Chapter VII

Impacts of the Digital Economy: The Shift to Consumer-Driven Competition and Life-Span Products

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Abstract

This chapter examines changes in innovation and competition made possible in two traditional industries by the adoption of integrated information and communication technologies. Using empirical interview-based research the chapter highlights the importance of consumer-driven innovation. The development of complex innovation networks to supply consumer needs is demonstrated using two example sectors, the UK magazine publishing and grocery retailing industries. The innovation process is outlined in detail and the importance of linkages to the end-consumer and market experts is acknowledged. In addition, this chapter offers the concept of “life-span” goods as those developed from the outset as having a short life dependent on changing consumer tastes and fashions. Within this environment firms act more as project orchestrators, using core skills in developing innovation teams based on a deep knowledge of consumer activities. Finally the chapter concludes by examining the challenge to economic analysis and to the theory of the firm provided by shifting and temporary alliances.
Introduction

The adoption and use of digital technologies by firms has created both many new industries and opportunities for existing firms to enter new markets. In addition to this, a key aspect of the use of digital and communications technologies based around those of the Internet has been to allow firms to reorganise their internal operations. This chapter provides an examination of the organizational responses to technological change made by firms in two industries transformed by the use of the “integrated information channels” (Nicol, 2001) which characterize the digital economy. Whilst the focus of many studies examining the impact of new digital technologies has been on high technology sectors, the adoption of digital communications technologies has also led to new competitive pressures in industries that could be characterized as low technology (Cox, Frenz and Preveezer, 2002). Firms in traditional industries have been able to gather more detailed information about the requirements of consumers, and the factors of competitive success have moved toward the ability to innovate the products and services which fulfill customer needs. An important aspect of organization and competition in the digital economy is therefore the process and management of innovation itself. This chapter argues that a key feature of competition in the digital age is that there has been a significant shift in competitive advantage toward the consumer-facing firms which are best placed to use details of consumer preferences to drive innovation, and that they are increasingly able to do this through the use of complex network arrangements. The balance of power between manufacturers and downstream companies has been shifting as a result of these changes, and the consequent reconfiguration of existing industries has important consequences for our understanding of economic analysis, particularly of organization, innovation, competition and industrial structure.

Background

The two industries that are the focus of this chapter are the food retailing and the magazine publishing sectors in the UK. Although distinctly different in character, both of these activities have been transformed from ones where competition was driven primarily by economies of scale in production to sectors where competitive success is conditioned by the ability to engage in continuous innovation driven by customer needs. In both examples the greatest impact of the digital revolution has been the changes in organizational structure within and between firms in the value-chain, although this may not readily be apparent. The temptation in these industries is to focus exclusively as to how the digital age has reduced the importance of “bricks and mortar” delivery relative to “clicks” and Internet delivery. Magazine publishers, for example, deal with an information product whose composition has become potentially purely digital. With the possibility of scale-free delivery on the Internet many industry observers predicted the end of paper-based magazines. Not only has this markedly failed to occur, with many magazine companies such as EMAP which invested heavily in digital brands and delivery scaling back their investment after losses in the early 2000s, but the range of paper-based
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