CHAPTER 4 - Internal analysis and resource capability audit

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4.9 Value Creation System

Active reading. Note how the value creation system forces a customer-focus on developing strategy. It is a conscious decision on the part of the organization how it configures its value creation system with the objective of gaining a competitive advantage. Think about whether this requires an outside-in approach (focus on market needs and positioning), or could it be used to support an inside-out (resource-based) approach to strategy? Also, note how the activities create costs and understanding how these interactions can aid the management of cost within the value chain.

Video link [Value creation system](https://www.youtube.com/watch?v=qRCP1j1nLM0) [https://www.youtube.com/watch?v=qRCP1j1nLM0]

Customers are prepared to pay more for the goods and services than it costs to produce or provide them, due to the value they perceive is added by the organization. Customers are essentially paying for the value-added. Organizations choose to undertake certain activities to add value to the customer. Considering the value creation system and how value is added to the end customer ensures that the organization adopts a customer-centric approach.

Porter (1985) suggests that competitive advantage arises out of how organizations manage and perform activities. It is not just the individual activities but how well the organization manages the interdependence and linkages between activities that make added value more than just the difference between purchase cost and selling price (Dekker, 2003). Nor is it just a case of considering the organization's activities, but the activities through the whole supply chain need to be considered.

It is, as authors such as Christopher (1998) and Lambert and Cooper (2000), among others, suggest that it is no longer organizations that compete, but the entire supply chain or value system. These supply chains can now be extraordinarily complex, and the design and management of value systems require as much attention as the internal activities, for example, organizations such as Walmart and Amazon deal with many different suppliers. Dell prides itself on the built to order system, and Zara operates a quick response manufacture system. The management of the interdependence and relationships within the whole value system is now a source of competitive advantage.

Shank and Govindarajan 1992) describe the core idea behind the value chain as the chain of activities that runs from basic raw materials to end-use customers. These activities can be separated into strategically relevant segments to understand the behavior of costs and the potential source of differentiation. Notice that this includes the interrelationships between suppliers and customers. The way supplies and customers interact with an organization can impact on the cost, and degree, of differentiation within the product or service.

This aspect is captured more tellingly by Holweg and Helo (2014). They used the term *architecture* to describe the design of large network structures of value chain partners, for which objectives and processes can be set for the whole network. They go on to define the value chain architecture as the network structure consisting of suppliers, manufacturers, distributors, and customers designed in such a way as to maximize the value creation for the focal firm. This links closely to the growing use of the term business ecosystem in that organizations now need to consider the much wider field of operations than perhaps they did in the 1980s, as illustrated in Figure 4.14.

Figure 4.14 Value system as part of the business ecosystem

They also put forward five determinants of a value chain architecture as:

1. Value provision – a focus on value creation activities, not just internally but through the whole value system

2. Operational footprint – from where does the organization operate and source supplies? It emphasizes the relationship with the task environment and ensures that the current and future provision of resources is considered as well as current and potential future markets. Think of fit as the extended enterprise.
3. Risk management – focusing on supply chain risk within the system. This has implications for risks arising from the task environment and links to supplier evaluation (section 4.10), and can also extend the thinking to potential threats emanating from the general environment that could affect the supply chain.
4. Order fulfillment and product customization – focusing on the customer interface, how does the organization respond to customer orders? This focuses on the front end of the supply chain and works backward from the customer. Dell's built to order, and Zara's quick manufacturing systems are examples of starting with the customer and designing a flexible system to respond to customer-led demand.
5. Buffering mechanism – the mechanism in place to deal with uncertainty. This can include environmental scanning, ensuring that systems can adapt to changes, and simple strategies such as holding inventory of raw materials and components, which links to risk management and the costs of holding inventory, or dual sourcing.

Thinking about the organization as a value creation system offers a model of corporate activities that can be used to analyze what an organization does and hence improve where it can add value to the customer. It helps to ascertain how value is created, how costs are caused, and how competitive advantage can be gained. A critical factor in its application is that the objective is to add value to the customer and hence helps to develop a customer focus on the organization's activities.

