



STRATEGY: Lessons from the Blu-Ray HD-DVD Wars

Quick Points: An overview in 60 seconds

There are seven key points to learn from the battle for the next DVD format won by Sony in February 2008 and many are revealed by taking a close look at how Toshiba, the apparent loser, managed its portfolio:

- Lesson 1:* **DON'T BET THE BANK.** Looking at Toshiba's future strategy presentations given in April 2007, it was clear that the future of the business didn't depend upon victory in the high definition battlefield. Toshiba had three business areas that were key to its future growth plans – (i) Electronic Devices, (ii) Digital Products (where HD-DVD sat) and (iii) Social Infrastructure.
- Lesson 2:* **CREATE A PORTFOLIO OF OPPORTUNITIES.** I cannot predict the future with certainty. Nobody can. In an uncertain environment, business strategy should consist of a portfolio of opportunities. With the acquisition of UK's Westinghouse nuclear reactor manufacturer, Toshiba had broadened its portfolio of opportunities. HD-DVD was one of only thirteen innovations given as examples of Toshiba's future pipeline when it presented its plans for growth in April 2007. Other innovations such as NAND memory and SSD memory showed exponential growth opportunities.
- Lesson 3:* **BE PREPARED TO CHANGE YOUR MIND. RETEST YOUR ORIGINAL ASSUMPTIONS REGULARLY.** JVC won the video wars but its market capitalisation is now dwarfed by Sony, the apparent loser. The fact is, what was in the past may not be in the future. Let me illustrate. JVC launched the first VHS video player in 1976. In the UK, Currys the electronics retailer, stopped selling VHS recorders in 2004 – a twenty-eight year life cycle. With the prospect of such a long life cycle, one can see why the HD-DVD vs. Blu-Ray war assumed the importance that it did. But emerging thinking now is that the life cycle for Blu-Ray as a home movie watching high definition format may be as short as five years.
- Lesson 4:* **PRODUCT LIFE CYCLES ARE SHORTENING.** A direct extrapolation of lesson #3 but remember that it is not just technology that is pushing shorter product life cycles – so are consumers. Younger, emerging consumers have been conditioned by technology to expect and even demand "newness".
- Lesson 5:* **PULL OUT DECISIVELY.** Don't delay and try to defend an increasingly hopeless position using for example price discounting.
- Lesson 6:* **CONTROL THE EFFECTS OF FAILURE.** From my research I have found that leading innovators are good at managing failure. They don't give up and walk away. Excellent innovators excel at analysing the real causes of failure, frequently launching new more successful innovations based on this analysis.
- Lesson 7:* **CREATE A RESILIENT PRODUCT PORTFOLIO.** Now that a recession is becoming a reality, this is probably a key lesson.

Introduction

This briefing sets out to identify if there are any lessons to be learnt in terms of strategy and innovation management from the latest battle of the giants – the Sony vs. Toshiba/Microsoft confrontation – a battle that would determine which of two DVD formats, HD-DVD or Blu-Ray, would become the industry standard for high definition movie recording and viewing.

Will the Past be the same as the Future?

This was a strategic battle between two competing formats for home entertainment movie viewing and programme recording. Sony's Blu-Ray DVD format looked on paper to be superior. It offered, for example, better recording capacity on its discs compared to the Toshiba/Microsoft backed HD-DVD format. But history has told us that it is not always the technologically superior product that wins.

There have been past industry standard battles. The most well known is of course the battle for the first home programme recording format – videotape. Then it was JVC's VHS format versus Sony's Betamax technology and in that battle it wasn't the technologically superior product that won. Sony's offering and that of Philips both offered a higher quality image, but in the commercial battlefield neither won through. Observers have pointed to a number of lessons from this earlier "video tape war" including:

- § Consumer Convenience: Developing a product that has consumer convenience (JVC's VHS tapes initially could record for up to three hours but Sony's Betamax only had a one hour capacity) is a potential trump card.
- § Conquering the Distribution Chain: Getting into the distribution chain – VHS tapes initially got more shelf space than their Betamax rivals in the emerging video hire outlets – is cited as another winning factor in industry standard wars.

