

Apple in the digital age from the iPod to the iPad

Apple Inc. The Case Study 2000 - 2010



Foreward

John Ashcroft



Welcome to this Apple case study.

I have always been something of a computer geek. My first computer was a Commodore Pet in 1978. It had 8k of RAM and a cassette player for storage. Programmed effectively, a two dimensional pencil sketch of a rocket would take off and zoom off screen. Beyond that and a few simple games, I don't recall it did much at all.

My first experience of Apple was the Apple II in the early 1980's. The combination of Apple and a Visicalc spreadsheet, greatly enhanced financial and business plan modelling. Business models were more easily produced and what-if simulations were available at the click of a button. It was a great step up from the pencil and calculator.

Seven years ago, I abandoned Microsoft and converted entirely to Apple. Apple Macs, MacBooks, MacBook Air, iPods, iTouch, the iPhone and the iPad, I had to try them all and never looked back

This is the case study of Apple in the digital age. The great era of the iPod, the discovery of the digital hub and Apple's move into the mainstream consumer market with the iPod, the iPhone and the iPad. It has many great examples for enthusiasts of marketing, leadership, organization, financial analysis and strategic management.

The story begins almost ten years ago. In 2001, Apple sales fell by a third and the company reported an operating loss of \$350 million some 6% of sales. The company was thought by many to be in trouble. In the same year the the iPod was launched, the concept of the digital hub emerged, sales have increased from \$5bn to \$65bn in 2010 and profits have soared to \$18 billion. In 2011 sales revenues will exceed \$110 billion. I hope you enjoy the case study.

John Ashcroft

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1 Company Background

Apple Inc. and its wholly-owned subsidiaries design, manufacture, and market personal computers, portable digital music players, and mobile communication devices and sell a variety of related software, services, peripherals, and networking solutions.



2 Distribution and Market Segments

The Company sells its products worldwide through its online stores, its retail stores, its direct sales force, and third-party wholesalers, resellers, and value-added resellers. The Company sells to consumer, small and mid-sized business, education, enterprise, government, and creative customers.

3 Business Strategy

The Company is committed to bringing the best personal computing, portable digital music and mobile communication experience to consumers, students, educators, businesses, and government agencies through its innovative hardware, software, peripherals, services, and internet offerings. The Company's business strategy leverages its unique ability to design and develop its own operating system, hardware, application software, and services to provide its customers new products and solutions with superior ease-of-use,

seamless integration, and innovative industrial design. The Company believes continual investment in research and development is critical to the development and enhancement of innovative products and technologies.



4 The Digital Hub

In addition to evolving its personal computers and related solutions, the Company continues to capitalize on the convergence of the personal computer, digital consumer electronics and mobile communications markets by creating and refining innovations, such as the iPad, the iPod, iPhone, iTunes Store, and Apple TV®. The Company desires to support a community for the development of third-party products that complement the Company's offerings through its developer programs. The Company offers various third-party software applications and hardware accessories for Mac® computers, iPods and iPhones through its retail and online stores, as well as software applications for the iPhone platform through its iTunes® App Store. The Company's strategy also includes expanding its distribution network to effectively reach more of its targeted customers and provide them with a high-quality sales and post-sales support experience.

5 Market Segmentation

At the turn of the millenium, Apple identified four key market segments within the customer profile, Business, Creative professionals, Education, and “high-end” consumers. Apple core product strengths were in the areas of CAD, Computer Aided Design and DTP, Desk top Publishing. Apple and Quark Express were the core products for a high number of publishing solutions including newspapers and magazines. In the year 2000, some 75% of sales were to the niche business and professional markets. By 2010, the situation had reversed with approximately 70% of sales in consumer markets.



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6 Apple in 2001

2001 was a critical year for Apple Inc. The US economy was in recession with growth slowing, sales had fallen from \$ 8 billion in 2000 to \$5.7 billion. Operating income had turned from a profit of \$522 million to a loss of \$344 million. Sales in the USA and Europe had fallen by 30%, in Japan they had fallen by almost 50%. Gross margins were under pressure collapsing from 27% to 23%.



Desk top sales had been hammered, unit sales of the PowerMac had fallen by 35% and those of the iMac by 45%. Desk Top revenues were down by 45% overall. Portable sales volumes were static and revenues were down by 8%. Software service and other revenues had fallen by 13%.

Power Mac Sales were down by 35%

The company was heavily dependent on the business and creative professional market. Over 76% of sales were from the industrial and commercial sector. Consumer exposure was limited to the student / education market at some 15% of revenues, the high end “advanced” consumer market, the AB premium accounted for the balance.

The profit generating Power Mac was at the wrong end of the product life cycle curve. The iMac was dated. It had never really looked cool. The product range needed a revamp or better still a new product altogether.

Should Apple develop further into the consumer market? An electronics consumer product? The Newton and Pippin experience in the 1980’s was not a good omen. Apple considered video cameras, digital cameras and music. After analysis the company chose music. Why music because as Jobs explained, “we all love music”.

iMac Sales were down by 35%



7 Launch of the iPod

“Music on the move” had been pioneered by Sony with the Walkman and the Discman but the digital age beckoned. Consumers had music stored on computers. Updating the collections online was possible but the launch of Napster in 1999 and subsequent legal challenge confused consumers about the legality of it all. Travelling with a large music library was only possible with a box of CD favourites.

The MP3 player offered the technical solution to digital music on the move. Hard drive players offered greater capacity up to 100 MB but at a price. Data transfer was slow and early products were difficult to use and poorly designed. The chip for the players had been developed in 1997 but take up of the product was shunned by the major manufacturers. Early players in the market were Saehan, Pontis and Diamond Rio. In 1999, some 23 other companies launched into the MP3 market. With the exception of Sony, Samsung and Thomson/RCA, all were small and medium-sized entrepreneurial firms and industry new comers, many relying on sales through the internet.



