# IMPROVING COMPANY-LEVEL COMPETITIVENESS AND FOCUS THROUGH SKU RATIONALIZATION

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***Abstract:*** *SKU Rationalization is a strategic option that can be used to improve competitiveness and focus at the company level by reducing complexity of operations at the factory and warehouse level, thereby achieving improved customer service. In many cases side benefits like decreased cost per SKU unit is obtained by reducing variations in packaging requirements. In this paper we examine rationalization approach for a manufacturer from a Marketing and Supply Chain perspective. A competitive benchmarking of practical approaches to rationalization is carried out in two similar and one different segment of industry. A case study in a FMCG company with six sub-segments in food division is discussed in this paper. Three alternative solutions to rationalization and corresponding reduction in complexity are suggested based on competitive mapping, market study, growth prospects, current sales and supply chain complexity parameters.*

**Keyword(s)**: Supply Chain Complexity; Case Study; Complexity Reduction, BCG matrix, Impulse Variant Category; Segment Rationalization; State-SKU Rationalization

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## 1. Introduction

FMCG organizations are often plagued with lengthy and at times unwieldy lists of SKUs with very little variation in flavours, sizes and colours (Jordan, 2010). Over a period of time, as Sales & Marketing continue to launch newer variants of existing SKUs, the lists grow longer. While customer choice is a good thing, too much of it becomes counter-productive. Proliferation of SKUs can adversely affect customer service, as customer delight turns into disappointment with rising costs and inefficiencies in supply chains.

Typical factors that contribute to increasing SKUs include packaging variations, lingering SKUs and SKUs acquired with acquisitions. The ill effects of excessive SKUs are well known, for example, unfocussed customer service, customer confusion with similar choices, and additional complexity introduced in manufacturing, handling, stocking and distribution. While one would expect that SKU reduction can be achieved by simply weeding out the products at the end of their life cycle as and when new SKUs are introduced, in practice, equal emphasis is not put on weeding out old SKUs because they may continue to be profitable for some more time, and new SKUs take time to build up presence (Jordan, 2010).

From the manufacturing department's view, the need for rationalization is felt, because more SKUs will lead to frequent setups and short production runs leading to higher manufacturing costs. Procurement is also affected as more SKUs require suppliers to deliver smaller volumes of more variety, hurting buying leverage and leading to higher material cost. For Supply Chains, small volume to destination takes higher time in transit resulting in increased inventory and transportation costs. Sales and Marketing also need to create differentiation between SKUs and manage effects on brand. Thus, there is a strong need to maintain an optimal level of SKUs.

This paper looks at the various options available for SKU rationalization for different categories of food and then taking a business decision considering certain factors and complexity reduction caused by them. It provides a view of the practices adopted in industry for the purpose and discusses a case study where the strategy was developed and implemented partially.

## 2. Literature Review

SKU Rationalization aims at reducing the number of SKUs based on certain parameters to increase profitability and service provided by a company. Recent research indicates that greater variety can actually decrease consumer sales (Schwartz, 2004). However, there will always be situations that need more SKUs like when SKU's constitute a range or a niche regional product.

Sastry (2009) identifies 4 factors that are in favour of retaining a SKU during a SKU Rationalization initiative:

1) Healthy Profit margins
2) Current market leading SKUs,
3) Future winning SKUs
4) Market compulsions to offer "basket of products" to customers.

For example, if a Product A is not profitable and is not having any good future prospects, still the organization may choose to retain Product A, because, customers want Product B (that meets all the above criteria) along with Product A.

SKU rationalization is a business decision. Sarwate(2009) states that the Cost benefits obtained by Rationalization are margin point improvements for the P&L, inventory savings (cash), improvement in on time delivery for the supply chain (due to reduced complexity in manufacturing scheduling), material deflation (due to higher predictability in buy decisions and hence better sourcing agreements). Tinker(2009) suggests that one can start with the 80/20 rule since the bulk of the revenues and profits comes from a small fraction of the products. A cumulative curve will show the incremental contribution for each product. It is a rational place to start, and later several other factors are considered in the analysis to eventually arrive at a business decision.

The BCG matrix (Kotler, 2011) method is based on the product life cycle theory that can be used to determine what priorities should be given to a SKU in the product portfolio of a business unit. To ensure long-term value creation, a company should have a portfolio of products that contains both high-growth products in need of cash inputs and low-growth products that generate a lot of cash. It has 2 dimensions: market share and market growth. The basic idea behind it is that the bigger the market share a product has or the faster the product's market grows the better it is for the company. The 2 dimensions used in this paper are: the product’s sales volume contributions to its portfolio and market growth.

Among the FMCG food related SKUs, “Snack” is an impulse variant category. Wichchukit (2011) performed a study for testing consumers’ Liking, Buying and Take away preferences using Hedonic scale. Hedonic Scale is used for variations. It was designed for army menus where the score of each food depended on the proportion of that food eaten and the proportion of people choosing that food. They conducted an experiment over 210 students (Potato Chips Consumers) of Kasetsart University. The result of their study was: Consumers’ ’Take Away’ preferences do not always correspond to their ‘Liking’ and ‘Buying’ preferences.