Another defeat for Sony?

But there was another confrontation where Sony and Toshiba had locked horns before – on the same playing field of first generation DVD formats and in that battle, Toshiba had won.

So, was this about to be the third battle that Sony would lose in the video arena?

The quest for the glittering prize

It started so well for Toshiba and Microsoft. Way back in 2005, Microsoft was first in the HDTV arena with its Xbox 360 – the first to launch a new generation of high definition games consoles. But even on day one of the launch, it appeared that the reign of the "first in innovator" – the prospector or pacesetter – might be short-lived.

There were certain omissions – omissions that might be surprising in a world where the real glittering prize was domestic technology integration.

If you're as old as I am, you can remember the world of domestic analogue integration. Back in the late 1960s and early 1970s, the world for most of us young things revolved around music – as it does today. But to listen to high quality ("hi-fi") music, you had to buy (probably from different stores, but definitely from different manufacturers) a range of so-called separates or components – these "separates" consisted of:

- (a) A turntable.
- (b) A pick-up cartridge (something that fits into the arm on the turntable that has a stylus or needle that turns the twists in the groove in the vinyl record into electrical impulses that the amplifier can increase to drive the speakers).
- (c) An amplifier (and possibly a pre-amplifier or mixer as well) to adjust bass, treble and channel balance.
- (d) A tuner (for stereo FM radio).
- (e) Finally, two speakers.

The thing is, that it only really worked when you hooked up, with the some trial and error, everything together.

So the joy of real music was only available to the geeks like me who could overcome the technological barriers and hook everything together.

But the market was really opened up when new entrants – typically Japanese manufacturers – offered pre configured systems that you just had to switch on, turn up the volume, grab a coffee and enjoy good quality music.

The real glittering prize for technology now is achieving this integration – seamlessly – in the world of home “centric” entertainment and communication. The first to successfully – and without the need for any esoteric or “geek” skills – hook up TV, gaming, PC applications, work applications, texting, social networking, radio, movie hire, Web browsing and e-mail – will win a prize that truly glitters.

But with that glittering prize as a vision, it was, in hindsight, surprising to see some omissions in Microsoft’s initial offering – the Xbox 360.

One was the absence of Wi-Fi – even in 2005 WiFi was becoming a common feature in the home environment. The other was an HD-DVD player – that was a separate add-on – surprising as customer research at that point had revealed that 9 out of 10 potential Xbox 360 purchasers either had, or planned to buy, high definition TVs within 6 months. If the plan was to use the Xbox as a launch pad for high definition viewing – why not include a player as standard?

It was only a month after the Xbox announcement that the first news of the competing product came from Sony’s camp – the Blu-Ray based PlayStation 3 (PS3). The PS3 offering didn’t have Xbox’s surprising limitations. It had Bluetooth and WiFi built in together with a Blu-Ray disc player. It could even support two high definition TVs to give panoramic viewing and could work with digital camera memory cards. So, arguably it was a bigger step technologically towards home centric integration than the Xbox offering. According to the CEO of Nvidia, the graphics chip producer, the PS3 was “the most important consumer device to be built this decade”.

In the early months of this battle, it appeared that HD-DVD may however win through. It had gathered support from two technology giants, Intel and Microsoft, and a range of movie studios. Time Warner, Viacom, Paramount and NBC Universal all promised in late 2004 to support the format. It was hoped, at that stage, that the backing of Microsoft and Intel would bring the battle of the formats to an early conclusion. Toshiba also had another early advantage – its HD-DVD players could also play conventional low definition DVDs. Finally, Toshiba’s trump card was that it would be cheaper for existing DVD manufacturers to convert their production lines to the HD-DVD format. “A HD-DVD replication line costs about €800,000 (\$1m) and you can make 40,000 discs a day on it. A Blu-Ray replication line costs €1.7m or €1.8m and you can make 10,000 to 15,000 discs a day” said Laurent Villaume, chief executive of Qol, a French DVD replication company.

Toshiba was first in too with dedicated HD-DVD players in early 2006. Two models were offered and both could “upscale” conventional DVDs to produce HD-like output for those with high definition TVs.

