

Chapter 5

Financing Digital Product Companies

Richard B. Carter
Iowa State University, USA

Frederick H. Dark
Iowa State University, USA

ABSTRACT

Faced with the prospect of positive and negative network externalities and the all-or-nothing phenomenon, digital product (DP) firms must choose the timing of their capital acquisitions carefully. Moreover, with typically high fixed-to-variable cost ratios, the risk to recovering the initial investment is critical. In this chapter the authors discuss various forms of financing for the DP firm, both short-term and long-term, with these issues in mind. But our primary focus is the initial public offering of equity (IPO) and particularly its timing. Through empirical analysis and case studies we show that if DP firms issue too early in their life cycle they may receive a price for their shares that is not commensurate with long-term prospects. However, issuing too late may mean that they either cannot sell shares or are unable to recover their initial investment.

INTRODUCTION

Digital product (DP) firms include software developers, e-books, e-newspapers, digital music and movies, and games. Depending on their size and maturity, all firms have a myriad of choices for raising capital and DP firms are no exception. Many DP firms have pursued a strategic growth strategy to take advantage of newly available opportunities like personal computers, electronic

mail, the Internet, and electronic commerce. In some instances there have been barriers to introduction because larger successful companies already existed or were already producing a competing product that would dominate and create an all-or-nothing market share environment. There is also a large amount of fixed cost investment for the typical DP firm that must ultimately be recovered. But if the firm is successful, and a critical mass of users reached, potential profits and returns on investment can be very large. However, with growth comes an increasing need for capital.

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The typical forms of capital include short-term or long-term debt or equity. There are also hybrids like convertible bonds where the debt instrument can be exchanged for proportional shares of equity following a waiting period. The appropriate form of capital depends on many factors but for many DP firms, organized in the past few decades, the ultimate form is the initial public offering of equity (IPO). With the IPO DP firms can recover fixed costs and finance growth into the future, as well as provide extensive wealth for their founders.

For the DP firm the timing of their IPO is critical. Up to a certain point in the firm's life cycle prospects are uncertain. The digital product must be compatible with existing hardware and other software platforms – an objective that is often elusive given the rapidly changing industry environment. There is also the issue of whether the ultimate user will accept the product as the premier platform version if they accept it at all. If the DP firm issues their IPO too early the discount to its shares could be extreme because of the impounded risk – and not commensurate with their ultimate potential. But should they wait too long they may fail and be unable to sell shares at any price.

The objective of this chapter is to present the problems faced by DP firms as they make the capital acquisition decision and how various forms capital available to the firm may provide solutions. We focus on the IPO as a good source of financing for the DP firm and the timing decision discussed above. With empirical analysis and brief case studies we show how IPO timing – a point in the firm's life cycle – can determine the success of the IPO in recovering the original owners' investment and finance future growth.

BACKGROUND

What was not understood well in the 1980s and early 1990s when the growth in DP firms escalated was that these firms, and their products that are

in a digital format, are unique in comparison to traditional product firms. One of these unique characteristics is the importance of network externalities where a software development firm would have an advantage if there was product compatibility across many potential users. While network externalities can be a feature of traditional firms (e.g., railroads and trucking), it appears to be more important for DP firms. For example, externalities can decrease survivability for pioneers but increase survivability for technologically intense products and larger firms, and those with an installed base of customers (Srinivasan, Lilien, & Rangaswamy, 2004).

A potential consequence of markets with network externalities is an expression of the winner-take-all phenomenon (Yamamoto et al., 2002). For various reasons only a limited number of firms provide the product that becomes the dominant design while the others are left to wither. Microsoft Windows, for example, became the consumer favorite for operating systems and graphical user interfaces while others, like Linux, have not. And once one product leads its competitors its success accelerates as new users are more compelled to choose it because of its greater perceived utility. Though a number of firms may enter the market, only a limited number will succeed - relegating losers to technology lockout (Schilling, 1998). Schilling (2002) shows that in such markets failure to invest in learning, or poor market entry timing, can be detrimental. "Firms now (post-Internet) have to compete not only within, but also across differentiated channels, with some of the firms competing in multiple channels and transferring competition across them (Viswanathan, 2005)." As research shows, with differences in cost structures and/or externalities, the probability of success or failure can hang on the vagaries of consumers (Srinivasan, Lilien & Rangaswamy, 2004).

Another unique feature of DP firms is their heavy reliance on fixed costs. Unlike traditional firms that manage both ongoing fixed and variable costs such as materials, logistics and labor, DP

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