Inventory Management:
Key Drivers to Success

Systematic Sales and Inventory Analysis
Best Practices – Store Work Sheet

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Inventory Management: Key Drivers to Success

Booksellers,

The success of any training or seminar comes long after you leave the seminar environment. The express purpose of this document is to provide you with the follow up materials you will need to implement the principles outlined in today's session. Used in conjunction the presentation handouts, you will have the necessary tools to make a difference in your store over the next year. Do it now. Make today count – practice in the future what you've learned today.

Best Practices Defined

- **Programs, initiatives or activities which are considered leading edge, or exceptional models for others to follow.**
- **Processes and activities that have been shown in practice to be the most effective.**
- **The best possible way of doing something; it is commonly used in the fields of business management, software engineering, and medicine, and increasingly in government.**

Best Practices Identified

- **#1 – Measure and Monitor**
  - **Keep Score of your performance**
- **#2A - Sales and Transaction Measurements**
  - **Store transaction and staff efficiency measurements**
- **#2B - Inventory Productivity Measurements**
  - **Financial measurements for inventory productivity**
- **#3 - Systematic Inventory Analysis – Fixed Product Categories**
  - **Analysis tools for "static" or fixed product information**
- **#4 - Systematic Inventory Analysis – Product Sales Activity**
  - **Analysis tools for "dynamic" or moving product information**
- **#5 - Financial Management/ Inventory Accuracy**
  - **Annual inventories or cycle counting**

Best Practices - #2a
Sales and Transaction Measurements

Below are popular measurements used to track and establish business trends in your store. Add additional measurements as desired. Your POS system should provide all data with the exception of employee hours.

#	Key Measurement/Statistic – Description	Purpose Of Measurement	Frequency
1	**Measurement:** Number of sales transactions **Example**: 52 transactions per day	**Purpose:** Measures store traffic count at the register. Can be used to monitor and build store traffic and for budgeting purposes.	**Freq:** day / month / year
2	**Measurement:** Average transactions size [$] **Example:** $25.30	**Purpose:** Monitor average $ sale per customer. Multiple uses to measure store and employee productivity.	**Freq:** day / month / year
3	**Measurement:** Average transactions size [sku's] **Example:** 3.5 sku's	**Purpose:** Monitor average # of sku's per sale. Multiple uses to measure store, add on and employee productivity.	**Freq:** day / month / year
4	**Measurement:** Average transaction size [units] **Example:** 5.2 units	**Purpose:** Monitor average # of units per sale. Measure sales depth and multi-unit productivity.	**Freq:** day / month / year
5	**Measurement:** Sales per square foot - entire store **Example:** $254	**Purpose:** Measurement of space efficiency. Strive to continually increase.	**Freq:** month / year
6	**Measurement:** Sales per square foot - by department **Example:** $238 - Sidelines	**Purpose:** Measurement of departmental efficiency. Use to identify hot/cold spots and reallocate space.	**Freq:** month / year
7	**Measurement:** Sales per square foot - by subject category **Example:** $295 - Autobiography	**Purpose:** Measurement of category efficiency. Use to identify hot/cold spots and reallocate space.	**Freq:** month / year
8	**Measurement:** Full Time Employee Equivalency (/2080) **Example:** 4.5 people	**Purpose:** Determine the equivalent # of FT employees to measure staff efficiency and effectiveness.	**Freq:** month / year
9	**Measurement:** Sales per Full Time Employee Equivalency **Example:** $125	**Purpose:** Determine sales per FT employee. Measures staff efficiency and effectiveness.	**Freq:** year
10	**Measurement:** Gross Margin per Full Time Employee Equivalency **Example:** $38,100	**Purpose:** Determines Gross Margin generated per FT employee. Another measurement of staff efficiency.	**Freq:** year

All examples are random. Use ABACUS Survey Financial Analysis to compare to industry averages by store volume classification.

