

## **Subject: Apparel Merchandising**

### **Unit 4: Dollar merchandise plan and six months merchandise plan**

#### **Quadrant 1 – e-Text**

#### **Learning Objectives**

The learning objectives of this unit are to:

- Explain the planning process from elements of planning to six month merchandise plan.
- Describe the six month merchandise plan.
- Describe 'Open To Buy' (OTB) planning systems.
- Examine factors affecting real time OTB.

#### **4.1 Dollar Merchandise Plan**

It is a guide for a futuristic period and includes monetary values only. It does not describe units, assortments or quantities of merchandise. It balances planned sales and planned stocks in monetary values.

It includes:

##### **1. Cash Discount::**

Discounts allowed by vendors for payment of invoices prior to a specified date.

##### **2. Stock Turnover:**

Net Sales divided by average inventory at retail.

##### **3. Shortage:**

The difference between book inventory in retail dollars and the physical inventory at retail; stated as a percent of net sales.

##### **4. Average Stock:**

Beginning-of-the month inventories divided by the number of months in the period.

##### **5. Initial Markup percent:**

The difference between the cost of merchandise and the original retail price.

6. Gross Margin Percent: Difference between net sales and total merchandise costs. It must be high enough to cover all operating expenses and taxes as well as profit.

### **Elements of the Merchandize Plan**

Key elements of the merchandise plan are:

1. Planned Sales: sales in monetary values estimates for the total plan period broken down for each month of the plan.

2. Planned Stock: Is the estimated money value of the Inventory needed at the beginning of each month of the plan.

Stock Turnover = Net Sales in terms of value / Average Inventory Values.

3. Planned Markdowns: estimated reductions in terms of monetary values from the retail value of the goods for each month of the plan.

Markdown % = Markdown in Value / Net sales in Value.

4. Planned Purchases: It is the difference between what is needed and what is on hand. Estimated money to be spent for purchases for each month of the plan.

Planned Purchases = planned monthly sales + planned end-of-the-month stock + planned monthly markdowns – planned beginning-of-the month stock.

5. Planning Reductions: It is the lowering or marking down the retail price of merchandise. Reductions are planned because only rarely can all the merchandise purchased be sold at the originally set retail price. Markdowns are either promotional or permanent and these adjust the initial retail price downward temporarily or set a new retail respectively.

Markup Cancellation: Adjust the amount of mark-up that was put on an item originally, thereby lowering the retail price.

*Keystone Markup:* It is an amount that equals the cost of the merchandise, or 50% retail mark-up.

*Short-Markup:* It is less than Keystone.

### **Open-to-Buy**

It is used as a control device to see that purchases are made according to the merchandise plan and the needs exceeds the merchandise available.

OTB = planned sales + planned end-of-the-month stock – present inventory – goods on order.

**Controls:**

These are the methods employed to help a retailer track the business to see how it is doing and how effective the merchandising strategies are.

**Standards:**

Effective control systems have established standards, a means of measuring performance through accepted guidelines that help to monitor performance.

**Periodic Inventory:**

It is a method of stock control in which the retailer physically counts merchandise at designated time period.

**Perpetual Inventories:**

It is a stock control methods that provide a continuous record of the movement of incoming and outgoing merchandise.

**Vendor Matrix / Key Resources List**

These matrices or lists are based on the premise that fewer resources or suppliers are better than many, in order for the resources to be as beneficial to the retailer as possible.

**4.2 Dollar Merchandise Planning**

Merchandise management is the analysis, planning, acquisition, handling, and control of the merchandise investments of a retail operation.

**A.** Buyers, working with upper management, are responsible for the dollar planning of merchandise requirements.

1. Inventory is the largest investment that retailers make.
2. Gross margin return on inventory (GMROI) incorporates into a single measure both inventory turnover and (gross) profit. Its formula is:

$(\text{Gross margin}/\text{Net sales}) \times (\text{Net sales}/\text{Average inventory at cost}) = (\text{Gross margin}/\text{Average inventory at cost})$

**B.** Once planned sales for the period have been determined, the merchandise manager can then use one of four methods for planning dollars invested in stock.

They are Basic Stock Method, Percentage Variation Method, The Weeks' Supply Method and the Stock-to-Sales Method.

**Basic Stock Method (BSM)** is a technique for planning dollar inventory investment that allows for a base stock level plus a variable amount of inventory that will increase or decrease at the beginning of each sales period in the same dollar amount as the period's expected sales.

