

Demand Side Management of a Supply Chain Through Assortment Optimization. Merchandising Tools

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Abstract

Merchandising represents all the techniques and forecasts needed to sell goods in the right place, in the right quantity, the right time and the right price.

In the ECR approach, two of the four processes needed to add value to optimize the promotion of products in the store is about: providing a complete range of products in relation to consumer demands and that are easily purchased in stores and maintaining that level of stock allowing for full assortment of products required.

The the application of strategic partnership specific for ECR, based on sharing the will (win-win = the producer wins - the consumer wins, the distributor wins), strategies (the expected results) are:

a) The optimization of store assortment (result: more and better products, better convenience, greater value);

b) Efficient Replenishment (result: increased customer satisfaction).

Efficient Store Assortment is considering the composition of a range of products and services to be complete and profitable and to satisfy consumer`s needs. The main target is to use the store space in an effective way, and the advantages are represented by a higher profit, better educated clients and less frequent out-of-stock. Efficient store assortment, from the consumer`s point of view, is a better and more flexible assortment and also less frequent out-of-stock.

The objectives of efficient assortment (EA) is to determine the optimal product that meets the consumer needs, but also an efficient use of store shelf space and to achieve greater results for both the supplier and the retailer.

After applying merchandising strategies, there are a number of essential elements whose situation must be evaluated: consumers and buyers (available options situation analysis on the shelves compared to buyers option, review of merchandising decisions by analyzing feedback and performance), financial considerations (analysis of the volume, value and profit), operational issues (Impact on the efficiency of the shop, namely the use of available space or handling of products), elements of competition (analysis of market share and customer satisfaction level)

Key Words: *assortment, merchandising, category management, store architecture, theatricalisation of shelf exposure, out-of-stock*

1. Introduction

The main ECR principles are:

- Focus on the consumers: At the heart of ECR is a commitment to the belief that sustained business success steams only from providing consumers with *products and services that consistently meet or surpasses their demands and expectations.*

- Working together: The second guiding principle is the *recognition that the greater consumer value* can be offered only when we work together;

While ECR does not diminish the need for companies to apply good trading practices, it does open new opportunities for companies to differentiate themselves.

ECR differentiates between *demand- and supply-side processes*. Processes such as CPFR integrate both sides to exploit synergies across the whole value chain. All the processes

are supported by the *enablers* who help to efficiently communicate the accompanying data and information.

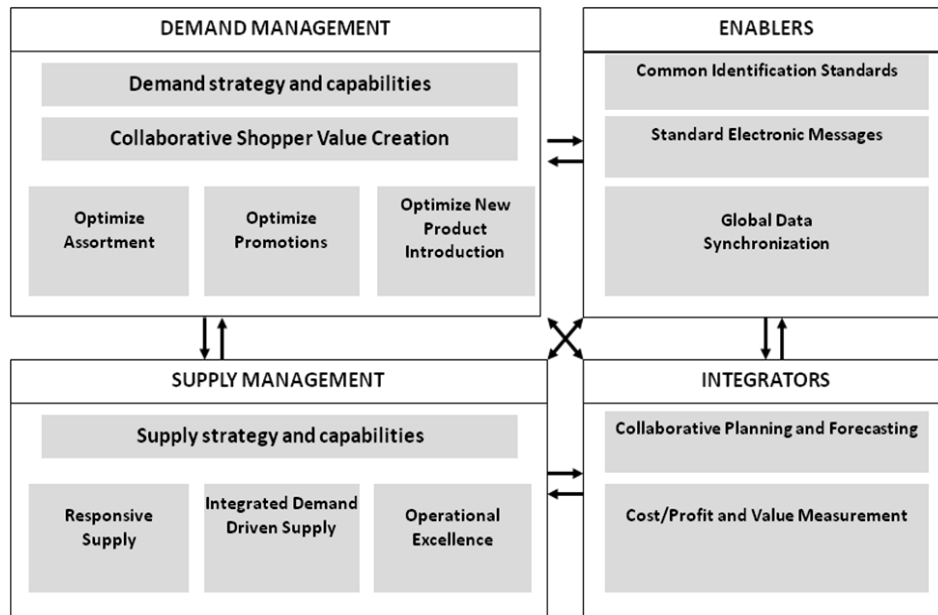
The following four concepts are relevant:

- Category Management (Efficient Assortment, Efficient Promotion, Efficient Product Introduction)
- Optimal Shelf Availability
- Efficient Replenishment
- Collaborative Planning, Forecasting and Replenishment (CPFR)

2. Category Management

Category management is a consumer-led process. Only by having a deep understanding of consumer needs and providing a product assortment that fully satisfies each shopper as they interact with a product category, can performance be maximized in the long term.

