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Inventory Control Improvement Within the Discount Stores

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INVENTORY CONTROL IMPROVEMENT WITHIN THE DISCOUNT STORES

By

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CHAPTER I

INVENTORY CONTROL FOR DISCOUNT STORES

Four Areas with Strong Effects on Inventory Control in the Discount Stores

The objective for the discount retailer is basic --he or she must maximize profit and return on investment. It is very important for retailers, especially the discount stores, to control their inventory. Inventory can be categorized into five groups:

> Working stock is when more stock is carried than is needed for immediate demand.
>
> Safety stock is buffer stock and is carried in inventory to insure customer service against uncertainties in either demand or supply. It is designed to guard against shortages even when demand is greater than normal.
>
> Remnant stock is a small quantity left in certain warehouses when other warehouses are stocked out.
>
> Seasonal stock is produced for a variable or seasonal market. It may be produced at a constant rate

which results in a buildup of inventory at certain periods.

Pipeline stock is stock in the supply line that may be in transit or in the production line. The retailer's inventory consists of specific items of given size, style, color and model. These items cannot be changed and may be made unsaleable or obsolete due to shifts in consumer demand.

Four areas with strong effect on inventory control in discount stores are: Optimum order timing, optimum order quantity stockouts and others that will be discussed.

Based on my research and educated opinion, I intend to show what effect these four areas have on inventory control within discount stores.

Careless reordering can bring in too much merchandise at the wrong time or keep the retailer out of stock of a principal item at the peak of the season. Either can mean profitability will suffer. Optimum order timing is very important and has a direct effect on inventory. Optimum order quantity is another area of concern that affects inventory directly and can be controlled by the following stock replenishment factors:

1. Rate of sale
2. Frequency of information from the stores
3. Lead time for an order
4. Customer service level
5. Safety stock
6. Standard pack of item
7. Term of sales

Optimum order quantity can be accomplished through an effective sales plan, one of the most difficult parts of the merchandise planning process. It can be done by projection or forecast of total sales for each department. I will illustrate some methods and plans for optimum order quantity and the effect this area has on inventory control in the discount stores.

Another important area is stockout--simply not having the merchandise on hand for sale. I will focus my attention on the various problems caused by stock-outs, and will list some solutions--namely rain-checks--to the problem.

Other areas in inventory control in the various types of shortages include: thief, book error, breakage, pilferage in warehouses, shoplifting and pricing errors. These all contribute to shortages. I will emphasize how all four areas have direct effects on the discounter's inventory.

Optimum Order Timing and Quantity--

In order to purchase merchandise for the coming year, discounters must have on hand the records of sales for the previous year, showing how much was sold of a given item and whether or not sales were affected by economic trends. Careless reordering can bring too much

merchandise in at the wrong time or keep the discounter out of stock of a principal item at the season's peak. Profitability will suffer in either case, and sometimes suffer drastically.

Replenishment if an outgrowth of a good ordering plan against which the buyer measures actual sales data. At the same time, the buyer must be alert for new trends and patterns developing in consumer purchases, weighing that knowledge against the recent history of merchandise. D.E. Phillips, director of marketing for the F.W. Woolworth Regional Office No. 8 told me: "That is the only way it is being done for F.W. Woolworth, by ordering 4 to 5 percent more merchandise each year than the previous year."[1]

Generally, stock replenishment is affected by these factors:

1. Rate of sale. How fast will this item sell? This can be more difficult to predict for some items than for others. However, a combination of the merchant's judgment and an analysis of past sales performances can help to project the rate of sales and help the discounter to plan his reordering strategy.

2. Frequency of information from the stores. How often will the stores furnish sales figures? In a cycle-counting environment, will counting be

possible every two or three weeks? The more frequent the reporting of information, the greater ease and accuracy in determining needs and reorders.

3. Lead time for an order. How much time is needed from the time the order is written to the placement of goods on the shelves for sale? Consider the time needed to process the order in the office and transmit it to the vendor, its processing, its possible manufacturing, then packing it and shipping it to the store where it is unpacked, marked and shelved.

4. Customer service level. Management decides what its customer service level will be. How many times will it be acceptable to management to say, "Sorry, we're out of that item. Will you accept a rain-check?" For a merchandiser to be never out of stock of any specific item would require a tremendous inventory, perhaps an inventory that would be greater than profitable. But at the same time, if there are too many out-of-stock items and that problem is constant, customers will shop elsewhere. The store image is greatly affected by this customer service level, and that level must be deliberately determined. Once determined, the level must be maintained in the reordering strategy.

5. Safety stock. As pointed out at the beginning

of this paper, of the various stocks the safety stock plays a vital role in the reordering of goods. It is tied to lead time and customer service. Management must know how many units are needed on hand to prevent an out-of-stock situation in the event of unusual demand or extreme delay in receiving an order.

6. Standard pack of item. Vendors will often pack items in specific quantities only--such as dozens. If a reorder would call for only six units, the merchant would have to consider the vendor's pack and space his or her reorders.

7. Terms of sales. Vendors will often pay freight charges based on quantity purchased or a given amount. This causes many stores to order more than is needed. Thus, reorders should be spaced.

Since timing and quantity are interrelated, management must establish some reordering methods. There are two methods for determining the quantity and timing of reorders. The first method reorders goods by fixed quantity; the second at fixed intervals. Because staple items are constant sellers year-round, they are somewhat easier to control than fashion items and seasonal goods. Discount stores carry a variety of merchandise, and, unfortunately, this can complicate these reordering methods.

Under the fixed quantity reorder method, an order is placed whenever the on-hand inventory drops to a certain pre-determined level called the reorder point. When the inventory is at that level, a quantity is reordered regardless of whether the last reorder was placed two weeks or four weeks or two months previously. For example, an order for six dozen cartons of baby oil will go out whenever the invetory of baby oil drops to two cartons, the reorder point. Randy L. Allen of Touche Ross & Co., stated: "This method is very effective in situations where sales and stock data can be collected and reported quickly."[2]

Under the fixed reorder cycle method, an order is placed at specific intervals. For example, an order is placed every two weeks, as with the Woolco Discount Stores. The manager fills out a weekly purchase allowance, although the quantity varies. This method is often used in situations where perpetual item inventory date is not available on a frequent basis, and the ordering is dependent on cycle-count or periodic inventory reports.

The amount ordered is the difference between a predetermined maximum and the stock on hand. This maximum for the fixed reorder cycle is determined by:

1. Defining the order cycle (number of weeks or months).

2. Establishing the lead time necessary to place the order and allow for delivery.
3. Estimating the rate of sales.
4. Defining safety stock requirement.

Having this information one may calculate "maximum," according to Formula 1.

Formula 1

$$\text{Maximum} = \underset{\text{Cycle}}{\text{Order}} \times \underset{\text{Sale}}{\text{Rate of}} + \underset{\text{Time}}{\text{Lead}} \times \underset{\text{Sale}}{\text{Rate of}} = \underset{\text{Stock}}{\text{Safety}}$$

Formula 1a

Order Cycle = 3 weeks
Lead Time = 2 weeks
Rate of Sales = 4 units per week
Safety Stock = 3 units

$$\text{Maximum} = \underset{\text{Cycle}}{\text{Order}} \times \underset{\text{Sale}}{\text{Rate of}} + \underset{\text{Time}}{\text{Lead}} \times \underset{\text{Sale}}{\text{Rate of}} + \underset{\text{Stock}}{\text{Safety}}$$

$$\begin{aligned} \text{Maximum} &= 3 \times 4 + 2 \times 4 + 3 \\ &= 12 + 8 + 3 \\ &= 23 \end{aligned}$$

Illustration #1[3]

Randy L. Allen, senior consultant for Touche Ross & Co., specializes in research for retailers presented in this formula in one of the management development courses.

Formula 1a figures are used to determine the maximum. Using formula 1a figures, an order would be placed every three weeks for the difference between the maximum--23--and the safety stock on hand.

Another way of dealing with optimum order timing is to institute an effective buying plan. One method is the six-month merchandise plan. When it is put into effect, a merchant would know when to reorder. "In preparing a six-month merchandise plan, many build up classification plans to the department level. For every merchandise classification, the buyer must first consider planned sales and planned reductions. Planned (end of month) stock can be derived from the sales plan based on established inventory investment objectives. Using these planned figures, planned purchases or an initial open-to-buy can be calculated. Finally, target initial mark-ups can be projected and used to develop overall class and department gross margins."[4]

Sales planning is a most difficult part of the merchandise planning process. Once the discount store buyer masters the sale planning, knowing how to optimize order timing becomes much easier. In this plan the buyer begins with overall projection or forecast of total sales for his department. This can first be developed quantitatively using statistical forecasting methods and then modified qualitatively by examining general market trends and economic conditions. This overall projection must reflect:

1. Seasonal variations.

2. Planned store openings or closings.

3. Expected changes in competition.

According to Leslie Chick, national director of retail consulting services for Touche Ross & Co., "There are many factors which influence sales, however, and only by developing the plan at the classification level (merchandise is broken down according to its class in each department) can the buyer begin to understand and shape the sales forecast. In reviewing each classification, the buyer should consider the following:

> "How much merchandise in the classification is staple or basic and how will this be changing?
>
> "If the merchandise fits into a fashion category, what is happening in the market place?
>
> "Has there been any excitement generated by any of the categories?
>
> "How much of the merchandise was promotional last year? Will the promotional mix change much this year?
>
> "Is the classification growing faster or slower than the overall department?
>
> "Which new products or categories should be added this year and which ones are likely to be dropped?
>
> "How is my customer changing? Has the company expanded into new markets which represent either opportunities or threats to this classification?
>
> "Has there been a shift in price-line acceptance by my customers and how will inflation impact prices?" [5]

There is another factor to consider that effects optimum order timing in preparing a six-month merchandise plan. This is in the area of planned reductions. Reduction consists of employee discounts, markdowns and stock shortages. There are two reasons for factoring these components into the six-month merchandise plan. First, since they directly affect the gross margin, reduction estimates are necessary to properly project department and classification profitability. Second, since they represent reductions to inventory, they should be factored into the planned purchases calculation to assure adequate merchandise on hand to meet sales targets.

Employee discounts remain fairly constant from year to year when expressed as a percentage of sales, unless, of course, the company policies regarding discounts change dramatically. Therefore, when planning employee discounts, it is generally safe to use last year's percentage of sales as a guide for each department or classification. In much the same way, stock shortage can be factored into the plan. Unless the company is making substantial changes in its shortage control program, historic trends for the department or classification can be used in estimating shrinkage as a percentage of sales.

Planning markdowns is a difficult task for many retailers and especially the discounters. In the area of cosmetics and toiletries, when items such as nail polish sometimes remain on shelves much too long, markdowns are inevitable. However, the first step toward controlling markdowns is to investigate the reasons why they were taken in previous years. By understanding the reason for past mistakes, corrective action can be taken to control future markdowns. When discussing markdowns very often the buyer will remark: "Look, I don't control the weather." Another remark: "How can I predict what the competition will do to attract my customers?" Although these statements are true, there are factors contributing to markdowns that can be controlled. Included:

1. Overlapping merchandise across departments.
2. Merchandise quality.
3. Vendor performance.
4. Size, color and fabric selection.
5. Assortment width.

As stated by Leslie Chick, "In projecting markdowns for the six-month merchandise plan, the buyer should review last year's results very closely. In addition to the considerations listed previously, the buyer should ask the following:

"How aggressive were pricing policies last year? Will they change this year?

"What was the timing of major promotions and clearances last year? How will they be altered this year?

"How deep were our first markdowns last year? Will we be more aggressive this year?

"Were there problems last year with the timing of incoming merchandise either at the beginning of the season or with reorders? How did this affect the markdowns taken last year?

The buyer is in a position to estimate monthly markdowns as a percentage of planned sales. Also, the company will be in a better position to control markdowns in the future."[6]

The discount retail business offers little profit margin, the primary investment in the inventory. Thus, careful planning is necessary to assure an adequate return on investment. Keeping inventory levels at a minimum without sacrificing sales has several positive effects on the overall profitability of a company. As stated by Randy L. Allen, senior consultant for Touche Ross & Co., they include:

"Lower inventories mean lower carrying costs in terms of interest expense, warehousing costs, insurance, handling costs and shrinkage.

"Lower inventories mean higher gross margins by reducing the need for markdowns due to overstocked conditions.

