

Sony vs. Apple - iPod launching, a case study of leadership and innovation

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Abstract: In 1979, Sony launched a portable Walkman range. For nearly a quarter of century, the Sony Walkman was the undisputed market leader and Sony was considered a top innovative company. Then, in 2001, Apple decided to launch the iPod, a new portable player. About 80% of the iPod technical components (e.g. memory, storage media) were produced by various companies within the Sony group. In 2004, iPod sales overtake Sony Walkman globally and become the new market leader in portable players. How was this possible? Theoretically, Sony held all conditions for launching the new generation of portable players, but instead, a new company – Apple – completely changed the market.

Key words: Apple, Sony, technology, leadership, innovation

1. Introduction

Innovation can be defined as all the scientific, technological, organizational, financial, and commercial activities necessary to create, implement, and market new or improved products or processes (OECD, 1997).

This paper underline that innovation could appear in any company, not necessary the one that has all the prerequisites to provide a new innovation. Two very different firms, Sony and Apple Computer, are used as case study illustrations. In 1979, Sony launched a portable Walkman range. For nearly a quarter of century, the Sony Walkman was the undisputed market leader and Sony was considered a top innovative company. Then, in 2001, Apple decided to launch the iPod, a new portable player. About 80% of the iPod technical components (e.g. memory, storage media) were produced by various companies within the Sony group. In 2004, iPod sales overtake Sony Walkman globally and become the new market leader in portable players. How was this possible? Theoretically, Sony held all conditions for launching the new generation of portable players, but instead, a new company – Apple – completely changed the market. Innovation does not proceed through logical deduction, but rather is the result of an excellent organizational cooperation.

The companies' competitive success is relying upon the effective management of innovation. This is the reason that innovation has been the object of considerable academic study from a variety of perspectives.

2. Approaches to innovation

Maybe the most well-known concept of an innovator belongs to Schumpeter (1911;

1939). Schumpeter's entrepreneur introduces "new combinations" – new products, production methods, markets, sources of supply, or industrial combinations – shaking the economy out of its previous equilibrium through a process Schumpeter termed "creative destruction". Perhaps Kirzner best described the market impact of Schumpeter's entrepreneur when he wrote: "...for Schumpeter the essence of entrepreneurship is the ability to break away from routine, to destroy existing structures, to move the system away from the even, circular flow of equilibrium" (1973).

Schumpeter also distinguished between five different types of innovation: new products, new methods of production, new sources of supply, the exploitation of new markets and new ways to organize business. The focus of our paper is the first type: product innovation. The term 'product innovation' has been used to characterize the occurrence of new or improved goods and services.

As Nonaka and Kenney (Nonaka, Kenney, 1991) noticed, to remain competitive, "any firm must constantly be creating new strategies, new products, and new ways of manufacturing, distributing and selling. The constant reexamination, reconceptualization and reorganization are necessary—and this requires the constant discussion within the companies. The newly created information in this discussions must then be diffused throughout the firm, setting off further innovations. This diffusion within the firm is important because it allows the firm to reap more of the benefits of its newly created information."

From this point, there is only a short distance till what we call "collaborative innovation".

The collaborative innovation is seen as a social construct used to describe the teams

of self-motivated people with a collective vision, willing to collaborate in achieving a common goal by sharing ideas, information, and work.

According to Adner (2012) “the need for collaborative innovation has defined progress since the Industrial Revolution—the light bulb on its own was a miraculous invention but needed the development of the electric power network to turn it into a profitable innovation. What has changed is the way the collaboration is organized. The shift toward innovation ecosystems follows a historical trend toward greater complexity and interaction that has characterized the rise of the modern economy.”

The struggle for innovation is perhaps at its highest in the high-tech industry. High-tech companies have to face the continuous technological evolution, fast moving competitors and new, innovative start-ups. Product life cycles are short, and success requires constant innovation.