A typical value chain is illustrated in Figure 4.15.

Figure 4.15 A typical value chain

Porter (1985) identified that the activities could be separated in primary (physical) activities and support activities. The primary activities encompass inbound logistics, operations, outbound logistics and marketing and sales, and after-sales service. The support activities include procurement, human resource management, technology development, and firm infrastructure. A modification of Porter's value chain is illustrated in Figure 4.16. The representation adopts a system view of inputs, processes, and outputs, and recognizes that marketing and sales can be the start point of the operations. For example, in Dell's build to customer order, or Zara's quick response manufacture system, it is sales that drive the manufacturing process rather than following the storage of finished goods inventory in outbound logistics.

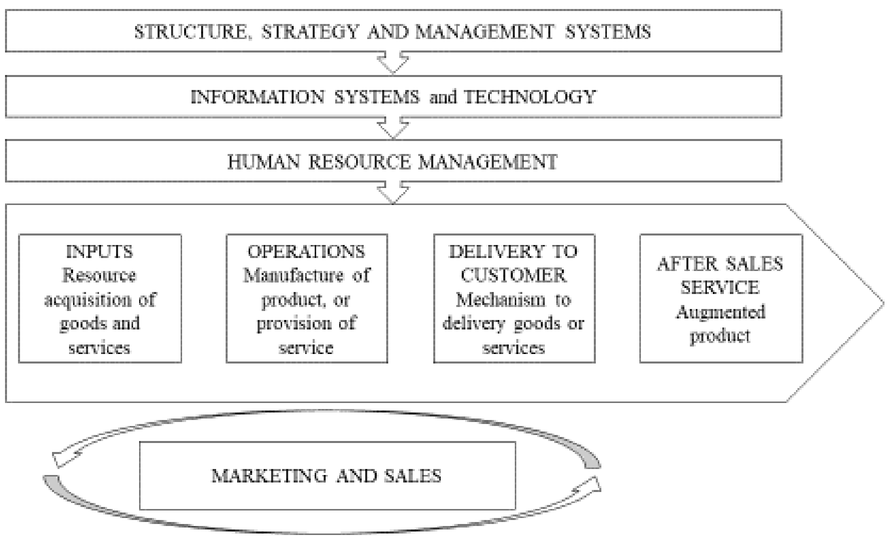

Figure 4.16 The value creation system

The inputs and resource acquisition involve the activities of receiving, handling, and storing of inputs required to undertake the operations of the organization.

Operations involve the activities of converting inputs into outputs such as manufacturing an automotive vehicle. In the service sector, operations are represented by the activities involved in providing the service, for example, in the provision of the meal in the restaurant, the provision of a haircut, carrying out an audit, or providing consultancy advice.

The delivery to the customer activity involves storing the product prior to purchase if appropriate and its distribution to customers. It is essentially getting the product or service to the customer. Therefore, in the case of a venue, such as a theatre, night club, or university, the location is a vital element of the delivery activity. In the case of an entertainment venue, a critical factor in its success is whether the customer can get to and from the place easily? Therefore, transport links are an essential consideration within delivery to the customer.

Marketing and sales involve informing the customers about the product or service, persuading them to buy it, and facilitating their ability to do so. It will include decisions concerning marketing strategy and means of selling, such as whether to use a physical sales force or online systems. In cases where products are manufactured to customer order, marketing, and sales impacts on the acquisition of resources as much as the final product. It, therefore, spans the activities of inputs from suppliers, operations, and delivery. Indeed, in a customer-focused business, the marketing and sales activity determines the level of production required.

After-sales service includes activities such as installing products, repairing, upgrading, and so forth, including customer care programs. Anything that is provided after the customer has received the main product or enjoyed the service. In marketing terms, this is referred to as augmenting the product. There is often a fine line between the product produced from operations and what is classified as the after-sales service, that is, when does the operations element stop?

Functions such as human resource management, IT systems, and the organization's structure, strategy, and management systems support the primary activities. These activities support all the activities undertaken to provide the product or service to the customer.

