7. Material/product segmentation

Purpose, participant and application

- **Purpose**
  - To facilitate a shared understanding of which materials and products are strategically significant and which ones are standard.
  - To support differentiated management so that focus and resources are directed towards the most important materials and products.
- **Participants**
  - Sales, production, procurement, finance, IT, and product development (cross-functional).
- **Application**
  - During phase 1.

Why segment components and goods?

- Danish small and medium-sized manufacturing enterprises (SMEs) generally struggle with limited resources (human, time, and financial), which requires a sharp prioritization in daily work.
- When assessing and working with sourcing towards suppliers, it can be advantageous to create an overview of how resources are best utilized.
- Segmenting the purchased material categories can create such an overview and assist in prioritizing resources towards what is most important for the company.

Procedure

- Create an extraction of the company's active material groups segmented by purchase value.
- Segment the material groups in a meaningful way for the company.
- Start by focusing on the direct material group (raw materials, materials, components, etc. for the produced products).
- Assess each individual material group within the group based on the dimensions:
  - The material group's bottom line/profit impact.
  - The material group's supply risks.

Bottom-line impact and supply risks

Profit/bottom-line impact

The influence of a given material/product category can be measured against cost elements such as product price, total cost, purchased volume/quantity, and share of total purchases. The product/material can also have an impact on the company's delivered quality, growth potential, or image.

Supply risks

This dimension can be measured against short- and long-term product availability, number of alternative suppliers, cost of switching suppliers, market structure, geographic distance, complexity of the purchased product, speed of technological development, and the possibility of switching to alternative materials.

Having one supplier for one product without backup is considered a high supply risk, unless it is a standard product that can be sourced from many suppliers and where switching costs are low.

Bottom-line impact and supply risks

Potential elements

Elements for bottom-line impact

- Value relative to total purchase value
- The product's share of the total production cost
- The product's contribution to total margin/profit
- Potential for cost savings through, for example:
  - Competitive bidding
  - Volume agreements
- Price elasticity, discounts, and bonus schemes
- Influence on the company's growth potential and/or image

Elements for supply risks

- Customized versus standard product
- Availability of substitute products
- Special quality or logistical requirements (e.g., JIT)
- Is the supplier of the product demanded by customers?
- The company's share of the supplier's revenue
- Market structure: Free competition or monopoly?
- Market situation: Buyer's or seller's market?
- The supplier's utilization of capacity
- The supplier's financial position
- Switching costs from one supplier to another

Based on Van Weele (2018) *Purchasing and supply chain management*, Seventh Edition, Cengage Learning, Andover, UK.

Material/product portfolio

Purchasing's influence on the financial results			
	High	2 Leverage/volume products	4 Strategic products
	Low	1 Standard products	3 Bottleneck products
		Low	High
		Supply risks/supply market complexity	

Kraljic (1983)

Material/product portfolio

The two dimensions categorize the products into four groups, implying different approaches towards the supplier market:

- ***1 - Standard products:*** These products are easy to procure and have a relatively low impact on the company's cost structure. Here, the focus should be on standardized order procedures and process automation.

- ***2 – Leverage/volume products:*** These products are relatively easy to procure but can contribute to significant cost reductions due to high volume/value. This quadrant is characterized by many suppliers and a standardized quality level.

- ***3 - Bottleneck products:*** Here, there is limited access to the products, perhaps there is only one known supplier in the market, or there are otherwise increased supply risks.

- ***4 - Strategic products:*** Products in this quadrant are critical for the company and characterized by both high strategic importance and high supply risks. The company's scarce resources should be focused here.

Four fundamental supplier strategies

	Partnership	Competitive bidding	Secure supply	'Hands off'
Objective	• Create mutual commitment for long term relationship	• Obtain 'best deal' for short term	• Secure short- and long-term supply • Reduce supply risk	• Reduce logistic complexity • Improve operational • efficiency • Reduce number of suppliers
Suitable for	• Strategic products	• Leverage/volume products	• Bottleneck products	• Standard products
Activities	• Accurate forecast of future requirements • Supply risk analysis • Careful supplier selection • 'Should cost' analysis • Rolling material schedules • Effective change-order procedure • Vendor rating	• Improve product/market knowledge • Search for alternative products/suppliers • Reallocate purchasing volumes over suppliers • Optimize order quantities • Target pricing	• Accurate forecast of future requirements • Supply risk analysis • Determine ranking in supplier's client list • Develop preventive measures (buffer stock, consignment stock, transportation)	• Subcontract per product group/family • Standardize product assortment • Design effective internal order, delivery and invoicing procedures • Delegate order handling to internal users • Category management and E-procurement solutions
Decision level	• Board level • Cross-functional approach	• Board level • Purchasing	• Purchasing • Cross-functional approach	• Purchasing • Cross-functional approach

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