“Apple had wanted to tap into the market for consumer digital devices. Digital cameras and camcorders were very competitive. They would be unlikely to crack the market”

Digital music players were large and bulky. Apple design could improve the product offer in a fragmented market

By the year 2000, the US market was valued at \$80 million rising by 25% to \$100 million in 2001. Volumes had increased from 510,000 units to over 700,000 units. The market was fragmented with as many as 50 manufacturers largely dependent on internet sales. The largest market shares were held by Diamond Rio and Pontis but both were financially vulnerable. [Pontis ceased production in 2002 and Diamond Rio filed for bankruptcy in the following year.] The large industry manufacturers such as Sony, Samsung and Thomson RCA were not big players. No one had found the “recipe”.



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Key success factors in the market were identified as design, size, capacity, battery life, software and download facility. The Diamond Rio PMP 300 MP3 player had a capacity of 32 MB with an additional storage slot capacity. Retailing for \$200 it had the capacity to play 12 songs and an approximate 10 hour battery life. The product was not without design flaws and vulnerable to performance problems.

For Apple, the KSF mantra was outlined annually in the Annual Report. The market was attractive in terms of size and growth potential. The market was fragmented, without major players, relative market and financial strengths could be brought into play. Tony Fadell, a former employee of Phillips had ideas for a brand new MP3 player. Smaller in size, with large capacity, hard drive based, with a download content access and delivery system to legally obtain music.

Apple seized the opportunity to hire Fadell. He was given a budget and a development team and a one year to market timetable. Apple developed all three components in house, the music store, the player and the software on the computer. They all worked together seamlessly. Steve Jobs had a very much hands on experience with the product design team at every stage.

Key Success Factors

In the Annual Report 10-K in 2001, Apple outlined the key factors in the computers:

- Relative Price / Performance
- Product Quality
- Reliability
- Design Innovation
- Software Availability
- Product Features
- Marketing and Distribution Capacity
- Service and Support
- Availability of peripherals
- Corporate reputation
- Internet Connectivity
- Constant Development
 - Smaller devices
 - Simpler devices
 - Less expensive devices

The first iPod was launched with a 5 GB Toshiba hard drive, a capacity for 1000 tunes and a price tag of \$399 in October 2001 later followed by a 10 GB version. The product was launched in Europe one month later, “1000 tunes in your pocket”. It was so cool.



Say Hello to iPod

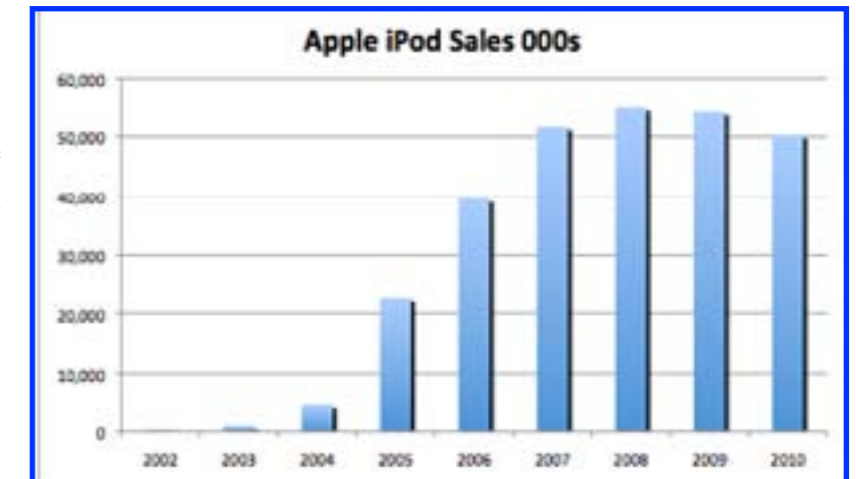
Say Goodbye to your harddrive

At time of launch the most expensive MP3 players with flash memory were selling for around \$249. The Rio 600 with 64MB of flash memory retailed at \$199. Apple tended to follow a premium price entry model. Initial sales volumes and supply chain could be tested before adjustment.

In April 2003, the iTunes Music Store opened. Access to music and downloads became even easier. A unique blend of hardware, software and content availability. Apple's iPod has experienced phenomenal growth since its 2001 unveiling. Like the Mac, the iPod largely created a new market rather than displacing an existing one. In 2002, Apple had 33% of the hard drive market. A year later, it had 64% of that market. Apple more than doubled its sales, while the rest of the market failed to grow at all.

In 2004, Apple had 82% of the hard drive market with sales of 2 million in the winter quarter. Other competitors were selling less than a half million units combined. Apple wasn't eating into other players' sales, it was greatly expanding the entire market for hard drive audio players.

By 2008, Apple was selling over 50 million units a year worldwide, with a dominant 75% of the US market. The iTunes Music Store accounts for 87 percent of all legal digital music sales in the USA. The success of the iPod has had a significant knock on effect with the Apple core business as more consumers have experience of the great Apple product line. By 2011, the company has sold over 300 million units



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8 Here Comes the Zune

Not all had been confident of the iPod success. In 2005, Bill Gates predicted that Apple's success in entertainment electronics and in the music business would not last. Apple had opted for a closed system using its own hardware and software. “I think you can draw parallels here with the computer: here, too, Apple was at first in an extremely strong position with its Macintosh and graphic possibilities -- as with iPod today -- and then let it's position slip.” Gates said in a newspaper interview in May.

Apple had anticipated a Microsoft reaction and in 2006, five years after the appearance of the iPod, Microsoft launched the Zune in November just in time for Christmas. The Zune had 30 GB of memory and was priced at \$299. It had a 3” screen and a built in FM radio.

The initial launch went well. Zune was off to a quick start, grabbing 9 percent of the U.S. digital music player market in its first week of sales, taking the number two spot from SanDisk. Microsoft was adept at dealer loading but the gains were not held. By 2008 the brand had claimed just a 4% share of the market. Gains had been made at the expense of Creative and iRiver but the core Apple business remained undamaged.

“Its great for workouts because digital music doesn't skip. and my entire music library is strapped to my body”

“I used to carry a separate case with 50 or more CDs when I traveled,” says Todd Gray, an art professor at California State University-Long Beach.”

