

1. The Supply Chain

Supply chain management has been defined by members of 'The International Centre for Competitive Excellence' in 1994 as:

"Supply chain management is the integration of business processes from end-user through original suppliers that provide products, services and information and add value for customers".

Cooper et al cited in Walters (2002) suggests the scope of the supply chain can be defined in terms of the number involved within the supply chain and the activities and functions involved. Initially the scope of the supply chain was across firms but now includes internal integration within organisations before expansion to other firms.

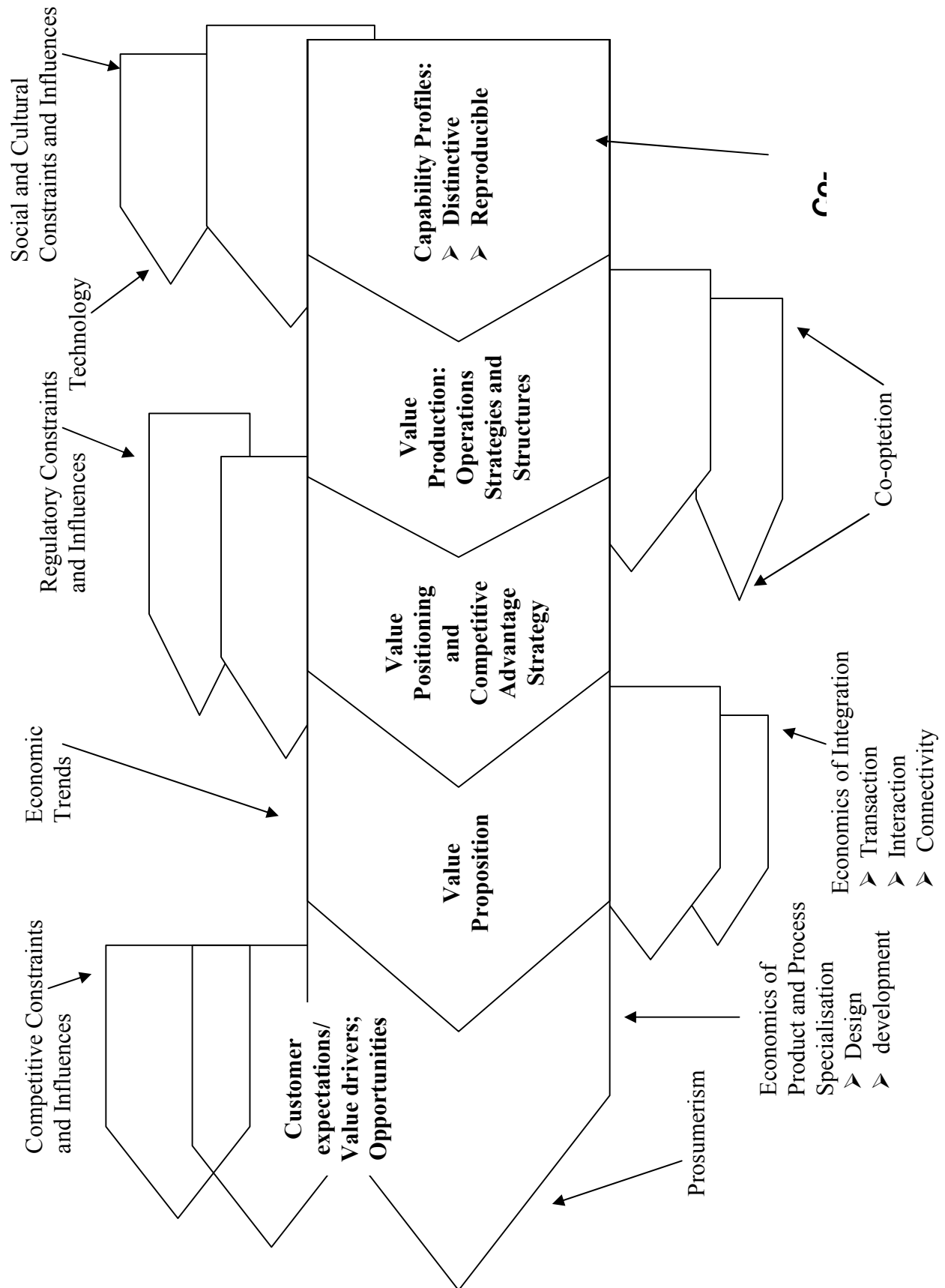
The direction in which supply chain planning and control 'travels' has been modified since earlier views. Keith and Webber (1982) cited in Walters (2002) offer the view that supply chain management covered the flow of goods from supplier through manufacturing and distribution to the end user. Stevens (1989) cited in Walters (2002) expanded this scope both upstream and downstream to include sources of supply and points of consumption.