Figure 1. The Global Scorecard



Source: Virgil Popa, *Supply Chain Management in Consumer Goods Industry & Retail*, 2009

Category management relies on having an understanding of a consumer's relationship with a product type, for example, the level of interest they have in a product category, how they prefer to shop, and how different shopping occasions may influence the decisions they make about buying products within a category

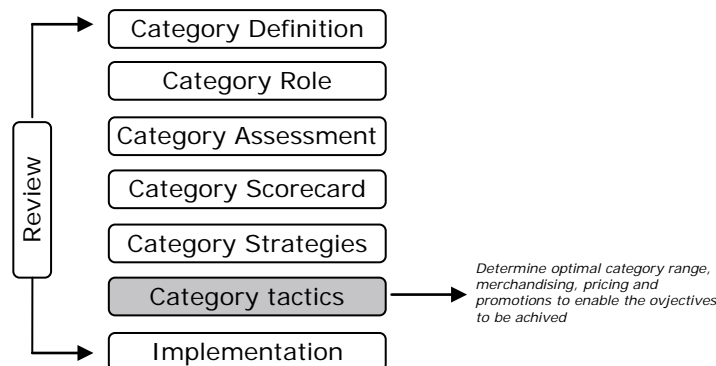
The purpose of Category Management is improving the operating results of the company by focusing on the consumer. Consumers are getting more demanding and want to choose from a large assortment of

products. Furthermore consumer satisfaction is a great advantage in a competitive business environment. In this view products are more than goods, which are just being sold; products also play a strategic role.

Traditional Category Management (CM) is based on the ECR eight-step approach which integrates all strategic, tactical, and operational aspects of demand-side collaboration in the areas of:

- Efficient Assortment;
- Efficient Promotion;
- Efficient Product Introduction;

Figure 2. Category management process



Source: Virgil Popa, *Supply Chain Management in Consumer Goods Industry & Retail*, 2009

Concept of optimal self availability (OSA)

OSA is a methodology based on a simple principle measuring partial and total (complete) stock outs by comparing "real" sales of one item on a daily basis with "normal" expected sales:

- One product which has normal sales displays perfect availability;
- One product which has low sales is partial out of stocks;
- One product which has zero sales is total stock outs.

Concept of Efficient Replenishment

"Efficient Replenishment links the consumer, retail store, retailer distribution center, and supplier into an integrated system. Accurate information flows quickly through EDI linkages between trading partners, while products flow with less handling and fewer out-of-stocks from supplier's production line into the consumer's basket."

The purpose of ER:

Supplier and retailer work together to ensure provision of the right product, to the right place, at the right time, in the right quantity, and the most efficient manner possible.

Efficient Store Assortment is considering the composition of a range of products and services to be complete and profitable and to satisfy consumer's needs. The main target is to use the store space in an effective way, and the advantages are represented by a higher profit, better educated clients and less frequent out-of-stock. Efficient store assortment, from the consumer's point of view, is a better and more flexible assortment and also less frequent out-of-stock.

The objectives of Efficient Assortment (EA) are to determine the optimal product that meets consumer needs as well as the efficient use of store and shelf space to achieve enhanced business results for retailers and suppliers.

There are several important issues, which have to be taken into account when planning Efficient Store Assortment.

Firstly, the cooperation between parts in the chain is of crucial importance. When several trading partners combine information about products and sales, a good overview of the market can be formed. This makes Efficient Store Assortment possible with great success.

Secondly the space must be allocated on basis of correct data. Allocation space is an important key point in Efficient Store Assortment and this space is directly related to the profit per cubic meter. Therefore this allocation must be based on information retrieved from:

- Correct scanning at the cash registers;
- Historical data of sales;
- Database with products in the store;
- Demographically oriented data.

The development of an effective assortment (balancing consumer needs with the objectives of the supplier and retailer) is one of the most important elements of category management.

Assortment techniques allow the establishment of consumer's product choices and the criteria of selection or abandon.

The assortment plan typically includes the desired inventory levels of each SKU stocked in the store.