9 Brand Development and Product Extension

Apple had always relied on a programme of constant improvement in the product offer. Smaller, simpler, more features, less expensive, constantly challenging the parameters of the key success factors. By 2006 the iPod was into a fifth generation and the family had extended kinship with the appearance of the iPod shuffle and the iPod Nano. In 2007, the iPod Touch appeared. The product offer was to swamp the market map in terms of price segmentation and capacity.

The Nano was a flash based product released in January 2005 costing \$99 for a 512MB version. The solid state Nano appeared in February, available in 2GB and 4GB versions. In October 2005, the fifth generation iPod appeared available in 30GB and 60GB with video play capacity. An 80 GB version was to follow. The Shuffle appeared around the same time. Apple introduced two versions of the "iPod shuffle," priced at just \$99 or \$149, and respectively holding about 120 and 240 songs based on 512MB an 1 GB of memory.

Design ethos - from out to in.

Engineering is reversed into design. Apple employees talk about “deep collaboration” or cross-pollination” or “concurrent engineering”. Products don't pass from team to team. They are not discrete sequential development stages. It is simultaneous and organic. Products are worked on in parallel by all departments at once in endless rounds of inter discipline design review meetings.”

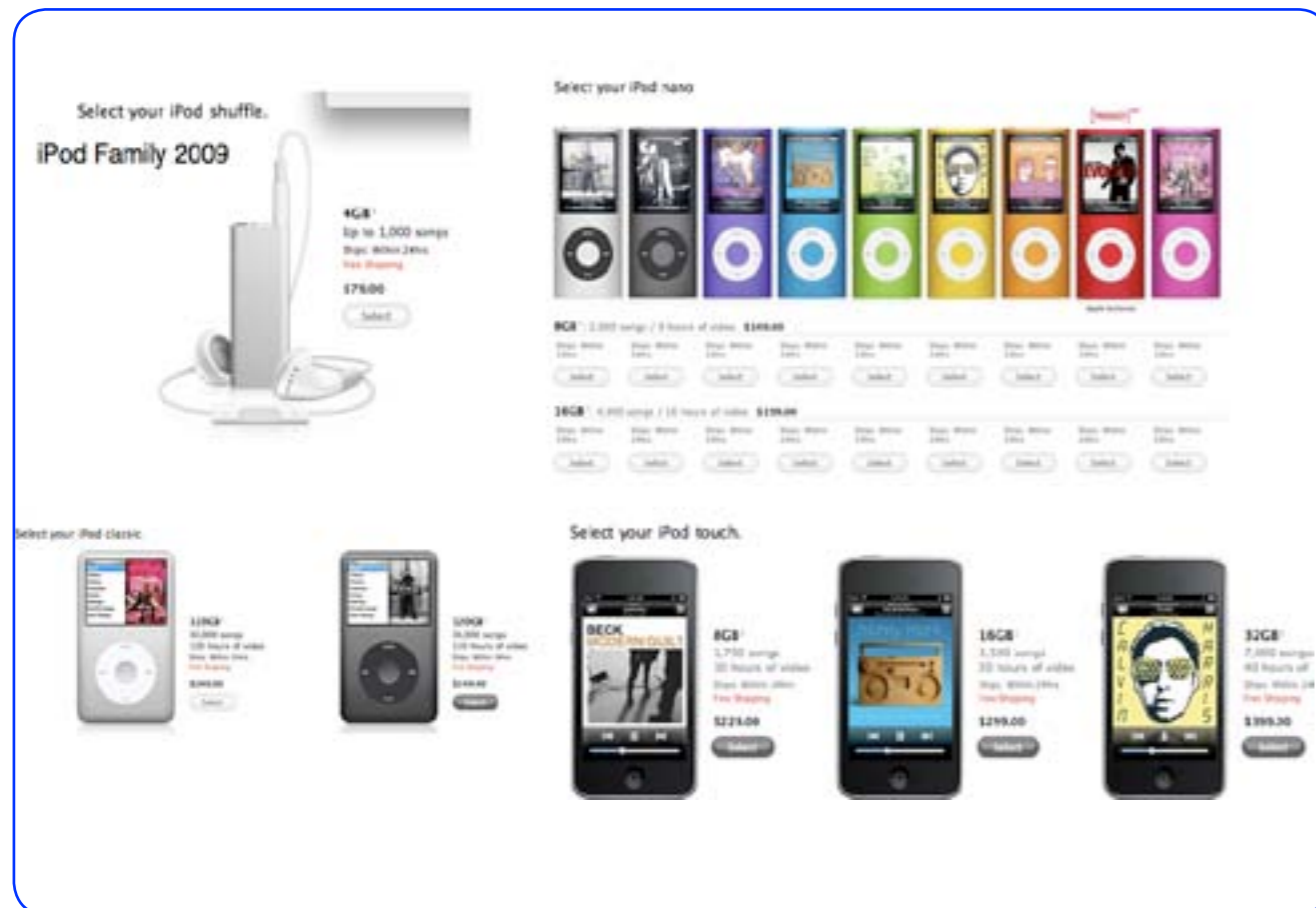


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Based on flash memory, the new player was aimed at a low-end segment of the market that had been untapped largely by Apple to date. By the time the Zune arrived, Apple had created and captured a new market empire, defended by a product range extended in price, range and quality. From the \$99 shuffle to the top end video iPods with 80GB and video capability priced at \$399, the array was extensive.

By 2009, the product offer was comprehensive but maybe lacking internet connectivity and mobile connection. In 2007 it was time to introduce the iPhone. Microsoft would laugh at the product but the world was ready to make the change.



10 Developments in Distribution

Before dealing with the launch of the iPhone, it is worth looking at the developments in distribution. Apple launched the first Apple stores in May 2001 and by the end of the year, the company had 25 stores. Like most manufacturers, Apple was dependent on the big retailers like Sears and Compuserve. In the late 1990's, Jobs had already started to cull retailers who were not doing a good job for the brand.

The manufacturer faced the classic dilemma of controlling product, sales and presentation at point of sale. Share of dealer mind, stock and floor space was critical. Vertical integration into retail seemed the logical solution. Combined with the online store and the iTunes store, own-retail would offer a solution to the dilemma.