Mahajan(2011) provides a practical approach to SKU rationalization that was adopted in a pharmaceutical company. It consisted of seven stages. Stage 1 is Scoping and Planning which involves formation of the Headache Index comprising of factors as R&D for design stability, manufacturing complexity, quality control, etc. and their rating on a scale of 1 to 5 to find the overall headache index of SKU. Stage 2 is Analysis and Negotiation with marketing and sales, work sessions to decide upon the list and two-phased implementation plan. Stage 3 is Communication & Preparation amongst cross functional departments for proper implementation. Stage 4 is Inventory Ramp Up/Ramp Down. Stage 5 is Go-live. It also includes a Control Plan to avoid SKU Proliferation in future. Stage 6 comprises Planning and Inventory Management, Deletion of Rationalized SKUs, Customer Conversion to Chosen SKU, Sunrise and Sunset Rules for new product development and end of lifecycle of a product, respectively. Stage 7 is periodically repeating the process.

### 3. Competitive Benchmarking

We will discuss the SKU rationalization approach practiced by two companies X and Y, both of which are FMCG companies in similar domain. To protect the confidentially of the company we don’t provide the name or product of the company.

Company X filters out the bottom 5% market SKU by sales volume. It then considers only those SKU out of the filtered list whose both contribution margin and growth are low. Only these SKUs will be considered for rationalization. For these filtered SKUs find the depots contributing to less than 5% by sales volume. Consider parameters such as inventory at these locations to find the complexity involved. Keeping plant utilization in mind, find the alternative solutions. The crux of the problem with this industry is in high demand and less supply so the solution was to divert the product supply to high selling areas.

Company Y uses Pareto analysis and categorizes SKUs as class ‘A’,’B’, ‘C’ items based on sales volume. For class ‘C’ items – understand operations at manufacturing sites and develop a scoreboard for these items considering parameters such as order quantity, minimum change over time, throughput, sales volume, sales value, percentage gross margin, bulk shelf life, write off cost. Calculate a composite weighted score as follows:

$$\text{Score} = \sum \text{weight} * \%\text{deviation from target},$$

where, the weights are subjective in nature. If score for a class ‘C’ SKU turns out to be negative, it implies that the SKU is performing badly and can be considered for rationalization. If score comes out positive the SKU is performing fair with respect to the parameters considered. The listed SKUs are then sent to the marketing department for taking a final call on the decision to rationalize that SKU.

## 4. Case Study

To protect the confidentiality of the company we do not provide the name of the company, product and the sales data at any location.

### 4.1 Background

The objective of the project was to develop a strategic approach for SKU Rationalization at customer and branch level. It aimed to reduce the complexity of Supply Chain and increase the profitability and service of the business. The project had been carried out in Food division of the company covering 6 sub-categories of Food i.e. Atta, Biscuit, Confectionary, Salt, Snacks and Pasta. With a plethora of Business Segments in the company, it was the need of the business to rationalize the unproductive SKUs and focus on the existing and unexplored potential segments of industry.

