Part One Case Studies

Dell: High Velocity, Focused Supply Chain Management

Dell (www.dell.com) has grown phenomenally since its establishment in 1983 by Michael Dell, then a medical student, now a multi-millionaire. The company's mission is simply 'to be the most successful computer company in the world at delivering the best customer experience in the markets we serve'. It was ranked 38 on the *Fortune 500* listing of America's largest corporations with revenues of over $52 billion. Dell ascribes much of its success to its expertise in supply chain management and the velocity with which it is able to process and deliver orders – where competitors take weeks to build and ship product, Dell's metrics are hours and days.

DIRECT TO CUSTOMER

Central to Dell's phenomenal success is its distribution strategy: since it started to build its own machines in 1985 (prior to this the company had focused on upgrading old IBM machines) it has sold direct to the customer, disintermediating any middlemen and getting product faster to the customer. The computers themselves were viewed by some as not particularly remarkable from a technological perspective, so much so that in 1996 *The Economist* magazine described Dell as 'selling PCs like bananas'. The business market segment is highly important to Dell and the company has invested in customer relationship management (CRM) systems in order to stay close to key customers, while similarly evaluating the cost-to-serve different customer segments and designing product offerings accordingly. Finished products are delivered by third-party logistics partners direct from the manufacturing plants to customers, often merging-in-transit with peripherals.

FULL VISIBILITY AND PARTNERSHIPS WITH SUPPLIERS

The internet is key to Dell's strategy, allowing direct communication with customers and real-time visibility of purchasing patterns. Indeed a key attribute of the Dell supply chain is full visibility along the chain with sales and production systems linked to suppliers who supply components just-in-time, usually direct to the production line and often with very short lead times (sometimes just one hour!). Consequently, Dell needs limited warehouse space for inbound raw materials. These preferred suppliers play a key role in Dell's success according to their senior VP for worldwide procurement: 'our suppliers play an essential role in helping us provide customers with the quality and value they come to expect from Dell'. Each year Dell conducts an awards programme to acknowledge the eight suppliers who stand out in terms of quality, technology, service, continuity of supply and cost.

FOCUSED MANUFACTURING AND BUILDING TO ORDER

Dell pioneered the adoption of standardisation and postponed manufacturing (also known as mass customisation) in the electronics industry (Figure C1.1). This involves producing a small number of common platforms, which are then customised according to customer demands (the customer generally recognises more so what is different among products, not what is the same!). Before standardisation (left side of Figure C1.1) there are multiple product lines at both the upstream and downstream ends, whereas after standardisation (right side of Figure C1.1) the number of different product lines upstream reduces drastically and products are only customised (i.e. configured into different products) at the downstream end (once customer orders are visible).

The benefits of this strategy are many and include sharing of common components across product lines, thus reducing the number of stock keeping units (SKUs) that have to be carried. This strategy is also adopted in a number of other sectors where demand is volatile and margins are tight, such as the automobile industry (Volkswagen, Audi, Seat and Skoda) and the fashion industry (Benetton and Zara).

Dell's 'manufacturing associates' can assemble desktops at a rate of 16–17 per day using 'single person build' rather than traditional assembly line techniques. This leads to both increased job satisfaction and product quality. In early 2000 the company introduced business process improvement in order to change and improve work practices right

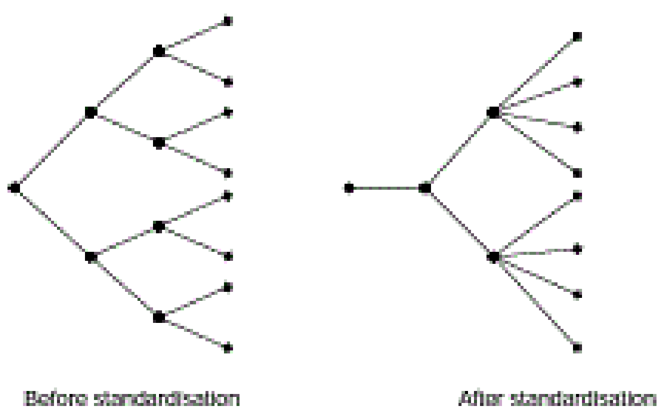

Figure C1.1 The principle of postponement across the business and eliminate non-value-adding work. Modular manufacturing using standardised components is employed to build the 'vanilla products', which are then customised for market.

Increasingly, Dell is moving into higher value offerings and markets. In its view, it sells solutions, not products. The company has not, however, been immune to problems. Difficulties associated with faulty laptop batteries, which attracted a lot of negative publicity about the company, led to the recall of four million laptop batteries in 2006 (BBC News, January 2007). A weakening market position has led to the founder Michael Dell stepping back into an executive role as CEO again. Strong competition in the marketplace combined with downward price pressure on sales present Dell with a challenging environment.

QUESTIONS

- What are the fundamental reasons for Dell's success?
- What should Dell do next to maintain its competitive advantage? Is its business model still viable?
- Will the Dell formula work elsewhere? If not, why not?