Chapter VII
Innovation Strategies in Digital Convergence: Nokia and the Digital Home

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ABSTRACT

This chapter examines the innovation strategy of one of the major telecom companies—Nokia—in its efforts to develop a sustainable position in the emerging digital home market. The analysis of Nokia’s innovation strategy in the digital domain is based on Abernathy and Clark’s (1985) classification which differentiates between different types of innovations, depending on their impact on the firm’s competitive position. The case study finds that Nokia follows a niche creation strategy, relying on its existing technological competencies in areas such as handset design and open device architecture, while building new market competencies developed either in house, or through collaboration with industry partners. The chapter provides an in depth view into the strategic actions of a large firm which attempts to build a sustainable competitive advantage in an emerging market by taking advantage of the opportunities arising from the convergence of digital home technologies.

INTRODUCTION

The vision of providing technologies and services for home—coined with the label of “home domain” or “digital home”—was born in the mid 1980s out of technological advances in the micro-electronics fields that could make “intelligent” sensors and appliances. The technological innovations to enable seamless interaction among consumer electronics (CE), mobile phones and personal computers (PC) devices have emerged over the past 20 years punctuated by significant breakthroughs in other technologies including digital and multimedia, the Internet, broadband and wireless (TEAHA, 2005).
The concept of “digital home” defines a space where all sorts of home-based electronic devices, ranging from personal computers to TV set-top boxes, video game consoles, stereos and even the refrigerator and the garage door are connected both to one another and to the Internet. The use of the term “digital home” rather than “home domain” in recent years reflects also a trend away from analogue towards digital media. The digital home is a home where all sorts of media ranging from music, films and pictures are in digital format. The concept coins both a convergence of the digital content of different media, as well as a convergence in the technologies that enable the connection of various physical devices supporting the delivery of such digital content.

In the last decades, many of the largest companies in the CE, PC, telecom and Internet industries have made strategic decisions to enter the digital home market. CE companies such as Sony and Matsushita are global leaders in digital television, video and music equipment. Computer companies such as Cisco and Intel have special divisions geared towards home entertaining. Microsoft launched Windows Media Central, a version of its Windows operation system that looks more like a TV menu and works via remote control. Telecom companies such as Motorola and Nokia have adopted the digital home vision as one of the cornerstones of their strategy, Motorola with its “seamless mobility” strategy, and Nokia with its home domain “extended mobility” vision.

This chapter examines the innovation strategy of one of the major telecom companies—Nokia—in its efforts to develop a sustainable competitive position in the emerging digital home market.

Competitive advantage arises from a range of sources, including the position of a firm relative to the competitive forces in its industry (Porter, 1980), or its valuable, rare and difficult to imitate resources (Barney, 1991). The accelerating pace of technology developments that nowadays characterises the environment in which firms operate means that increasingly, the pattern moves to favour firms that have the ability mobilise knowledge and technological skills to create novelty in their products and services and to provide timely responsiveness and rapid and flexibly product and service innovation (Kay, 1993; Teece, et al., 1997). Innovation contributes in several ways to the creation of competitive advantage. New products help to capture and retain market share, such as in the case of Sony’s Walkman, whilst process innovation explains the dominance of the Japanese manufacturing in the late 20\textsuperscript{th} century across several sectors: cars, motorcycles, ship-building and consumer electronics (Tidd, et al., 2005). Consequently, innovation strategies have become a central element of the firm’s efforts to build competitive advantage in a fast changing environment.

With the rise of the Internet, the scope for innovation has grown significantly, as the traditional separation between strategies based on offering standard products and services to a large market (high reach) and the ability to offer customised products tailored to a niche audience (high richness) has been “blown to bits.” The Internet and accompanying technological innovations are supporting connectivity and common standards that redefine the information channels linking businesses with their customers, suppliers and employees. As a result, the Internet enables the creation of totally new markets and the radical disruption of those which exist in information rich contexts (Evans & Wurster, 1998). In particular, the Internet has been seen as a catalyst for innovations in digital convergence. The technology that has been responsible for platform independence is the IP protocol which enables the transmission of any kind of data through the Internet network, and which has fuelled technology convergence in the late 1990s (Bores, et al., 2003).

The aim of this chapter is to explore Nokia’s innovation strategy in an effort to understand the way large companies build their competitive advantage in contexts characterised by rapid