Despite the large interest in the academic and business environment, the innovative behavior in organizations is still relatively underdeveloped. (Wolfe, 1994) He presents a comprehensive literature review of the innovation literature. Organizational competitiveness and effectiveness, organization cooperation have been described as extremely important for innovation, by a large number of papers. Another author (Smith, 2010) looks at the policy implications of viewing innovation as a systemic phenomenon. He provided an overview of conceptual approaches used in the recent literature on innovation systems, as well as some learning and technological knowledge at the firm-level, and explored the ways in which different theoretical approaches affect our understanding of

innovation processes. This discussion focuses on the contrast between ‘systems’ models of learning and the concepts of knowledge which underpin the current ‘mainstream’ rationale for public policy in this area.

The literature includes a vast amount of research on innovation.

This paper aims at increasing the knowledge of innovation by presenting characteristics of management approaches of two case companies. These companies operate in leading industries and develop their products on a very competitive market. Special attention is paid to differences in the cooperation and management approaches between the case companies. Sometimes, the companies forget that the goal of collaboration is not collaboration itself, but results, and do not impose discipline on cooperation. Collaboration distills more than a decade of field-tested research into a disciplined approach that helps managers separate good collaboration opportunities from bad ones. Collaboration was for Apple the key used to have tremendous innovation, while Sony failed to use the companies’ capabilities in order to keep the leadership in its field. The complexity of the innovation process is difficult to manage, explain and study, but also to presents problems for the development of a generalized model. The construction of a generalized innovation model is still, difficult, because there appear to be a number of different types of innovation processes.

3. Sony’s Walkman vs. Apple’s iPod

Sony is a Japanese multinational conglomerate corporation, focused on the electronics (TV, Gaming Consoles), game, entertainment and financial services sectors.

The company is one of the leading manufacturers of electronic products for the consumer and professional markets, ranking 87th on the 2012 list of Fortune Global 500 and 102th on the 2014 list of Fortune Global 500.

Sony Corporation is the electronics business unit and the parent company of the Sony Group, which is engaged in business through its four operating segments – Electronics (including video games, network services and medical business), Motion pictures, Music and Financial Services. These make Sony one of the most comprehensive entertainment companies in the world. Sony is among the Worldwide Top 20 Semiconductor Sales Leaders and third-largest television manufacturer in the world, after Samsung Electronics and LG Electronics. Sony was founded in 1946, when Masaru Ibuka started an electronics shop in a department store building in Tokyo and rapidly expanded. The first Sony-branded product, the TR-55 transistor

radio, appeared in 1955. This is just the first of many products that proved to influence the market. Another Sony's product, Sony's TR-63 radio was a very influential product, the new industry of consumer microelectronics. Sony's transistor radios had a huge success in the world. Over the years, Sony expanded into new businesses. Their strategy was to obtain the convergence between film, music, and digital electronics via the Internet.

In 1978, Sony created the prototype for a product that would become a worldwide hit. The prototype was built by audio-division engineer Nobutoshi Kihara for Sony co-founder Masaru Ibuka, who wanted to be able to listen to operas during his frequent trans-Pacific plane trips. Therefore, in 1979, the 'Walkman' was introduced in the Japanese market, in the form of the world's first portable music player using the compact cassette format, selling out its entire stock of 30,000 units within the first three months.

Figure 1: Sony Walkman WM-2, the best-selling model, with plastic battery case and belt clip (1981)



