Apple and MP3 player market

I choose these three issues:

2- what problems are confronted in delineating the boundaries of the market or industry for this particular sector? How do your judgements about this delineation affect your evaluation of competitiveness in this sector?

5- Differentiate between the advantages accruing to large firms and/or barriers to entry which are 'natural' and 'inherent' in the context of your sector, and those which have been created by large firms in order to cultivate a competitive advantage.

6- Describe the benefits and disadvantages of 'out-sourcing' as a competitive strategy on the part of firms in your sector, and suggest how the pursuit of this strategy (or its opposite) by firms is likely to affect the competitive environment in this sector.

I decide to study these points through the Apple example in the MP3 player market.

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Introduction

The first MP3 player came out in 1998 with only 32 MB, it was possible to listen music with that thanks to the MP3 format. But it was really too expensive to listen one CD! In Apple Company, Steve Jobs came back in 1996 and decide to stop many products and many projects, for example Newton, which was the first PDA. So Steve Jobs changed the strategy of Apple Computer and don't want innovate too much if there is no demand. But in 2001, Apple was again in a good position to propose a new innovation. Every times Steve Jobs like hiding his future products, so it was the same thing for the iPod. When Apple introduce the iPod many analysis didn't believe in this new product! Apple took the leadership of MP3 player with hard drive market, and nowadays Apple is the leader of the MP3 player market. However this young market is growing, competitors and market are moving.
To understand the functioning of this market, I study in a first part the delineations; in a second part I am interest in entrances and exits on this market. And finally I describe benefits and disadvantages of out-sourcing.

I. Market delineation

A. Flash memory and hard drive

1. History

When Apple introduces the first iPod the 23rd October 2001, Rio was leader on this beginning market but Rio can't rival iPod. Diamond Rio player used flash memory (between 32 and 256 MB) and iPod a hard drive of 5 GB.
iPod shuffle (January 2005) was the first Apple MP3 player with flash memory, but recently Apple introduced iPod nano, which replace the famous iPod mini (with hard drive).

2. Differences

For the same capacity, flash memory price is double compare to a hard drive. But with its leader position Apple sign a contract with Samsung (summer 2005), the first flash memory company, to buy 40% of Samsung's production and for a good price. And more recently "Apple Announces Long-Term Supply Agreements for Flash Memory with Hynix, Intel, Micron, Samsung Electronics and Toshiba to secure the supply of NAND flash memory through 2010."[1]

There are two submarkets, but with iPod nano arrival, it is changing.
For MP3 player with high capacity (higher than 6 Go), no firm can produce a competitive MP3 player with flash memory. So the hard drive is always using for high capacity.
Apple has around 80% of global MP3 player market share. And before the iPod nano she had around 90% of global MP3 player with hard drive market share. For the players with flash memory it is harder to know, but iPod shuffle was the leader in United-States before iPod nano introduction.
The flash memory is bedrock and smaller, but more expensive and slower (but this last point is not really important for a MP3 player). So it is better to use flash memory, so Apple replaced iPod mini (with hard drive) by iPod nano (with flash memory).
I think two submarkets are merging and other submarkets are moving. There are maybe two submarkets for MP3 player : USB keys and MP3 player, but the real difference is the cable ! (With the USB key, there is no cable to connect to the computer)
Players with hard drives will certainly destine for video use. It will be maybe the next stronger delineation. The problem for firms is to find a good position on this market with progressed delineations.

B. Substitutes

1. Old technologies

The older technologies, as Walkman, Discman or MiniDisk, tend to disappear. The Discman (CD player) can read MP3 CD but it is today insufficient to rival with MP3 players (too big and a little capacity).

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[1] Apple website: http://www.apple.com/pr/library/2005/nov/21flash.html

2. *Video player*

Some firms sale video portable players, Archos a French firm is a famous example. At the beginning it starts to sale MP3 players, but Archos find this niche to stabilize its financial position.
Apple just begins to come in this submarket with the new iPod, which can read movies. But it is not really the same submarket as Archos because iPod keeps its MP3 player marketing position, and with this new iPod, it is possible to watch a movie. The new iPod looks as its predecessor, the screen is bigger but it is always a 4:3 screen and price and size are the same, so Apple has no risk.
There are many rumours about a real "iPod video" because this submarket increase and Apple sales more movies on its iTunesMusicStore than planned.