"Lower inventories mean lower average investment in inventory and therefore a better return on investment for the company."[7]

Again, Leslie Chick states, "Weeks-of-supply is a good approach to planning stock levels for cosmetics and toiletries and many other staple items. For each classification, the buyer establishes the weeks-of-supply of inventory needed at the end of each month throughout the season. This figure is developed based on estimated rates-of-sale, lead times and safety stock levels. The buyers may use a constant weeks-of-supply figure throughout the season or they may use varying figures, depending on their knowledge of the marketplace."[8]

Once the target weeks-of-supply figures have been established, monthly EOM (End of Month) stock levels can be calculated.

Optimum order timing has a direct affect on inventory and can be accomplished through stock replenishment and reordering methods by using the six-month merchandising plan as stated. To complete the overall timing of an order system, optimum order quantity plays a very important part as to whether this merchandise will be stocked in warehouses or placed in the stores.

In dealing with cosmetics and toiletries, management should know what merchandise in these areas

could be handled under a centralized system and what should be handled under a decentralized system. Under a centralized system, stock is pooled at one conveniently located distribution center or warehouse. A decentralized approach is having merchandise drop shipped directly from the vendor to the store.

There are many sales representatives selling various type products. However, one must go to market with an effective plan in order to get the right quantity by product category. Each year the buyer must make a vendor analysis. In order to determine those vendors from whom to purchase merchandise for the coming season, both quantitative and qualitative analyses should be performed. From the quantitative standpoint, a number of factors should be considered.

Unit control records should provide the buyer with information which indicates the success he has had with each vendor. If last year the buyer purchased the same number of cans of hair spray from Vendor A and Vendor B, the buyer should ascertain the number of sales from the two different brands. The initial mark-up of each vendor should be considered. Which vendor gave the greater initial mark-up? The determination should then be made as to how many items from Vendor A had to be sold at

a markdown. How many from Vendor B?

How does the maintained markup percentage of Vendor A compare with that of Vendor B? These figures will lead one to the critical point of comparison--the gross margin contribution in relation to purchases. The buyer may have sold more items bought from Vendor A, but because of the difference in markups and markdowns, he or she may have gained a greater margin contribution from Vendor B's items. Since the gross margin contribution most often is the buyer's ultimate concern, this must be an important consideration in formulating his buying plan. Qualitative factors must also be considered when making this vendor analysis.

The buyer must know what is the general customer acceptance of each vendor. The sales figures will indicate the acceptance level, but input from store personnel and from customers themselves should give the buyer a "feel" for the way merchandise from each vendor is perceived. Do customers see this name as one that represents reliability, quality, low price, good workmanship, etc.?

The buyer should make a new product analysis. Each year many vendors introduce new products and offer them to retailers. The buyer must be aware of what those new products are, and make a reasonable estimate of their potential in his department.

He or she must review trade journals and consider input from vendors and store personnel in making decisions on new products. At the same time the buyer must consider the customer profile and store and department image. Will this new product fit in with the rest of the merchandise or will it cause customers to question the entire department?

"When the buyer prepares to buy for the discount stores, in considering cosmetics and toiletries consideration must be given to the product mix which covers all products and services for sale. It has both breadth, which is measured by the number of product lines carried, and depth, which is measured by the assortment of sizes, models, prices, colors, and quality offered within each line. The secret to a good assortment plan is to know the various depths of inventory needed to meet customer demand."[9]

In order to maintain balanced stocks throughout the season the buyer must concentrate on:

1. Depth;
2. Breadth;
3. Size;
4. Color'
5. Price lines.

Breadth and depth represent the most delicate balances to achieve. The key is to maintain the stock necessary to generate projected turnover without having to constantly buy merchandise to cover this inventory position, or risk out-of-stocks.

To avoid the risk of being out of stock, storage or warehousing should be brought into play. As stated earlier, remnant stock is a small quantity left in certain warehouses when other warehouses are stocked out. Storage is a service in connection with transportation and is an actual part of transportation service only to the extent of normal and necessary holding of property during the movement and for the period normally required to make delivery. Warehousing is often thought of primarily as the storage of goods prior to their use, but it is becoming increasingly viewed as part of the physical distribution system between plant and customer.

George Wade, sales representative for Family Lines Railroad System, indicated that "Certain types of products must not be kept in warehouses because the cost of carrying inventories, cost of warehousing, transit times, the density of market areas, and the costs of distribution are all factors to be analyzed in warehousing cost."[10]

Thomas N. Whitin said: "Influencing the level of inventory is the economic order quantity (EOQ). This is the size of order at which the combined cost of procuring and carrying inventory is at a minimum. This can be determined as follows: those costs that increase as inventories increase (such as interest, obsolecence, risk, depreciation and storage), and those that decrease (quantity discounts, decreased procurement costs and freight differentials). Procurement cost may be reduced for any item by placing fewer and larger orders. On the other hand, the result is an increase in inventory, with higher carrying costs. The EOQ will be the quantity that represents a balance of these cost factors."[11]

When a company produces to a customer's order or in those instances where the product is manufactured on a schedule for a specific number of each finished article within a given time, the quantity of materials to be ordered can be easily quantified. On standardized items produced in varying quantities over a period of time, the control of quantity is not as easy, although the types of materials are standardized. Regardless of the types of products, the quantities of materials carried in inventory should be held at levels that permit the optimum amount of capital invested per unit of product.

A nomograph is a graph consisting of graduated scales for two or more interrelated variables, so arranged that a straight line joining given values of the two known variables will cut the scale of the third variable at the value sought.

Dean S. Ammer, speaking on inventory control, said: "A nomograph as used in inventory control is a less complex means of determining optimum reorder quantities than tabular solutions or the use of equations."[12]

There is a direct economic effect on EOQ, and the more the discounter reflects on this matter, the more he or she should wonder why they carry any inventory other than in the store and possibly a distribution center for items in big demand.

Optimum order quantity is workable for discounters as long as management uses effective buying methods starting with the various products by category. Warehousing and transportation cost effects must be dealt with in order to reach optimum order quantity.

STOCKOUTS

Stockout is simply not having the merchandise at the point of sale (POS). Optimum order timing and optimum order quantity play very important parts in avoiding stockouts. Whether it's order timing, order quantity, merchandise in transit or an ineffective transportation program, all result in the loss of sales or in dissatisfied customers.

One solution to stockout is the use of rain-checks. A rain-check is a form used by discounters to customers entitling them to the purchase of a given or advertised item at a specific price at some future date.

Discount stores are constantly having sales, especially "dollar days," the sales almost always including cosmetics and toiletries. One would think that as often as these items are placed on sale, that a discount store would always keep a substantial inventory on hand. However, it has been proven many times that these items are almost impossible to keep in stock because of their rapid turnover. The law of demand far outweighs the law of supply.

In conversations with various research agencies, officials of the Federal Trade Commission (FTC), and

numerous store managers, I was informed that the issuance of rain-checks is a problem although not a major problem. Richard Donahue of the FTC said, "Someone has to keep up with these rain-checks and each customer has to be notified either by mail or phone--both time consuming--concerning the arrival the merchandise that was on sale."[13]

However, store managers are protecting themselves by advertising merchandise, saying "limited quantity." Additionally, managers are allowing customers to buy different brand merchandise, perhaps one that is a "slower seller" than another. They sometimes allow customers to buy merchandise not advertised in place of the advertised item--merchandise of equal value or sometimes greater value.

Gordon L. Williams, vice president of the Operations Division, National Retail Merchants Association, told me, "A rain-check is issued when an item has sold out (or never arrived at the store) during the sales event days."

The rain-check, in duplicate, includes the customer's name, address and phone number, as well as the description of the item, and its regular and special sales prices. It guarantees one of the items or a reasonable substitute of even greater value.

Merchandise that normally carry rain-checks are

in four major categories--all four categories part of discount stores:

1. Merchandise the store normally carries;
2. Regular merchandise at "give-away" prices;
3. Staple merchandise not regularly carried;
4. Merchandise that cannot be reordered to fill rain-checks.

Merchandise that a store cannot reorder often includes import items, seasonal goods and items in extremely short supply. Many discount stores have policies that state that, unless otherwise specified, rain-checks must be given. The store must either refuse a rain-check in violation of policy or issue a rain-check knowing in advance it is never going to be filled. The latter is factual because many items ordered on a yearly basis by the discounters have either been changed or have been discontinued by the vendor. Rain-checks, then, should not be issued for items that cannot be purchased at a later date.

Illustrations No. 1 and No. 2--on the following pages--are two examples of merchandising problems encountered in filling rain-checks from Woolco "Dollar Day" ads, and samples of the disclaimers used by competition. Additionally, items were advertised during the three-week test periods at

different prices, causing a great deal of extra repricing work at store level. Having to issue rain-checks is a problem but apparently such checks are a "necessary evil" for good customer relationship. The checks also take some of the burden off the inventory, with store personnel now having to worry whether the merchandise will last through the advertised period.

Running out of stock strikes at the heart of the inventory control system, rain-checks being one solution. When merchandise is advertised that includes hard-to-get items, the discount store ads should read:

"Limit 1 per customer";

"Limit 2 per customer";

"Store stock only; sorry, no rain-checks";

"Store stock only; sorry, no rain-checks or special orders."

Having such signs and advertising visible can help maintain good customer relationship and satisfaction, as well as lessen the work load on store personnel.

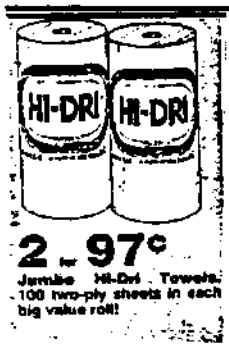
B

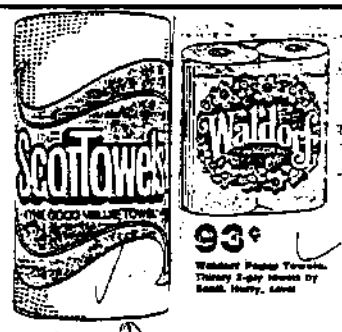
ILLUSTRATION NO. 1

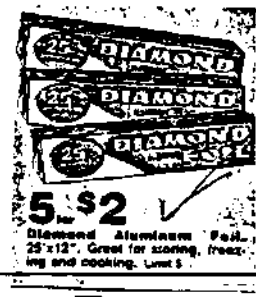
EXTRA WORK AT STORE LEVEL

Examples of the same or similar items being advertised over the sample three week period. Note the various prices being advertised. This necessitates any merchandise carried from one sale to be repriced for the new sale. In several of the examples shown this took one employee six hours just to reprice merchandise.

SUPER SALE	DOLLAR DAYS	SUPER BLOCK BUSTER
JULY 25.	AUGUST 2.	AUGUST 8.







A

ILLUSTRATION NO. 2

WOOLCO DOLLAR DAY AD

THERE WERE 25 ITEMS WHICH WERE IN THE AD WHERE WE ACCEPTED AND TOOK RAINCHECKS. OF THESE 25 ITEMS, WHICH ARE LISTED ON THE ATTACHED RC-3 FORM, ONLY NINE (9) PRESENTED MERCHANDISING PROBLEMS.

RAINCHECK ITEMS:

ALUMINUM SAUTE PANS

6" - 26 RAINCHECKS
8" - 31 RAINCHECKS
10"- 27 RAINCHECKS

STORE HAS A SERIOUS REORDER PROBLEM.

IMPORTED CAST IRON FRY PAN SET

STORE HAD FOUR (4) ONLY RAINCHECKS. CANNOT BE REORDERED.

3-PIECE IMPORTED PAINT BRUSH SET

NUMBER OF RAINCHECKS: 13.

STORE HAS A MAJOR REORDER PROBLEM ON THIS DIRECT IMPORT.

ORIGINAL ORDER WAS GENERAL ORDERED THROUGH THE WAREHOUSE BY THE EXECUTIVE OFFICE.

HOSE

STORE COULD NOT REORDER. STORE HAD TO SUBSTITUTE FROM REGULAR STOCK.

Woolworth · Woolco

OTHER AREAS IN INVENTORY CONTROL

Jules Abend said, "Internal theft, breakin, breakout, shoplifting, 'clipping-the-till,' conflicting pricing on the same merchandise--all contribute to the same problem, that of shrinkage."[14]

Some retailers have estimated shrinkage loss attributable to theft at retail last year exceeded $25 billion.[17] Some argue about the numbers or about which slice of the shortage pie is the biggest. The prescribed treatment is changing each year. While there is still a tendency to focus on the "cops-and-robbers" aspect of security in order to arrest shrinkage, more executives charged with the task of controlling internal-external theft and paperwork error are now becoming more loss-prevention oriented.