So, in the closing days of 2006, it appeared that Toshiba was winning. It had support from a range of studios, the backing of the mighty Microsoft and Intel and HD-DVD players at reasonable prices out in the market. At this time, Sony was yet to launch their product and industry observers felt that Sony’s Blu-Ray technology was not yet proven.

This advantage carried through well into 2007 when in August Paramount and Dreamworks announced that they would adopt Toshiba’s HD-DVD format. According to Rob Moore, president of worldwide marketing, distribution and home entertainment at Viacom, a Paramount subsidiary, “We really believe the HD-DVD format will be able to provide a lower price-point, which is critical for consumer take-up”. Lower manufacturing costs and HD-DVD’s status as a proven technology were also important decision factors for Paramount.

So, it looked as if Sony was to lose out again.

But Sony’s PS3 had a few extra tricks of its own. It already had a massive user base – about 190m PlayStation 1 and 2 consoles had been sold and Sony had made it clear that the new PS3 could play PS1 and PS2 games – offering seamless integration for existing customers – potential customers for PS3.

Others doubted if manufacturing processes would provide real switching costs that early entrant Toshiba could rely on “I am totally agnostic, ” said Studio Canal. “All the work we are doing on high definition will be useful for making Blu-Ray discs if the Blu-Ray standard wins. It will be easy to change position.”

2007: The Battle Draws to a Close

2007 was a year when Sony importantly conquered the important Hollywood studio markets signing up Warner Brothers, Walt Disney, 20th Century Fox and Metro-Goldwyn-Mayer giving Blu-Ray about 70% of Hollywood's output. Sony had also been successful in getting the video rental chain Blockbuster to stock Blu-Ray discs in its US stores – 1,700 of them whereas HD-DVD discs were stocked in only 250 outlets. If you went into one of Blockbuster's UK stores in 2007 you would find that they only stocked Blu-Ray discs.

All these levers started to generate the foundation for continued success. By November 2007 PS3 sales were increasing exponentially and in terms of the next generation gaming console market, PS3 had taken 21% market share whilst early entrant Xbox's market share was stalling, dropping from 37% in October to 35% in November 2007.

The killer blow however came in January 2008 when Warner Brothers – that produces about 70% of Hollywood's output, put its weight behind Blu-Ray. At the same time, Paramount had said that it was shifting its support from HD-DVD to Blu-Ray. Many retail outlets, including Walmart had earlier announced that they would not stock HD-DVD players – which possibly was the real nail in the coffin as a major part of Toshiba's competitive advantage was to attack the market with low cost players. Now it had lost key footholds with content suppliers (the movie studios) and distributors (retailers of players and movie hire outlets).

Toshiba's announcement in February 2008 that it was to cease manufacture of HD-DVD players came therefore as no surprise – and indeed relief to some who feared a continuing price based war.

Strategy and Innovation: Learning the Lessons

Some of the lessons are, in hindsight, obvious and linked to the first video format war. The immediate lessons that spring to mind are:

(a) *The Importance of the Distribution Channel:* Conquering the distribution chain was again a strategic key factor as it was in the original VHS-Betamax confrontation. This time Sony won in both the distribution of players and rented movies.

(b) *Consumer Convenience:* Another strategy lesson from the first war. Remember that the first Xboxes didn't have HD-DVD players built in, but Sony's PlayStation 3 did have a built in player. To a degree, the PlayStation 3 also offered a bigger step towards the glittering prize of domestic technology integration with WiFi and slots for memory cards so that camera images could be imported. The inclusion of a Blu-Ray DVD player in the PS3 was one killer move – every purchaser had access to the Blu-Ray format – they just had to buy or rent the discs and with full backward compatibility, Sony could leverage the warm customer base of some 190m PS1 and PS 2 owners.

(c) *Suppliers and Strategy:* Arguably strategy is as much about positioning the offering with suppliers as it is positioning offerings with customers. The suppliers in this case were the content providers – the movie studios. Warner Brothers' support for Blu-Ray and Paramount's shift of allegiance from HD-DVD to Blu-Ray were killer blows for Toshiba.

But are there other lessons to be learnt?