2. The Demand Chain

The Demand Chain is, as one would suspect, the mirror image of the supply chain. the demand chain is a sequence of backward-reaching processes, initiated by the end-customer, that enable companies to anticipate demand characteristics within a given market. Fisher cited in Walters (2002) identify the problem of demand uncertainty as being the major driver for establishing a demand chain model for a company. Other problems that are caused by demand uncertainty include inventory obsolescence and holding costs. The increasing frequency of new product introductions also contributes to demand uncertainty. Fisher cited in Walters (2002) suggests the main problem of

demand uncertainty and all of the sub-problems associated with it, can be rectified through incorporating demand uncertainty into a company's production-planning processes. Outcomes of this methodology include 'accurate response' and 'quick response'. These two methods involve more stringent process management used in conjunction with customer needs analysis. They involve designing internal company operating practices to be complimentary to demand.

3. A 'Value-Based' Demand Chain



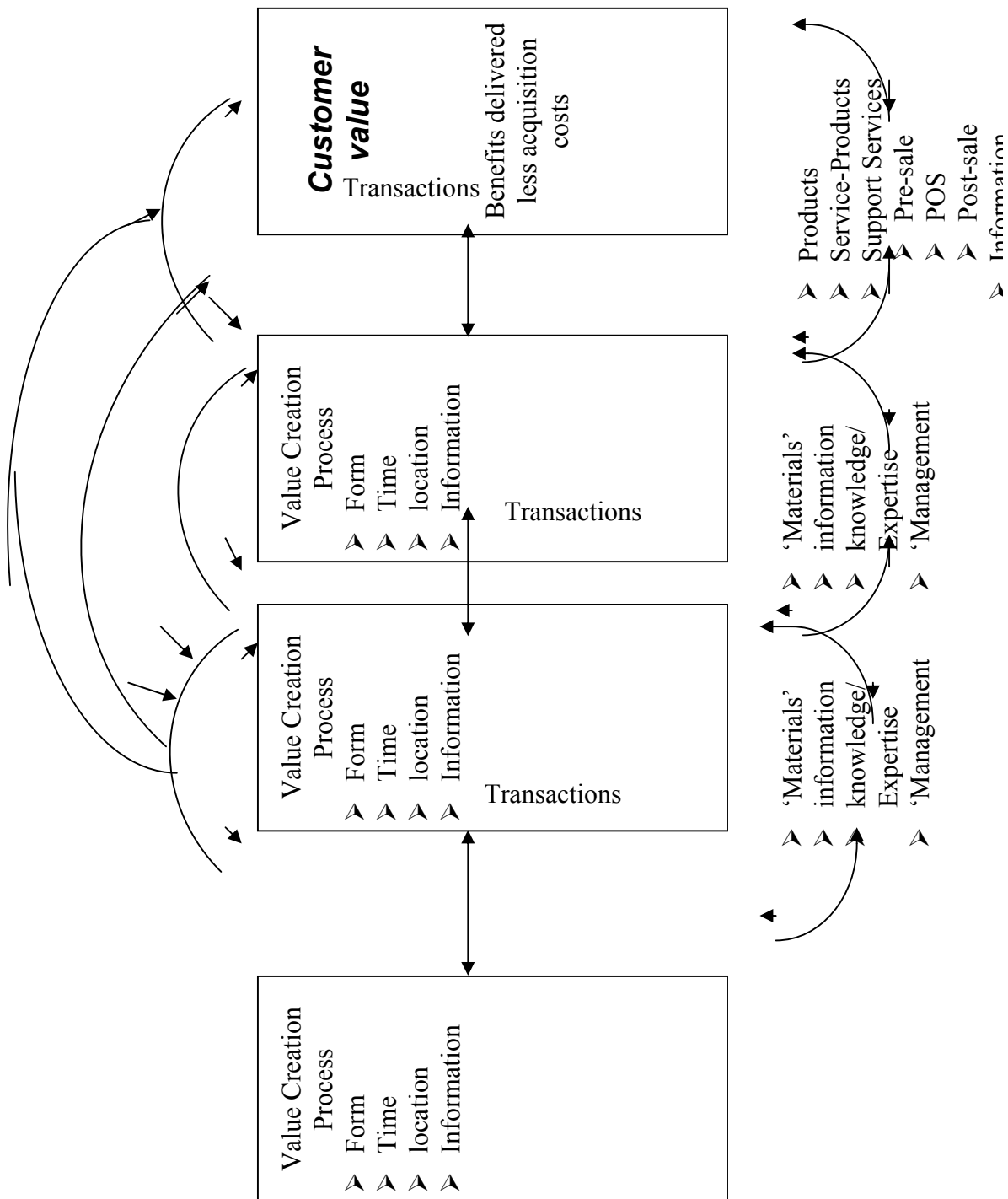
Co-destiny is a complicated way of saying that two or more companies have complementary strategic goals, thus leading them to a symbiotic future. That is, the future of each company is determined by that of strategic business partners.