Some discount stores lack the profit margin of other retailers, loss-prevention should receive special attention. Because many items within the department of cosmetics and toiletries are small, theft is relatively higher. Because of the location of many discount stores, the people who shop in such stores cause the security people to have a monumental job in maintaining an aceptable level of shrinkage. As a side-issue, as stores expand into new product areas they become vulnerable to new litigatory

pressures that sooner or later result in security responsibility.

Receiving is another area where shrinkage occurs. The receiving clerk must make sure he receives what he signed for and count cartons accurately. Many firms ship cartons on skids. However, carriers sign for one skid and should the strapping break, cartons could easily be removed but the carrier would still deliver this skid as one piece. This makes claim collection very difficult.

In modern discount stores there are large quantities of goods accessible to large numbers of people in the hope of spurring greater sales volume. While this wide-open approach does increase buying, it also creates a climate and opportunity which often leads to inventory shrinkage. With today's high cost of money, any squeeze on the bottom line is serious. However, inventory shrinkage squeezes very tightly. Recent estimates have put the total retailing shrinkage beyond $25 billion yearly. That means retailers are losing more than $10 million a day.

Approximately 15 percent of the price of any item in a discount store goes to combating or compensating for the cost of dishonesty or error in inventory control. Yet the entire cost cannot be passed on to the customer, so shrinkage cuts into

a company's net profit, sometimes very dramatically.

While shortage is a complete and universal problem in all retailing and will never be eliminated, it can be contained.

Stock shortage can be defined as all unexplained shrinkages in the value of merchandise for sale. These shortages are reflected as discrepancies between the value of merchandise in the book inventory and that in the physical inventory. Specifically, a shortage results when the book figure is higher than the physical; when the book inventory is lower, an overage occurs.

For example, a buyer purchases five perfume sets at a total cost of $15, and with a retail value of $25. Three perfume sets are sold. The inventory should show two units remaining, at a cost value of $6, and a retail value of $10. Any discrepancy in those closing figures of the number of units, cost or retail value would represent an overage of shortage.

Leslie Chick, previously quoted in this paper, said, "Shortage is caused chiefly by physical loss of goods and clerical errors. Goods can be physically lost through a number of means:

> "Theft, which accounts for about half of all shortages, is committed by professional thieves,

by customers, by employees and by those in the store on business.

"Breakage, damage or disappearance, without any corresponding reports being filed, contributes to shortage.

"Inaccurate measuring causes physicall loss when, for example, a customer pays for 25 feet of cable and receives 30 feet.

"Clerical errors also account for shortages. The most common errors are:

"Incorrect marking of goods, such as pricing an item at a cost lower than that on invoices, can result in shortage. If a mascara set, for example, is marked at $5 rather than $15, a shortage of $10 per unit will result. A $10 item inadvertently marked $1 will cause a $9 shortage.

"Failure to report a price change will result in a discrepency between book and physical value.

"Charging purchases to the wrong department will create a shortage in one department and an overage in another."[15]

Dishonesty and error are therefore the primary causes of shortage. The areas with the greatest potential for shortage are warehouse operations and store operations. In the warehouse, shortage can result from errors in receiving the wrong or damaged goods or in counting cartons incorrectly; through improper marking; in storing goods carelessly so they become lost; in shipping or transferring goods to the wrong location.

In addition to error, theft and pilferage in warehouse operations can be a major problem. Collusion

between warehouse employees and truckers is one means by which goods purchased are never received by the store. Individual or group thievery from the storage or shipping area is another.

In store operations, error and theft can be repeated. Goods received at the store may be counted incorrectly, left on the truck, misdirected to an employee's car and/or removed with the trash. Employees in the stockroom or on the selling floor may pocket items or make clerical errors as stated by signing for more than what has been received.

Professional thieves, customers or others seeking the thrill of "beating the system" make up a large portion of retailing shortage. Unattended counters of cosmetics are prime areas for shoplifting.

Outsiders, working in the store legitimately on construction or other business, sometimes contribute to shortage when they load their tool boxes or coat pockets with unpaid-for goods. This is a problem area that all discounters must encounter. To control shrinkage would enable the discounters to realize a bigger profit.

To prevent or control shrinkage, a company must undertake a number of steps, each related to the other. First, it must assess its shrinkage and establish clear objectives. Next, it must determine

the role of security in meeting these objectives, and then design systems and procedures to implement and complement the security programs. Assign organizational responsibilities to operate these systems; train and motivate people to carry out the responsibilities. Implement the system and carefully monitor the results.

As with most plans, implementation of the plan is more difficult than its creation. Pilot stores or departments can be selected for trial runs of new shrinkage systems and can be carried to other locations. Project teams can be formed to monitor the pilot programs. Decisions must be made on functions to be measured. Guidelines must be drawn up for the kind, amount and frequency of data collected. Then close observation must be made to determine the reasonability of each of these decisions.

This orderly approach to controlling the shrinkage problem has positive immediate and long-range effects. It provides timely evaluation of priorities; develops a working model for the entire company; quickly corrects nonstore problems that contribute to shrinkage at all stores; clearly defines the organizational requirements to sustain the program and provides a formal plan for company-wide execution.

Whether one refers to the problem as shortage or shrinkage, the end result is not having a portion of the merchandise to sell, or error through bookkeeping. If the merchandisde is not available for sale, then there is a direct effect on the discounter's inventory.

In order to combat shrinkage, management must be aware of the problem and immediately implement some loss-prevention to yield a greater profit in order to stay in business.

When all three areas are considered, if they are not controlled properly, the discounter will not be in business very long. The impact would be too great to survive. Through optimum order timing, getting the product in the store at the right time can prevent loss of sales. On the other hand, optimum order quantity means the discounter must have enough merchandise on hand or he may lose some sales.

These three areas work hand in hand but are propelled separately. Be it order timing, quantity, stockouts or shrinkage, if not controlled, the discounter will face loss of sales, low inventory, less profit and dissatisfied customers.

CHAPTER II

ORGANIZATIONAL AUTHORITY AND ITS EFFECT ON MERCHANDISE PLANNING

Introduction to Merchandise Planning and Factors Affecting It

Merchandise planning has traditionally been structured around either a top-down or bottom-up approach. An interactive approach is also possible and would combine both top-down and bottom-up approach.

Merchandise planning is affected by the following factors:

1. Management policy on sales;
2. Reordering methods;
3. Inventory turnover;
4. Merchandise planning.

Management makes all policies on sales, and these policies must be adhered to without question. The store manager must follow the policies to obtain

all the results management wishes. Management sets the policies on reordering merchandise, on who can order, how much merchandise should be ordered, from what vendor, how much each store should buy and what type orders are to be placed with each vendor.

Because of the margin of profit in areas in discount stores, turnover becomes a key factor to the individual discounter's profit. The important point is the effect turnover has on inventory. Turnover enables store managers to take a smaller mark-up and still show substantial dollar profits. Therefore, when management sets up its merchandise planning procedures, turnovers must be looked at very closely.

Analysis of Factors on Management Policies

Merchandise planning has been structured around either a top-down or bottom-up approach. It is up to management to decide which approach is best suited.

As the name implies, the top-down approach starts with a gross dollar value for departmental sales. The buyer takes this dollar figure and allocates it among the merchandise classifications

--how the merchandise is divided in each department --by store. The bottom-up approach starts with an estimate of unit sales at the classification level. This is based on sales from the previous year. The buyer then looks at price-line history and translates unit sales into dollar sales for each merchandise classification, and can then arrive at a total departmental sales figure as the aggregate of all merchandise classification. This method is possible only if unit control records by price-lines from past seasons are in existence.

In the interactive approach, broad guidelines given from management based on economic trends, store expansion possibilities, and other economic factors. The buying staff then follows the bottom-up approach with reviews and modifications by management to ensure that the overall guidelines have been followed.

"The interactive approach results in the most accurate merchandise plan. Each merchandise classification is thought out before the dollar plan is completed."[16]

When revisions are necessary, the total dollar invenmtory figures for each classification generally do not change. However, the proportion of merchandise

in each class does change.

"The interactive approach is composed of several fiable elements, including: company merchandise policy (goals and objectives), past sales information, qualitative merchandise plan, six-month merchandise plan, six-month department plan, six-month assortment plan and six-month buying plan."[17]

Each buyer should review the chain's current merchandise policy. This review will provide insight into the current and potential customer base, fashion image, merchandise quality level, price lines and price ranges, marketing approach, customer service level and desired margins. A consistent policy will not only set store standards but will also allow for consistency throughout the departments.

The next step is to review all background information, including unit control records, the previous year's six-month merchandise plan, monthly departmental contribution reports, trade market and vendor information, and store operation's input. Unit control records are of special importance because they provide key statistics such as sales, on-hand inventory, receipts, transfers, and markdowns at the style level.

The buyer is then ready to prepare the qualitative

merchandise plan for the upcoming season. The plan will include :

Customer definition;

Departmental sales makeup;

Key department merchandise trends;

Major vendors;

Programmed vendor development;

Merchandise classification performance comparison;

Import plans;

Advertising review;

Monthly action plan and specific problems in attaining goals.

The qualitative merchandise plan generally should be a formal document submitted to management for approval before preparing a six-month merchandise plan. This document summarizes the buyer's plans and actual performance for the forthcoming season. As a department grows, it become more difficult for the buyer to pinpoint its strengths and weaknesses. Departments, therefore, have been categorized into merchandise classifications to more accurately identify customer demands.

Basically, a class is a homogeneous grouping of merchandise with the same end use. For example, in the cosmetics department the merchandise may be placed in such categories as hand care, head care, body care, facial product, men and women.

Merchandise classification planning prevents duplication of merchandise in certain price lines and helps the buyer analyze the sales timing, the beginning, peak and end of each group of merchandise. Since analyzing styles at the unit level is nearly impossible, most discounters do all their planning at the classification level. However, it is necessary to consider unit information and price-lines analysis in formulating the classification plans. As an illustration, hand products may be divided into two groups--hand creams and hand lotions--and then the two groups would be separated by price, the per-units.

Another important factor concerning department classification and its effect on sales is the effective utilization of space within each department. Misuse of space can be as critical to profits as poor buying.

Effective space utilization works on a number of basic retailing principles, plus modern-day statistical analysis. By following a basic formula, one can measure earnings of departments by the square foot, and then reallocate space accordingly. When the plan for a discount store is drawn up, the facility must be pleasing to customers because the attractiveness will help make money for the discounters.

The store will be designed in consultation with management input to reflect its merchandising expertise, including its knowledge of layout and display.

Ironically, some stores with a wealth of available space are not achieving their potential in profit. But other stores, though smaller, are reaping greater profits. Intelligent layout seems to make the difference. According to Leslie Chick, "Layout in retailing includes four elements: the overall arrangement of pattern of the store, classification of merchandise, assignment of departments to locations, and allocation of space to each department."[18]

Stores are generally arranged according to one of two patterns: the gridiron, a rectangular arrangement most often seen in supermarkets, and the free-flow pattern.

The gridiron pattern permits merchandise to be displayed in straight, parallel lines, with secondary aisles at right angles to them.

The free-flow pattern--curving or circular aisles creating a less rigid effect--is quite popular.