There already had been an agreement with CompUSA to develop the Apple shop in shop model whereby some 15% of the store would be devoted to Apple products and merchandise. But the sales failed to materialise. The shop in shops were located at the rear of the store where footfall and sales were lowest. Share of retailer mind was not secured.

Jobs recruited retail experience from Gap and Target. The mock up store was created in a warehouse in Cupertino, Apple's home base. Jobs wanted to create a hands on experience, with demo machines, tutorials and sample media projects. The stores also included a Genius Bar where Mac users could get their Macs repaired or deal with queries or just hang around. The Apple stores were

a success, combined with the launch of the iPod, the stores were able to replicate the “Apple” experience, with workshops, youth programmes, one to one training, personal shopping and the “Genius Bar”.

By the Summer of 2009, there were 211 Apple stores in the USA, 45 in California alone. Internationally there were 48 stores, 21 stores in the UK, 10 in Canada, 7 in Japan, 5 in Australia, 3 in Switzerland, 1 in Italy and 1 in China. By 2011 there were over three hundred retail units including 29 in the UK and four in China.

Retail sales have risen from \$19 million in 2001 to \$1 billion by 2004, to just under \$10 billion in 2010 and are set to double in 2011. Own retail accounted for 10% of sales in 2003 and almost 20% of total revenues by 2010/11.

Average revenue per store increased to \$29.9 million in 2008, compared to \$23.1 million in 2007 according to the 2008 Annual Report. The Company has typically located its stores at high-traffic locations in quality shopping malls and urban shopping districts. Sales per square foot average over \$3,000 based on an 8,000 square foot model.

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11 Strategic Alliances

The development of the iPod reveals an interesting story of market alliances in the supply chain. According to Electronics Design Chain magazine, much of the underlying iPod design was performed by outside companies. “The Cupertino folk haven't given up on their heritage of design excellence—they're just bowing to some inevitable directions in consumer electronics by borrowing from established experts linked together for what may be the first design chain for the iPod.” Apple were in a race to get to market within the year.



Given the tough time-to-market timetable, the company relied on a platform and reference design created by a third party, PortalPlayer, of Santa Clara, California. PortalPlayer had developed a base platform for a variety of audio systems, including portable digital music devices, general audio systems and streaming audio receivers. It appears that Apple picked PortalPlayer because its design expertise yielded the highest quality of sound, according to industry sources.

“The product was elegantly designed in classic Apple fashion,” says David Carey, president of Portelligent. “They did product design from the outside in.” Carey says the company had a vision of what the player should be and what it should look like.

The device uses a dedicated MP3 decoder and controller chip from PortalPlayer, a Wolfson Microelectronics Ltd. stereo digital-to-analog converter, a flash memory chip from Sharp Electronics Corp., a Texas Instruments 1394 firewire interface controller, and a power management and battery charging IC from Linear Technologies Inc. By using strategic alliances, the iPod came to market faster than would otherwise have been the case.

Apple's 5 Key Partners

- Battery / Sony
- Codec / Wolfson
- DAC / Wolfson
- Disk Drive / Toshiba
- Firewire / Texas Instruments
- Power Management / Linear Technology

Source: Electronics Design Chain

The iPod relied on a reference design by PortalPlayer. Other key members of the design chain included Wolfson Microelectronics, TI and Toshiba.

12 The launch of the iPhone

The first iPhone was launched in 2007 but almost before you could fill the address book, the iPhone 3G was on the way. Launched in 2008, the improved 3G performance followed the Apple Kaizen mantra. “Constant improvement - one infinite loop”, the HQ address in Cupertino. In 2009, the company launched the iPhone 3GS complete with video camera. More features, much faster and with the new iPhone 3.0 software.



The iPhone 2G only supported WiFi, GSM, and Bluetooth. Slow speeds meant surfing the internet was quite limited. The iPhone 3G introduced third generation speeds to the original flagship model, and it also supported WiFi, GSM, and Bluetooth. This makes for a better experience surfing, watching Youtube videos, and downloading data onto the phone from the Internet.

“Comparing two great phones is always hard, but Apple made a great move by creating the 3G iPhone. The iPhone 2G is impressive, but with the features the 3G provides and the transition with new phones all moving to 3G, it's a definite requirement if Apple wants to maintain its new status as the #1 selling phone in the US.”



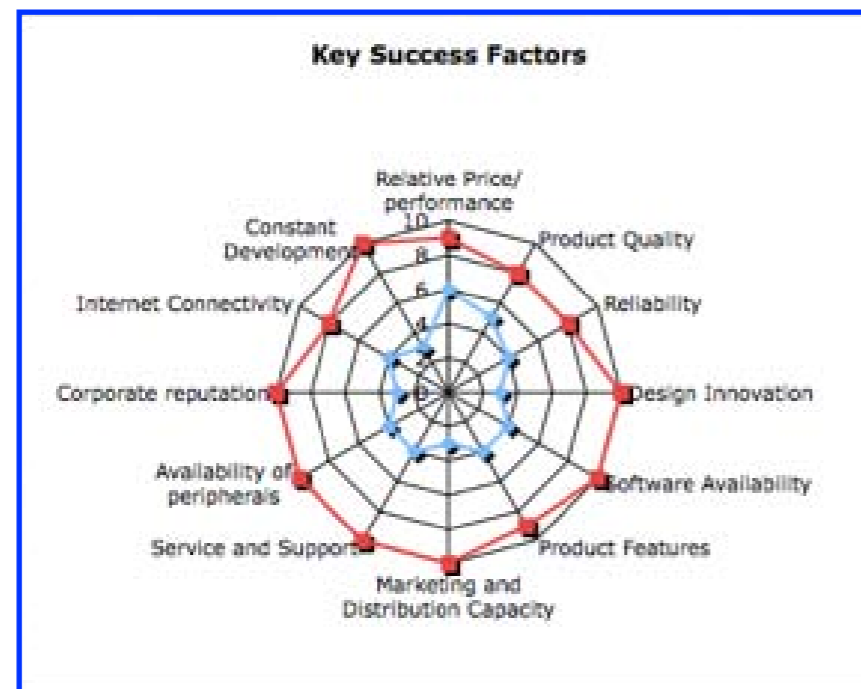
In many ways, the 3GS is a mirror image of the iPhone 3G; externally there's no difference. It's inside where all the changes have happened, with Apple issuing a beefed-up CPU, new internal compass, larger capacities for storage, and improved optics for its camera. More to the point, the release of the 3GS coincides with the launch of iPhone OS 3.0, a major jump from previous versions of the system software featuring highly sought after features like cut, copy, and paste, stereo Bluetooth, MMS, tethering, video recording, landscape keyboard options for more applications, and an iPhone version of Spotlight.