The assortment can be a very important differentiation technique for the suppliers.

Efficient Assortment as an improvement concept focuses on:

- Considering the role of the category within the retailer's portfolio
- Ensuring the assortment that reflects the retailer's strategy
- Eliminating poorly performing SKUs or adding valuable SKUs
- Improving the shelf presentation of each category

3. Merchandising Tools

According to American Marketing Association, merchandising is the "planning involved in marketing the right merchandise or service at the right place, at the right time, in the right quantities, and at the right price."

There are two aspects of merchandising that should be considered by the manager when developing a merchandising strategy:

- Creating an overall store image and market position that is appealing and attracts the target market to the store; and
- Presenting products in such a way that customers will want to buy them once they are in the store.

Merchandising management refers to the process by which a retailer attends to offer the right quantity of the right merchandise in the right time and meet company's financial goals.

Some of the objectives of merchandising are:

- Support the store's image;
- Appeal to customers;
- Increase the store's sales;
- Attract customers to the store;
- Encourage customers to browse and/or purchase products;
- Provide an appropriate return on the investment in merchandising;

- Enable customers to move freely through the store;
- Observe the relevant occupational health and safety issues;
- Enable regular maintenance i.e. restocking and housekeeping; and
- Effectively utilize all productive selling space.

An effective merchandising strategy includes a number of important elements:

- Store layout;

- Traffic flow;
- Space allocation;
- Product placement;
- Establishing display strategies;
- Planning and coordination; and
- Communicating strategies and standards.

In order to facilitate perfect range and merchandising, The ECR UK Selection and Merchandising Group recommends the following goals, strategies and working principles:

Figure 3. Goals, strategies and working principles necessary to facilitate perfect range and merchandising

Goals	Strategies	Working Principles
1 To improve consumer and shopper satisfaction.	1 The best available information should be utilised to develop a detailed understanding of consumer behaviour, shopper behaviour, and the total purchase decision-making process.	1 To put the consumer and shopper first.
2 To Stimulate category growth (both in volume and value) through the more efficient management of range selection and merchandising.	2 Range selection and merchandising should, wherever possible, be managed within the broader context of category planning, and that proposals should be appropriate to overall category strategies.	2 To work together to utilise shared knowledge.
3 To reduce out-of-stocks and minimise stockholdings.	3 Ranges should be built in ways that maximise choice and variety, minimise duplication, and reflect the consumer target market.	3 To challenge the status quo.
4 To reduce supply chain costs.	4 Merchandising should reflect the purchase decision-making hierarchy, improve the ease of shopping, maximise impact at the point of purchase, and recognise in-store limitations and constraints.	4 To take an objective view.
5 To propose a range selection and merchandising model for easy, in-store implementation.		5 To set clear priorities.
		6 To establish simpler processes to achieve maximum efficiency.
		7 To propose a step-by-step, data based approach.
		8 To follow through from a series of principles to clear recommendations for in-store implementation.
		9 To suggest a method for evaluation.

It is necessary to promote the use of Shelf Ready Packaging (SRP) in-store across the organization, and provide instruction and best practice to support the successful deployment. It is anticipated that existing operations will need to be adapted to encompass SRP solutions and ensure full utilization. The following framework highlights the main areas to consider, and includes some best practice recommendations. The criteria for evaluation of the merchandising plan should be used to review the results against:

- Consumer and shopper satisfaction measures;
- Financial performance measures (volume, value and profit);
- Operational efficiency measures;
- External competitiveness measures (such as share or satisfaction).

Project Management of the Analysis/Benchmarking and Implementation Processes of Merchandising

As a strategy, a side of supply management, merchandising processes for operational excellence, requires identifying and measuring their level of maturity, both in terms of manufacturers, distributors and customer. ECR Europe has an essential contribution in identifying subprocesses and activities of this fundamental component. (*Assesing The Profit Impact Of ECR , ECR Europe, 1998*).

Using project management help us with specific tools (WBS, Gantt) to ordering activities and we believe the benchmarking tool may be useful in measuring the maturity level of activities and subprocesses (0 - processes / activities inexistant in the organization until 4 - processes / activities of excellence).