BSM can be calculated as follows:

1. Average monthly sales = Total planned sales for season/Number of months in season
2. Average stock for season = Total planned sales for season/Estimated inventory turnover rate for season
3. Basic Stock = Average stock for the season - average monthly sales for the season
4. Beginning-of-the-Month (BOM) Stock = Planned monthly sales + Basic stock

*The basic stock method works best when a retailer has a low turnover rate or sales are erratic.*

**Percentage variation method (PVM)** is a technique for planning dollar inventory investments that assumes that the percentage fluctuations in monthly stock from average stock should be half as great as the percentage fluctuations in monthly sales from average sales.

a. It is computed as follows:

$$\text{BOM Stock} = \text{Average Stock for season} \times \frac{1}{2}[1 + (\text{Planned sales for the month} / \text{Average monthly sales})]$$

b. This method is used when the retailer has a high annual inventory turnover rate (i.e., six or more times a year).

**The weeks' supply method (WSM)** is a technique for planning dollar inventory investments that states that the inventory level should be set equal to a predetermined number of weeks' supply, which is directly related to the desired rate of stock turnover.

a. The WSM is calculated as follows:

(1). Number of weeks to be stocked = # weeks in period/stock turnover rate for period

(2). Average Weekly Sales = estimated total sales for period/# weeks in period

(3). BOM Stock = average weekly sales x # weeks to be stocked.

b. This method is used by retailers where inventories are planned on a weekly, not monthly basis, and where sales do not fluctuate substantially.

**Stock-to-Sales Method (SSM)** is a technique for planning dollar inventory investments where the amount of inventory planned for the beginning of the month is a ratio (obtained from trade associations or the retailer's historical records) of stock to sales.

#### **4.3 Dollar Merchandise Control**

The dollars planned for merchandise need to be controlled, and this can be accomplished with a technique called open-to-buy (OTB). OTB refers to the dollar amount that a buyer can currently spend on merchandise without exceeding the planned dollar stocks.

**OTB is calculated as follows:**

Planned sales for the month.

Plus planned reductions for the month.

Plus end-of-month stock.

Minus beginning-of-month stock.

Equals planned purchases at retail.

Minus commitments at retail for current delivery.

Equals open-to-buy at retail.

**Common Buying Errors that Cause Problems with OTB**

The OTB should not be thought of as a fixed quantity that cannot be exceeded when consumer needs arise. However, changes in OTB should be rare. If there are frequent changes, then the sales planning process is flawed.

Some common buying errors that cause problems with OTB include:

1. Buying merchandise that is priced too high or too low for the store's target market
2. Buying the wrong type of merchandise, or buying merchandise that is too trendy
3. Having too much or too little basic stock on hand
4. Buying from too many vendors
5. Failing to identify the season's hot items early enough in the season
6. Failing to let the vendor assist the buyer by adding new items and/or new colours to the retailer's merchandise mix.

**4.4 Merchandise Planning**

Merchandise planning is a dynamic process subject to many changes.

Consider the implications that could arise in planning your stock levels as a result of:

1. Sales for the previous month being lower or higher than planned

2. Reductions being either higher or lower than planned
3. Shipments of merchandise being delayed in transit.

Understanding the consequences of each of these situations illustrates the relationship between merchandising activities and the merchandise budget.

#### **4.5 Inventory Planning**

The dollar merchandise plan is only the starting point in merchandise management. Once the retailer has decided how many dollars can be invested in inventory, the dollar plan needs to be converted into an actual inventory plan. On the sales floor, items, not dollars, are sold. The assortment of items that will comprise the merchandise mix, must then be planned. An optimal merchandise mix has three dimensions. Each dimension describes an aspect of a merchandise line.

A merchandise line is a group of products that are closely related because they are intended for the same end use; are sold to the same customer group; or fall within a given price range. Today, some retailers manage categories, or lines, as a strategic business unit. When using category management, buyers are no longer concerned with the GMROI of a single product; instead, they manage the GMROI for an entire line or category.

#### **4.6 Three Dimensions of the Merchandise Mix**

The three dimensions of the merchandise mix are: *Variety*, which refers to the number of different lines the retailer stocks in the store. *Breadth*, also called assortment, refers to the number of merchandise brands found in a merchandise line.

