ABSTRACT

The aim of this article is to study the phenomenon of chasm that often exists in the diffusion of innovation and to devise a theoretical framework enabling to explain the ability of some firms to cross this chasm, while many others remain unsuccessful. The proposition developed in this article is that the choice of initial market segment has crucial importance as adoption in this segment can lead to a cascade of adoption in the other segments. To illustrate this proposition, three cases studies of an historical leader (Sony), a first mover (Archos) and a newcomer (Apple) in the market for digital audio players are presented. [Article copies are available for purchase from InfoSci-on-Demand.com]

Keywords: Apple; Archos; Cascading Market Segments; Chasm; Diffusion of Innovation; Digital Audio Players; Sony

INTRODUCTION

In many industry sectors, the key rule that enables companies to remain on the market is continuous innovation. Nonetheless, innovating, while necessary, is seldom sufficient to succeed and although some innovations are adopted by consumers, many fail to do so. In most cases, successfully innovating requires innovative products or services to be adopted by a majority of consumers. While many new products encounter initial success and are successfully adopted by early adopters, only a few are able to ‘cross the chasm’ that separates early adopters from the rest of consumers.

Although such a chasm exists in the diffusion of many products, high-tech products are particularly known to experi-
ence such discontinuities. The large investments required to successfully develop and initially market new products with high technological content make it even more crucial to understand how this chasm is created and how to cross it.

The aim of this article is to shed light on the complex question of crossing the chasm by considering the impact of the initial choice of market segment that is targeted by innovative firms. The key argument is that a fine balance has to be found in order for the initial market segment to ‘naturally’ spread its adoption to adjacent segments and, eventually, to the whole market.

To assess the relevance of this approach, three case studies of firms producing Digital Audio Players – Sony, Archos and Apple – are presented in the article. The reason for such a choice is that the number of innovations is particularly high in consumer electronics sector, in general, and in portable players, in particular. Thousands of new models have been released since the introduction of the Walkman, the first cassette-based portable audio player. The changes introduced in this sector were both radical and incremental and while some of them were successful, the adoption of many new products never went beyond a small number of early adopters.

For many years, the innovation in this sector was led by the market leader, Sony, whose subsequent generations of portable audio players were successfully adopted by the majority of consumers. However, after several cycles of successful introduction of new products in this sector, Sony missed the digital audio player revolution and this led to a shift in market power towards a newcomer in consumer electronics—Apple. The fact that the long-time leader, Sony, failed to cross the chasm while a new entrant succeeded emphasises the importance of this issue.

After briefly presenting the determinants of diffusion of innovation, its non-linear and discontinuous nature, the article proceeds with an analysis of the role of market segmentation in the ability of a firm to cross the chasm. Then, case studies of Sony, Archos and Apple are presented as an illustration of the developed theories.

THE DETERMINANTS OF DIFFUSION OF INNOVATION

Transforming an invention into an innovation (which requires successful commercialisation) is often a difficult task. The introduction of a new product is only the first step in a long process, that will or will not lead to a sustainable demand for this new product. Diffusion of innovation is a major determinant of sustainability of new products. However, the diffusion paths of innovations may differ strongly. It is, therefore, crucial to understand the particular characteristics of each individual innovations to influence the process of diffusion (Rogers, 2003). Rogers (2002) identifies five characteristics that affect the adoption of a particular innovation. First of all, the relative advantage of the new product or, in other words, the degree to which users see the innovation as being better than previously existing products. The second characteristic, compatibility, refers to how the innovation is consistent with the existing habits and values of consumers. A third characteristic, complexity, assesses the ease of use of the innovation. The last two characteristics, trialibility and observability, refer to the ability consumers have to, respectively, try and observe the
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