Value Chain Management (VCM)

Value chain management [involves] ... analysing every step in the process ranging from the handling of raw material to end users, providing them with the greatest value at the lowest cost (Koontz and Weihrich).

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Introduction

VCM includes performance management and monitoring of various processes (Ijioui et al., 2007). Value chain managers rely heavily on value chain analysis, as it enables a detailed insight into each supply chain subsystem and its activities and allows for strategy development to maximise value at the lowest total cost (Khanna, 2008).

Value reflects the utility of a product or service and is defined as the benefit derived by the end-user and is most often measured by price or incurred charge. The net added value (NAV) at each stage of the chain (and overall) usually reflects the difference between price and cost (capital, operating, direct, indirect) (CIPS: Procurement's role in the generation and capture of value in supply chains; Rainey, 2007). The primary means of achieving and sustaining value in the supply chain are: optimising net value (NV) to end users at the lowest possible total cost and optimising net added value for each intermediate participant in the chain (CIPS: Procurement's role in the generation and capture of value in supply chains).

Cost drivers that determine activity values include: economies or diseconomies of scale, learning/spillovers, capacity utilisation, linkages between activities, interrelationships, degree of vertical integration, market entry timing, firm's policy of cost/differentiation, geographic location and institutional factors (e.g. government regulations, taxation, tariffs, levies). In contrast, differentiation value derives from a firm's ability to enhance sources of uniqueness or reconfigure the value chain: policy choices (i.e. deciding what activities to carry out and how to do so) and integration (i.e. offering a service in-house rather than leaving it to suppliers can leverage uniqueness). Porter (1985) Managing supply chain inefficiencies by synchronising all value-adding production and distribution activities and removing those that do not add value is referred to as supply chain optimisation (Lazzarini et al., 2001; Lysons and Farrington, 2006).

VCM systems allow for the automation of value chain monitoring and management processes across three levels: operative, tactical and strategic, and inform strategic decision-making. Automative monitoring and event management are relevant on the operative level, while transparency and decision support relate to tactical and operative levels (Ijioui et al, 2007).

Definition

Value chain management (VCM) requires "examining processes (physical, financial and informational) and uncertainties (opportunities for improvement and risks to achievement) from beginning to end of the chain (or network) in an integrated manner in order to optimise overall value" (CIPS: Procurement's role in the generation and capture of value in supply chains: 24).

Successful application

P&SM; professionals, as value chain managers must rely on value chain analysis across strategic, tactical and operative levels to diagnose problems at each stage in the chain. For example, in a retail company managers should optimise strategies related to market position, assortment, pricing, sales format, distribution and suppliers. At the tactical level value chain managers need to plan order volumes and values, and at operative level managers need to develop processes and systems for automating operations (Ijioui et al, 2007).

Steps to successful application

1. Identify the appropriate value chain and assign costs and assets to it.
2. Diagnose the cost drivers of each value activity and how they interact.
3. Identify competitor value chains and determine the relative cost of competitors and the sources of cost differences.
4. Develop a strategy to lower the relative cost position by controlling cost drivers or reconfiguring the value chain and/or downstream value.
5. Ensure that cost reduction efforts do not erode differentiation or make a conscious choice to do so.
6. Test the cost reduction strategy for sustainability.

Porter (1985)

Hints and tips

- Partnerships, cooperation and information sharing are cornerstones of effective VCM (Phillips and Piotrowicz, 2006).
- Supply chain optimisation as an approach to VCM depends on: collaboration between cross-functional teams, customers, and suppliers; using benchmarking and key performance indicators; strong leadership; reducing uncertainty for suppliers (i.e. failing to fulfil promises and agreements); manufacturing (i.e. equipment breakdowns and malfunctions) and customers (i.e. order quantities, the 'bullwhip' effect) (Davis, 1993).
- It is beneficial to adopt a lifecycle system approach to finding and managing value. This approach refers to a strategic focus on product lifecycle activities and costs, including R&D and disposal or recycling of products, and the total management of these issues within supply chains, such as reducing risks and sourcing in an ethical, socially responsible and sustainable way (Fandel and Stammen, 2004; Seuring, 2004).

Potential advantages

- VCM can improve profitably and net value for customers by adopting a lifecycle system approach where every element of a product (from initial inception of the product idea to its disposal) is considered within the wider supply chain system and business environment (Fandel and Stammen, 2004; Seuring, 2004).
- VCM encourages thinking about the supply chain as an extension of the organisation, not an independent aspect (Supply Management, 2011).
- VCM encourages a customer-orientated mindset that provides common grounds for communication and collaboration between the P&SM; function and other organisational functions (e.g. marketing and R&D) (Hines, 1993).

Potential disadvantages

- Because values are implied, companies, suppliers and customers can differ in their perceptions which makes managing value in the supply chain challenging (CIPS: Procurement's role in the generation and capture of value in supply chains).
- In the fresh food industry value chain management systems are not technically mature, for example, shelf-life functions important to fresh food production are not available in all systems (Ijioui et al, 2007).
- Value chain managers across different sectors should consider sector-specific challenges and requirements.

- For example, the retail sector manager must deal with customer demand uncertainty, long order-to-cash cycles, or a potential stock-out (Ijioui et al, 2007).

Performance monitoring

- Cost/benefit analysis: compare tangible and intangible benefits with the costs of providing them (CIPS: Procurement's role in the generation and capture of value in supply chains).
- Rate of progress: estimation of the work done in relation to the time taken in order to measure the rate of progress as part of the earned value management (CIPS: Procurement's role in the generation and capture of value in supply chains).
- Current cost effectiveness and possible future costs: measurement of the costs incurred up to the present in relation to work completed and to the budget (CIPS: Procurement's role in the generation and capture of value in supply chains).

Case studies

- The UK retailer, Marks and Spencer (M&S), has well-formed working partnerships enabling the company to efficiently manage and add value to each step in the supply chain, adding a protective measure against future challenges and economic uncertainty (Drummond et al., 2008).
- BMW predicted that reallocating material supplies and modifying the approach to distributing finished cars in the global market would save costs and add value to the supply chain. In reality the move resulted in the reduction of costs for materials, production and distribution by 5-7% (Fleischmann et al., 2006).
- Warburtons, the largest wrapped bread brand in the UK, adds value to the supply chain in two major ways. First, the company focuses on sourcing sustainable ingredients and goods to meet customer needs. Second, it has developed long-lasting relationships with stakeholders to ensure the supply of quality products in the short and long-term (The Times 100, 2010).

Further Resources/Reading

Web

International society advancing and promoting the value methodology.

Value-Chain Management

Value chain management centre

Value analysis guides (California Department of Transportation).

Innovation value chain.

Books

The Retail Value Chain: How to Gain Competitive Advantage through Efficient Consumer Response (ECR) Strategies ISBN 978-0749454562

Value Chain Management in the Chemical Industry: Global Value Chain Planning of Commodities (Contributions to Management Science) ISBN 978-3790825503

Purchasing and Supply Chain Management ISBN 978-0273694380

Purchasing and Supply Chain Management ISBN 978-1408017449

Operations Management ISBN 978-0131273108

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Video

Value chain analysis
https://www.youtube.com/watch?v=n6FlX_sz-t0

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