The way an organization chooses to configure its activities can provide the means for competitive advantage (Porter, 1985). An organization can decide which activities it needs to undertake to satisfy customer needs. For example, organizations may opt not to provide any after-sales service.

Part of the design of the value system is in managing the interlinkages and ensuring that all activities undertaken do actually add value. It is of no benefit if the organization can manufacture products to customer orders within a short time frame if suppliers are not able to provide the same flexibility. The way around this might be to hold high levels of inventory, but this incurs an unnecessary cost, which could be reduced by better management of the inputs and management of the supply chain, perhaps via the use of technology and just-in-time systems.

There is also an information flow around the value creation system, and this needs to be facilitated. If the organization's competitive advantage is to manufacture to customer demand the information flow from the customer, via the marketing and sales activities, backward through the value system, even to the extent of procuring components from suppliers, needs to be highly efficient. It requires an effective management system potentially supported by technology. Therefore, the competitive advantage is in the efficient operation of the whole value creation system.

Several authors have focused on the accounting aspect of the value chain, where the focus is on managing the costs. Shank (1989) discussed these under two main headings. Structural cost drivers and executional cost drivers, shown in Table 4.3.

Structural cost management refers to the cost management activities aimed at changing the cost structure of the firm in a way that is consistent with the overall strategy of the organization.

Executional cost management refers to the cost management activities aimed at improving performance for a given strategy.

Table 4.3 – Structural and executional costs in the value chain

Structural cost drivers – influences the cost base	**Executional cost drivers – firms ability to manage itself**
Scale – of investment in capacity, etc.	Workforce commitment to continuous improvement
Scope – degree of vertical integration	The use of Total Quality Management
Experience – accumulated experience	Utilization of capacity
Technology – process technology employed	Product design and formulation
Complexity – the breath of the product lines	The exploitation of external linkages

Henri et al. (2014: 269) suggest that the purpose of value [supply] chain management is “to align a firm’s resources and associated cost structures with (i) short-term tactics through cost reductions (executional cost management), and (ii) long-term strategy through the re-engineering of the value chain and production of a different cost structure (structural cost management)”.

Hergert and Morris (1989) highlighted a difficulty of managing costs through the value system in that most accounting systems are good at collecting costs related to products, cost centers, and responsibility centers but less good at collecting costs associated with value chain activities. They do note that activity-based costing (ABC) can be useful in allocating costs to customers (see section 6.6). However, studies were undertaken by authors such as Al-Omiri and Drury (2007), Askarany and Yazdifar (2007), and Askarany et al. (2010) that indicate that ABC has not been widely adopted. ABC has its difficulties in execution, which include its complexity, compatibility with existing systems, and difficulty in the observability of results, which makes it is hard to report promptly in a way that managers can readily understand. Interestingly, Hergert and Morris (1989) quote an article from Fortune by Keichel (1981) who found that when formulating corporate strategies 70% of the analyst’s time was devoted not to obtaining external data (about the industry, market shares, activities of competitors and so on), but to reworking internal accounting data. It strengthens the case for developing strategic management accounting systems within organizations, but also the need for accountants to work closely with other professionals and be involved within the strategic management process.

4.9.1 Using value creation system analysis

Active reading. Note the uses of the value system analysis. Following on from section 4.9, continue to think about whether this requires an outside-in approach (focus on market needs and positioning), or could it be used to support an inside-out (resource-based) approach to strategy and identifying a potential competitive advantage?

The analysis of the value creation system can be used to identify potential activities that could be outsourced. It, therefore, sets up strategic debates within the organization. It could be said that if an activity is not critical, then it could become a candidate for outsourcing. This is also said of nonvalue-adding activities.

There is a trend toward outsourcing the basic accounting functions to specialist firms as they are nonvalue adding but essential activities. In other words, the focus is on performing the activities as efficiently and cost-effectively as possible. However, consider an organization such as Flying Flowers. It is an organization that began delivering fresh flowers to customers within a region known as the Channel Islands off the coast of the U.K. and covered a relatively narrow geographical area. As the organization expanded its global reach, the requirement for exceptional logistical capabilities to deliver fresh flowers became more strategic as it formed the basis of the competitive advantage, that is, fresh flowers for next-day delivery. As the expertise of the organization lies in growing flowers outsourcing the logistical activity to a specialist logistics organization made strategic sense and was more cost-effective.