However, the F.W. Woolworth Company realized the layout in its discount chain was somewhat ineffective and came up with a new design, a racetrack design. (See Figure 3.) This design draws customers

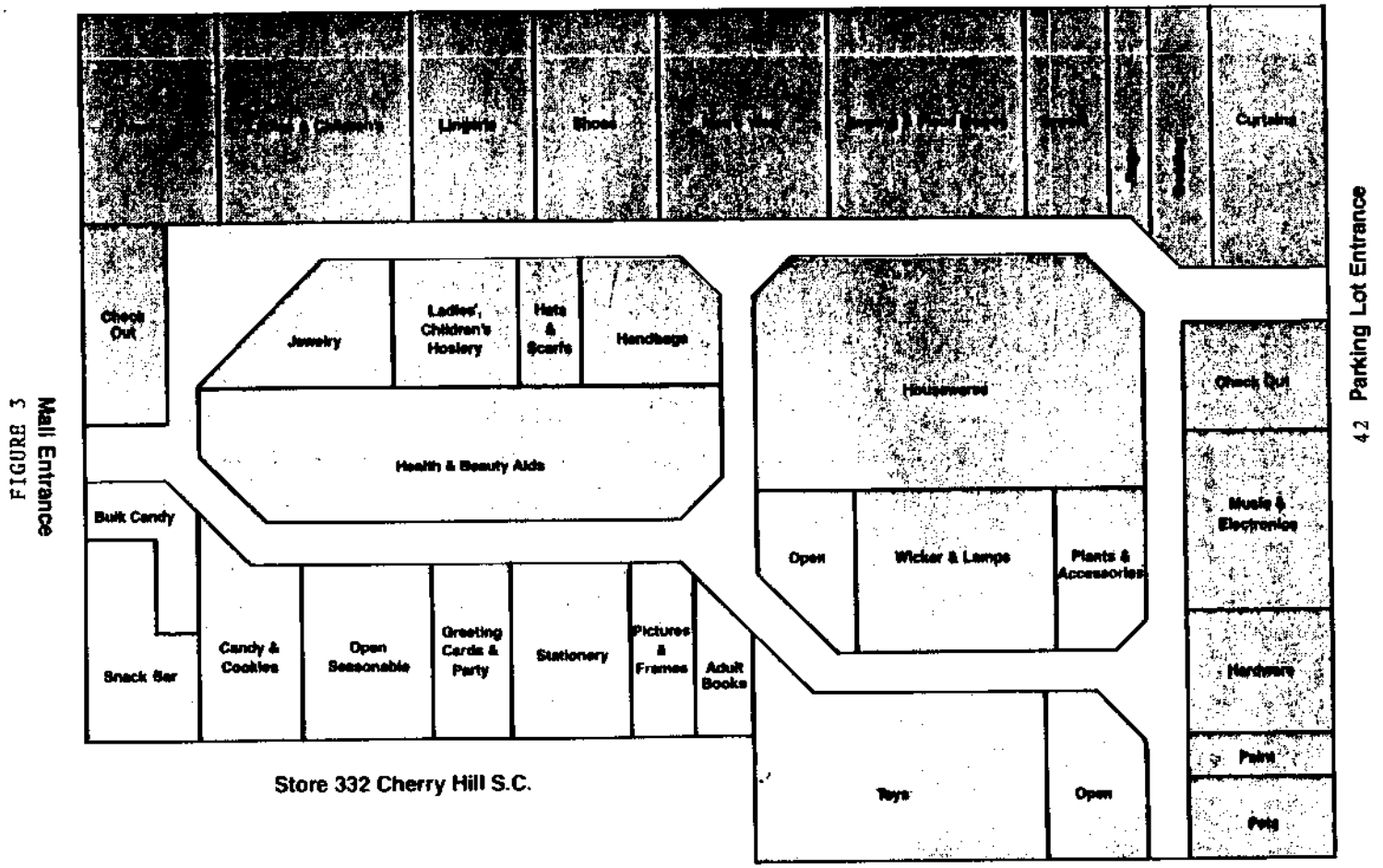

Mall Entrance
42 Parking Lot Entrance
Check Out
Jewelry
Ladies', Children's Hosiery
Hats & Scarfs
Handbags
Health & Beauty Aids
Bulk Candy
Snack Bar
Candy & Cookies
Open Seasonable
Greeting Cards & Party
Stationery
Pictures & Frames
Adult Books
Toys
Open
Open
Wicker & Lamps
Plants & Accessories
Check Out
Music & Electronics
Hardware
Paint
Pets
Store 332 Cherry Hill S.C.

FIGURE 3

in a large circle in a continuous wide aisle throughout the store. Increases in sales were noted immediately after the new format was installed.

A popular approach to classification is to group all merchandise for specific customers: men, women, boys, girls. Many stores use the three patterns discussed in this chapter in planning layout. What is good for one type of customer is poor for another.

Department locations or situating departments within the store requires much thought. Traditionally, departments with the highest earning power are placed in the most valuable, high pedestrian areas of the store, generally between the entrance and an escalator on the main floor. "Demand goods" departments are housed in more remote areas on the theory that people are most willing to walk a distance for goods they absolutely need, such as houseware items and work clothes. In reaching these departments in the well-planned store, shoppers must pass luxury items, and thus be tempted to buy goods not on their shopping lists.

Major appliances and other items requiring large floor areas are in the deepest recesses of the store. Walls are used tohand merchandise which can be displayed well in that fashion. Items requiring

fitting rooms or much time for selection are generally placed in departments out of the heaviest flow of traffic. Store entrances often have convenience items, such as cigarettes and gums, as well as many items found in the cosmetics and toiletries department--the health and beauty aids department--and items that the typical customer would not any great distance to purchase.

"To determine the size of a department's selling area--including clerk and customer aisles, stock areas, registers, wrap desks and displays, the model stock method is used. The model stock approach requires that one use the merchandise plan to estimate the amount of planned stock. Consideration must be given to how much stock is to be displayed, how best it can be displayed and how much space will be required. Add whatever space would be required for registers and work areas, and you have the total space needed for the department."[24]

In most every aspect of retailing, profitability becomes the deciding criterion. How can the discount store manager tell which departments are most profitable?

This determination is made by measuring the profitability per square foot. Big-ticket items

may ring up greater sales than lower-priced items, yet the ratio of profit to the square foot may be smaller for the more expensive items. I was able to obtain a space-use formula from Touche Ross & Co., that is used for calculating a store's space utilization profitability.[19]

a) $\frac{\text{Total Sales}}{\text{Total Square Foot}}$ = Sales per Square Foot

b) $\frac{\text{Cost of Merchandise Sold}}{\text{Total Square Foot}}$ = Cost of Merchandise Sold per Square Foot

c) Sales per Square Foot (a)
-Cost per Square Foot (b)
Gross Margin per Square Foot (c)

With this gross margin per square foot figure, departments of varying sizes selling different types of goods can be compared. Gross margin per square foot can tell which departments are doing well, which are not, which might improve if expanded, and which can be reduced in space allotment.

If the figures show a need for adjustment, the management has the principle based on experience and analysis to reapportion the departments.

> The store's layout and design, which includes internal design and departmentalization, classification of merchandise in the store have as their objectives the maximization of sales and the formation of image through customer comfort and convenience consistent

> with the basic philosophy of the retail firm itself. These objectives are achieved by creating a store layout that will furnish the most comfortable setting for triggering buying decisions. As part of these processes, the store must prove appropriate services that will facilitate customer purchases and at the same time suggest related items. In other words, if we are to stimulate the decision to buy, it becomes necessary to locate those serrvices that will implement our plan strategically throughout the store.[26]

If possible, the retailer should be involved in the creation of the physical structure he or she will occupy for long terms. The basic philosophy of the store is reflected in its departmental merchandise classification, layout and design. Naturally, the objectives of internal layout, design, merchandise classification and departmentalization are to maximize sales and to form the discount store image. The effectiveness of this concept can be measured in terms of whether or not a setting is conducive to producing buying decisions.

Store layout, design and department classification have a direct effect of sales by aiding customers in their movement about the store and assist in buying decisions.

REORDERING METHODS: EFFECT ON SALES

Lead time, a factor of importance in inventory management, has a direct influence on the level of inventory that must be carried. Lead time is the elapsed time between when it is determined what material is needed and when it is actually manufactured and delivered. The wide variation in lead time is due in part to the product and the proximity of suppliers. Many retailers are able to have orders filled in a matter of a few hours. Variation in demand also contributes to uncertainty in lead time. Additionally, general business conditions also have an effect--lead time being somewhat longer during prosperous periods when the supplier is furnishing more products to a larger number of customers, whereas the converse is true when business conditions are depressed. Physical distribution managers can often negotiate with supply sources to insure that lead times are made as dependable as possible.

In the retailing busines there are managers of physical distribution and transportation who can give the buyers estimated delivery time and transit time. Buyers frequently require information concerning the transit time on shipments moving to

stores. Charts 2-1, 2-2 and 2-3 indicate the estimated transit time required to ship from vendor locations in various sections of the country to stores in each Region (1) in United Parcel Service, (2) in our consolidation service, and (3) via motor carrier. The transit times shown are expressed in business days (i.e., 5 days per week).

Seasonal goods present another reordering problem which also requires judgment. For the span of the season these goods should be treated like staple goods with a "never out of stock" label. However, since their season is not very long, the staple goods formula cannot be used for seasonal items, or at least not to the same degree. Seasonal merchandise requires careful monitoring and quick, decisive reactions to the selling patterns.

The retailer, therefore, must set a minimum stock figure and consider the limitations of vendors for reorder. Studying past sales data may help to determine the date at which to reduce that minimum figure and the date to stop all reorders completely.

CHART 2-1

AVERAGE NUMBER OF BUSINESS DAYS
IN TRANSIT ON MERCHANDISE SHIPPED IN U.P.S. SERVICE

FROM: SUPPLIERS IN TERRITORIES INDICATED ON MAP	TO: STORES IN REGIONS INDICATED BELOW								
	R. O. 2 EXCEPT P.R.&V.I.	R. O. 3	R. O. 4	R. O. 6	R. O. 8	R.O. 10 EXCEPT AK & HI			COMPOSITE*
A - NEW ENGLAND	2-3	2-5	3-7	4-7	5-7	7			2-7
B - MID ATLANTIC	2-5	2-4	2-7	2-7	4-7	5-7			2-7
C - EASTERN CENTRAL	3-5	2-5	2-7	2-4	2-7	4-7			2-7
D - SOUTHEAST	3-7	2-7	2-5	2-7	2-7	4-7			2-7
E - MIDDLEWEST	4-7	4-7	3-7	2-5	2-7	2-7			2-7
F - SOUTH CENTRAL	5-7	4-7	2-7	2-7	2-5	2-7			2-7
G - MOUNTAIN STATES	7	5-7	5-7	2-7	2-7	2-7			2-7
H - PACIFIC	7	7	7	5-7	4-7	2-7			2-7
COMPOSITE	2-7	2-7	2-7	2-7	2-7	2-7			2-7

*COMPOSITE COLUMN MARKED WITH ASTERISK
DOES NOT INCLUDE ESTIMATE FOR AL HI PR VI

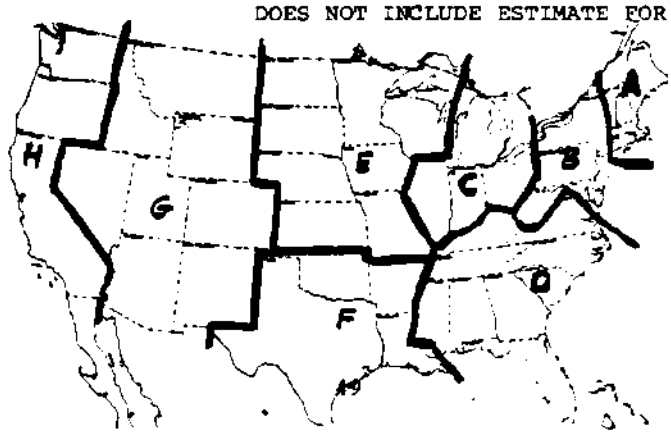


CHART 2-2

AVERAGE NUMBER OF BUSINESS DAYS IN TRANSIT ON MERCHANDISE SHIPPED IN CONSOLIDATION

FROM: SUPPLIERS IN TERRITORIES INDICATED ON MAP	TO: STORES IN REGIONS INDICATED BELOW								
	R. O. 2 EXCEPT P.R.&V.I.	R. O. 2 P.R.&V.I. ONLY	R. O. 3	R. O. 4	R. O. 6	R. O. 8	R. O.10 EXCEPT AK & HI	R. O. 10 AK & HI ONLY	COMPOSITE *
A - NEW ENGLAND	5-7	14	6-9	8-15	8-14	9-15	18-22	24-30	5-22
B - MID ATLANTIC	5-7	14	5-9	8-14	8-14	8-14	14-21	23-29	5-21
C - EASTERN CENTRAL	6-10	15	8-11	8-12	5-14	8-14	12-16	21-27	6-16
D - SOUTHEAST	6-10	15	7-10	7-9	8-14	8-14	13-17	22-28	6-17
E - MIDDLEWEST	7-10	16	8-12	10-11	5-14	7-12	13-17	22-28	7-17
F - SOUTH CENTRAL	8-10	15	9-12	10-12	6-14	7-11	12-17	18-24	6-17
G - MOUNTAIN STATES	9-12	17	10-13	12-14	7-15	9-12	8-11	17-23	7-15
H - PACIFIC	10-13	18	12-15	14-16	8-15	10-15	7-14	15-19	7-16
COMPOSITE	5-13	14-18	5-15	7-16	5-15	7-15	7-22	15-30	5-22