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In 2007, iPhone sales were \$123 million. In the first full year of sales 2008, revenues were \$1.8 billion, by 2010 revenues increased to \$25 billion. The iPhone had captured some 25% of the US smart phone market. Challenging the RIM Blackberry and pushing Nokia in to a furious programme of product development.

In 2010, Apple introduced the iPhone 4, longer battery life, extended talk time, better camera with 5 megapixels. The launch was not without some criticism with technical problems relating to reception performance and location of the aerial. The product set backs did nothing to offset the enthusiasm of loyal supporters. The company has sold over 100 million phones since launch. The iPhone 4 designer has left the company.

By 2010, sales of the iPad, iPhone, iPod and related music sales total \$45 billion out of some \$65 billion. Approximately 70% of revenues are from products which did not exist on the Apple playlist at the turn of the decade.



13 What next for Apple - the Apple Games Console?

By 2009, Some analysts and pundits argued the next product for Apple should be the Games console but the Nintendo Wii, MS Xbox 360 and Sony PS3 dominated the market. Lifetime console shipment numbers for the U.S. were 20.7 million for the Wii, 15.5 million for the Xbox 360 and 7.9 million for the PS3. Respective market shares were 47.0%, 35% and 18%. The relative market share stats were 1.0 - 0.75 and 0.38.

It is a big market, by 2012, the market is forecast to increase to be worth \$25 billion from sales of 100 million units but with three large players the games console market is not such an attractive proposition.

Apple has a strong brand franchise, a clear route to market and thousands of applications available for the iPhone and the iTouch. But this is not the MP3 market at the turn of the millenium. Three players with strong RMS and RFS scores operate in a market were market shares swing with technology advances. Similar Key Success Factor's apply and the Kaizen ethic is apparent but the investment is huge. Rumours surfaced that Apple was recruiting game execs and a raft of gaming related patents. On the other hand Apple is adept at mis information and mis direction. The console was unlikely to be the next big Apple move.

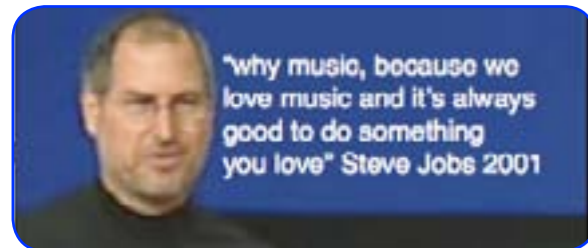


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14 Where next for Apple? The Apple tablet computer.

In January 2010, Apple revealed the iPad in a further extension of the digital hub strategy. The iPad is a computer with no physical keyboard but a touch screen device offering internet connectivity with WiFi and on the move 3G capability. Initially launched in the USA, the iPad offers a 10 inch touch screen and retailed for around \$500 for the basic model. The iPad enables users to read newspapers, books and magazines, play music, read e-mails, store photos and watch videos with the ability to download content from the iTunes store.

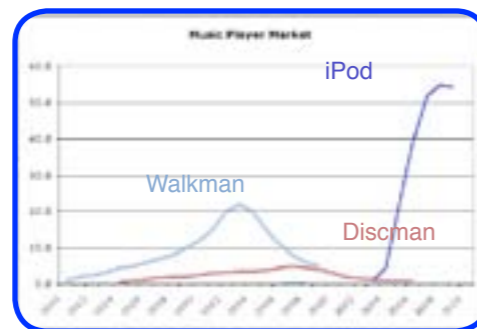


In 2010, Apple also launched the iBook store with the capability to download e-books and the opportunity to use the iPad as an e-book reader. The launch of the App store brought some 140,000 applications and games to the iPad owner including a Kindle App.

In terms of pricing the iPad, traditionally, Apple would introduce a new product with a premium price tag, developing volume, supply and segment penetration

before relaxing the price constraint. For the iPad, the strategy was geared to getting the product into as many hands of as many people as possible, “right from the start”. Magnanimous marketing perhaps, or with a strategic eye on the competition from the Sony e-reader and the Amazon Kindle. In the first twelve months of sales, the iPad has sold some 25 million units and generated revenues of some \$16 billion dollars dominating the product sector with a 95% market share.

In 2011, Apple launched the iPad 2.0. thinner, faster, more capacity with a longer battery life. Two cameras, face to face video links and video editing capability using iMovies. Two dual core video chips mean better surfing, better watching, better gaming and “better everything”. Once again, the Apple mantra of constant improvement challenging the performance of the Key Success factors has been exemplified.



- Apple is market driven
- Understands market dynamics
 - Has strong design ethos
 - Has strong Kaizen instinct
 - Has strong leadership
 - Has strong direction.
- Premium price entry program
 - Price adjustment follows
 - iPod family - product extension
 - Great software and support
 - For the digital hub



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15 Summary and Conclusions

Since 2001, Apple revenues have increased from \$5 billion to \$65 billion in 2010 and will soar over \$100 billion in 2011. Gross margins have increased from 23% to 40%. Operating profits have leapt from a loss of \$344 million to \$18 billion in 2010, generating a Return on Sales (ROS) of 28%, and a Return on Capital Employed (ROCE) of 39%. With Net Assets of \$48 bn. the company has a market capitalisation of \$325 billion and an enterprise value of \$286 billion.

The company has sold over 300 million iPods, over 70% of sales are from products which didn't exist at the turn of the millenium. The iPhone is already a world class seller with over 100 million sold since launch. The iPad appeared in March 2010 and has already sold 25 million units dominating the tablet sector with an estimated 95% share of segment.

