The Apple iPod: succeeding where others failed

Timing of market entry is one of the most critical decisions firms have to make. One prescribed formula for company success is: be a pioneer and an innovator; beat the competition to the market with new and innovative products or technologies and you will gain a dominant position.

In short, there seems to be a generally accepted notion that there is a causal relationship between being first in the market and subsequent higher profits. Following this prescription, firms invest in innovations in expectation of temporary monopoly by being first to the market.

However, effectiveness of first mover strategy is a function of firms’ pre-entry resources and how long it can stave off competitive entry and preserve monopoly market. Quick rival response through reverse engineering, fast industry learning, and imitation may shorten the length of monopoly position in which to gain the first-mover advantage (FMA) thus reducing their durability.

Pioneers – the digital audio player (DAP)

Saehan – MPMan

The first portable MP3 player was Saehan Information Systems' MPMan introduced in February of 1998. Saehan Information Systems is part of Saehan Group, one of Korea's top 30 business groups. However, the Information Systems division was only established in 1997, it had no experience in consumer electronics, and revenues under $15 million.

Saehan launched two models and in the first year, sold about 50,000 players; about 15,000 in Korea and 35,000 were shipped throughout the world, including the USA. To better serve the US market, Saehan went into a joint venture with Eiger Labs in the summer of 1998. However, Saehan/Eiger withdrew from the US market in the summer of 2002 and the division responsible for MP3 sales in the rest of the world was liquidated in July 2003.

Saehan's global market share in 1998 was about 30 per cent but by the end it dropped to a low-single digit. Its failure with the MP3 player can be attributed to lack of brand recognition, weak marketing, and no experience with consumer products.

Pontis Electronics

Pontis, a small German start-up company, developed the first to the world working prototype of a MP3 player in 1995, thus earning the title of product pioneer. It showed its product at a CeBIT trade show in Hanover in the summer of 1998.

In the fall of the same year, Pontis began fulfilling website orders for its MP3 player from Germany, USA, and Japan. It was the second entrant, beating Diamond Media to the market by a couple of months. Mass production began in 1999. In spite of being a highly rated product, the less than expected demand in 2000 and 2001 combined with the cost of new product development got Pontis into financial difficulties and, in 2002, the company was sold.
Its products were well engineered and received good reviews, but the company did not have sufficient resources to develop effective marketing capabilities. Owing to the high cost of production, lack of funds for further product improvement, and inability to compete against Apple and companies from the Far East, Pontis ceased production of MP3 players in 2003.

Diamond-RIO

The third entrant into the market was Diamond Multimedia, an American-based company, which acquired MP3 production technology and the patents from the Korean company, DigitalCast, for $3 million. Diamond announced its MP3 player in September 1998 but the launch was delayed until November because of the RIAA lawsuit. The lawsuit generated great publicity for Diamond Media and the company's RIO brand was erroneously credited with pioneering the DAP.

By the end of 1998, Diamond Media took over leadership of the MP3 product category with about a 65 per cent market share, selling over 100,000 units. As new firms came in, its market share steadily declined. By the end of 2002 it had shrunk to 14.5 per cent and Apple took over as the industry leader. Diamond Media filed for bankruptcy in March 2003.

HanGo Electronics

One problem with the flash-based memory players was that they had a limited storage capacity, holding only 7-20 songs. That limitation was alleviated by Compaq, which developed the Personal Jukebox (PJB) that utilized a 2.5 inch laptop hard drive with 4.8GB of storage space. The PJB-100 was licensed to Hong Kong-based HanGo Electronics and launched in November 1999. The product was able to hold up to 1,200 songs.

HanGo/Compaq pioneered the hard drive-based segment, which eventually became the dominant design for DAP. HanGo's market share dropped from a high of 8.2 per cent in 2000 to mere a 0.3 per cent by 2002. The PJB-100's major drawbacks were its weight (almost one pound), size, short battery life and cost (about $799). Owing to its limitations and competition, HanGo withdrew from the MP3 market in 2003.

I2Go

The size and weight problems were solved by the eGo, introduced in early 2000 by a new start-up company i2Go. It utilized IBM's newly-developed 1.8 inch microdrive, the same drive that was later used in the first iPod. The eGo was as small as the flash-based MP3 players but could store as many as 500 songs.

The eGo came to prominence in the 2000 Academy Awards where it was included in all the nominees' gift bags. Its major drawbacks were its price – over $2,000 for the top model, and a short battery life. In spite of the promotion, sufficient sales never materialized and i2Go went out of business in 2002.