*COMPOSITE COLUMN MARKED WITH ASTERISK
DOES NOT INCLUDE ESTIMATES FOR AL HI PR VI

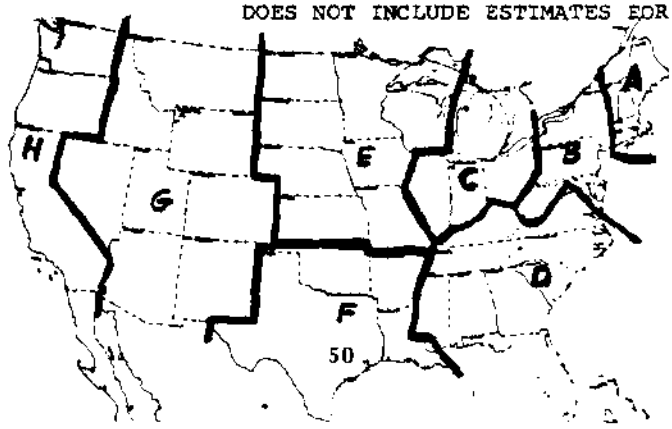


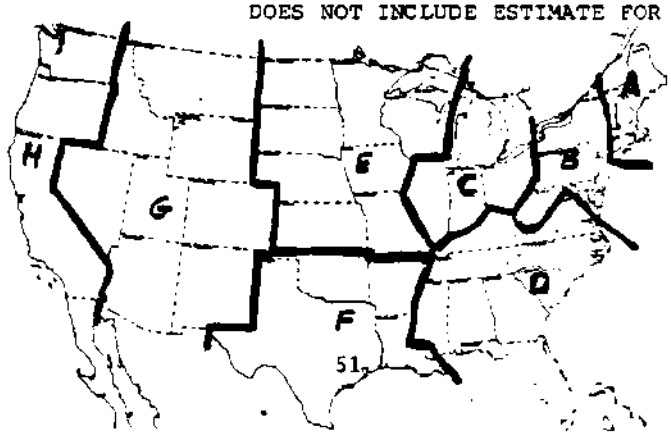
Chart 2-3

CHART 2-3

AVERAGE NUMBER OF BUSINESS DAYS IN TRANSIT ON MERCHANDISE SHIPPED IN MOTOR CARRIER SERVICE

FROM: SUPPLIERS IN TERRITORIES INDICATED ON MAP	TO: STORES IN REGIONS INDICATED BELOW								
	R.O. 2 EXCEPT P.R.&V.I.	R.O. 2 P.R.&V.I.	R.O. 3	R.O. 4	R.O. 6	R.O. 8	R.O. 10 EXCEPT AK & HI	R.O. 10 AK & HI	COMPOSITE *
A - NEW ENGLAND	2-4	14	4-6	4-7	5-11	6-11	8-11	16-20	2-11
B - MID ATLANTIC	2-4	14	2-6	2-6	5-11	5-11	7-11	15-20	2-11
C - EASTERN CENTRAL	4-6	15	6-8	3-7	2-11	5-9	8-11	14-18	2-11
D - SOUTHEAST	4-6	15	5-8	2-5	5-11	4-9	6-10	15-19	2-11
E - MIDDLEWEST	5-6	16	6-10	5-7	2-11	3-9	3-9	11-15	2-11
F - SOUTH CENTRAL	5-7	15	7-10	5-7	3-10	3-9	3-9	11-16	3-10
G - MOUNTAIN STATES	7-9	17	8-10	9-10	4-10	5-7	2-9	10-14	2-10
H - PACIFIC	7-9	18	9-13	9-11	5-11	5-11	2-9	8-12	2-11
COMPOSITE	2-9	14-18	2-13	2-11	2-11	3-11	2-11	8-20	2-11

*COMPOSITE COLUMN MARKED WITH ASTERISK DOES NOT INCLUDE ESTIMATE FOR AL HI PR VI



The method of reordering with the proper amount of lead time, delivery time and seasonal factors, are under the fixed reorder-cycle system, or fixed review-time method. Orders are most generally entered at specified times, such as weekly, biweekly or monthly, to replenish the stock in order to return the on-hand inventory and on-order inventory to a predetermined level. This system functions on the basis of periodic reorders to bring inventory up to the established level. In both systems a level of buffer--or safety reserve--is maintained. If stock could always be replenished without any delay, then only minimum safety stocks would have to be maintained. But this is not the situation that exists since market supply may be short due to greater demand, inventory clerical help may not order at the proper time or transit times may be longer than usual. The amount of level of safety stock is estabnlished by management and is expressed as a "percent protection against stockouts" or "percent demand satisfied." The smart discounter, aware the store may be faced with a stockout on a specific item, orders a surplus but not that many extra that they would present a problem if unsold.

The buyer should get to know each vendor well in order to apply these methods and obtain the

following results:

1. Quality merchandise.

2. Delivery when it is needed.

3. Lead time cutback, more favorable pricing and more favorable planning information supplied to vendors.

In the retailing industry orders are placed by the store manager, merchandise manager and/or buyer. Whoever places the order has a direct effect on sales and the results of sales. Buyers can purchase in larger quantities which means better transportation rates and services as well as larger discounts on volume orders. Volume shipments receive more attention from vendors. This means they will help to increase lead time and delivery time. With the proper amount of lead time and delivery time, discounters can realize a greater return on investment by eliminating the loss of sales.

The right amount of lead time and delivery time are important for seasonal factors which must be m for that season, otherwise sales cannot be recovered.

Who places the order, how much lead time and delivery time, and what effect seasonal factors have on reordering can be summed up in Leslie Chick's address on the subject of lead time for an order.

He stated: "How much time is needed after you write the order until you place the goods on the shelf? Consider the time needed to process the order in your office and transmit it to the vendor for processing, and possibly manufacture the item, then pack and ship it to your store, and for you to receive, unpack, mark and shelve it."[20]

TURNOVER

Because of the margin of profit on cosmetics amnd toiletries within the discount stores, turnover becomes a key to the discounter's profit. The supermarket and discount people have proven to everyone that turnover is the key to the retailers' profits--e.g., $1,000 invested in shampoo at 8 percent m,ark-up with turns 26 times means 208 percent profit on the $1,000 investment, while $1,000 invested in houseware at 40 percent with four turns would only produce a 160 percent return.

The important thing is the effect turnover has on inventory. Turnover, therefore, enables us to take a smaller mark-up and still show substantial dollar profits.

Every store has a hidden supply of dollars that it

can use by improving turnover. Turnover is a reflection of what has happened, i.e., not a cause but a result. It reflects the degree of success in keeping inventory in proper relation to sales. A loss in sales due to falling turnover means that less gross margin will be realized on inventory--and gross margin is the source of expense and profit dollars. Lower inventory contributes to a higher return on inventory investment and on total investment, releases cash for other productive uses, and reduces the amount of outside financing that is required.

Heavy inventories result in additional mark-downs and limit the ability to quickly capitalize on newest trends and market developments. Extra profit will be made from less handling, marking and receiving of merchandise, extra expenditure for insurance and fixturazation and warehouse cost. Lower inventory aids substantially in the reduction of pilferage and in the elimination of damage risk.

Image effect turnover. A store should carry what its customers want and should, therefore, have a basic stock. According to an article in the Wall Street Journal on November 3, 1982, by Claudia Ricci, concerning F. W. Woolworth Co., entitled "Defeat in

Discounting," she stated, "In setting up its Woolco discount stores, Woolworth relied heavily on its old 'five-and-ten' techniques. Customers never were sure how Woolco outlets differed from the variety stores."[21] However,it is very important for discounters to set and maintain their own image.

An analysis of merchandise by units, classification, vendor and price lines will improve stock turnover. Retailers sometimes over-extend their lines in order to carry complete assortments. This contributed to the Woolco discount store problem. Store managers griped, according to the Wall Street Journal, that, "Instead of offering three or four top sellers in each line of merchandise, Woolco tried to emulate the variety chain by providing a huge array of goods."[22]

The journalist went on to say, "One Woolco in New Jersey, for example, stocks 40 different hair sprays. 'If a company made another hair spray each day, we would have those too.' the manager said."[22]

The practice of buying too many brands should be reviewed periodically. However, "widening of lines" is sometimes necessary, regardless of turnover. "It takes 600 pairs of men's slacks, if they are cuffed, to have a basic stock in all sizes and lengths," according to the National Retail Management

Association.[23] Turnover must be planned on a limited unit basis since dollars are sometimes misleading. Discounters sometimes compete with themselves when when increase their assortment without increasing their business. When a new item is added to a line, each old item should be revalued and perhaps an item added.

Bach additional item added tends to share the demand with the assortment already on hand and tends to obey the law of diminishing returns. The net effect is reduced turnover. Somewhere along the line comes the "uneconomical addition" to the assortment. The merchandising key here is 'substitutability" or the substitution of one color for another by the consumer. This would be the case of "planned substitution" as opposed to optimistic substitution in unexpected emergencies.

The best analysis of turnover is on small segments of stock, such as on departments (cosmetics and toiletries) rather than on the store as a whole.

Occasionally, these analyses should be broken downm into even smaller classifications, such as on vaseline lotions as distinguished from a vaseline hair oil in relation to the whole cosmetics and toiletries department.

Retailers must remember that all too frequently they buy items they should have but really don't know they should. Retailers should know what their customers want--and shouldn't go fishing.

High inventory is costly and has a direct effect on profit, but can be improved through my mini-model of turnover effect on inventory. The following 24 ways can improve turnover:

1. Spend more time on buying plans.
2. Make a greater study of price levels.
3. Work harder on basic stock records.
4. Reduce the duplication of lines and items within certain lines.
5. Get faster delivery from suppliers.
6. Do not be everything to everybody.
7. Add price lines on a slower basis.
8. Add categories and lines on a slower basis.
9. Make a greater study of sales by price and color.
10. If it is necessary to buy far ahead, try to get advance dating on invoices.
11. Use promotions more often on slow merchandise.
12. Write more letters to manufacturers to get faster deliveries.
13. Make better use of company warehouses.
14. Keep stocks fresher.
15. Take more care in buying greater quantities

to get price concessions. In many cases price concessions are negligible.

16. Speed up the marking procedures at store level.

17. Attempt to time purchases and deliveries better.

18. Watch orders more closely for cancellation dates.

19. Prompt markdowns.

20. Test merchandise before ordering in depth.

21. Better"open-to-buy" planning by store managers and merchandise managers to catch peak dates in peak selling seasons.

22. Write fewer "at once" and "as ready" orders and more specific delivery date orders.

23. Have an "open-to-buy" plan for each classification by the store manager and merchandise manager.

24. Consistently reevaluate the quantities purchased in relationship to length of time--items in stock--and return of sales (when merchandise becomes cash flow).

Through the foregoing mini-models, managers can see that turnovers have a direct effect on inventory. Without the proper turns, inventoruy will either grow if merchandise is still being order at the same rate or will remain the same. Either way, the final result will show up in the profit margin. Discounters need the proper amount of turnovers to control their inventories.

APPROACH TO THE MERCHANDISE PLANNING SYSTEM

TOUCHE ROSS

The Touche Ross merchandise planning system begins with the interactive approach. Broad guidelines are given from management based on economic trends, store expansion possibilities and other economic factors. The buying staff then follows the bottom-up approach, starting with an estimate of unit sales at the classification level. The buyer then looks at price-line history and translates unit sales into dollar sales for each classification. The buyer can then arrive at a total departmental sales figure as the aggregate of all classifications. This method is possible only if unit control records from past seasons are in existence.

This approach results in the most accurate merchandise plan. Each classification is thought out before the dollar plan is completed. When revisions are necessary, the total dollar figures for each classification generally do not change. What does change, however, is the proportion of merchandise in each class.

Each buyer should review the chain's current merchandise policy. This will provide insight into

the current and potential customer base, fashion image, merchandise quality level, price lines and price ranges, marketing approach, customer service level and desired margins. Following a consistent policy will not only set store standards but also allows for consistency throughout the departments.

