
- 64. Nussbaum, Sally. "Packagers High on Plastics, Depot Redesign, Containers." <u>Supermarket News</u>, October 14, 1968, p. 4.
- 65. "The Nuts and Bolts of CPI: Its Methods and Equipment." Progressive Grocer, December, 1968, pp. S38-S47.
- 66. "Packaging: A Tough Butterfly." <u>Supermarket News</u>, November 18, 1968, pp. 1, 16.
- 67. "Packaging: Can It Cope With All Its Challenges?" Supermarketing, June, 1969, pp. 27-38.
- 68. "Packaging Makes or Breaks New Items." Chain Store Age, July, 1969, pp. 30-32.
- 69. "Packaging Role Grows in World of Marketing." <u>Super-</u> market News, October 14, 1968, p. 4.
- 70. "Plenty of People . . . But More Competition for the Food Dollar." <u>Progressive Grocer</u>, July, 1969, pp. 54-60.
- 71. Pohn, S. Robert. "Rising Construction Costs Will Spur Innovation." <u>Progressive Grocer</u>, October, 1969, pp. 78-79.
- 72. "Profits--Still a Razor's Edge." <u>Grocery Mfr</u>., March, 1969, pp. 20-21.

- 73. "Push-Button Age? Customer Says No." Supermarket News, March 16, 1970, p. 15.
- 74. Reehling, Bob. "Pick a Card: Distelec." <u>Supermarket</u> News, March 30, 1970, pp. 10-11.
- 75. "Retailing in the 1970's." A collection of papers presented at the National Retail Merchants Association's Annual Convention at the New York Hilton Hotel, January, 1966. New York: Retail Research Institute, 1966.
- 76. "Sentinels of the Supermarket." Modern Packaging, XLII, 2 (February, 1969), 82-86.
- 77. "The 70's: Bigger Stores--Electronic Checkouts." Supermarket News, January 19, 1970, pp. 12-13.
- 78. "Shippers That Cut Labor Costs." Chain Store Age, July, 1969, pp. 35-46.
- 79. Simmons, Tim. "Computer Dictates at Krasdale Depot." Supermarket News, December 16, 1968, p. 22.
- 80. \_\_\_\_\_. "Inner Space." Supermarket News, August 12, 1968, pp. 1, 26.
- 81. "Single-Portion Product Keys, US Packaging Outlook in '70's.'" Supermarket News, December 1, 1969, p. 20.
- 82. Snaith, William. "Perishables, Non-Foods Seen Taking Center of Stage." <u>Progressive Grocer</u>, October, 1969, pp. 76-77.
- 83. "Some Ideas to Cut Out-of-Stock." Grocery Mfr., March, 1969, pp. 9-12.
- 84. "The Supermarket of the 1970's." Progressive Grocer, June, 1969, pp. 46-55.
- 85. "The Swing to Service." <u>Dun's Review and Modern Industry</u>, November, 1963, pp. 133-35.
- 86. "System Automates Grocery Selection." Chain Store Age, November, 1968, pp. E13-E15.
- 87. "Taking A Big Leap Toward Auto Checkout." Chain Store Age, January, 1969, pp. 26-27.
- 88. Taub, Robert S. "Packaging to Meet Retailing's Distribution Needs." In <u>Planning for Tomorrow's Packaging</u> <u>Realities</u>, American Management Association, Inc., <u>1969</u>, pp. 18-30.

- 89. "Tele-Purchasing." Forbes, C, 8 (October 15, 1967), 56-69.
- 90. "'Thanks, But No,' 42% Say to Brand Substitutions." Supermarket News, October 21, 1968, p. 28.
- 91. "That Critical One-Fifth of a Second." Dun's Review and Modern Industry, December, 1964, pp. 102-07.
- 92. "28 Firms Eye Automated Checkouts." Supermarket News, April 13, 1970, pp. 1, 22.
- 93. "200,000 Ft. 'Super' Supers Coming." Chain Store Age, October, 1968, pp. 114-16.
- 94. Urbanek, John. "Telemart Computerizes Phone Orders." Supermarket News, February 23, 1970, p. 25.
- 95. Weiss, E. B. "The Retail Store Won't Last Forever." <u>Marketing Insights</u>, III, 8 (November 18, 1968), 12-13.
- 96. "What Shoppers Think of New Items." Progressive Grocer, June, 1968, pp. 49-51.
- 97. "Your Profit May Be in the Customer's Pocket." Progressive Grocer, September, 1968, pp. 55-65.

#### Other

- 98. Speech Given by Clancy Adamy, President National Association of Food Chains, Kellogg Center, Michigan State University, East Lansing, Michigan, April 30, 1970.
- 99. Kipping, Daniel, and Knight, James. "Automated Warehousing in the Food Industry in the 70's." Paper submitted to Patricia A. Orsay, Instructor, School of Packaging, Michigan State University, East Lansing, Michigan, April 30, 1970.