Each organization configures the value creation system to suit its own needs. The competitive advantage may come from how the value system is configured, which activities the organization chooses to do itself, and which it chooses to allow others to do, even the customers.

Consider the case of Dell (Figure 4.17), an organization that sells computers online with the marketing proposition of tailoring products to meet the specific requirements of customers, and IKEA (Figure 4.18), an organization that predominantly sells flat-pack home furnishings from out-of-town stores. IKEA has stores around the world, three of which are in the U.S. (at the time of writing).

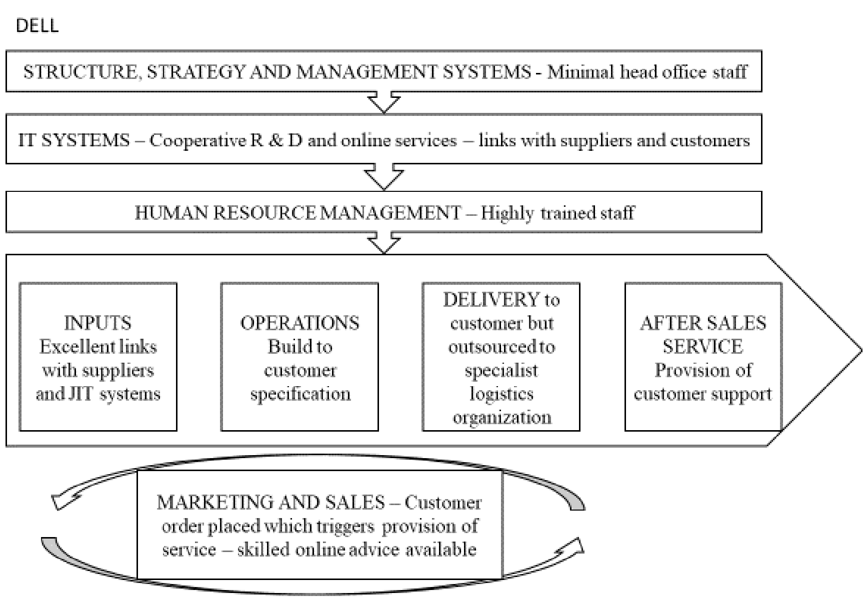

Figure 4.17 DELL value system

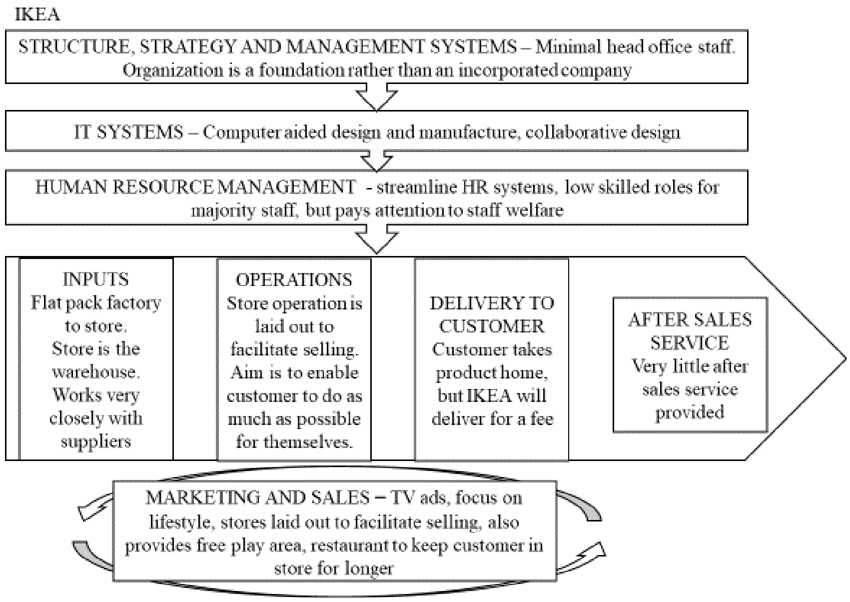

Figure 4.18 IKEA value system

The principle behind Dell is to add a significant amount of value to the customer while keeping costs low. In contrast, IKEA encourages the customers to do as much as possible for themselves, to keep costs and prices low. In the early days of IKEA, the customer did nearly all of the work, including selecting products for themselves, taking the product home, and assembling the product. Over the years, IKEA has responded competitively by offering these services but as an optional extra for an additional cost. This development of services retains their core market offering to customers who want a value for money product but also enables them to attract customers who are prepared to pay extra for the additional added value.

As the value creation system is concerned with activities, ABC can be used as part of the analysis. The activities become the cost drivers and are the result of strategic choices made by the management of an organization, which determines its underlying cost base. It can, therefore, be used to support the development and maintenance of the competitive strategy of cost leadership or differentiation; that is, all activities undertaken should support, and be consistent with, the overall competitive strategy of the organization.

As every organization has a value system of its own, managing the supply chain involves managing an extended value system in that each organization is adding value to the customer. The way an organization adds value through the extended value system is an essential aspect of creating a competitive advantage, so supply chain management and customer relationship management become more critical to today's organization.

Learning activity. Think of an organization with which you are familiar, either as a customer or employee. What sort of activities do you envisage would be undertaken within each element of the value system? Think about how it might add value to the product or service.

[Note: this objective of this activity is not to create an accurate analysis of the value system of an organization but to think about how value can be added to benefit the customer. The choice of organization is to give a focus to your thought process.]

4.10 Supplier Analysis