The next step is to review all background information, including unit control records, last year's six-month merchandise plan, monthly departmental contribution reports, trade, market and vendor information and store operation's input. Of special importance are the unit control records which provide key statistics (e.g., sales, on-hand, receipts, transfers, markdowns, etc.) at the style level.

The buyer is then ready to prepare the qualitative merchandise plan for the upcoming season including: customer definition (today and tomorrow), departmental sales makeup (fashion, basic and promotional), key department merchandise trends, major vendors, programmed vendor development, classsification performance comparison, import plans, advertising review, monthly action plan and specific problems in attaining goals.

The Formal Planning Document (the six-month

merchandise plan or unit, dollar classification plan) is usually composed of the following elements: purchases, sales, reductions (including markdowns, employee discounts and shortage), end of month (EOM) inventory and stock-to-sales ratio or the weeks of supply desired.

A six-month merchandise plan can provide documentation of actual monthly results, such as sales, markdowns and other necessary data so that comparisons may be made between plan and performance.. A six-month department plan is an aggregate of an individual six-month classification plan. After such a plan is prepared, it is presented to management for review, a major part of the interactive approach previously described.

Once the plan has been accepted, the assortment and buying plans can be developed. The secret to a good assortment plan is to know the various depths of inventory needed to meet customer demand.

In order to maintain balanced stocks throughout the season, the buyer must concentrate on depth of classification line, breadth of product line, sizes, colors and price lines.

Breadth and depth are the most delicate balances to achieve. Maintaining sufficient stock to generate a projected turnover without having to

purchase more merchandise to cover thin inventory positions, thus risking out-of-stocks, is paramount. There are risks involved, of course, but the professional discounter with his expertise should be aware of them.

In soft goods, size selection is important in basic as well as in fashion merchandise. While buyers cannot carry the same depth stock for each size item, the buyer can tell--by history--which sizes are in demand and concentrate inventory depth in those areas.

Not to be overlooked is the important of color in all merchandise. The right color can attract a customer into a spontaneous sale. Choosing the right color range is so important that an estimated 90 percent of sales is generated by 30 percent of the colors within the assortment. This is true in apparel and even in hard lines, such as kitchen electrics.

Price-lines analysis should determine what price range would be more suited to customers in a specific store and in what specific lines.

With the assortment plan completed and with vendor and product analyses made, the buyer is ready to prepare the actual buying plan. This plan lists the merchandise by units at the style level which would be purchased on the market trip.

In addition to the number of units to be purchased on the trip, the expected cost and retail price of the item will be entered on the buying plan. Planned purchases and open-to-buy figures are shown monthly, and the timing of receipts is specified.

All information is included in the buying plan which is then submitted to the merchandise manager. When his or her approval is given, the plan then becomes the contractual obligation between management and the buyer. The buyer proposes to purchase a specified amount of merchandise at a specific price over an agreed-on period of time. Management agrees to provide the cash needed to make those purchases on the given dates.

Before buying, the buyer makes an itinerary based on vendor priorities. This decision will, in part, be based on sales-to-date (if mid-season), current inventory levels, merchandise on order, vendor lead-time and markup.

Once the buyer is in the market, the buying plan may change. New vendors may have entered a specific market, old vendors may have left it. Items planned for purchase may be unavailable. Prices or lead-time may have changed. Terms may be different, enabling the buyer to purchase more or less than planned.

The buyer then modifies his plan to accomodate these changes, but holds to the plan as much as possible. Then, following the trip, the buying plan is completed when purchase orders are written, submitted for final approval and sent to the vendors.

The buying plan is, in effect, the final but crucial step in the merchandise planning process. Experience has shown that good buying plans lead to better profits. The merchandise plan not only helps the buyer prepare for the upcoming season, it also gives him or her a tool with which to monitor current performance. When the situation calls for it, the buyer reviews his merchandise strategies accordingly.

"Used wisely, this tool gives management a means of implementing a sound merchandise strategy, thereby achieving its ultimate goal-profit."[25]

CHAPTER III

TRANSLATING INVENTORY CONTROL RESEARCH INTO A UNIFIED CONTROL PLAN FOR DISCOUNTERS

LITERATURE REVIEW

There is a tremendous amount of literature for review. The literature reviewed gave me a greater understanding of inventory control and ways to improve inventory control. Among the articles were:

1. How to Prepare a 6-Month Merchandise Plan
2. Broad-Based Plan Can Reduce Inventory Shortages
3. Applying the Retail Inventory Method
4. Go to Market with an Effective Buying Plan
5. Completing the 6-Month Merchandise Plan
6. Merchandise Planning
7. Merchandise Planning Requires Management, Not Just Reaction

8. Evaluating Inventory: Cost vs Retail
9. How to Utilize Space Effectively
10. Factors to Consider When Replenishing Stock
11. Make Inflation Work for You by Merchandising Money Savers
12. What Can Discounters Do to Increase Turns?
13. Reports Should Get Finance and Merchandising to Harmonize
14. Many Situations Call for Centralized Stock Set-up
15. Market Reserach is Necessary for Effective Decisions
16. The Best Buyers are Those Who Get the Best Terms
17. Planning a Strategy for Reordering Goods
18. Merchandise Planning: By the Numbers

Through these articles I gained a greater understanding of the discount store in retailing and what they are doing right, what they are doing wrong or not doing, and what they should do.

A.C. Nielsen Study

According to an A.C. Nielsen study, discounters outpace food chains and drug chains in health and beauty aids. This kind of information can be very helpful to the discount store buyer. Mass

merchandisers outdistanced their food-and-drug chain competitors in the health and beauty aid market in the first four months of 1979, continuing a trend established in 1978.

Nielsen, which does not include Sears, Montgomery Ward, J. C. Penney or other department stores among mass merchandisers, monitored twenty-five health and beauty aids commodities in order to compare the relative performance by discounters, drug chains and food dealers.

According to updated 1979 market statistics gathered by Nielsen, dollar health and beauty aid sales by discounters increased an average of 11.5 percent during the first four months of 1979 and an average of 19.5 percent in 1978. This compares to 1978 gains of 9.3 percent by drug chains and 13.1 percent by supermarkets. Dollar advances for the three types of retailers for January through April were almost even.

According to the Nielsen research, mass merchandisers increased their share of the market in four of seven health and beauty aids categories. Mass merchandisers increased their share of unit sales in shampoos to 58 percent, compared to 55 percent in 1978, while average monthly sales per linear foot rose 1.7 percent to $27.45. Discounters

upped shelf space five feet to an average of sixty-nine linear feet while their competitors gave less shelf space to this category. Unit sales rose for food chains, but dropped slightly for drug stores.

Mass merchants also grabbed a larger market share in hair coloring, although unit sales declined in all three types of outlets. Discounters upped average shelf space to fifty-nine feet and had an increase in average monthly sales of 1.2 percent to $14.76. Discounters share of unit sales increased from 49 percent to 52 percent. Supermarkets maintained an average of nine feet of shelf space and had an 82 percent increase in average monthly sales per foot, while drug chains cut space and slightly increased average sales.

Mass merchants also increased their share of the headache remedy market from 33 percent to 42 percent. Unit sales rose 10 percent and monthly sales per foot were up 5 percent to $21.84. Discounters were the only retailers to increase shelf space up six feet to forty-six feet. Drug chains tightened their space and saw a 23 percent decline in monthly sales per foot while supermarkets dropped a single foot of shelf space and saw a 23 percent increase in monthly sales in this category.[26]

When information of this nature is available to the discounters, their job of controlling inventory becomes a little easier. Following is a list of figures compiled by A. C. Nielsen Company.

ILLUSTRATION 4

DISCOUNTERS PRE-EMINENCE SEEN IN FOUR HEALTH AND BEAUTY AIDS CLASSIFICATIONS

SHAMPOO COMPARISON

Average Monthly Unit Sales Per Store

	2 Years Ago	1 Year Ago	New
Discounters	1,203	1,240	1,420
Drug Chains	665	675	666
Food Chains	263	342	374

HAIR COLORING COMPARISON

Average Monthly Unit Sales Per Store

	2 Years Ago	1 Year Ago	New
Discounters	494	441	424
Drug Chains	390	391	333
Food Chains	NA	68	60

HEADACHE REMEDY COMPARISON

Average Monthly Unit Sales Per Store

	2 Years Ago	1 Year Ago	New
Discounters	734	710	783
Drug Chains	814	1,050	701
Food Chains	373	378	394

ORAL ANTISEPTIC COMPARISON

Average Monthly Unit Sales Per store

	2 Years Ago	1 Year Ago	New
Discounters	410	438	457
Drug Chains	277	356	264
Food Chains	142	152	158

NA--Not Available

Source: A. C. Nielsen Co.
September 10, 1980

With this average monthly sales increase by the discounters, each year it makes reordering for cosmetics and other merchandise that much easier. As stated earlier the F. W. Woolworth Company increased their inventory four to five percent each year unless there is a decline in sales in that department.

Other academic research indicates better ways of improving inventory control, but only a few discounters are using this method. It is called Purchase Order Management (POM). Others refer to it as Merchandise Processing Systems (MPS), which implies a larger function. Whichever term is used, it is a computerized purchase order system.

Bob Zimmerman, speaking about Purchase Order Management in its purest sense in the existence of an on-line, real-time system assisting in receiving merchandise from suppliers and sending it out to the selling floor, said, "A properly designed system should:

1. Improve the efficiency of all merchandise handling.
2. Make purchase order preparation simpler and faster.
3. Provide more accurate and current open-to-buy and on-order information.
4. Reduce errors in receiving and marking.
5. Reduce accounts payable."[27]

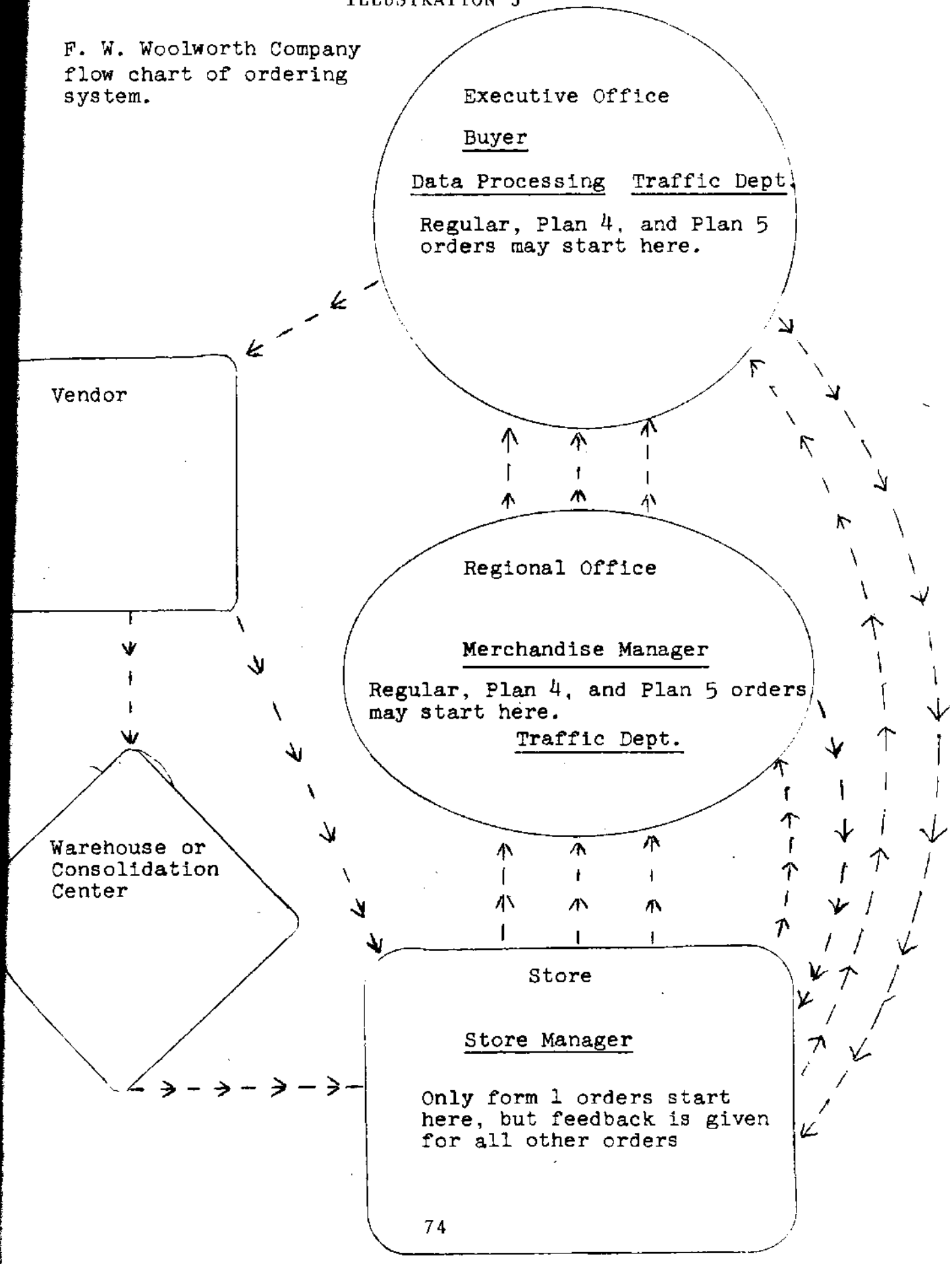
James Carreker, Vice President, Operations for Sanger Harris Company says, "It is really tough for a retailer to make a capital decision these days. At the same time, I think the times are causing merchants to try and justify the system more. Because they believe one of the ways they can better compete is with better information. They look at a competitor who has a good merchandise processing system, who is right on track of what is on order, what is received and who has good control, consequently, on the buying and that can be viewed as a competitive edge."[28]

The A. C. Nielsen research and other academic research enabled me to have a better understanding and more in-depth knowledge concerning inventory control improvement for discount stores. The Nielsen research study proves that the discount stores have a place in the retailing industry and are a viable factor in health and beauty aids.