Source: Wikipedia

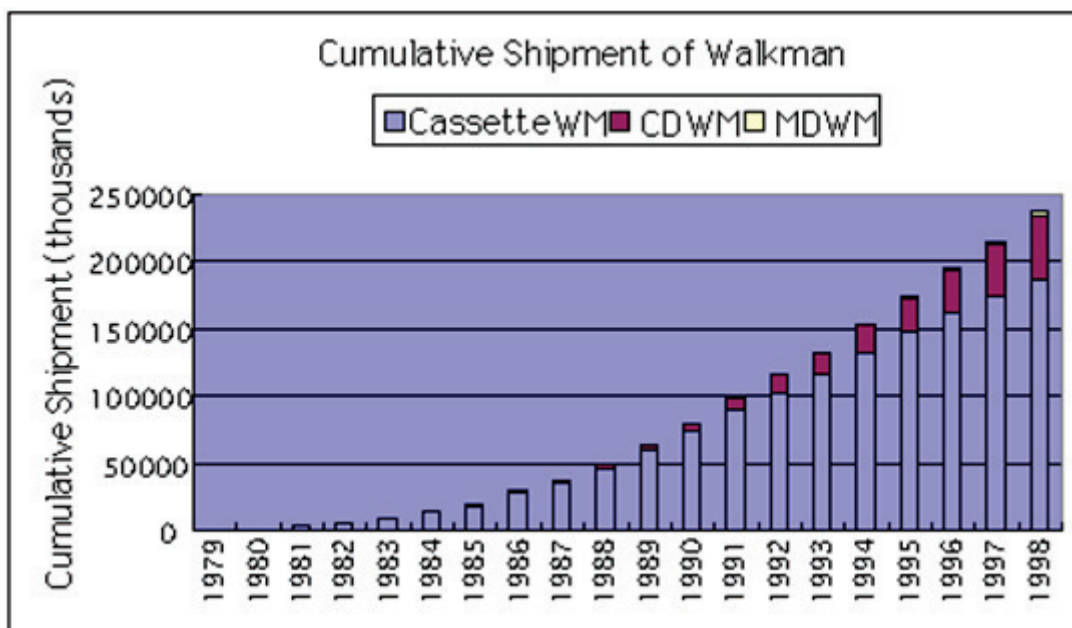
It is common knowledge now that Sony changed the way people listen and consume music, when introduced the Walkman in 1979. The Walkman allowed people to carry music with them and listen to music through lightweight headphones. Before the Walkman

was introduced, music could only be enjoyed through a stereo system at home or a car audio system. But portable tape recorders had existed for decades, so the device was not particularly advanced from technological point of view. The Walkman was created by

eliminating the record function and a speaker from a conventional cassette tape recorder and instead equipping it with stereo circuits and a stereo headphone terminal. The novelty was the marketing approach: Walkman was not promoted to professional journalists, like most portable tape recorders were at the time, but to ordinary young consumers. Since

its introduction, Sony has produced many Walkman models and millions of consumers enjoyed the product, making the Walkman a culture icon and a social phenomenon. For example, two months after the launch of the first Walkman model, known as 'TPS-L2', Walkman became extremely popular and the sales exploded.

Figure 2: Cumulative Shipment of Walkman, 1979-1999



(http://www.sony.net/SonyInfo/News/Press_Archive/199907/99-059/)

For a decade after its launch, Sony's Walkman hold the supremacy not only on the Japanese market, but also worldwide. But later, in the late 1990s, the cassettes as the favored music delivery format have been replaced by the compact discs and the digital mp3 files.

During the years, Sony has expanded its Walkman brand by launching new models incorporating CDs, video, MP3 and other. In 2010, three decades and more than 220 million units, Sony has stopped selling its Walkman cassette player in Japan, admitting the gadget could not keep up in the digital age.

Figure 3: Trends of disruption – the case of portable music player (Islam & Ozcan, 2012)

Period	Disruptive Technology	Disrupted Technology	Notes
1970s	Sony Walkman Cassette Player	Boom box (Ghetto Blaster)	<i>In the late 1970s, the boom box was quite popular among the younger generation. Companies were competing on who could produce the loudest product or the biggest product. In 1979, Sony introduced the first portable cassette player and it became very popular in a short time and disrupted boom box players</i>
Late 1980s and 1990s	The Discman and Portable CD Players	Sony Walkman Cassette Player	<i>In 1984, Sony introduced the world's first portable CD player. This invention accelerated the spread of the CD usage. Following this invention other large companies started producing portable CD players which in time disrupted the cassette player market</i>
1990s and 2000s onwards	iPod and Other Digital Players	Portable CD Players	<i>In the late 1990s, many companies started introducing flash memory based digital audio players. However, most players were bulky in size, had low storage capacity and low battery life. In 2001, Apple introduced their first iPod model and in 2003 they introduced their online music store iTunes. In a short time, iPod became very popular as Apple was the first company who offered customers a legal whole package product. The new way of online music purchase and the quality of iPods disrupted portable CD players and became the leader of the digital audio player market</i>