### 4.2 Proposed Strategy

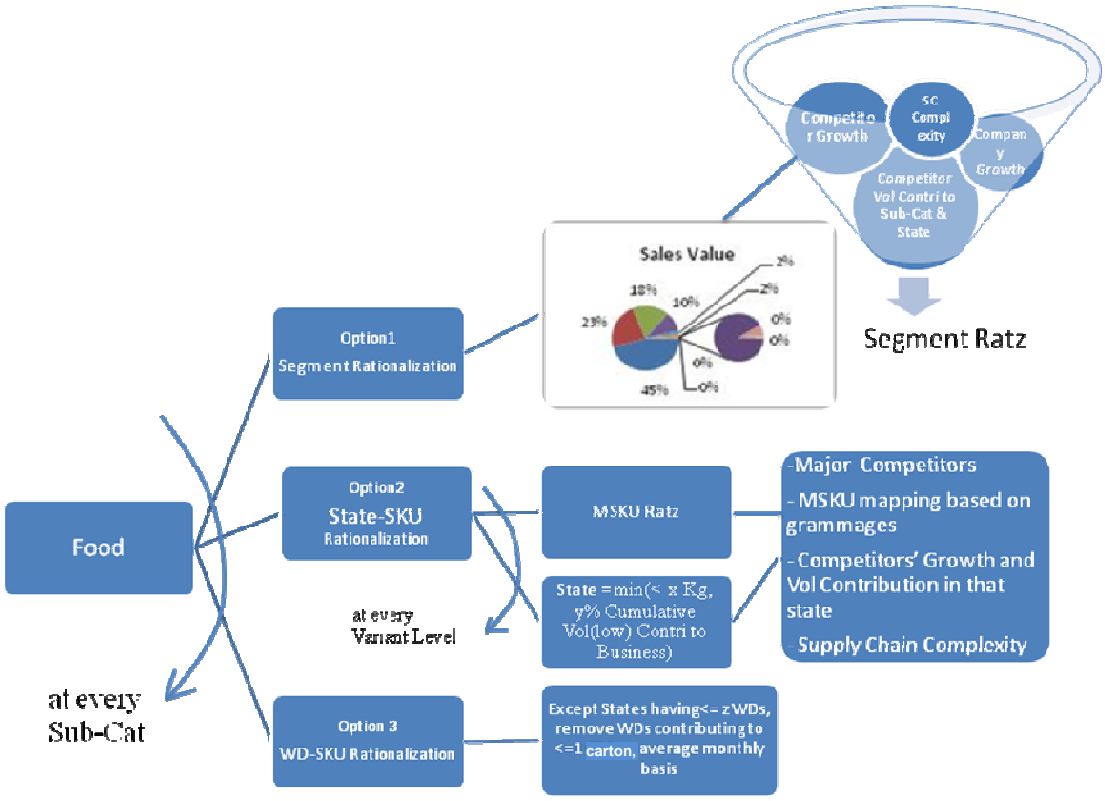


Fig (i) SKU Rationalization options

For every sub-category under food division we evaluated all the products under 3 alternative options as shown in fig (i). We then developed a mixed strategy for individual products considering the benefits and limitations of adopting an option for it.

Segment Rationalization implied removing the entire sub-category from national level. State-SKU Rationalization involved two options. First completely remove the market SKU from subcategory at national level and second alternative remove the market SKU from states which do not satisfy the criteria of minimum sales or cumulative sales volume contribution to business. Values of variables 'x' and 'y' in Fig. (i) are subjective to specific business. For option 1 as well as 2, remaining SKUs supply is stopped to those wholesaler dealers whose sale is less than 1 carton in a month's period taking in consideration the freshness issues. Option 3 i.e. WD-SKU rationalization stops the supply of SKUs to those wholesale dealers whose sale less than 1 carton in a month's period.

We have considered factors like Family Pack, New Launch, Supply inefficiencies, Institutional Pack, Supply chain complexity, Brand presence and size of state while taking rationalization decision. We put a sales volume filter on every market SKU and find its contribution to its corresponding sub-category.

Under Rationalization zone are SKUs in regions where company sales are low as well the market contribution and growth are low. We perform a market study for filtered SKUs keeping in consideration the factors mentioned above. For market study, we perform a mapping of company's market SKU with major competitor's market SKU. We compute gram baskets for comparing similar SKU based on current grams provided and pattern through the years. We find sales volume contribution and growth of competition at State Level and Market SKU level from A C Nielson data. Finally, we compare company's sales volume contribution and growth based on value with competitor's volume contribution and growth at sub-category level and state level with Market SKU mapping. The SKUs are then rationalized based on the above comparison under 4 options as shown in Fig. (ii).


Fig (ii) Potential Contribution Matrix

It was assumed that the major all India competitors are also the major competitors in every state i.e. local competitors are not taken into consideration. Also market study was done only on Biscuits and Confectionary sub–category based on the availability of data and time constraints. Also grammage of biscuits decreases with constant prices over time. For all sub-categories, newly launched, supply inefficient and family packs were directly removed from

the area of rationalization. We examine the supply chain complexity for filtered SKUs and find the complexity reduction caused by rationalizing them.

### 4.3 Analysis and Results

The complexity reduction used in this paper is determined from the formula:

Complexity Reduction = (SKU*WD from where it is rationalized) *100 % /
(SKU*Total number of WDs where it was supplied)

As per the mentioned strategy, minimum 16% and 35% complexity reduction could be achieved against 0% & 2% sales volume reduction in Biscuit and confectionary segment on rationalization. Wheat flour and Salt segment are high volume products with few market SKUs so only option 3 i.e. WD-SKU rationalization would be viable which would result in 7% & 5% complexity reduction against 0% & 2% sales volume reduction respectively. Since bridges like chips, etc falls under impulse variant category, only option 3 is applicable to it as well which will result in 62% complexity reduction against 13% sales volume reduction. Pasta follows a different strategy. It is a niche product, more of an urban style, ideally sold in greater than one l lakh population group. Indian Census .50-1L group will develop into OLP group in a few years as well the eating habits in many of these small groups are similar to urban population. The company is already present in this segment. So, rationalize below .5L Population Group which will contribute to 4% in sales volume.

### 4.4 Benefits achieved and Improvement Possible

The mixed strategy discussed above resulted in overall 25% complexity reduction against less than 1% sales volume reduction across all segments. This will also result in intangible benefits like improved customer focus, reduced warehouse and factory complexity as discussed before. The approach can be improved by considering contribution margin instead of sales volume parameter and considering local competitors at State Level.

## 5. Conclusions

SKU Rationalization is a strategic business decision. With profusion of SKUs in today's competitive business it is the need of the hour to adopt a periodic rationalization policy to keep a check on increasing number of futile SKUs and focusing on class 'A' SKU for better customer service and increased profits. It involves adopting a strategy for SKU rationalization with cross functional teams covering supply chain as well as marketing

perspective, communicating within departments and implementing well in system eg. No planning for rationalized SKU in next cycle plan. Also study the effects of implementation for encouragement. This will result in efficient supply chain and progress as the company will be focusing on productive segment with an opportunity to explore unexplored segments of industry.

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