Figure 4. Best practice recommendations for in-store operations:



Source: ECR Europe Blue Book, Self Ready Packaging

The project provides the organization with an alternative way of achieving results where the work to be done is likely to cross functional boundaries. The project is a powerful mechanism for achieving success, is something special by its nature and by the fact that is perceived as being outside normal operations. It may be defined as a collection of linked activities carried out in an organized manner with a clearly defined start point and finish point, to achieve specific results that satisfy the needs of an organization as derived from the organization's current business plans.

Successful project management uses planning technics to define the project

objectives in sufficient detail to support effective management of the project. The work breakdown structure (WBS) provides the foundation for defining the work to its completion.

The WBS is used in projects to define

- the projects work in terms of deliverables and further decomposition of these deliverables into components.
- all the effort/cost to be expected on supporting processes and the creation of the deliverables
- The assigned responsibility for accomplishing and coordinating the work

Figure 5. Work Breakdown Structur of Merchandising Process (SCOR Model)

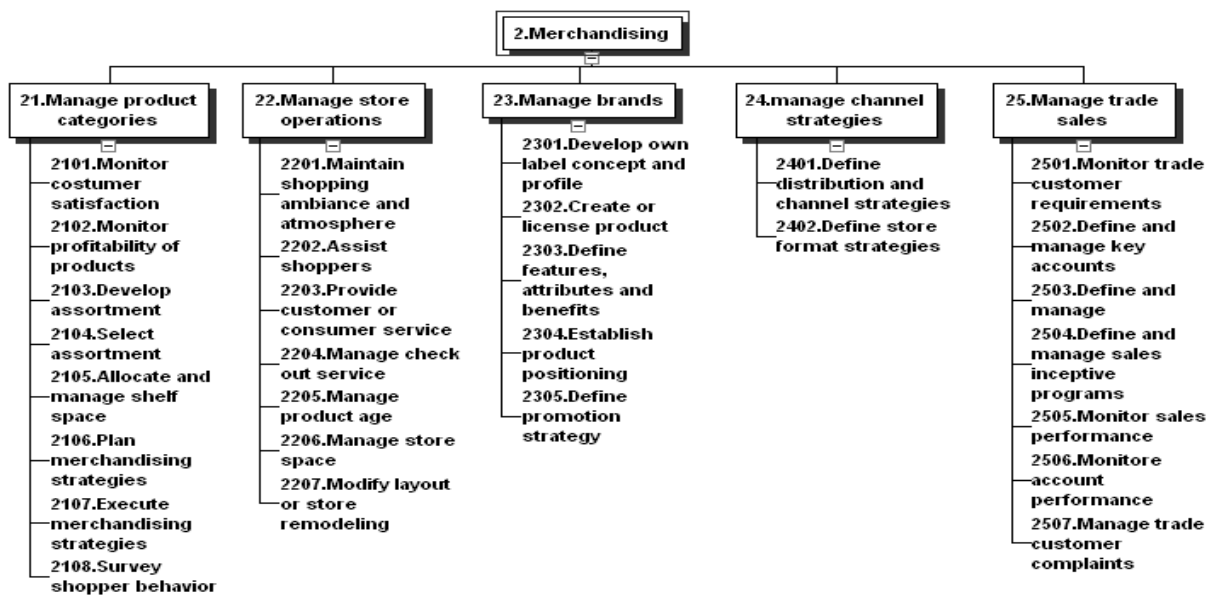


Figure 6. Gantt Chart of Merchandising Process (SCOR Model)

