18 Future developments in managing closed-loop supply chains

Simme Douwe P. Flapper, Jo A.E.E. van Nunen and Luk N. Van Wassenhove

18.1 Introduction

This final chapter allows us to look ahead a number of years and to speculate about likely future developments. Our predictions are based on insights obtained from close collaboration with companies and organizations mentioned in this book as well as with many others. They also incorporate findings from our more theoretical research and views expressed in the literature. Our starting point will be the frameworks presented in chapter 1.

18.2 Business drivers

![Diagram of Profit, People, Planet and their relations in the context of closed-loop supply chains]

Fig. 18.1. Profit, People, Planet and their relations in the context of closed-loop supply chains
Profit

We expect the direct and indirect economic benefits of closing supply chains to remain the main driver for both OEMs and third parties in the next decade.

The clearly discernable trend to service based economies will continue. Offering a reliable service or functionality gradually becomes more important than selling the product delivering the function. For instance, tire manufacturers offer fleet owners insight into the consequences of poorly inflated tires, uneven loading of their trucks, and road conditions (Debo, 2002). They also increasingly offer tire management guaranteeing quality service while charging only a cost per mile travelled as opposed to selling their tires. There is a growing demand for leasing or renting products, not only by companies but also by households. In the Netherlands, all car companies are now also leasing whereas until recently most were only selling. See also (Sterman, 2000).

In such an economy companies will increasingly be confronted with returns since they provide the hardware that carries the desired service for the client. For example, air time providers offer cellular telephones and take them back when the customer switches to another model or at the end of the contract. See the ReCellular Inc. case in this book.

From a cash flow perspective the expected transition from sales to leasing is not so big since many sellers already allow their customers to spread payments over time. Moreover, leasing and renting often allow companies to reuse items when the present contract ends, either as entire products or as parts.

In case products are sold, closing the loop of a supply chain often means offering an extra service to customers. See the cases on Whirlpool, L’Oréal, HP, Wehkamp, and Mercedes-Benz in this book. A questionnaire by Rockwool, a big Danish producer, revealed that the collection system for their end-of-use products played an important role in their customers’ buying decision (Wijshof, 1997).

Market and brand protection will also remain an important reason for closing supply chains. This concerns protection of new product markets like in the case of toner cartridges and markets for service parts. By preempting other companies from remanufacturing, companies also protect their brand name and reputation from being tarnished by poor quality remanufactured products. This was an important driver for Whirlpool when they decided to close part of their supply chain. See the Whirlpool case in this book.