Best Practices - #2b
Inventory Productivity Measurements

The following key measurements are used in the retail book industry as well as many other retail environments to measure and monitor retail inventory productivity. These values and statistics are derived from POS data or they have been calculated from POS data using industry standard formulas. Definitions and formulas related to the calculations are described on the next page.

1	Annual Retail Sales
2	Percentage of Change - Annual Retail Sales from the Previous Year
3	COGS - Cost of Goods Sold ($ and/or %)
4	GM - Gross Margin ($ and/or %)
5	GMROII - Gross Margin Return on Inventory Investment
6	Inventory Turn

Some retailers may use additional information and calculations to measure and monitor sales and inventory performance. The indicators above are considered by most retail industries to be the primary measurements. More sophisticated calculations are used by larger retailers and chains.

Inventory productivity & efficiency is historically gauged using three measurements - sales, gross margin and inventory turn. Our “Best Practices” recommendation is to use GMROII as the primary productivity & gauge of efficiency since it is a ratio of the three - sales, gross margin and inventory turn. In addition to measuring GMROII, we also recommend that you monitor the individual measurements that make up ratio. Tracking information in this manner will enable a store to review specific measurements which contribute to the GMROII ratio and help determine which measurement to focus on for improvement.

Some POS systems in the industry currently calculate GMROII, while others do not. If may be necessary to run individual reports and determine the three measurements. A summary of the measurements that a retailer may gather could look similar to the measurements found in the top row in the following example:

Products	Sales	Sales Variance	Gross Margin $ or %	Cost of Gds/Sold $ or %	GMROII	Turns
Example #1						
Example #2						
Example #3						
Example #4						
Example #5						
Example #6						

Best Practices - #2b
Inventory Productivity Measurements

Glossary & Formulas

Cost of Goods Sold (COGS): The cost associated with purchasing inventory for resale. Components include what you paid for the books, shrinkage and freight-in. Actual merchandise cost and freight should be maintained separately and combined for the total COGS figure. The term COGS is also referred to as cost of revenue or cost of sales.

COST OF GOODS SOLD (COGS)	**=**	**Beginning Inventory + Purchases** / **Ending Inventory**

Gross Margin: Can be expressed in either a real $ value or as a percentage. The percentage of profit generated from the sale of inventory after deducting the cost of sales.

GROSS MARGIN	**=**	**Sales - (COGS)** / **Sales**

GMROII: An analysis tool that indicates whether an adequate gross margin is being earned compared to the investment in inventory required to generate these gross margin dollars. GMROII takes both inventory profitability and productivity into account, and it looks only at capital invested in inventory.

GMROII	**=**	**Sales – (Cost of Goods Sold)** / **Average Inventory**

Inventory Turn: The number of times a business sells and replenishes its inventory during a given period of time, usually a year.

INVENTORY TURN	**=**	**Cost of Goods Sold** / **Average Inventory**

Average Inventory: The value of inventory calculated off monthly or quarterly Balance Sheet periods divided by the number of periods measured. Calculate the average inventory value for the entire 12 month period.

AVERAGE INVENTORY	**=**	**Q1 + Q2 + Q3 + Q4** / **4**

Systematic Inventory Analysis - #3
by Fixed Product Categories

The key statistics presented in the **Best Practices #2 – Inventory Productivity Measurements** are used here to complete the reporting format of the **Systematic Inventory Analysis - #2 by Product Categories or Groups**

1	Annual Retail Sales
2	Percentage of Change in Annual Retail Sales from the Previous Year
3	COGS - Cost of Goods Sold ($ and/or %)
4	GM - Gross Margin ($ and/or %)
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The column "Product Group" in the chart below identifies inventory analysis groups with "static" or fixed data fields from which reports are structured. These reports systematically measure and monitor information in these inventory analysis groups and should be scheduled and run on a regular basis.