Active reading. Note that it is the whole supply chain that needs managing, which makes suppliers just as significant as customers.

The benefit of using the concept of a value creation system is that it is customer-focused; that is, it focuses on adding value to the customer. However, as discussed in section 4.9, the value creation system embraces the supply chain, and therefore it is worth taking a few moments to understand the significance of suppliers. Ensuring certainty of supply can be a key factor in satisfying customer demand. One way to provide some assurance is to dual-source. However, Wu et al. (2010) found that unless this is done with the knowledge of all parties, it can put pressure on the customer-supplier relationships and affect the behavior of both buyers and suppliers. They found this is particularly so if there is a focal dyadic relationship (interaction between a pair of individuals) with one preferred supplier, and negotiations are held with alternative suppliers. It is more beneficial for suppliers to know that they are part of a supplier network that satisfies the demand of the buyer.

Choi and Kim (2008) identified that in situations where there is a recognized network of suppliers, they are more likely to cooperate and work together to find solutions to supply chain problems. Kraatz (1998) noted that in strong inter-organizational networks of suppliers and buyers' local norms develop that govern the interactions and methods of operation. Customer and supplier relationships are built on trust, and Carey et al. (2011) found that when a strong relationship exists between the suppliers and customers, they are more likely to share complex information to help the relationship work.

The sharing of information through the supply chain aspect can benefit suppliers as well as buyers. Krolikowski and Yuan (2017) found that when suppliers were working with a concentrated customer base, which reflected strong customer-supplier relationships, as well as high switching costs, suppliers were more willing to invest in research and development and innovation to improve the products and inter-organizational operations. However, they did note that where strong customer buyer power existed, suppliers were less willing to invest as there was less certainty of a return on the investment.

Shi and Yu (2013) found that a range of studies showed that there is a positive relationship between good supply chain management and financial performance. The concept of the business ecosystem supports the idea that close cooperation between its members benefits all parties. It is incumbent on the members to work together for the mutual benefit of the members in adding value to the end customer and consumer. There does, however, need to be some regulation and control of the system for it to work effectively.

A typical three-stage process for supplier selection and monitoring includes supplier appraisal, approval, and monitoring.

4.10.1 The Three Elements Related to Supplier Analysis

Active reading. Note the contribution that the management accountant can make to the activity of supplier analysis.