Management must continue to show gains in other areas in retailing by developing an effective six-month merchandise plan, a buying plan, how to utilize space effectively, develop better ways to increase turn, plan a strategy for reordering goods and move into the computer industry with a system like (POM) Purchase Order Management or

ILLUSTRATION 5

F. W. Woolworth Company flow chart of ordering system.



(MPS) Merchandise Processing Systems which have the advantages previously noted.

F. W. WOOLWORTH ORDERING PROCEDURES

There are many ways to place an order for the F. W. Woolworth Company, but I will explain four of these that are generally used. They are:

1. Form one order
2. Regular order
3. Plan Five order
4. Plan Four order

The form one order is the simplest. It originates in the store and is signed by the store manager. This is a hand-written order for small quantities mainly used to restock items that are on sale. This order is sent to the Regional Office (R.O.) for approval by the Merchandise Manager who forwards the same to the Executive Office (E.O.) Buyer for approval. The buyer in turn forwards the form one order to the firm for processing.

A regular order may start with the Executive Office Buyer or Regional Office Merchandise Manager based on what they think the store can sell of a particular item. This is sometimes done with a store manager's feedback. This type order may be shipped directly to each store or through the

warehouse. A regular order allows each store to be invoiced separately.

A Plan Five order may originate with the Executive Office Buyer or the Regional Office Merchandise Manager. This order may or may not have store manager's input. This order allows the vendor firm to issue one invoice to cover all stores combined and can be shipped direct to each store or to the appropriate warehouse/distribution center.

A Plan Four order may originate with the Executive Office Buyer or the Regional Office Merchandise Manager. This order may or may not have a store manager's input. This order allows the firm to issue one invoice per warehouse or distribution center with no knowledge of what stores will receive this merchandise. These are volume shipments direct to each warehouse or distribution center.

To create an order with a store manager's input is accomplished by sending copies of the order to each store for their input. There is a portion to be torn off and filled out. The strips that are returned will show what was sold and what is on hand. These strips will show what they want on this particular order. These orders are reviewed by the Regional Office Assistant Traffic Manager and a recommendation is made as to the type of

order this will become: regular, plan four or plan five. The order will also show what route plan will be used. There are other strips that are mailed directly to the Executive Office order department for their review and it is then that the final decision is made as to what type of order this will become.

These strips are sent to the Executive Office data processing center and the orders are then processed and mailed to the vendors. These ordering procedures cover the entire store stock. Because of some of these ordering procedures, many orders are being placed with the vendors late. This does not give enough lead time and therefore, many orders arrive after the ads have been run.

These orders are also controlled by the Director of Marketing. When the stores send in their weekly purchase allowance, it has each order listed on the back that was placed that week, and this form will show if that store is overbuying.

Stores also make weekly purchases from the warehouse by giving their strips to the fleet driver during the weekly delivery, or mailing their strips to the warehouse for processing. Each store gets a warehouse shipment once a week. However, it is my feeling that these ordering policies can

be improved.

When I spoke to Mr. Donald Phillips, Director of Marketing, concerning Woolworth's ordering procedures, he stated, "The Woolworth ordering system is somewhat out-dated and point-of-sales sould be implemented immediately."[29]

The form one order is the simplest and quickest way to get merchandise into the discount store for the Woolworth Company. This order is written at store level and approved by the store manager, then forwarded to the Regional Office Merchandise Manager for his approval. This order does not go to the Regional Office Traffic Department. It is then sent to the Executive Office Buyer for his approval and then to the vendor who in turn ships direct to the store placing the order.

A regular order, plan four and plan five orders are just a little more time-consuming. These orders often require store feedback in order to complete them. Frequently, ordering information from various stores does not come into the Regional Office Manager's office on time and orders are held up for this reason.

These orders are sent to the Executive Office Buyer who in turn holds up these orders many times for no apparent reason, then sends them to data

processing for printing. The printed order is mailed to the vendor. All plan four orders take much longer than regular or plan five, because plan four orders always go to the warehouse or consolidator and then to the store. Import orders are always plan four orders and must be ordered well in advance in order that merchandise will arrive in time for the season in which it is intended.

The area that needs improvement the most is the Woolworth Company's ordering system. Their ordering system needs more management control and the aid of a computer system. Other areas where improvement is possible are point-of-sale recording and inventory planning and control.

In the past few years an increasing number of retail firms have turned to the computer to provide some of the necessary information needed. For example Spiegel, Incorporated, uses the computer in its mail-order operation. It is estimated that by computerizing customers' mail orders, order-processing time has been reduced fifty percent, resulting in an annual cost reduction of twenty-five percent.[30]

Point-of-sale recording is getting information regarding sales transactions at the point of origin by using a special cash register equipped to

automatically record transaction data in the form of perforated paper tape. The tape may provide such information as the department number, identification of the sales clerk, amount of sale, transaction count, and average sale. Data received in this manner are entered automatically into a computer. Depending on the type of system used, the information received provides the retailer with daily, weekly or monthly reports of the total sales transactions of each department.

The F. W. Woolworth Company needs improvement in the area of inventory planning and control. This area gets the most frequent use of the computer at the retail level. According to David McConaughy, "A recent study shows that by using data-processing equipment some retailers have improved their merchandising operations in relation to planning inventory requirements, control of branch stock, and the identification of stock movements. This is primarily due to the faster reporting and improved breakdown of information available with computer."[31]

A typical computer report on the inventory status of a department in a retail store gives information on beginning and ending quantities, quantities ordered, and quantities returned. It also indicates gross sales and gross profit for

further ordering requirements.

"With data gathered from internal sources, the retailer may receive technical guidance from a supplier for the purpose of improving the flow of information within the channel system. With the growing capabilities of the computer, some manufacturers are providing retailers with inventory information to help them in their merchandise planning."[32]

Based on the literature review, the F. W. Woolworth Company should implement point-of-sale recording, maintain more management control over inventory, and increase the use of their computers. This would enable the company to improve the ordering system flow.

CHAPTER IV

CONCLUSION OF FACTS

A poor ordering system will often cause merchandise not to be in the store at the time it is advertised. This could lead to false advertising or unfair trading practices. Therefore, rainchecks are helpful in this respect. With a good inventory control system this can be remedied. Rainchecks are necessary for customer relationship when merchandise is out of stock and listed in an ad. Discounters must continue to use rainchecks until a more workable solution has been established. Many discounters are placing their orders late, they are not giving the manufacturer or themselves enough lead time. Therefore merchandise ordered for ad dates and holidays is often late arriving at store level.

Many buyers buy for the sake of buying, unaware of inventory level. This results in overstocking in some stores and understocking in others. They

are failing to keep a tight rein on store inventory. This would seem to be due to a lack of coordination among different buying levels in a large chain operation. There is also a lack of coordinated inventory control. Discounters as well as their customers spend millions as a result of inventory shortages each year. However, there are ways to combat shortage and hold shortages to a minimum. These problems can be solved through effective retailing and marketing strategies.

Sales planning regarding product lines sold is a most difficult part of the merchandise planning process. Once the discount store buyers masters the sales planning, knowing what and when to order becomes much easier. In order to maintain balanced stocks throughout the year, the buyer must concentrate on depth, breadth, size, color and price lines in order to maintain a good inventory level in discount stores. Customers for such a store are quite different from customers of other retail establishments. When buying for the discount chain, the buyer must consider such things as geographic location, demographic characteristics, customer preference, store size, colors, ethnic tastes, the fashion look for the season, local climate and acceptable price lines.

In order to have an effective reordering system, management must implement an effective merchandise plan in order to control inventory within the discount stores. There must be computers in nearly all phases of the retailing operation: at the point of sale, to coordinate various buyers' orders, for regional warehouse control and for product line sales analysis.

The F. W. Woolworth Company failed in the discount store business because they failed to identify their Woolco chain as a discount store and maintain the discount store image. The discount chaines were never separate from the variety store image used by the Woolworth Company stores. Yet in any operation, discount or otherwise, the buyers, merchandise managers, store managers and all who play an important part in order timing, order quantity, shrinkage, turnovers, stockouts, issuing of rainchecks, store layouts, as well as merchandise buying and planning must continue to do their jobs effectively in order to succeed as discounters.

In this fast paced society it is not conceivable that any retailer, especially the discounter, would attempt to operate without the aid of computers to help get the job done and keep up-to-date with the necessary changes.

CHAPTER V

CURRENT TRENDS IN SELECTED PARTS OF THE INVENTORY CONTROL SYSTEM FOR THE DISCOUNT OPERATION SUMMARY AND RECOMMENDATIONS

STOCKOUTS: POLICY AND PROCEDURES FOR IMPROVEMENT

Many discounters and agencies I contacted indicated to me that rainchecks are not too serious. Yet, the cause of having to issue rainchecks, stockouts, should be dealt with. Therefore I recommend the following corrective action so it will not be necessary to issue so many rainchecks. When merchandise is advertised that includes import items, seasonal goods and items in extremely short supply, the discount store ads might read:

1. Limit: one each per customer.
2. Limit: two each per customer.
3. Store stock only: sorry, no rainchecks.
4. Store stock only: sorry, no rainchecks or special orders.

As for regular stock items that are advertised,

the policy should read:

> "Our customer service desk will issue rainchecks (at sale price) on any advertised merchandise out of stock before the end of the sale period unless otherwise stated."

I do not recommend that discounters make rainchecks readily available to customers. These rainchecks should be given out by store personnel only.

Here are the recommended procedures for rainchecks in the Woolco discount store:

1. Issue two (2) only RC-3 raincheck follow-up pads per store.
2. Issue 2,500 rainchecks per Woolco store. Total: 800,000.
3. Buy twenty boxes to hold the rainchecks per store at $17.85 per box, $357.00 per store. Cost: $116,025.00.
4. Recommended color or raincheck boxes: Red.

Mr. Sine, Executive Director of Marketing, F. W. Woolworth Company, felt that top management should control rainchecks per store and each store manager would in turn control rainchecks per customer.[31]

The policy and procedure for improvement would not only be the use of rainchecks to handle stockouts, but there are other important areas that cannot be separated. These are optimum order timing and

optimum order quantity which, although handled separately, must be brought together and handled as one system to complete the overall operation and eliminate stockouts. As noted earlier, the use of computers to help control sales planning in product lines and to forecast buying and inventory requirements would be progress towards such a unified system.

SHORTAGES: POLICY AND PROCEDURES FOR IMPROVEMENT

All shortages affect profits, even "book" shortages. Book shortages can conceal merchandise and store profitability, cash shortage, theft, fraud and lack of control. It can also create an atmosphere that leaves the discount store vulnerable to theft and fraud. Whether you refer to it as shortage or shrinkage, terms used interchangeably, the end result is not having a portion of the merchandise to sell, or an error brought about through bookkeeping.