The iTunes store has sold over 12 billion songs, 450 million TV episodes, 100 million movies and 35 million books. The store has 160 million accounts with credit card and 1-click capability. The origins of the Apple success today can be traced to the key decisions in 2001.

In that year, Apple reviewed the options for extension of the product offer eschewing the digital and video camera market at the time. Apple chose music, the launch of the iPod, music on the move and 1000 tunes in your pocket. It is a classic case study in Strategic Management. The key dimensions of Relative Market Attraction (RMA), Relative Market Strength (RMS), and Relative Financial Strength (RFS) brought into play, with examples of leadership, organization, marketing, pricing strategy, product development and much more. Constant improvement is “one infinite loop” in Cupertino USA.

Having created a vision of the “digital hub”, the product offer has been extended to along a “Golden Staircase” to fulfill mission and strategy. The iPad and the iPhone a further extension of the digital hub strategy introducing internet access, on line surfing and video calls along with music “on the move”.



16.0 Financial Analysis (Excel spreadsheets.)

16.1 Profit and Loss Account.

Profit and Loss Account	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Net Sales	\$7,983	\$5,363	\$5,742	\$6,207	\$9,279	\$13,931	\$19,315	\$24,578	\$37,491	\$42,905	\$65,225
Growth %		-32.8%	7.1%	8.1%	33.4%	68.3%	38.6%	27.2%	32.5%	14.4%	52.0%
Cost of Sales	\$5,817	\$4,128	\$4,139	\$4,499	\$6,020	\$9,888	\$13,717	\$16,426	\$24,294	\$25,683	\$39,541
Home											
Gross Margin \$	\$2,166	\$1,235	\$1,603	\$1,708	\$3,259	\$4,043	\$5,598	\$8,152	\$13,197	\$17,222	\$25,684
Gross Margin %	27.1%	23.0%	27.9%	27.5%	27.3%	29.0%	29.0%	33.2%	35.2%	40.1%	39.4%
Operating Expenses											
Research & Development	\$380	\$430	\$446	\$471	\$489	\$534	\$712	\$782	\$1,109	\$1,333	\$1,782
Selling, General & Admin	\$1,166	\$1,138	\$1,111	\$1,212	\$1,421	\$1,859	\$2,433	\$2,963	\$3,761	\$4,149	\$5,517
Other	\$98	\$11	\$29	\$26	\$23	\$0					
Total Operating Expenses	\$1,644	\$1,579	\$1,586	\$1,709	\$1,933	\$2,393	\$3,145	\$3,745	\$4,870	\$5,482	\$7,299
Operating Income	\$522	-\$344	\$17	-\$1	\$326	\$1,650	\$2,453	\$4,407	\$8,327	\$11,740	\$18,385
Other income and Expense	\$70	\$292	\$70	\$93	\$7	\$65	\$65	\$99	\$20	\$26	\$55
Income before tax	\$1,092	-\$52	\$87	\$92	\$383	\$1,815	\$2,818	\$5,006	\$8,947	\$12,066	\$18,540
Provision for tax	\$306	-\$27	\$65	\$24	\$107	\$480	\$820	\$1,511	\$2,808	\$3,831	\$4,527
Net Income	\$786	-\$25	\$22	\$68	\$276	\$1,335	\$1,999	\$3,495	\$6,139	\$8,235	\$14,013
EBITDA (Operating income)											
	\$606	-\$242	\$131	\$112	\$476	\$1,829	\$2,678	\$4,724	\$8,800	\$11,740	\$18,385
Shares in issue											
Basic	324,588	345,613	355,022	721,262	743,180	808,439	844,058	864,595	881,592	893,016	909,461
Diluted	360,324	345,613	361,785	723,352	774,776	856,878	877,526	889,292	902,139	907,005	924,712
Earnings Per Share											
Basic	\$2.42	-\$0.07	\$0.06	\$0.09	\$0.37	\$1.65	\$2.36	\$4.04	\$6.94	\$9.22	\$15.41
Diluted	\$2.16	-\$0.07	\$0.06	\$0.09	\$0.36	\$1.56	\$2.27	\$3.93	\$6.78	\$9.08	\$15.15
Key Ratios											
ROS (Pre Tax Income)	13.7%	-1.0%	1.5%	1.5%	4.6%	13.0%	14.6%	20.4%	23.9%	28.1%	28.4%
Gross Margin	27.1%	23.0%	27.9%	27.5%	27.3%	29.0%	29.0%	33.2%	35.2%	40.1%	39.4%
Research & Development	4.8%	8.0%	7.8%	7.6%	5.9%	3.8%	3.7%	3.2%	3.0%	3.1%	2.7%
Selling, General & Admin	14.6%	21.2%	19.3%	19.5%	17.2%	13.3%	12.6%	12.1%	10.0%	9.7%	8.5%
Total Operating Expense	20.6%	29.4%	27.6%	27.5%	23.3%	17.2%	16.3%	15.2%	13.0%	12.8%	11.2%
Corporate Expense Ratio	9.1%	12.6%	10.4%	11.3%	10.3%	3.2%	4.9%	4.9%	5.4%	5.2%	5.7%
Tax Rate	28.0%	51.9%	74.7%	26.1%	27.9%	26.4%	29.4%	30.2%	31.6%	31.8%	24.4%
Key Ratios											

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16.2 Balance Sheet.