Product Group	Sales	Sales Variance	Gross Margin $ or %	Cost of Gds/Sold $ or %	GMROII	Turns
Department - Books, Sidelines, Music						
Industry Category - Art, Health and Fitness, Fiction						
POS Category - lowest level store categorization						
POS Category Roll Up - Combined low level aggregation						
Front List or Back List - use publication dates to separate						
Price Points - $14.99 to $19.99						
Supplier/Vendor - Publisher or imprint						

Tracking performance in these "fixed data" areas will allow retailers to compare to:

- Previous performance of the same store to assure a positive trending
- Another similar store in your company, marketing group or area
- where applicable, published industry standards for a similar store size/sales

Systematic Inventory Analysis - #3
by Fixed Product Categories

Frequency of Reports - Dependent on the grouping - some should be run more frequently than others. There is no limit to the combinations available.

Benefit of Systematic Reporting - Group product analysis allows a store to individually track the performance of a wide number of products that are in some way related to one another, such as publisher, department, subject category or many others. This group tracking and analysis process allows managers to look at data within specific groups to better manage those individual products. An example would be category management – a concept popular in most retail environments, but moving slower in the book retailing product industry.

Additional benefits are available when analyzing inventory by data fields. Examples in the Best Practices section above indicate analysis can be done by vendor, department, subject category, order source or any other fixed data fields. Although mentioned here, these reports are also invaluable when making decisions in the buying, ordering, vendor selection and receiving functions.

Systematic Inventory Analysis - #4
by Product Sales Activity

Systematic Inventory Analysis by Product Sales Movement serves an entirely different purpose than that of **Systematic Inventory Analysis by Product Categories or Groups**. This is an analysis of store inventory by 'variable" identifiers or fields such as YTD sales, On- Order Qty, On-Hand Qty, last sold date, MTD sale, desired levels and reorder points.

These fields are termed "variable" because they are moving - constantly changing with the accumulation of buying, sales, and on-hand transactions. Ultimately it is the movement (or non-movement) of individual SKU's that contributes to the profitability of a store.

We will develop two sets of criteria to help identify and develop Best Practices that will measure and monitor Product Sales. First, let's identify a list of the data fields that contain information that is in any way related to product movement – such as accumulated sales history, on-order and on-hand quantities, etc.

Data fields used to analyze product movement

1.	on hand quantity	7.	reorder point
2.	on order quantity	8.	date first received
3.	YTD sales	9.	date last received
4.	automatic desire level	10.	date last sold
5.	maximum order quantity	11.	period TD sales
6.	minimum order quantity	12.	

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To perform Inventory Analysis by Product Sales Movement, we use data fields related to product movement or SALE$ – identified above. Product movement can easily be classified in four logical and recognizable levels of movement – active, moderate, low, and all others. Below are worksheet tables for each of the four product movement classifications. Identify the Inventory Analysis Product Sales Best Practices reports within each of the four product movement sections that can be used to measure and monitor store productivity:

Active Movement Reports

1.	Store Bestsellers – months, quarters, etc
2.	Recent Sales – weekly hot lists from multiple sources
3.	Industry Bestsellers Lists – front list
4.	Industry Bestsellers Lists – back list
5.	
6.	

Moderate Movement Reports

1.	Store developed “never out” list
2.	Industry Core Lists
3.	Pareto - 80/20 Reports
4.	Publishers back list and promotions
5.	Regional associations
6.	
7.	

Slow/No Movement Reports

1.	No Sales activity – months, quarters, year
2.	Slow Sales activity = 1 sale per period
3.	Out of Print - discontinued
4.	
5.	
6.	

Inventory Management: Key Drivers to Success

Other Movement Reports

1.	Front list graduation **
2.	Catalog/Flier/Promotional Lists
3.	Seasonal
4.	Not Yet Released
5.	Overstock Search (multiple parameters)
6.	Out of Stock Reports (multiple parameters)
7.	
8.	
9.	
10.	