Success of the Apple iPod

By the time Apple entered the market in November 2001, there were more than 50 companies selling portable MP3 players in USA. Many were Asian companies relying on the internet to market their products. The introduction of Apple's iPod greatly expanded the DAP market. Apple identified and solved the major problems with existing MP3 players – size, storage capacity, user interface and shortage of legally downloadable music. In broad terms, Apple's iPod success is due to vertical integration.

Since Apple designed all three components in house, the music store, the player and the juke box software on the computer worked together seamlessly.

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In contrast, customers of iPod's competitors have to interface with diverse music stores and use third party media players, each designed independently of each other. Therefore, they have been plagued by software interoperability. Apple's strategy is the reverse of Gillette's. Gillette gives away razors to sell razor blades. Apple, to the chagrin of the recording industry, more or less gives away music to sell iPods at a premium.

The successful imitation strategy with iPod had a huge impact on Apple's fortunes. Its revenue rose from $5.4 billion in 2001 to $19.6 billion in 2006, while profits rose from $25 million loss to $2 billion profit.

**Market size and growth**

To the delight of the consumer electronics industry, and Apple in particular, the MP3 player was the fastest growing consumer electronic product ever introduced and its sales exceeded even the most optimistic forecast. For example, it took 12 years for wireless phones to reach cumulative sales of 50 million and over 15 years for televisions and computers. Even cellular phones and digital cameras had a much slower start.

Since its introduction in 1998, cumulative sales of MP3 players have reached nearly 200 million and Apple's iPod is responsible for one quarter (50 million units) of those sales. Apple reached 50 million iPods sold in only 4.5 years from its introduction. The speed of iPod's growth is staggering. It took Sony ten years to sell 50 million Walkman.

Apple had impeccable timing. Securing a steady supply of key components at lower prices, Apple is also a low-cost producer. By tightly controlling channels of distribution, Apple avoids the ruthless price competition its competitors resort to, to gain market share. Most importantly, Apple took a series of steps to grow the overall market. With the opening of iMusic store, Apple has provided the largest library of inexpensive legally downloadable songs.

While continuously challenged by the next “iPod killer” devices, Apple maintains key competitive advantages imbedded in proprietary navigation technology, vertically integrated iTunes and iPod system, enjoyable customer experience at its Apple stores, strong brand recognition, and intense customer loyalty. Apple has done an extraordinary job with iPod, raising entry barriers to followers and making it difficult for competitors to make a profit in the MP3 player business.

**Implications**

It is a common belief that new product development is the only way to make it big, improving existing products or manufacturing process is not. Therefore, firms spend their budgets accordingly and most money goes for new product development. However, research reveals a different picture:

1. There is no denial that first mover advantages (FMA) exist, but they are not automatically bestowed on the first entrants. The advantages are only opportunities that firms have to actively pursue. As in the case of the MP3 player, most pioneers of radical innovations fail to, or lack the resources to follow these opportunities and so leave the door open for followers.

2. First entrants do not necessarily gain long lasting enhanced reputations. In fact, the opposite seems to be true. From consumer demand point of view, the status of a pioneer is only effective if potential customers know about it. Therefore, firms need to aggressively promote their first-in-market position.

3. Over the product life cycle the key factors for success in the industry change from entrepreneurship to organizational competencies, market power with access to broad distribution, mass manufacturing capabilities, and ability to continuously improve the product. These changes favour large established firms. Pioneering firms need to develop these capabilities before large competitors enter the market.
4. Pioneers underestimate the rate of technological change and turbulence in the environment in the introductory stage of the product life cycle. Furthermore, pioneers overestimate their own pre-entry resources and competencies and underestimate resources and capabilities of later entrants.

5. Firms’ resources and capabilities not only influence the timing of market entry but also eventual success in the market. Relatively low-entry barriers in the introductory stage and a lack of competition attract the small firms to pioneer the new products. However, reverse engineering, fast industry learning and imitation have shortened the length of monopoly position in which to gain the FMA.

Under these conditions, entering the market later is a more viable strategy in terms of survival and profitability. Invariably, innovations go through several generations of further refinements before they become a mainstream product.

An effective latecomer strategy that takes the market from pioneers is to shift competition away from leading edge technology and product features, to a lower priced, more reliable, better quality, heavily promoted product that appeals to mass market customers. The current leaders of the portable audio player, Apple and SanDisk, followed this strategy.

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The author is Ivan Abel.