Supplier Appraisal

Supplier appraisal is an assessment of a potential supplier's capability of meeting and maintaining the key elements contained within the contract, such as quality standards, delivery commitments, quantity, and price. It would usually be carried out by those in the organization concerned with purchasing the products or services to be provided. Bhutta and Huq (2002) note that selecting suppliers often involves considering multiple aspects of the supplier's capabilities, and hence they tend to be multi-criteria decision-making problems. It is usually not just the price and quality, but a range of other factors that are taken into the account when making the decision, which can include qualitative aspects such as a supplier's commitment to ethical and sustainability practices, or proven ability to adapt to environmental change.

There is a role for the accountant in that a financial assessment of the supplier is undertaken to ensure that it is financially sound and capable of delivering the goods or services. The reciprocal is also true in that suppliers will often conduct a credit check of the customers to make sure that they can pay for the goods and services supplied. It is common practice in business-to-business relationships and consumer markets for purchases made on credit. There is, therefore, an opportunity for the exchange of information between parties early in the relationship.

Supplier Approval

Once the supplier has been assessed and found to be capable of meeting the contract requirements, the supplier is placed on an approved supplier list. If they are a preferred supplier, this can enhance the relationship. Still, as noted by Wu et al. (2010), if they are part of a dual sourcing or an alternate supplier network, this should be stressed at the outset of the relationship.

Supplier Rating

The performance of the supplier is monitored against the terms of the contract. An index can be created that ranks suppliers in terms of performance to determine the preferred supplier list. Large organizations often maintain an approved supplier list to which suppliers may be seeking access.

In terms of supplier/buyer power relationships, it is worth remembering that an organization is a supplier's customer, and they may well have undertaken customer profitability analysis to determine the status of the organization as a customer. Therefore, there is a concept of making an organization attractive to suppliers to obtain a good working relationship (La Rocca et al., 2012). The mutual benefit can be a determining factor in the success of a profitable long-term relationship for both parties (Gronroos, 1990; Andon et al., 2001; Malthouse and Blattberg, 2005)

As with customers, it is possible to rate the supplier performance and ascertain the strategic importance of the relationship. Typical factors of performance that can be monitored include aspects such as delivery performance and price, but also the ability of the supplier to respond to changes in demand. Referring to the value creation system, if an organization's competitive advantage is based on its ability to respond to customer demand, the same degree of responsiveness and flexibility needs to be present in the supply chain. One way to deal with this might be to dual-source with the suppliers' full knowledge of why the organization chooses to do so. It can be the basis of deciding the strategic importance of various suppliers and the development of supplier relationships conducive to both parties. The balance of negotiating power becomes relevant in the discussion about price and contract terms. Developing strong supplier relationships can mitigate against supplier power, as discussed under industry analysis in Chapter 2 of this learning resource.

Other aspects of supplier analysis can include an estimate of the likely costs of a breakdown in the supply chain. World events such as natural disasters, or the pandemic of the covid-19 virus in 2020, can affect an organization that relies on global supplies by disrupting the supply chain. The number of suppliers that can provide a product or service, the degree of competition in the demand and supply market, for example, for scarce resources, and substitution possibilities all impact on the supplier relationship and accountants can aid the evaluation of the strategic and financial risk these factors pose. More obvious aspects such as make or buy decisions, which could be the basis of competitive advantage, provide opportunities for accountants to contribute.

Supplier evaluation is situational, and there may be instances where it is imperative, such as in the negotiation of a service level agreement for an outsourcing contract. The service level agreement should include performance evaluation criteria as well as the terms of supply. Gulati and Singh (1998) suggest that hierarchical control mechanisms work effectively in interfirm relationships. These would include clear command structures, and authority systems, incentive schemes, standard operating procedures, dispute resolution procedures, and non-market pricing systems. The control systems employed, however, need to be consistent with the culture of the organization, and equally, a system of mutual benefit and cooperation can be appropriate.

The aspects that the evaluation focuses on will relate to the requirements of the relationship. Still, all appraisals will probably include issues such as finance, production capacity and facilities, information technology, human resources, quality, performance, and environmental and ethical considerations. Whatever the style of control that is adopted, the relationships do need some form of control, or the value system could breakdown and damage the end demand for the whole value system.