3. *Multifunction devices*

The future of MP3 players is maybe in the cell phones or in the organizers. Sony sales cell phones with great capacity, Motorola signed with Apple to install iTunes in several Motorola phones (but it is finish since January 2006, according to the rumours, it is certainly because Apple want sell an "iPhone"!). And PalmOne introduced LifeDrive an organizer with a 4 GB hard drive.
Sony believes in this market and is coming out really good products. Sony missed MP3 player market opportunity and knows that Apple position is anchoring, although it is always a young market.
There are not really substitutable devices to an iPod, the main hardware problem is maybe the battery. But the really main difficulty for Apple competitors is to succeed the same integration as iPod, iTunes and iTMS (iTunesMusicStore).
The organizer market is not increasing enough, so I think that the only risk for Apple are the smartphones (organizer (PDA) and phone), in a first time iPod shuffle can suffer and maybe after the iPod nano. But I believe that Apple will keep its leader position, especially if it announces a very good iPod video and why not an "iPhone"!

C. iPod Extensions

1. *iPod evolutions*

With its evolutions, Apple iPod affects new markets. For example since it can read pictures the little market of "portable picture storage (and viewers)" risk to disappear. The video player market is another niche market, but it is not the same approach because this market can be more promising.
The competitors cannot really win market shares with low prices because Apple realizes economies of scale. So they try to innovate, often in adding functionalities (recording for example). And it is more and more hard to find a niche in this market because the delineations often move.
When a firm brought out a new MP3 player, which can read pictures for example, delineations not really change, but when Apple adopts this evolution the delineations can change, that is because Apple has the leadership.

2. *Accessories*

The market of iPod accessories is lucrative and increasing.
The iPod is arriving in cars, this MP3 player is an option for twelve car brands (as BMW, VolksWagen, Honda, etc.). And for other cars there are many solutions to listen his iPod music on his car stereo (bases, FM transmitter, cables, etc.). To counter these iPod accessories brands some car stereo brands sell iPod control stereo car (as Pioneer or Alpine). Sometimes it is not iPod accessories but become the accessory as for a car for example!
And the iPod can be your travel stereo or home stereo. So these accessories break some delineation, iPod in cars can kill “CD loaders” and for home use stereo market is realizing that the iPod can impose.

So the delineations of this market are changing, and these delineations are not clearly defined. It is a supplementary problem on this market, the first problem is Apple domination. That is for why some competitors prefer stop on this increasing market.

We can note that there are not really geographical delineations between host economies, I just precise that Apple is more efficient in USA. And there are no particular qualitative delineations on this market, Apple sells good product as many other brands, it is not a main reason of the domination.

II. Barriers to entry

Create a barriers to entry is to regulate entrances (and exits) of the competitors on the market.
The static analysis of Bain proposes three types of barriers: Absolute cost advantages, Economies of scale and Product Differentiation.
Stigler had a more restrictive approach (exclude differentiation): "a cost of production which must be borne by a firm which seeks to enter an industry but not by firms already in the industry".
It's possible to study some situations with the theory of games.

A. MP3 player

There is a famous recent deal with Samsung, which the competitors do not appreciate! Apple contracted with Samsung, the first flash memory producer, to buy 40% of its production. Apple obtains a very low price which permit to bought out the iPod nano, which uses flash memory instead of hard drive. The flash memory is normally two times more expensive as a hard drive, for the same capacity.
Since this contract Apple has really an advantage, the iPod has about 80% of market share so Apple realise economies of Scale.
Since iPod nano launch, some competitors prefer stop as Rio or Olympus, which proposed good products.
Apple has absolute cost advantages too: It registered several patents for its iPod for example.
And new competitor can't propose a range as well and large as Apple.
This activity is not fruitful, iTMS is the single profitable online music seller.

B. iPod set

iPod is not just a MP3 player, iTunes and the iTunesMusicStore help it to stay the leader. And for the competitors it is harder to develop a competitor set.

1. iTunes

iTunes is available for Windows since 16th October 2003. With iTunes you can synchronise iPod, organize all your music (and now iPod movies), burn CD and buy music on the iTunesMusicStore (iTMS).

2. iTMS

iTunesMusicStore has about 80% of share market, there are many competitors (Virgin, MSN Music, etc.) but Apple keeps the leadership. There is always the conviviality reason, but computers history shows us that it is not sufficient !
Apple was the first real solution to buy music on internet, because it succeed to sign with the five majors to have a big catalogue and permit to copy songs on a MP3 player (and burn discs too).
And now Apple benefit from compatibility with iPod. Indeed Apple refuse to licence is DRM (FairPlay), so the competitors can develop a new DRM as Real or use an existing DRM as Virgin (WMA). Real succeed to sell songs which can be listen on iPod, but Apple blocked that with an update. Virgin wanted use FairPlay and lodged a complaint, but it loose against Apple.
Sell music online is a minority practice, so I think that iPod sales help iTMS more than iTMS helps iPod sales.