In order to combat shortages, I recommend management make all concerned aware of the problem and immediately implement some loss-prevention plans in order to yield a greater profit in an effort to stay in business. Here again, all areas must be considered together. This is one system

and along with shortages, optimum order timing, and optimum order quantity must be included. Be it order timing, quantity, stockouts, or just plain shortages, the end result will be the same if not controlled properly: loss of sales, low inventory, less profit, and dissatisfied customers.

A loss-prevention program should include all employees in their phase of the business. They should be aware that losses are losses to them as well as to the company because less profits result in fewer raises for employees.

INVENTORY TURNOVER: POLICY AND PROCEDURES FOR IMPROVEMENT

High inventory is costly. Therefore, I am recommending twenty-four ways to improve turnover:

1. Spend more time on buying plans.
2. Make a greater study of price levels.
3. Work harder on basic stock records.
4. Reduce the duplication of lines and items within certain lines.
5. Get faster delivery from suppliers.
6. Do not be everything to everybody.
7. Add price lines on a slower basis.
8. Add categories and lines on a slower basis.
9. Make a greater study of sales by price and color.

10. If it is necessary to buy far ahead, try to get advance dating on invoices.
11. Use special promotions more often on slow merchandise.
12. Follow up orders by writing more letters to manufacturers to get faster deliveries.
13. Make more efficient use of company warehouses.
14. Keep stocks fresher.
15. Take more care in buying greater quantities to get price concessions. In many cases, price concessions are negligible.
16. Speed up the marking procedures at store level.
17. Attempt to time purchases and deliveries better.
18. Watch orders more closely for cancellation dates.
19. Prompt markdowns.
20. Test merchandise before ordering in depth.
21. Better open-to-buy (freedom to purchase more merchandise when needed by the store manager and regional office merchandise manager) planning to catch peak dates in peak selling seasons.
22. Write fewer "At Once" or "As Ready" orders and more specific delivery date orders.
23. Have an open-to-buy by classification.
24. Consistently reevaluate the quantities purchased in relationship to length of time and return of sales.

Before management can properly and effectively deal with inventory turnover, they must first deal with optimum order quantity, optimum order timing, and eliminate or control stockouts and shortages. When this has been done they would be in a better position to deal with policies and procedures for inventory turnover improvement as I see it.

MERCHANDISE PLANNING: COMPUTER AID IN IMPROVING PERFORMANCE

I feel the key to total overall inventory control within the discount stores and in other retail establishments as well lies with good management and the computer system. With this I recommend the following:

1. P O S -- Point of Sales
2. M P S -- Merchandise Processing System
3. A I M -- Automated Inventory Management
4. E P O -- Electronic Purchase Order System

Point-of-sale equipment is a computerized replacement for the old cash register, but with greatly increased ability to aid in inventory control. All of the managers I contacted indicated the system pays for itself. Retailers who install point-of-sales equipment improve their merchandising and operating information and decisions. In almost every case

they said their expectations were met. Major benefits cited most often by respondents to a survey [32] were:

1. Point of Sales provides more accurate, useful and faster information.
2. Point of Sales provides the ability to operate with reduced inventory levels and markdowns, while increasing inventory turns and gross margin.

According to the study done by the National Retail Merchants Association and Touche Ross & Company,"point-of-sales took care of credit authorization, purchasing cycle, purchase-order management, big ticket inventory, cash register balance, communications to host, item description printing, report preparation, stock keeping unit (SKU) data capture, markdowns, layaways and inventory."[33]

Since this type system is presently working for K-mart, the number one discounter, it could work for other discounters as well. Therefore, I strongly recommend Point of Sales as a way to improve inventory control for discount stores. This type of a system makes merchandise planning much simpler.

Merchandise Processing Systems allows a merchant to get a real-time control on his outstanding

committments and receipts by the use of a sophisticated computerized purchase order file. This system records receipts for financial and merchandising purposes at the time the goods are received. This system will:

1. Improve the efficiency of all merchandise handling.
2. Make purchase-order preparation simpler and faster.
3. Provide more accurate and current open-to-buy and on-order information.
4. Reduce errors in receiving and marking.
5. Improve accuracy and timeliness of merchandise unit control system.
6. Reduce invoice processing costs.
7. Reduce accounts payables.

This system would be very good for the discount stores where the diversity of goods and different kinds of orders can complicate matters. According to Bob Zimmerman's definition, "with Merchandise Processing System you can take the whole cycle from order entry through receiving, checking, marking, distribution and payables. You have merchants operating as financial people.[34]

With this type of system, retailers can control merchandise from the vendor through the distribution centers and to the customers. This type of system

is very reliable and retailers can easily control their inventory. It can make an improvement in the discount stores.

Automated Inventory Management helps take the guesswork out of how much and what to replenish and buy, at least on basic items. This is another computerized system that can and will work for those discounters willing to make the investment. By installing one of these electronic computer systems, the discounter can be sure of controlling inventory from a centralized point.

Electronic Purchase Order System is already being used by one of the discounting giants--K-mart. The individual stores are communicating directly with resources. They have the volume to convince their suppliers to confirm electronically. The store manager calls a telephone line with data transmission capability, makes a connection to the vendor and sends the necessary information to the vendor's order-taking computer.

This system will help the discounter lower his levels of inventory, and control the levels by helping him get his replenishment done. As stated by Carl Choate:

> One big advantage is that we get to work on a replenishment system. And if our product is moving, we get to replace it rather than having to resell everything. It gives us a source of continuing business. Regarding invoicing capability, we see the first phase as being electronic notification of shipment that tells the merchant exactly what is coming. The retailer is still going to have to wait to get a copy of an invoice. But the notification will help him because he will know quickly what his open-to-buy is.[35]

This type of system not only places purchase orders but receives invoices, shipping documents, statements and such, electronically. K-mart is using this system very effectively. A manager sends an order to headquarters electronically. If all is going well, a headquarters buyer enters an order at four o'clock. It will arrive at the central computer room at eight o'clock. It will be homogenized in the ordering system and the following morning a purchase order will be available on the computer for a vendor to come and get. This is how Electronic Purchase Order works and it has even greater potential. This system is helping K-Mart control their inventory.

Although specialty chains are leading the pack in automated inventory management, discounters and department stores are showing some interest in systems that will allow them to optimize inventory flow, and to turn goods more quickly while keeping stocks at acceptable levels.

Finally, under the physical distribution manager is a division or unit that is called the traffic or transportation management group. Therefore, I strongly recommend that this group do the best job on the following:

1. Rates and rates negotiation.
2. Routing and carrier selection including mode, special and terminal services and service reliability.
3. Regulatory matters including effect on company operations and appearances before regulatory agencies.
4. Operation of company transportation.
5. Cooperation with carriers in the development of technological changes that can enhance transportation productivity.
6. International transportation.
7. Analysis of transportation costs and services.
8. Analysis of transportation time by states to stores.

If transportation management can manage these eight points as their role in the overall retailing industry we would see much improvement in transit time. The traffic department has the responsibility of dealing with the condition of the delivered

merchandise. If it is necessary to file a claim to avoid taking a loss, then do so. They must use the carriers that will do the best job and give the best service for the rates received. With a unique planning, ordering, buying and transportation system, inventory can be controlled within the discount stores.

SUMMARY OF IMPROVEMENT ACHIEVED BY AREA RECOMMENDATIONS

SUMMARY OF FUTURE EXPECTATIONS.

First and foremost, the discounters must start out with a merchandise plan, then develop an effective buying plan. The buying plan is the final, but crucial, step in the merchandise planning process. A good buying plan will lead to better profits. Next, management must develop a vendor analysis as to which vendor will give the best service and best buy.

The second phase would be to use the right carriers to have a good, strong, and effective transportation system. Through a good transportation system order timing can be controlled. By using one or more of the following computer systems--Point of Sales, Management Processing System, Automated Inventory Management, Electronic Purchase Order--there can be immediate improvement in the

areas of stockouts, shortages, inventory turnover, and merchandise planning. Through these systems the discounters will make improvement in the efficiency of the retailing industry.

As for future expectations, I feel that the discounters will make more gains in the retailing business, use computers more effectively, be more timely in ordering, upgrade their discount image as to store appearance, layout and quality of merchandise. The discounters have a definite place and responsibility in the retailing industry.

As I have gained more knowledge and understanding through study and research about discount stores, their operations and why they exist, it is hoped that this project, within its limitations, has capsulated concepts and methodology worthy of discussion and further development so as to be the nucleus of additional knowledge unique to the discount store retailing profession.

INCORPORATING MANAGEMENT POLICIES, REORDERING AND TURNOVER INTO A TOTAL SYSTEM PLAN; RELATING MERCHANDISE PLANNING TO INVENTORY CONTROL

If the discounters are ever going to control their inventory they must follow management policies. They must establish a good reordeing system as well as maintaining a high turnover in all areas.

It is the responsibility of the Merchandise Manager to recognize and introduce into the various departments new products and services. In controlling inventory this must be done in a way so as to avoid overstocking a given item. Working in close coordination with the buyer, the Merchandise Management is responsible to help develop and utilize the sales-forecast budget as a basic planning tool for buying, controlling, selling and stocking merchandise.

The Merchandise Manager's decisions involve a thorough understanding of the firm's overall goals and strategies which are translated into merchandising policies. Higher policies must be within the framework of corporate management policies. The Merchandise Manager can predetermine guidelines

for courses of action relative to what goods to buy, in what quantities, from what suppliers, and how frequently.

The Buyer is responsible for the buying, selling, and management functions within the company; s/he is responsible for planning and control of buying and pricing, gross margins, merchandise inventories and supervision of others in the buying organization.

FOOTNOTES

CHAPTER I

[1]Interview. D.E. Phillips, Director of Marketing. October 26, 1982, St. Louis, Missouri

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[3]Ibid.

[4]Op.cit., Allen, p.45.

[5]Leslie Chick, National Director of Retail Consulting, "Discounter Management Development Series," (Discount Store News, July 30, 1979), p.45.

[6]Op.cit., Chick, p.31.

[7]Op.cit., Allen, p.93.

[8]Op.cit., Chick, p.7.

[9]Op.cit., Chick, pp.7, 25.

[10]Interview, George Wade, Sales Representative. October 13, 1982, St. Louis, Missouri.

[11]Thomson N. Whitin, The Theory of Inventory Management, 2nd ed. (Princeton, N.J.: Princeton University Press, 1957), p.32.

[12]Dean S. Ammer, Materials Management (Homewood, Ill.: Richard D. Irwin, Inc., 1962), p.176.

[13]Interview. Richard Donahue, Federal Trade Commission, October 13, 1982. Washington, D.C.

[14]Jules Abend, "Shrinkage Matters," (Stores, Shortages, June, 1982), p.48.

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[15]OP.cit., Chick, p.12.

[16]Ibid.

[17]Op.cit., Chick, p13.

[18]Randy L. Allen. "How To Utilize Space Effectively," (Discount Store News, Discounter Management Development Series, September 10, 1979). p.12.

[18]Op.cit., Chick, p.12.

[19]Op.cit., Allen, p.12.

[20]Arthur Todd, "Cutting Back Leadtime," Purchasing World, August, 1982. p.49.

[21]Claudia Ricci, "Woolworth, Defeated in Discounting, Aims at Specialty Markets," The Wall Street Journal, New York. Wednesday, November 3, 1982, p.14.

[22]Ibid.

[23]Ibid.

[24]Interview, E.P. Sine, Marketing Director, F.W. Woolworth: November 2, 1982, New York, New York.

[25]Op.cit., Chick, p.23.

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[26]A.C. Nielsen, "Discounters Outpace Food, Drug Chains in H&BA," (Discount Store News, September 10, 1979), p.8.

[27]Bob Zimmerman, "POM Matters," Stores, September, 1982, p.46.

[28]James Carreker, "How POM is Making Merchants Operate More Like Financial People," Stores, September, 1982, p.46.

[29]"Mail Order House Spends $3 Million To Save Money," Business Week (January 27, 1962), pp.56-57.

[30]David McConaughy, "An Appraisal of Computers in Department Store Inventory Control," Journal of Retailing, Vol.46, No.1 (Spring, 1970), pp.3-19.

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[31]Op.cit., Sine, November 2, 1982.

[32]"New NRMA Study Documents POS Benefits," Stores (March, 1982), p.14.

[33]Ibid.

[34]Bob Zimmerman, "Electronic Processing System," Stores, September, 1982. p.42.

[35]Carl Choate, "EPO Matters," (Stores, October, 1981), p.50.

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