*Breadth* can be a problem for retailers selling private label brands. A Battle of the Brands occurs when retailers, in determining the breadth of the product assortment, have their own products competing with the manufacturer's products for shelf space and control over display location.

*Depth* refers to the average number of SKUs (stock-keeping units) within each brand of the merchandise line.

A retailer's merchandise mix can, in addition to satisfying customer wants, actually shape those wants and impact whether and what customers purchase. Therefore, just as the trading areas for each store in a chain are different, the optimal mix will be different for every store.

#### **Constraining Factors**

There are four constraining factors that influence the design of the optimal merchandise mix:

##### **Dollar merchandise constraint:**

There seldom will be enough dollars to emphasize all three dimensions of variety, breadth, and depth.

**Space constraint:**

If depth or breadth is wanted, space is needed. If variety is to be stressed, enough empty space is needed to separate the distinct merchandise lines.

**Merchandise turnover constraint:**

As the depth of the merchandise increases, more and more variations of the product must be stocked to serve smaller segments; thus, average turnover is likely to decrease.

**Market constraints:**

The above three dimensions have a profound effect on how the market perceives the store and the customers the store will attract.

Constraining factors make it impossible to maximize all dimensions of the merchandise mix. However, if retailer is going to lose customers, it should lose the less profitable ones by properly mixing its merchandise in terms of variety, breadth, and depth within the dollar, space, turnover, and market constraints.

**When to Order and Reorder**

After deciding the relative emphasis to be placed on the three dimensions of the merchandise mix, the retailer needs to decide when to order and reorder the desired merchandise line items. Ideally, a retailer would receive the ordered merchandise just as it is needed.

When selling a seasonal item, the retailer would want to be completely sold out of the item on the planned out-of-stock date. The retailer tries to achieve optimum efficiency on its inventory dollars by closely monitoring its inventory using UPC or barcode data.

**Conflicts**

Due to conflicts, unit stock planning is an “exercise in compromise” because everything cannot be stocked. Several conflicts are summarized here.

Maintain a strong in-stock position on genuinely new items while trying to avoid the 90 % new products that fail in the introductory stage. Maintain an adequate stock of the basic popular items while having sufficient inventory dollars to capitalize on unforeseen opportunities. Maintain high merchandise turnover goals while maintaining high margin goals. Maintain adequate selection for customers while not confusing them. Maintain space productivity and utilization while not congesting the store.

**4.7 Six Months Merchandising Plan**



### Step 1 – The Sales Forecast

The projection of achievable sales revenue, based on historical sales data, analysis of market surveys and trends, and salespersons' estimates is termed as a sales forecasting. It is also called sales budget. A sales forecast may be made by the merchandiser, based on the targets given by the top management or may be handed down by the top management itself depending on the retail organisation.

### Forecasts

Forecasts are typically developed to answer these questions:

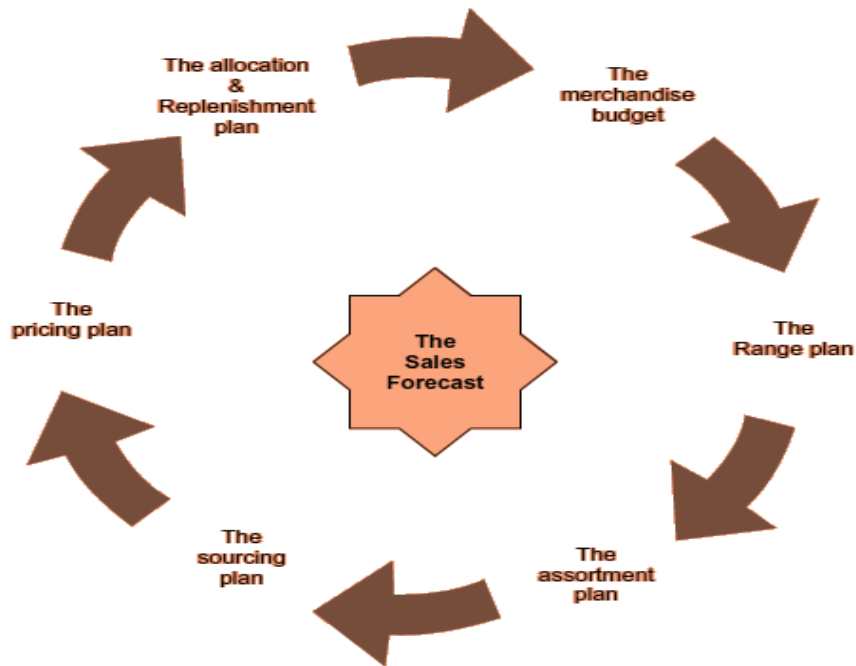
- How much of each product will need to be purchased?
- Should new products be added to the merchandise assortment?
- What price should be charged for the product?