Balance Sheet	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Fixed Assets											
Property Plant & Equipment	\$313	\$564	\$621	\$699	\$707	\$917	\$1,281	\$1,622	\$2,455	\$2,994	\$4,768
Goodwill	\$786	\$128	\$39	\$85	\$80	\$69	\$38	\$227	\$208	\$206	\$761
Acquired tangible assets	\$277	\$76	\$119	\$24	\$17	\$27	\$139	\$799	\$785	\$247	\$342
Long Term Marketable Securities								\$2,379	\$10,528	\$25,291	
Other		\$110	\$131	\$150	\$181	\$253	\$1,238	\$1,222	\$839	\$2,011	\$2,203
Total	\$1,376	\$878	\$810	\$928	\$995	\$1,216	\$2,696	\$3,291	\$6,165	\$15,949	\$23,500
Current Assets											
Cash and Cash equivalents	\$1,191	\$2,310	\$2,252	\$3,296	\$2,969	\$3,491	\$6,392	\$9,352	\$11,875	\$5,263	\$14,399
Short Term Investments	\$2,826	\$2,028	\$2,089	\$1,170	\$2,495	\$4,770	\$3,718	\$6,034	\$10,226	\$18,201	\$4,414
Accounts receivables	\$952	\$966	\$965	\$766	\$774	\$995	\$1,252	\$1,627	\$2,122	\$3,363	\$5,510
Inventories	\$33	\$11	\$45	\$56	\$101	\$165	\$270	\$346	\$509	\$455	\$1,051
Deferred Tax assets	\$162	\$169	\$196	\$231	\$231	\$207	\$782	\$1,044	\$1,125	\$1,125	\$1,626
Other Current Assets	\$252	\$161	\$275	\$302	\$480	\$548	\$2,228	\$3,805	\$2,920	\$2,120	\$3,447
Total Current	\$5,427	\$5,143	\$5,388	\$5,883	\$7,055	\$10,300	\$14,509	\$21,950	\$30,550	\$31,555	\$41,678
Current Liabilities											
Accounts Payable	\$1,157	\$801	\$951	\$1,154	\$1,451	\$1,779	\$3,390	\$4,970	\$5,520	\$5,601	\$12,015
Accrued Expenses	\$776	\$717	\$747	\$899	\$1,229	\$1,708	\$3,081	\$4,310	\$4,224	\$3,832	\$5,723
Long Term Debt, Def Tax	\$300	\$317	\$316	\$304				\$3,617	\$2,053	\$2,053	\$2,984
Total Current Liabilities	\$2,233	\$1,835	\$1,974	\$2,357	\$2,680	\$3,487	\$6,471	\$9,200	\$11,361	\$11,506	\$20,722
Non current liabilities	\$662	\$266	\$228	\$225	\$284	\$501	\$720	\$1,525	\$1,245	\$2,552	\$6,070
Total Liabilities	\$2,895	\$2,101	\$2,202	\$2,582	\$2,964	\$4,008	\$7,191	\$10,815	\$11,106	\$14,058	\$27,392
Total Net Assets	\$4,107	\$3,920	\$4,095	\$4,223	\$5,076	\$7,428	\$9,984	\$14,532	\$23,049	\$32,493	\$47,791
Funded by :-											
Shares	\$1,528	\$1,693	\$1,828	\$1,926	\$2,514	\$3,564	\$4,355	\$5,368	\$7,177	\$8,210	\$10,648
Retained Earnings	\$2,285	\$2,260	\$2,225	\$2,294	\$2,670	\$3,925	\$5,007	\$9,101	\$15,126	\$23,333	\$37,109
Other	\$294	\$97	\$56	\$92	\$108	\$61	\$22	\$63	\$9	\$77	\$96
Total Shareholders Funds	\$4,107	\$3,920	\$4,095	\$4,223	\$5,076	\$7,428	\$9,984	\$14,532	\$22,297	\$31,640	\$47,791
Key Ratio Analysis											
Return on Sales (Operating Inc)	5.5%	6.4%	6.2%	6.0%	3.9%	11.8%	12.7%	17.9%	22.2%	27.1%	28.2%
Gross Profit Ratio	27.1%	23.0%	27.9%	27.5%	27.3%	29.0%	29.0%	33.2%	35.2%	40.1%	39.4%
Return on Capital Employed	12.7%	16.8%	16.4%	16.0%	6.4%	22.2%	24.6%	20.3%	27.3%	27.1%	28.5%
Turnover of Cap Employed	5.8	6.1	6.2	6.7	6.2	11.5	7.2	7.2	6.1	2.7	1.9
Current Ratio	2.0	2.4	2.4	2.3	2.4	2.5	2.0	2.0	2.3	2.1	1.5
Inventory Turn	241.9	487.5	127.6	110.8	82.0	84.4	71.5	71.0	73.7	94.3	62.1
Inventory Days	2	1	3	2	4	4	5	5	5	4	5
Receivables Ratio (Days) DRO	44	32	26	43	24	23	24	24	24	29	31
Payables Ratio (Days) DPO	53	55	58	58	64	67	64	24	54	48	57
Working Capital Ratio	-2.1%	-6.0%	-5.2%	-5.3%	-7.0%	-5.2%	-9.7%	-12.2%	-6.9%	-4.2%	-6.4%
Sales	\$7,983	\$5,363	\$5,742	\$6,207	\$8,279	\$13,931	\$19,315	\$24,578	\$37,491	\$42,925	\$65,225
Operating Profit	\$522	-\$344	\$17	-\$1	\$326	\$1,650	\$2,453	\$4,407	\$8,327	\$11,740	\$18,385