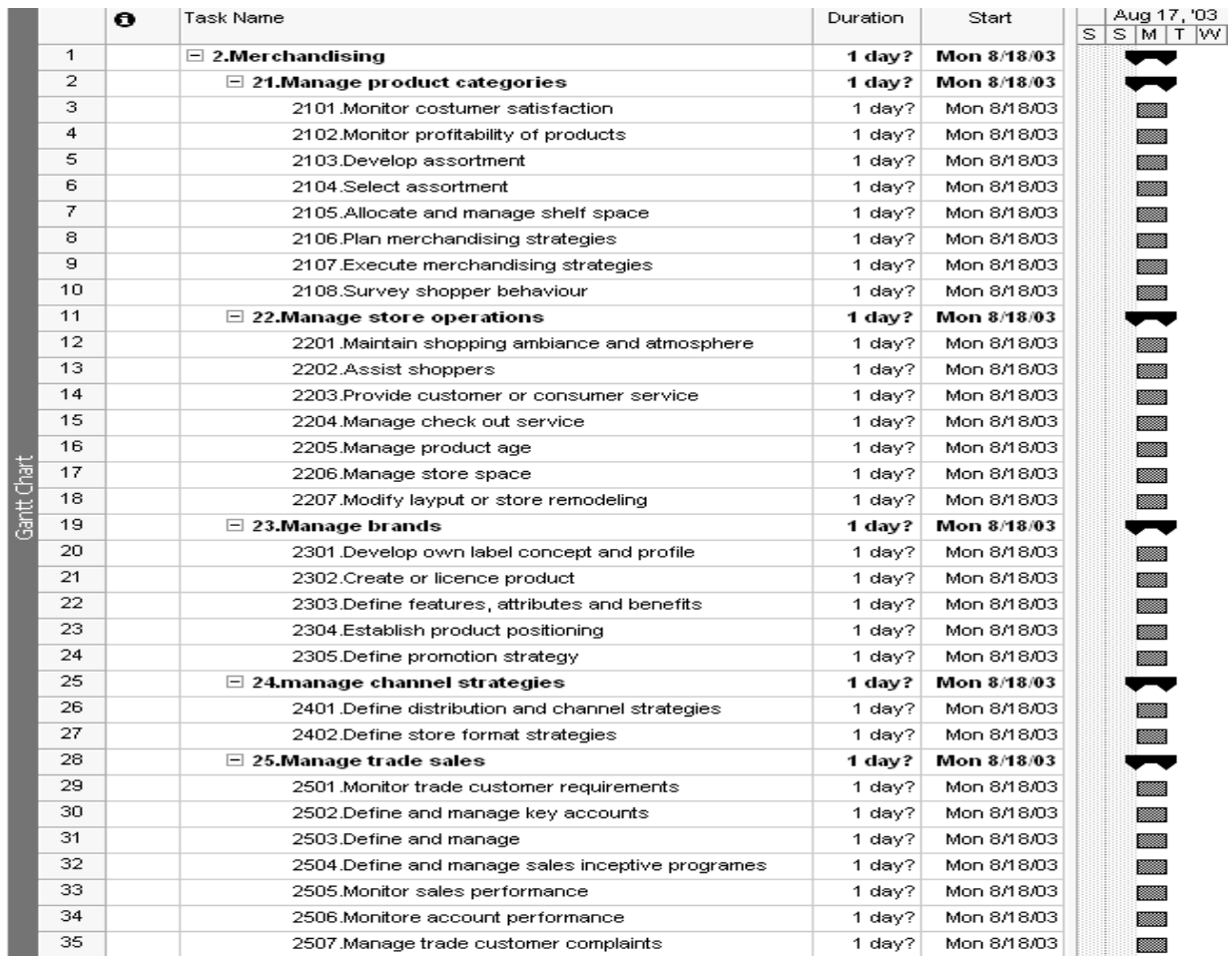


Figure 7. Benchmarking of Merchandising Process (SCOR Model)

Sub-processes	Level of importance for the sub-process in the process	Activities	Analytical Hierarchical Process	Level of maturity					PRODUCER	LIDER
				0%	25%	50%	75%	100%		
21. Manage product categories		2101.Monitor costumer satisfaction 2102.Monitor profitability of products 2103.Develop assortment 2104.Select assortment 2105.Allocate and manage shelf space 2106.Plan merchandising strategies 2107.Execute merchandising strategies 2108.Survey shopper behavior								
22. Manage store operations		2201.Maintain shopping ambiance and atmosphere 2202.Assist shoppers 2203.Provide customer or consumer service 2204.Manage check out service 2205.Manage product age 2206.Manage store space 2207.Modify layout or store remodeling								
23. Manage brands		2301.Develop own label concept and profile 2302.Create or license product "2303.Define features, attributes and benefits" 2304.Establish product positioning 2305.Define promotion strategy								
24. Manage channel		2401.Define distribution and channel strategies 2402.Define store format strategies								

strategies										
25.Manage trade sales		2501.Monitor trade customer requirements 2502.Define and manage key accounts 2503.Define and manage 2504.Define and manage sales incentive programs 2505.Monitor sales performance 2506.Monitor account performance 2507.Manage trade customer complaints								

Conclusions

To evaluate the merchandising plan, there can be used indicators such as:

- Turnover
- Gross profit
- Gross margin
- Stock rotation speed
- Average transaction
- Market share
- Gross Margin Return on Investment (GMROI)
- Consumer satisfaction

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