Apple Inc. is an American multinational corporation, which designs, develops, and sells consumer electronics, computer software, online services, and personal computers. Its best-known hardware products are the Mac line of computers, the iPod media player, the iPhone smartphone, and the iPad tablet computer. Its online services include iCloud, iTunes Store, and App Store. Apple was founded by Steve Jobs, Steve Wozniak, and Ronald Wayne on April 1, 1976, to develop and sell personal computers. It was incorporated as Apple Computer, Inc. on January 3, 1977, and was renamed as Apple Inc. on January 9, 2007, to reflect its shifted focus towards consumer electronics. Apple ranked 15th in the Top Forbes 500 Companies, 2014 edition.

Apple is a worldwide known information technology company and smartphone and mobile phone maker. As of 2014, Apple employs 72,800 permanent full-time employees, maintains 425 retail stores in fourteen

countries, and operates the online Apple Store and iTunes Store, the latter of which is the world's largest music retailer.

One of the most influential Apple's products was the iPod.

The first generation of iPod was released in 2001. The major innovation of the iPod was its small size achieved by using a 1.8" hard drive compared to the 2.5" drives common to players at that time. The capacity of the first generation iPod ranged from 5G to 10 Gigabytes. More than 100,000 iPods were sold before the end of 2001, leading Apple becoming a major player in the music industry. Also, the iPod's success prepared the way for the iTunes music store and the iPhone. The iPod is a line of portable media players and multi-purpose pocket computers designed and marketed by Apple Inc. The most recent iPod redesigns were announced in 2012. There are three current versions of the iPod: the ultra-compact iPod Shuffle, the compact iPod Nano and the touchscreen iPod Touch.

Figure 4: Various iPod models



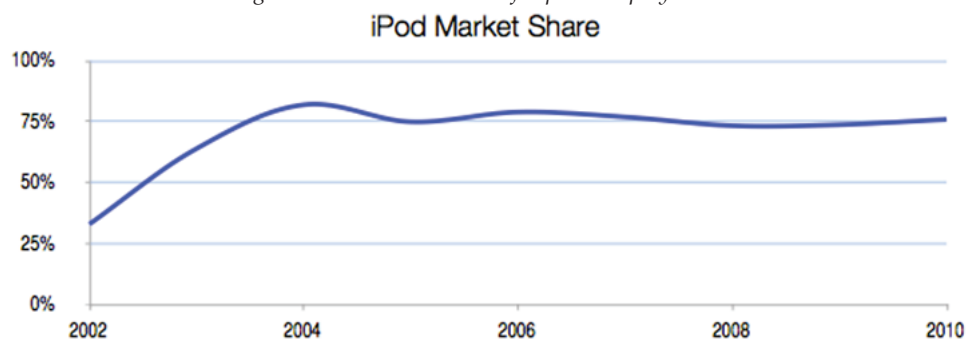
Source: Wikipedia

Like other digital music players, iPods can serve as external data storage devices. Storage capacity varies by model, ranging from 2 GB for the iPod Shuffle to 160 GB for the iPod Classic. Apple's iTunes software (and other alternative software) can be used to transfer music, photos, videos, games, contact information, e-mail settings, Web bookmarks, and calendars, to the devices supporting these features from computers using certain versions of Apple Macintosh and Microsoft Windows operating systems.

Before the release of iOS 5, the iPod branding was used for the media player included with the iPhone and iPad, a combination of the Music and Videos apps on the iPod Touch. As of iOS 5, separate apps named "Music" and "Videos" are standardized across all iOS-powered products.