A traditional case study approach would be to draw conclusions by focusing upon the actions of the victor, in this case Sony. But to conclude this briefing I will focus on what can be learnt from Toshiba's position after exiting from HD-DVD. There are, I will argue, seven key lessons for any strategist or innovator:

LESSON #1: DON'T BET THE BANK. Looking at Toshiba's future strategy presentations given in April 2007, it was clear that the future of the business didn't depend upon victory in the high definition battlefield. Toshiba had three business areas that were key to its future growth plans – (i) Electronic Devices, (ii) Digital Products (where HD-DVD sat) and (iii) Social Infrastructure.

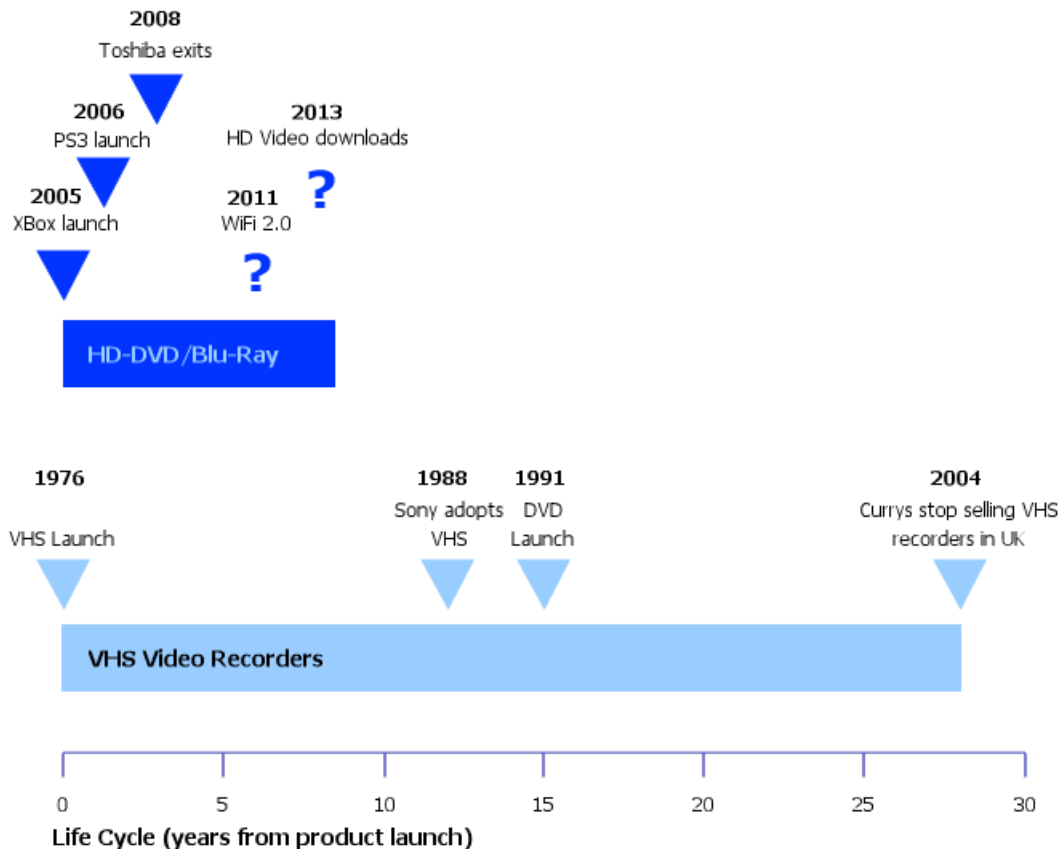
LESSON #2: CREATE A PORTFOLIO OF OPPORTUNITIES. I cannot predict the future with certainty. Nobody can. In an uncertain environment, business strategy should consist of a portfolio of opportunities. With the acquisition of UK's Westinghouse nuclear reactor manufacturer, Toshiba had broadened its portfolio of opportunities. HD-DVD was one of only thirteen innovations given as examples of Toshiba's future pipeline when it presented its plans for growth in April 2007. Other innovations such as NAND memory and SSD memory showed exponential growth opportunities.