Developing forecasts involves four steps:

1. Reviewing past sales.
2. Analysing the economic conditions and the market opportunities.
3. Analysing the changes in the marketing strategies of the retail organisation and the competition.
4. Creating the sales forecast.

### Influences of Developing Sales Forecasts





## Step 2 – Determining the Merchandising Requirements

The merchandise budget is the first stage in the planning of merchandise. It is a financial plan, which gives an indication of how much to invest in product inventories, stated in monetary terms. The merchandise budget usually comprises of the: Sales plan, stock support plan, planned reductions, planned purchase levels, gross margins.

### The Range Plan

Range plans are at the level of the company and the department level. The aim of the range plan is to create a balanced range for each category of products that the retailer chooses to offer. The process of range planning ensures, that the goals of the merchandise plan fall into specific lines, many a times the Stock Keeping Units.

Good range planning should essentially: Ensure that sufficient number of items / options available to the customer. Ensure that over buying and under buying is limited and ensure that sufficient quantities of the product are available.

The six-month merchandise plan is a tool that translates the profit objectives into a framework of merchandise planning and then control. The main objective of creating this plan is to prepare a month-by-month purchasing schedule for the retail organisation.

The primary objective of merchandise planning is profit improvement. As the buyers' plan for each department unfolds, you can get a better handle on potential profitability. You then have the

opportunity to fine-tune these plans, allowing investment dollars to be redistributed among departments in order to achieve company goals and objectives.

In preparing the six month merchandising plan, larger retail chains will build from the bottom up. Starting at the class level, each class of merchandise will have its own plan. Combining entire subclasses will give us the strategy for each department.

Taking that one step further, the amalgamation of all department strategies will give us the total company plan. In the case of an individual store, this will produce the store's overall objective.

### **Points to Remember**

Here are some points to be kept in mind.

1. The merchandise budget should be prepared in advance of the selling season.
2. The language of the budget should be easy to understand.
3. Since, the economy is ever changing the merchandise budget must be planned for a relatively short period of time. Six months is the normal norm.
4. The budget should be flexible enough to make changes possible.

### **4.8 Key Components of the Six Month Merchandise Plan**

The key components of the six month merchandise plan are: Planned Sales, Planned Purchases, Planned Reductions, Planned Markdowns, Employee Discounts, Shrinkage, Planned Markup and Gross Margin.

### **To Provide Regular Analysis and Reports**

## **Planned Sales**

Planned Sales are the projected sales for the period that is planned.

## **Planned Purchases**

It represents the merchandise that is to be purchased during any given period.

Planned purchases are calculated by using the following formula:

**Planned Purchases = Planned Sales + Planned Reductions + Planned EOM- Planned BOM Stock**

## **Planned Reductions**

Markdowns, employee discounts and inventory shrinkage come under the heading of planned reductions.

## **Planned Markdowns**

Markdowns are deductions in prices and may occur because of many reasons ranging from bad quality of merchandise, competitive products, change in trends, etc.

## **Employee Discounts**

These are discounts given to the employees for buying the company's products.

## **Shrinkage**

It is the loss of merchandise due to theft or pilferage.

## **Planned Markup**

Markups vary depending on the type of the product, the audience that it is targeted and the market trends.

**Markup in Rupees= Selling price-Cost price**

## **Gross Margin**

It is the difference between the selling price and the cost of the product, less reductions for markdowns, shrinkage and employee discounts. To determine the Gross Margin for each month, all purchases and inventories must be converted to cost price.

### **B.O.M and E.O.M Planned Inventory Levels**

Planning End-of-Month (E.O.M.) or Beginning-of-Month (B.O.M) inventory levels is another important element of the six-month merchandising plan. Four methods of Inventory Planning are: Stock-to-Sales method, Basic Stock method, Percentage Variation method and Week's Supply method.

#### **Stock to Sales Method**

The Stock-to-Sales (S/S) is a ratio of the amount of inventory on hand at a particular date to the sales for the same period.

