

Letter to the Editor

Reflections on Telenor's Experience Using the Value Network Model¹

Telenor's cooperation with the BI-Norwegian School of Management goes back to the mid-nineties, and the Value Network model grew in part out this cooperation, since when our understanding has been refined by the experience of both successes and failures in using the model.

The emergence of the Internet and the deregulation of the European telecommunication market in 1998 led to the appearance of distinct layers of service providers, the early distinction between network operators and ISPs being the most obvious. While mapping the activities of network operators and service providers to the Value Network model is fairly straightforward, implementation of the model in strategic decision making and in organizational design has been challenging. This is mainly due to the strong conventional focus on product and product profitability, which belongs within a fairly traditional organization structure of business divisions, business units, product groups and product managers such as we used to have at Telenor.

The notion that *any* firm can be described as a value chain is strongly ingrained in most managers, and tends to direct managers' attention to how the technical features of a product or service, including billing and pricing schemes, meet the needs of the target customers. However, we have taken great care to teach the value network model to a large number of Telenor executives and managers, and this has further deepened their understanding of the associated economic network effects. In several strategic situations the value network/network effect perspective rather than a value chain perspective has made a difference.

Let me explain with two examples:

a. Paying attention to network composition

During the 1990s, along with many other international telecommunication operators, Telenor had business and residential divisions, each focusing on what services they could sell to their own customers. Taking a network perspective has allowed us to see that such traditional product-market organization failed to develop services that targeted customers' communication needs *across* such divisions effectively.

For instance it made strategic sense to have business-division managers work with their customers implementing services such as call centers and automated servers for financial transactions, because these services would generate considerably traffic from individual consumers' use. Thus residential-division managers found themselves in situations where the greatest opportunities to increase sales came not from the decisions they could make about their own products, but from the decisions business-division managers made about products designed for their customers.

¹ Telenor is one of the world's leading international GSM mobile operators with operations in many countries including Scandinavia, Russia, Hungary, Thailand, Malaysia, Pakistan, as well as having been an early entrant into western European countries such as West Germany and Ireland. Its successful mobile operation led to it being ranked as 15th in the world's 100 best-managed technology companies by Business Week. Its understanding of network effects has allowed it to reap early mover advantages in many new markets by following early entry with low penetration with investments in effective rollout strategies.

However, since the business-division managers only had nominal direct revenues from these services (as their customers *received* rather than *originated* calls) a value *chain* perspective gave them no incentives to facilitate revenues for the residential division, even if this would benefit the company as a whole. It was therefore necessary for senior executives to take a cross-division view and stimulate networks effects *between* divisions, as well as *within* them.

This example offers a concrete illustration of the difference between a value chain and a value network perspective: business unit managers focused on how to modify their product within a value *chain*, while senior executives focused on how the availability of important nodes in a value *network* (e.g. transaction servers) would stimulate communication within the network across the business/residential divide. Telenor later reorganized itself into a common management structure for all services at the national level, a decision motivated in part by a desire to exploit such potential demand synergies.

b. Driving inter-layer demand by stimulating supply of complementary services

Norway has among the highest penetration ratios of mobile phones and usage of SMS services in the world. In the area of value added mobile services, Telenor has a consistent strategy of stimulating complementary mobile services and content, and has developed an open protocol for network access and works with a variety of content and exchange services, including media firms and banks. This strategy exploits both indirect and direct network effects - the open protocol allows added services to work within a larger network and thus attract more service providers; the added services attract additional network users, who further increase within-network communication.

Network services have characteristics that call for different strategies than simply creating technically good products and marketing them well. It is relatively easy to address these at an overall executive level, but quite challenging to implement value network principles broadly throughout the organization. Separating marketing and customer service activities as a distinct business from the network operation activities will not be successful; they are technically and economically too interrelated.

On the other hand Internet service and IP telephony, for example, *do* exist as separate businesses, because they represent distinct and complete value network configurations. The Internet's emergence as a distinct service layer has provided opportunities for dramatic demand increases for ISDN and broadband services. Telenor has used the understanding provided by using the Value Network tool to drive its business forward, setting aside separate product profitability requirements for internet services, and introducing a free internet service to boost internet use for data transmission services. Finding the best way of organizing network services and having the right incentive systems remain a challenge.

Our experience is that Value Network thinking is still challenging, and that too few business schools and consulting firms are paying it adequate attention. The models and the repertoire of associated tools of the Value Network perspective need further development, and managers in product-based firms require even clearer details about its value. The articles by Fjeldstad and Ketels and by Huemer in this issue help address this gap in understanding.

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