

Chapter 4

Supply Chain Segmentation: Concept and Best Practice Transformation Framework

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ABSTRACT

The purpose of this chapter is to explore the factors that influence supply chain segmentation and provide a best practice transformation approach to ensure a successful journey. The initial research is based on a review of supply chain segmentation literature and the application of relevant transformation steps to specific case studies, comprising of companies from different industries. Supply chain segmentation strategy presents huge opportunities that are already being tapped by a few companies who achieved significant benefits and gained competitive advantage. The chapter provides a practical and proven supply chain segmentation framework for companies who are about to take the segmentation transformation journey.

INTRODUCTION

In response to the dramatic changes in the business landscape over the past few years, several companies are stepping back and assessing whether they have the right supply chains to support their dynamic business, and exploring supply chain segmentation to reduce complexity and improve margin. Today's supply chains have become increasingly very complex due to globalization, outsourcing, complex networks, logistics capacity uncertainty and volatility, and the rapid proliferation of stocking keeping units (SKUs) and product configurations.

It is also crucial to deliver the right level of service for each product/customer/channel segment especially when consumer behavior is pushing towards more product customization and better service leading to a more compressed supply cycle and intimacy.

The tightening of budgetary constraints including the recent economy crises have driven more companies to explore ways to make the entire supply chain more agile, customer-focused and profit-driven (i.e. to do more with less) more than ever. This is another pressure driver for the increase in supply chain segmentation popularity.

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Therefore, taking the journey of supply chain segmentation is no longer an option; it's a strategic mandate in order to stay relevant in the industry.

The future belongs to companies who can profitably match their supply chains to the specific needs of their customer segments. The importance of supply chain segmentation is no longer a secret; therefore, few will disagree now on the need to implement it.

The chapter explains the concept of segmentation and historical background, importance of it for today's business, and challenges of implementing it. The chapter also provides an end-to-end supply chain practical segmentation framework for companies to ensure a smooth and successful implementation journey. A number of existing frameworks are relevant but none are adequate or comprehensive by themselves. Several case studies will be discussed to illustrate the "fast track to success" framework.

BACKGROUND

Definition for Supply Chain Segmentation Concept

Sabri and Shaikh (2010) defined Segmentation as the stratification of the channel/customer/product portfolio into groups which allows the company to have a different level of service by applying differentiated inventory, supply, and fulfillment strategies. The groups could be based on revenue, margin, variability, profitability, volume of sales, product life cycle, etc.

IT research and advisory firm Gartner describes supply chain segmentation as "Designing and operating distinctly different end-to-end value chains (from customers to suppliers) optimized by a combination of unique customer value, product attribute, manufacturing and supply capabilities, and business value considerations. In essence, sup-

ply chain segmentation is the dynamic alignment of customer channel demands and supply response capabilities optimized for net profitability across each segment.

The Segmentation Concept Is Not New

The concept of supply chain segmentation is not totally new in literature research. It started when Fisher (1997) mentioned that the root cause of the problems troubling many supply chains is a mismatch between the type of product and the type of supply chain. For the past 16 years the supply chain literature has introduced several methods for segmentation using different criteria such as product demand volume, product demand variability, product handling, production variability, selling channel type, and consumer behavior. All the authors, who wrote in this area, agree that a 'one size-fits-all' supply chain is an outdated concept, yet, they use very different criteria (dimensions) and profiles for supply chain design selection.

Fisher (1997) used "Product characteristics", in particular the volume of product demand and the variability of that demand, as the criteria for segmentation and created two profiles to define the product dimension: 'functional' and 'innovative'. "Functional" products, which have stable demand and long lifecycles, are necessitating a design or an efficient supply chain process whilst 'innovative' products, with unpredictable demand and short lifecycles, are necessitating a responsive supply chain process. Fisher drew on examples from a diverse range of consumer products, including food, fashion apparel and automobiles, to illustrate why different supply chain designs (models) were required depending upon whether products were "functional" or "innovative".

Shewchuk (1998) illustrated also that when a typical business has a product portfolio measured in thousands of stock keeping units (SKUs), there

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