**S/S ratio= Stock on hand E.O.M. (at retail value)  
Sales for the same month**

A pre-requisite for calculating the Stock-to-sales ratio is for the retailer to have a beginning of the month stock/sales ratio.

**Stock-sales ratio= Value of inventory/Actual sales**

**Planned BOM Inventory= Stock-sales ratio X Planned sales**

#### **Basic Stock Method**

This is how the basic stock is calculated.

**Basic Stock = Average stock for the season – Average monthly sales for the season**  
where,

**Average monthly sales for the season =  $\frac{\text{Total planned sales for the season}}{\text{Number of months in the season}}$**

**Average stock for the season =  $\frac{\text{Total planned sales for the season}}{\text{Estimated inventory turnover rate for the season}}$**

**Beginning of the Month (BOM) stock = Planned Monthly Sales + Basic Stock**

#### **Percentage Variation Method**

This method of inventory calculation is used in case the stock turnover typically exceeds six times a year.

It is calculated using the following formula:

$$\text{BOM Stock} = \text{Avg. stock for season} \times \frac{1}{2}$$

$$[1 + (\text{Planned sales for the month} / \text{Average monthly sales})]$$

### Week's Supply Method

Retailers who need to maintain a control on the inventories on a weekly basis may use this method. It can be calculated by using the following formula:

$$\text{Number of weeks to be stocked} = \frac{\text{The number in weeks in the period}}{\text{Stock turnover or the period}}$$

Where,

$$\text{Average weekly sales} = \frac{\text{Estimated total sales for the period}}{\text{The number of weeks in the period}}$$

$$\text{BOM stock} = \text{Average weekly sales} * \text{Number of weeks to be stocked}$$

### Example – Creating the Six Month Merchandise Plan

This table provides the estimated sales for the period January to June.

**Table 3.2** Estimated sales for the period January to June

<i>Six Month Merchandise Plan</i>							
	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
Sales	2500000	3000000	3500000	3200000	2500000	2800000	7500000
% of total	14.29	17.14	20.00	18.29	14.29	16.00	100
Stock:Sales ratio	2	2.25	2.5	2.25	2	2	
% of redns	15	15	20	20	15	15	100

### Example – Creating the Six Month Merchandise Plan

This table gives an example of how to create a six month merchandise plan.

<i>Six Month Merchandiseplan</i>							
	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
<b>Sales</b>	<b>2500000</b>	<b>3000000</b>	<b>3500000</b>	<b>3200000</b>	<b>2500000</b>	<b>2800000</b>	<b>17500000</b>
<b>Projected sales</b>	<b>2875000</b>	<b>3450000</b>	<b>4025000</b>	<b>3680000</b>	<b>2875000</b>	<b>3220000</b>	<b>20125000</b>
<b>% of redns</b>	<b>15</b>	<b>15</b>	<b>20</b>	<b>20</b>	<b>15</b>	<b>15</b>	<b>100</b>
<b>Monthly reductions</b>	<b>431250</b>	<b>517500</b>	<b>603750</b>	<b>552000</b>	<b>431250</b>	<b>483000</b>	<b>3018750</b>
<b>BoM stock</b>	<b>5000000</b>	<b>6750000</b>	<b>8750000</b>	<b>7200000</b>	<b>5000000</b>	<b>5600000</b>	<b>38300000</b>
<b>EoM stock</b>	<b>6750000</b>	<b>8750000</b>	<b>7200000</b>	<b>5000000</b>	<b>5600000</b>	<b>7000000</b>	<b>40300000</b>
<b>Monthly addns</b>	<b>4681250</b>	<b>5517500</b>	<b>2553750</b>	<b>1552000</b>	<b>3531250</b>	<b>4683000</b>	<b>22518750</b>
<b>To stock</b>							

### **Step 3: Merchandise Control – The Open to Buy**

The purpose of the open to buy: Depending on the sales for the month and the reductions the merchandise buying can be adjusted. The planned relation between the stock and sales can be maintained.

Open to Buy ensures that the buyer: Limits overbuying and under buying, prevents loss of sales, due to unavailability of the required stock, maintains purchases within the budgeted limits, reduces markdowns, which may arise due to excess buying.

To calculate the open to buy:

**Open to Buy= Planned EOM Stock- Projected EOM Stock**

Open to Buy is always calculated for current and future periods.