Co-optition simply means when competitors co-operate in some way to achieve complementary goals. For example, two competitors may share R & D facilities.

Prosumerism is when the customer takes part in the design and assembly of the final product. For example, IKEA furniture sells kits with the final product to be assembled by the customer.

You will notice the above demand chain pointing from right to left. This indicates that the process starts with the customer, rather than the company.

4. Value Benefits and Costs (upstream and downstream)



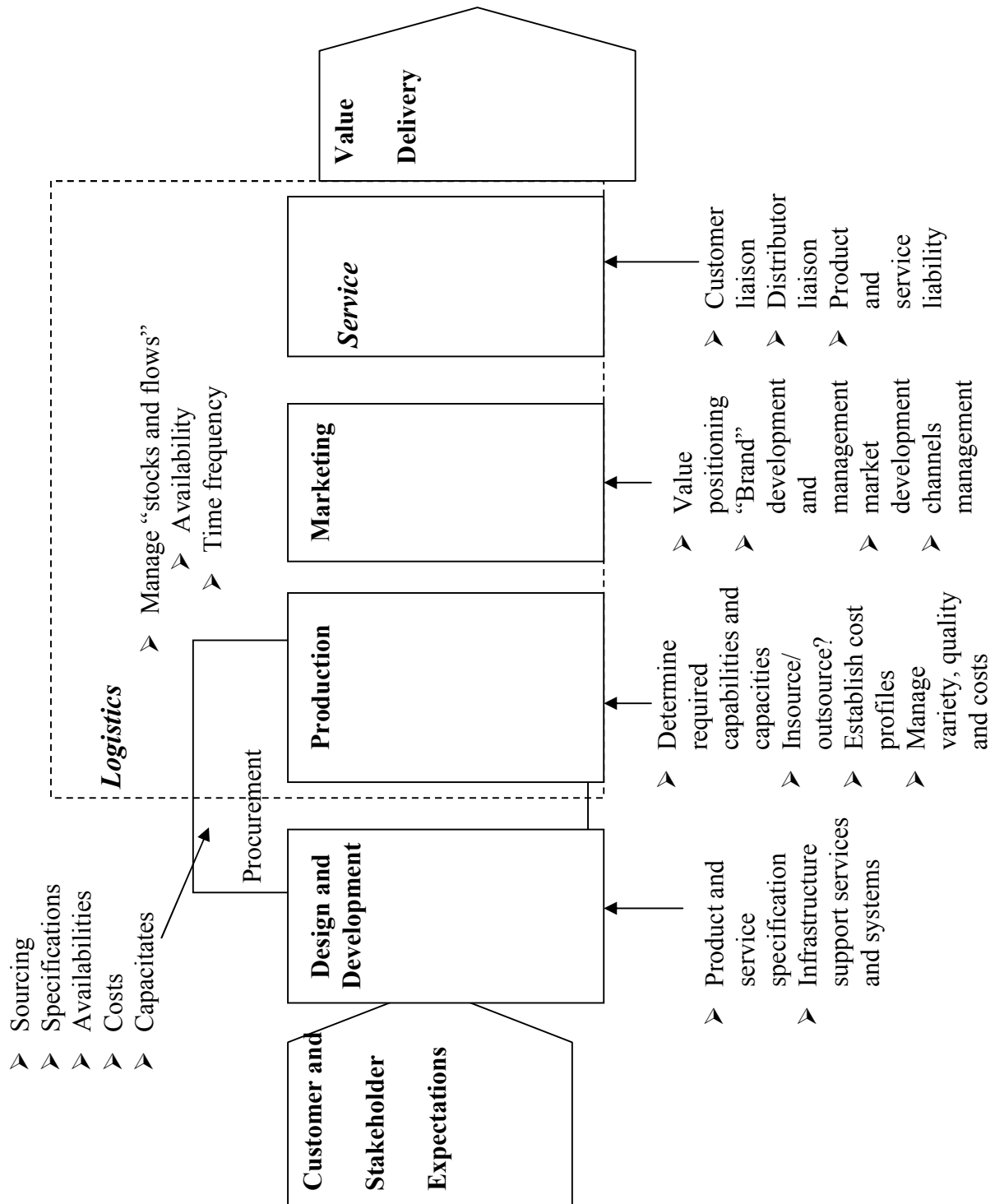
Source: Adapted from Walters (2002)