Beginning with the introduction of the iPod in 2001, Apple has had an uninterrupted string of success in the consumer electronics segment, even then during the middle of 2010, iPhone sales overtook those of the iPod.

Figure 5 : iPod market share for portable player devices



(<http://stratechery.com/2010/apple-innovators-dilemma/>)

Maybe in the '70s, the Walkman changed the world, but in 2003, Sony struggled with the new powerful competitor – Apple's iPod. Apple was about to earn this market, but Sony still believed that they should be the leader of the market, due the history and the past successes. After all, Sony invented the concept of listening music anytime, anywhere. But the new comer iPod was easier to use, more fashionable, good looking and used the Apple iTunes software, allowing consumers to use the music from their own computers.

What was changed, then?

According to Davenport (2006), the speed of technological change has a great impact on the three-phase sequence from value creation to value capture to value sustainability. Innovation is now the driver of new companies' capabilities. But the Sony and Apple story shows that sometimes, the innovation arise from the company who at least expect, and not from the leader company. What makes Sony to lose the chance to launch first the new generation of music listening devices?

This case study shows that the internal cooperation is the key.

4. Innovation as a result of organizational cooperation

In his book *Collaboration*, the author Morten Hansen (2009) aim at what many leaders inherently know: in today's competitive environment, companywide collaboration is an imperative for successful strategy execution. Yet the sought-after synergies are rarely, if ever, realized. In fact, most cross-unit collaborative efforts end up wasting time, money, and resources. This is the case of Sony in the early 2000, when they failed

to innovate the Walkman, allowing Apple to gain the market with the iPod. Managers should avoid the costly bad collaboration and instead start getting the results through disciplined collaboration.

Collaboration is defined (according to Hansen, 2009) as taking place when people from different units work together in cross-unit teams on a common task or provide significant help to each other. It can be joint work between units or a one-way collaboration, as when one unit provides advice to another.

Also, Morten (2009) used the concept of complex knowledge to explain the role of weak ties in sharing knowledge across organization subunits in a multiunit organization. "Having weak inter-unit ties speeds up projects when knowledge is not complex but slows them down when the knowledge to be transferred is highly complex." This has deep implications on product innovation. Sometimes, companies are able to benefit from knowledge residing in other parts of the company while others are not. The core premise of this concept is that a proper understanding of effective inter-unit knowledge sharing in a multiunit firm requires a joint consideration of relatedness in knowledge content among business units and the network of lateral inter-unit relations that enables task units to access related knowledge.

"Bad cooperation is worse than lack of cooperation." Morten wrote.

The same felt also Sony when tried to achieve cooperation between its electronics, music and film divisions, aiming to stop the iPod fulminant ascension on the market, in the years 2000. Sony believed at that time that they have all the conditions for fighting iPod with a new product. After all, they had

hardware, software and they had already a winning product – Walkman. They initiated a new project called Connect. But what Sony lacked was a culture of cooperation. Their units was encouraged during years to be in competition on to each other, instead of cooperating. The competition spirit helped Sony in the past while developing Walkman and PlayStation, need to be mentioned. Connect needed cooperation between five Sony's divisions, and Sony was not prepared for this approach. Each division had the own idea about the next product and they developed products that competed each other. Finally, Connect was launched in 2004, it was not successful on the market and has been withdrawn in 2007.

In the meantime, the iPod sales evolved from 125.000 pieces until 2002 to 100.000.000. pieces until April 2007.

Of course, the battle between Sony and Apple was not given exclusively on cooperation. They have many other strengths: the great design capabilities of Apple, their software knowledge, and Sony is involved in electronics and music in the same time. But, if the two companies would have achieved a good cooperation, the battle could have a different and.

5. Conclusions: toward a new theory of collaborative innovation

Apple proved that was able to benefit from knowledge residing in different parts of the company, through an excellent leadership, while Sony was not. The core conclusion is that a proper understanding of effective inter-unit knowledge sharing in a multiunit firm could lead to more innovation.

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