## **4.9 Completing the Six Month Merchandise Plan**

There are nine steps to complete the six month merchandise plan.

They are:

1. Assemble last year's figures
2. Planned Sales
3. Planned Reductions
4. B.O.M. and E.O.M. Planned Inventory Levels
5. Inventory Stock Turns
6. Gross Margin Return On Inventory Investment (GMROII)
7. Planned Purchases
8. Planned Markup
9. Gross Margin

### **Step #1: Assemble Last Year's Figures**

Unless your operation is computerized, however, getting most of the monthly data for your plan will be impossible. In such cases, simply begin with six month or even annual figures then divide by the relevant number of months. Or, just take an educated guess. The more times you do this, the sooner you will develop systems to extract these numbers on a monthly basis.

### **Step #2: Planned Sales**

Sales planning is the most difficult step in the whole process. It would be great, if you could purchase a retailer's crystal ball and sales forecasts would miraculously appear, after rubbing it with a cash register tape!

In the real world, however, we start by reviewing last year's figures and trying to determine what might affect our performance this year. Some things to consider are:

#### **(a) Sales Performance Coming Into The Season**

What percentage increase or decrease is the class, department, or total store expecting coming into the season compared to the previous year?

There is no guarantee that it will continue, but if sales are up 15% over last year and the new season is only three months away, you may be more optimistic than pessimistic in your forecasting.

### **(b) Monthly Promotions**

Planning your promotions at least six months in advance will be necessary if you hope to have an effect on performance. A promotional philosophy followed by too many retailers is to run two clearance sale ads per year, and if sales are soft they might run another ad or two.

This may have been acceptable in the boom years, but a "seat of the pants" approach like this is a recipe for disaster in today's environment. Advertising and promotion suggests a number of promotional strategies, one of which is to promote in periods when sales and margins are strong (e.g. back to-school, Xmas and Mothers-Day).

### **(c) How are the Customers Changing?**

This has more impact when planning at the class level and is most noticeable in areas of fashion. Are there new styles or markets that pose either an opportunity or a threat to this class of merchandise?

Consider the case of the family shoe store where western boots, as a class, was expanding. This style trend will obviously affect our buying plan. Other demographic changes that may affect your buying include the baby boomer trends (e.g. they're aging, saving more, spending less, putting on weight, etc.).

### **(d) Economic Factors**

Unemployment rates, interest rates, dollar value fluctuations and inflation may all have an effect on the buyer's crystal ball. If these factors are creating economic drag on our customers, there will certainly be an effect on what they purchase from us. You may have to move price points down, source new suppliers, or even adjust your forecasts.

### **Step #3: Planned Reductions**

Markdowns, employee discounts and inventory shrinkage come under the heading of planned reductions. These three figures affect our ending gross margin, so they must be considered when calculating department and class profitability. Since, they also affect inventory levels, they must be projected to ensure enough merchandise is on hand, to attain forecasted sales levels.

### **Planned Markdowns**



Taking any markdowns is a difficult task for most retailers to face. Shoddy merchandise and bad weather are factors that may be out of the retailer's control. However, the buyer must start by analyzing last year's markdown numbers very closely. Some factors to consider are: Markdowns as a percentage of sales by month. How aggressive are this year's pricing policies? When did we promote last year and how will it change? How were deliveries last year and did they affect our markdowns?

### **Employee Discounts**

As a percentage of sales, this figure remains relatively constant from one year to the next, unless company policy changes. Therefore, it is then safe to use last year's dollar figure as a percentage of sales and apply it to the sales projections for the current period.

### **Shrinkage**

The retailers need to calculate the shrink percentage from past experiences. Like employee discounts, the acceptable method of calculating the shrinkage dollar amount per month is to use the year-end shrink percent multiplied by the monthly sales projection.

### **Step #4: B.O.M. and E.O.M. Planned Inventory Levels**

Planning End-of-Month (E.O.M.) or Beginning-of-Month (B.O.M.) inventory levels (one month's "ending" is the next month's "beginning") is another important element of the six month merchandise plan. Inventory is by far the number one dollar asset within the company, and careful planning is required to ensure an adequate return on investment is attained.