16.3 Sales and profits by Region

15.4 Apple Inc Profits by Region \$m											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Net sales by operating segment											
Americas	\$4,298	\$2,996	\$3,131	\$3,181	\$4,019	\$6,590	\$9,415	\$11,907	\$16,552	\$18,981	\$24,498
Europe	\$1,817	\$1,249	\$1,251	\$1,309	\$1,799	\$3,073	\$4,096	\$5,469	\$9,233	\$11,810	\$18,692
Japan	\$1,345	\$713	\$710	\$698	\$677	\$920	\$1,211	\$1,084	\$1,728	\$2,279	\$3,981
Retail			\$283	\$421	\$1,185	\$2,350	\$3,246	\$4,362	\$7,292	\$6,656	\$9,798
Other segments (Asia Pacific)	\$523	\$455	\$387	\$398	\$599	\$998	\$1,247	\$1,736	\$2,686	\$3,179	\$8,256
Total	\$7,983	\$5,363	\$5,742	\$6,207	\$8,279	\$13,931	\$19,315	\$24,578	\$37,491	\$42,925	\$65,225
Net Profits by operating segment											
Americas	\$814	\$133	\$278	\$323	\$485	\$798	\$1,899	\$2,998	\$4,901	\$6,858	\$7,590
Europe	\$243	\$68	\$122	\$130	\$280	\$454	\$627	\$1,350	\$3,022	\$4,296	\$7,524
Japan	\$352	\$98	\$140	\$121	\$115	\$140	\$208	\$233	\$549	\$961	\$1,846
Retail			-\$22	-\$5	\$39	\$151	\$600	\$876	\$1,661	\$1,677	\$2,364
Other segments	\$137	\$42	\$44	\$51	\$90	\$118	\$235	\$389	\$775	\$1,121	\$3,647
Total	\$1,346	\$341	\$562	\$620	\$989	\$1,661	\$3,569	\$5,846	\$10,908	\$14,713	\$22,971
Operating Income Ratio											
Americas	14.3%	4.4%	8.9%	10.2%	11.6%	12.1%	20.2%	25.2%	29.6%	25.1%	31.0%
Europe	13.4%	5.4%	9.8%	9.9%	15.6%	14.8%	15.3%	24.7%	32.7%	36.4%	40.3%
Japan	26.2%	13.7%	19.7%	17.3%	17.0%	15.2%	17.2%	21.5%	31.8%	42.2%	46.4%
Retail			-7.6%	-0.8%	3.3%	6.4%	18.5%	20.1%	22.8%	25.2%	24.1%
Other segments	28.2%	10.4%	12.0%	12.8%	15.0%	11.8%	17.4%	22.2%	28.9%	35.3%	44.2%
Total	16.9%	6.4%	9.8%	10.0%	11.9%	11.9%	18.5%	23.8%	29.1%	34.3%	35.2%
Corporate Expenses	\$726	\$674	\$595	\$701	\$853	\$446	\$953	\$1,197	\$2,038	\$2,242	\$3,707
	9.1%	12.6%	10.4%	11.3%	10.3%	3.2%	4.9%	4.9%	5.4%	5.2%	5.7%

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16.4 Sales by Region and Product

15.5 Apple Net Sales by Operating Segment \$m											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Net sales by operating segment \$											
Americas	\$ 4,298	\$2,996	\$3,131	\$3,181	\$4,019	\$6,658	\$9,415	\$11,907	\$16,352	\$18,981	\$24,498
Europe	\$ 1,817	\$1,249	\$1,251	\$1,309	\$1,799	\$3,072	\$4,096	\$5,469	\$9,232	\$11,820	\$18,692
Japan	\$ 1,345	\$713	\$710	\$698	\$677	\$924	\$1,211	\$1,084	\$1,728	\$2,279	\$3,981
Retail		\$19	\$283	\$621	\$1,185	\$2,271	\$3,246	\$4,362	\$7,292	\$6,656	\$9,799
Other segments	\$ 523	\$386	\$367	\$398	\$599	\$996	\$1,347	\$1,756	\$2,686	\$3,129	\$8,256
Total	\$ 7,983	\$5,363	\$5,742	\$6,207	\$8,279	\$13,931	\$18,115	\$24,578	\$37,491	\$42,905	\$68,225
Net sales by operating segment Vol											
Americas	2,907	1,798	1,728	1,820	1,882	2,184	2,432	3,019	3,980	4,120	4,978
Europe	1,110	754	722	684	773	1,138	1,346	1,816	2,519	2,840	3,859
Japan	730	394	388	339	291	313	304	302	389	365	481
Retail		7	92	187	314	505	866	1,386	2,034	2,115	2,846
Other segments	211	154	173	182	230	290	335	528	793	926	1,500
Total	4,558	3,087	3,101	3,012	3,290	4,534	5,303	7,051	9,715	10,396	13,662
Net Sales by Product											
Desktops	\$ 3,129	\$ 2,791	\$2,828	\$2,475	\$2,373	\$3,436	\$3,319	\$4,023	\$5,522	\$4,324	\$6,201
Portables	\$ 1,757	\$ 1,622	\$1,706	\$2,015	\$2,550	\$2,835	\$4,096	\$6,313	\$8,732	\$9,535	\$11,278
Total Mac	\$8,885	\$4,403	\$4,534	\$4,491	\$4,923	\$6,271	\$7,415	\$10,336	\$14,254	\$13,859	\$17,479
iPod			\$143	\$345	\$1,306	\$4,544	\$7,676	\$8,305	\$9,153	\$8,091	\$8,274
Other music-related products and services			\$4	\$35	\$278	\$899	\$1,885	\$2,496	\$3,340	\$4,038	\$4,948
iPhone and related products and services					\$0	\$0	\$0	\$123	\$1,844	\$13,033	\$25,179
iPad and related products and services											\$4,958
Peripherals and other hardware			\$527	\$691	\$951	\$1,128	\$1,100	\$1,260	\$1,655	\$1,475	\$1,814
Software, service and other sales	\$ 1,098	\$ 950	\$534	\$644	\$821	\$1,291	\$1,279	\$1,508	\$2,207	\$2,411	\$2,573
Total Net Sales	\$7,983	\$5,363	\$5,742	\$6,207	\$8,279	\$13,931	\$18,115	\$24,578	\$37,491	\$42,905	\$68,225
Unit Sales by Product											
Desktops	3,630	2,143	2,067	1,781	1,825	2,320	2,434	2,714	3,712	3,182	4,827
Portables	928	942	1,034	1,251	1,665	2,014	2,869	4,337	6,003	7,214	9,035
Total Mac Sales	4,558	3,087	3,101	3,012	3,290	4,334	5,303	7,051	9,715	10,396	13,862
iPod unit sales	0	0	381	939	4,416	22,497	39,409	31,630	34,828	34,132	30,312
iPhone unit sales	0	0	0	0	0	0	0	1,389	11,627	26,731	39,989
iPad unit sales											7,458
Total	4,558	3,087	3,482	3,951	7,706	27,031	44,712	60,070	76,170	81,259	111,421

17.1 References - Books

- Carlton, Jim Apple the inside story of intrigue, Egomania and Business Blunders.
 - Malone, Michael Infinite Loop
 - Linzmayr, Owen Apple Confidential 2.0
 - Sculley, John Odyssey : Pepsi to Apple, a journey of adventure Ideas and the Future
 - Wozniak, Steve i, Woz : Computer Geek to Cult iCon. Getting to the core of Apple's inventor
- Great background books on Apple but not essential reading.



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