C. Accessories

The accessories become important maybe because use its own dock connector. So iPod accessories cannot work with other MP3 player. So if you buy accessories for your home, your car, etc. when you change your MP3 player, you buy an iPod. And some accessories are really expensive, so a part of the customers will always buy an iPod!
The competitors react: "The Consumer Electronics Association's (CEA) Technology and Standards' Mobile Electronics Committee has announced a new working group to develop an industry standard for a common portable device connector."[2] And the historical enemy of Apple, Microsoft, is really happy about that, because it want defend its own format (WMA), its DRM and its compatible players.

[2] http://www.macworld.co.uk/news/index.cfm?home&NewsID=13211

Apple has many advantages because it is a large firm and has the leadership on this market. But a particularity of this firm is that it protects its own technologies (format, connector, etc.), so that adds barriers to entry.

III. Out-sourcing

A. Apple

As many other computers manufacturers, Apple often subcontract. For the iPod, Apple does the same thing, it always designs its products itself in Cupertino (California), but nearly all is subcontract. iPod assembles in China by other firm. The components are not Apple components: the screen (a Sony screen for the last iPod), the memory (Samsung for the nano and Toshiba for iPod with hard drive), etc. iPod assembles in China by other firms. Apple profits economies of scale of other firms when it buys iPod components. But I already write that Apple invest in flash memory fabrication, so it limits financial risk with subcontracts and limits supply risk by investing in flash memory market and by signing some contracts.
Obviously iTunes is developed by Apple but Apple use a Pixo software (Sun microsystem property) for the iPod. It is a little bit strange because Apple already developed for portable devices (Newton PDA), but it was certainly more judicious to do not spend too much money to develop a little system, which already exists and was very efficient. And Pixo OS can offer many possibilities to Apple as phone and database functions for example.
For the communication: adverts or sales force, Apple subcontract too. For adverts, it works since 1984 with Chiat/Day company (advert company), the first ad was the famous "1984" ad realise by Ridley Scott. For sales force Apple employs in its AppleStore, but in other shops or for its exhibitions it works with communication companies (as MGS Promotion in France for example).

B. Coordination forms

There are various forms of coordination:

- the choice of a purely commercial transaction. The supplier define itself the characteristics of the product or services that it provides. This supplier will produce a relatively undifferentiated output according to its customers. It is the case for hard drive, screen, jack connector, etc.;
- the choice of a relation of the subcontracting type (or delegation) in which it is the customer who defines the characteristics of the service which consequently is relatively specific;
- the choice of a subsidiarization, which corresponds, to a level even larger of control by the "customer" of the service provided. The provider have almost an autonomy of management, but the customer have influence;

For the cleekwheel it is one of these two last forms but Apple does not communicate about that.

- the choice of a pure integration like a service of the company without any autonomy of management.

I think it is nearly this choice for Pixo software.

C. Benefits points

The main firm checks the final product and chooses how the product is made.

- Risk management: Some important functions demand good laws knowledge (human resources for example). By calling upon an organization of professional, the firm can lighten legal responsibility for the management of these important functions. The providers can be more objective than the internal personnel. In addition, a company benefits from the flexibility to have access to the competences specialized if need be.
- Concentration: The efficiency is better.
- Savings: The externalisation can make it possible to realize savings.

D. Disadvantages points

- Central functions: One of the disadvantages of the externalisation it is the lack of personal interaction in important function.

- Internal Competences: The Company does not acquire competences with the intern and remains dependent on the external providers.
- Responsibilities: There are some risks.
- Security: Questions of security, like the access protected to the data, the confidentiality of delicate information.

Conclusion

This sector is specific by these moving delineations and it is a problem for Apple competitors but not really for Apple because Apple can have an influence on these delineations. The sales increase and the market is more and more broad. Contrarily as computer market, Apple succeeds to impose in this sector and it makes barriers to entry. Apple domination is really a good reason to not entry in this market for many companies and some companies leave this increasing market. This position allows taking more benefits of out-sourcing. So we can think that Apple retained the lessons of the past.

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