### **Stock-to-Sales Method**

The Stock-to-Sales Method is a popular way to forecast how much inventory is required to attain monthly sales projections. Stock-to-sales (S/S) is a ratio of the amount of inventory on hand at a particular date to the sales for the same period. It is calculated as follows:

**S/S ratio = Stock on hand E.O.M (at retail value) / Sales for the same month**

When using the S/S method for planning stock levels, the buyer selects the S/S ratios he desires each month. Desired S/S ratios are usually obtained by referencing previous seasons. The selected ratio is then multiplied by the projected period sales to get the desired E.O.M inventory level. The Stock-to-Sales Ratio also provides you with an estimate of what your Inventory Turnover will be.

### **Step #5: Inventory Stock Turns**

Inventory stock turns measure the rate at which merchandise is sold from your store compared to the inventory level on hand. The higher the rate, the more profit the buyer brings to the company and the better your cash flow will be.

Stock turns are calculated by dividing the total sales for the season by the season's average ending inventory (at retail value).

**Season Average Inventory = Sum of E.O.M. Inventory / Months in Season**

**Stock turn rate = Total sales for season / Season average inventory**

**Step #6: Gross Margin Return on Inventory Investment (GMROII)**

While the standard Inventory Turnover ratio tells you how efficiently you are moving your inventory, it ignores the profitability of this inventory movement.

For example, an item with a low gross margin and high sales will show a higher turnover rate. However, this is obviously not as desirable as moving inventory with higher (or even average) gross margins. Basically, it produces a lot of activity, but with fewer financial results.

Gross Margin Return on Inventory Investment has become the standard inventory statistic for many retailers, because it reflects the movement of inventory relative to profitability, rather than to sales. This is a better measure of inventory performance because retailers are more interested in profitability than sales.

$$\text{GMROII} = \frac{\text{Gross Margin \$}}{\text{Avg. Inventory Investment @ Cost}} \times 100$$

**Step #7: Planned Purchases**

Once sales projections, stock reductions and stock levels have been established, you can calculate your planned purchases. The planned purchase figure is also the buyer's first "open-o-buy" estimate.

Using the August figures from the sample six month plan, the formula for planned purchases is as follows:

**Planned Purchases = EOM Inventory + Sales + Reductions - BOM Inventory**

**Step #8. Planned Markup**

After calculating how much inventory to purchase, retailers must determine the initial markup for these retailers must determine the initial markup for these goods.

This may fluctuate between different classes of goods within a department. The original markup must allow for a final profit after paying all operating costs, reductions, cost of goods, etc. Most retailers have a target markup they want to start with. This markup percentage is calculated by dividing the markup in dollars by the retail price.

Markup dollars is the difference between the cost price and the selling price. i.e. Our shoe store buys men's slippers for \$10 and follows the manufacturer's suggested retail of \$20 which is a 50% markup percentage, otherwise known as gross margin.

**Markup dollars = Selling price - Cost price**

### **Step #9. Gross Margin**

Gross margin is the difference between the selling price and the cost of the product, less reductions for markdowns, shrinkage and employee discounts. Hopefully, what is left after these reductions is enough to pay all operating expenses and leave the retailer with a profit. In our six month plan, we work in retail dollars. To determine the gross margin for each month, all purchases and inventories must be converted to cost price.

Using our family shoe store illustration, note that price. Using our family shoe store illustration, note that we have a 50% markup on all goods. To calculate cost price, multiply the inventories and purchases by the original markup percent (in this case 50%).

*Example:* Using the month of August from the six month plan, we must first convert to cost figures by multiplying opening/closing inventories and purchases by 50%.

Next, we calculate Cost of Goods Sold (C.O.G.S.) as follows:

**C.O.G.S. = B.O.M. Inventory + Purchases - E.O.M. Inventory.**

### **Planned Gross Margin**

Finally, we determine Planned Gross Margin like this:

**Planned Gross Margin = Period sales - C.O.G.S. / Period sales**

Preparing a seasonal merchandise plan makes the critical task of buying that much easier. This is no different from the need for an architect to design a house before he starts building it.

During this process, remember to follow these key suggestions: Become proficient (if you aren't already) in the use of a computerized spreadsheet program. Begin with a higher original markup so your first markdowns can be meaningful without killing gross margin. Plan some markdowns for each month as you offer instore specials for the "sale- only" buyer. Become proficient at performing physical inventory counts, so you can obtain accurate figures at least four times per year.

#### **4.10 Conclusion**

To summarize in this unit you have reviewed the planning process from elements of planning to six month merchandise plan.