5. Demand and Supply Chain Processes: The Value Chain

Beech (1998) argues for an integration of the supply and demand chains: “The challenge can only be met by developing a holistic strategic framework that leverages the generation and understanding of demand effectiveness with supply efficiency. First, organisations must bring a multi-enterprise view to their supply chains. They need to be capable of working cooperatively with other organisations in the chain rather than seeking to outdo them. Secondly they must recognise the distinct supply and demand processes that must be integrated in order to gain the greatest value”. He suggests three key elements:

- The core processes of the supply and demand chains, viewed from a broad cross-enterprise vantage point rather as discrete functions;
- The integrating processes that create the links between the supply and demand chains; and,
- The supporting infrastructure that makes such integration possible.

5. The Value Chain



External cultural Source: Walters (2002)

As we can see, the value chain begins with ascertaining customer and stakeholder expectations. The value proposition is determined during this stage using various research and development techniques. This first stage of the value chain dictates the contents of the remaining stages of the value chain. It is essential to determine an appropriate positioning strategy at this stage of the value chain. Pohlman and Gardiner (2000) identify value congruence as essential to operating a successful value chain. Pohlman and Gardner (2000) describe eight value drivers, based on the assertion that “what people value drives their actions”.

1. values. These represent societal norms and trends that may affect the business and include subcultural, demographic, natural environmental, political / legal, technological and economic factors, present in the macro environment.
2. Organisational cultural values. These values permeate the corporate culture of the firm and relate to stakeholders, organisational structure, strategies, value providers (people) as well as many other ‘internal’ cultural variables.
3. Individual employee values. Each individual within the organisation brings with them a unique set of beliefs, attitudes and morals. These factors combine to form an individual’s value set.
4. Customer values. We have already discussed the concept of customer value earlier in the paper. Suffice it to say that what the customer values provide an overarching direction for the firm if it is to be successful.
5. Supplier values. The most significant factor here is to ensure equity and trust in supplier relationships.
6. Third-party values. This is Pohlman’s et al (1999) term for stakeholders’ values.
7. Owner values. This deals with the impetus for short-term profits vs. long-term shareholder value. The owner’s attitude to this dichotomy will dictate the way in which the business is run.
8. Competitor values. These are relevant in anticipating market trends and identifying opportunities.

Design and development involves using the results from the first stage of the value chain and interpreting them in such a way as to be able to design and launch new

products or business models based on customer requirements while ensuring value congruence. Product specification is a crucial output of this stage, since this is what production bases its output on. This stage also involves developing the appropriate infrastructure for the value chain.

Procurement is another function within the value chain and involves sourcing the necessary materials to produce the product. Important considerations during this stage of the value chain are the sources of materials, whether the materials meet the design specifications, whether the materials are available, their costs and the value chain's capacity to use these materials efficiently and effectively.

Production is the actual assembly of the basic product. To ensure that the value chain is endowed with the appropriate capacities and capabilities is essential during this stage. A major decision is to consider whether production should be performed 'in-house' or outsourced. Control, costs, and capability to produce effectively, efficiently and profitability are the major concerns for the insource/ outsource decision.

Logistics involves managing the 'stocks and flows' throughout the value chain (otherwise known as inventory management). Availability, time and frequency are areas that need to be addressed through inventory management.

Marketing is the next major stage of the value chain. The areas of concern during this stage are to understand customer perceptions and expectations, ensure that the products produced meet these requirements and ensure that the value proposition is delivered.

Kotler (2002) colloquially refers to this process as:

1. Identify the value.
2. Deliver the value.
3. Communicate the value.

Servicing the offer is another important area of the value chain and involves liaising between different participants of the value chain and ensuring the product meets the marketing promise.

The value chain is the result of integration between the old supply chain notion and the old demand chain notion.

Summary

The demand chain is essentially the mirror image of the supply chain. As we have seen, the supply chain is a string of economic players attempting to create value through an efficient, sequenced process. However, since demand is often uncertain, the principle of efficiency is not always achieved by using this philosophy alone. The demand chain offers companies a way to cope with fluctuations in demand, enabling companies to plan more efficiently and effectively for changes in demand. The culmination of both of these concepts has been the customer-centric value chain.