LESSON #3: BE PREPARED TO CHANGE YOUR MIND. RETEST YOUR ORIGINAL ASSUMPTIONS REGULARLY. JVC won the video wars but its market capitalisation is now dwarfed by Sony, the apparent loser. The fact is, what was in the past may not be in the future. Let me illustrate. JVC launched the first VHS video player in 1976. In the UK, Currys the electronics retailer, stopped selling VHS recorders in 2004 – a twenty-eight year life cycle. With the prospect of such a long life cycle, one can see why the HD-DVD vs. Blu-Ray war assumed the importance that it did.

But emerging thinking now is that the life cycle for Blu-Ray as a home movie watching high definition format may be as short as five years. 3D TV is coming, downloading HD movies (video on demand) will soon become a reality. British inventors announced a new compression format in February that could transform downloading speeds. Additionally, Google has just announced that it is pushing for the next generation of WiFi access – called "WiFi 2.0" - that could allow "data rates in the gigabytes per second". In short, the payback period could be a lot shorter than was originally anticipated. So, review your original assumptions regularly. If fundamental assumptions change – take action!

LESSON #4: PRODUCT LIFE CYCLES ARE SHORTENING. A direct extrapolation of lesson #3 but remember that it is not just technology that is pushing shorter product life cycles – so are consumers. Younger, emerging consumers have been conditioned by technology to expect and even demand "newness". The actual lifecycle for VHS is contrasted with the potential lifecycle for Blu-Ray in Illustration 1 below:

ILLUSTRATION 1: VHS AND BLU-RAY - POTENTIAL LIFECYCLES CONTRASTED



LESSON #5: PULL OUT DECISIVELY. Don't delay and try to defend an increasingly hopeless position using for example price discounting. Profit margins in the digital products business units were the narrowest in Toshiba's portfolio and just did not warrant the effects of a price war.

LESSON #6: CONTROL THE EFFECTS OF FAILURE. From my research I have found that leading innovators are good at managing failure. They don't give up and walk away. Excellent innovators excel at analysing the real causes of failure, frequently launching new more successful innovations based on this analysis.

But successful innovators are also good at controlling the financial effects of failure. Some analysts feel that despite discontinuation costs of Yen 45bn Toshiba will quickly recover. The stock price even rose after the pull-out announcement.

LESSON #7: CREATE A RESILIENT PRODUCT PORTFOLIO. Now that a recession is becoming a reality, this is probably a key lesson. Toshiba issued a profit warning in March, 2008. Income before tax for 2007 is down some 28% against plan. HD-DVD is partly to blame, but so is increasing competition in the semi-conductor marketplace. This is not the last profit warning that we will see – many other companies will follow. But Toshiba does have three distinct business areas and at least one – Social Infrastructure – may offer increased resilience to a downturn with its nuclear power generation, electric vehicle motors and medical equipment offerings. The lesson in uncertain times is to create a portfolio that will allow survival in a range of future scenarios.

And one endnote. Possibly, with all this strategic analysis, I have missed the real point. A couple of weeks ago, whilst preparing this briefing, I was standing in a queue at the local greengrocers – buying some vegetables for supper that evening. The two customers ahead of me were talking about – yes – Sony's Blu-Ray victory. One said to the other "Well, it was obvious from the start wasn't it? Blu-Ray's a better name!"

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Finally

I hope that you have enjoyed this briefing.

You can find more on the website or e-mail me using the link below. I enjoy personally helping businesses - some of the work I undertake includes:

- § Forward looking business scenarios – what are your future challenges?
- § Facilitating board level strategic reviews, with a particular emphasis upon the definition of tomorrow's competitive environment
- § Design and implementation of Balanced Scorecard performance measurement systems
- § Research to help identify what potential capital providers will look for in your business plan
- § Training: Strategic Thinking, Scenario Planning, Performance Measurement and Strategic Change Workshops.
- § Product portfolio assessment. Helping the business to define the optimal product portfolio – balancing future competitive conditions with the probability of achieving future planned performance
- § Communication programmes
- § Organisational audits – assessing the innovative capability of your organisation

Best regards,

Robert Davies